



Australian Government

Department of Defence

BUILDING DEFENCE CAPABILITY: A POLICY FOR A SMARTER AND MORE AGILE DEFENCE INDUSTRY BASE



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MINISTER'S INTRODUCTION

The defence industry is crucial to Australia's defence and national security.

Since coming to office in 2007, the Government has significantly reshaped Australia's Defence policy by delivering the first Defence White Paper in almost a decade, initiating the most wide-ranging reforms of the Defence Organisation in a generation, providing Defence with an unprecedented twenty-one year long funding commitment, and implementing a further set of improvements to defence materiel procurement and sustainment.

At the same time, there has been significant consolidation and globalisation of the defence industry. This consolidation has resulted in a domestic defence industry dominated by a small number of very large defence companies, mostly headquartered in Europe and North America. Australian-owned defence firms are generally small to medium sized enterprises (SMEs).

Australia's defence industry policy needs to evolve to take account of this contemporary industry structure, and the new strategic policy directions identified in the Defence White Paper 2009. This Defence Industry Policy Statement aims to achieve this evolution, and has four key elements.

The first is that Government must set clear priorities that encourage investment. The Statement outlines why and how the Government is articulating Australia's strategic priorities to encourage investment by the Australian defence industry. Defence strategy and the capability needs of the Australian Defence Force must inform the industry's investment priorities.

The second element is a commitment to establish a stronger relationship between Defence and industry. The implementation of the Defence White Paper 2009, the achievement of Force 2030, and the successful completion of the Strategic Reform Program, will all require a strong relationship built upon more flexible approaches to defence procurement and contracting, where varying kinds and levels of risk are managed through the appropriate procurement and contractual vehicles. This has long been a key interest within industry.

The third element of the Statement involves the initiatives by which the Government will seek to increase the opportunities for the Australian defence industry to identify and make the most of business opportunities within Australia and overseas.

The Statement places a high priority on removing barriers to the growth of local firms by giving Australian companies the opportunity to compete for, and win, work in Australian and global procurement programs based on their merits. The Statement provides a policy basis for the large defence industry primes to engage SMEs in their supply chain and assist in increasing their competitiveness.

The fourth key element of the Statement concerns building the skills, innovative capacity and productivity of the Australian defence industry. This is consistent with the Government's wider agenda of building the productivity of all Australian industry.

The Statement for the first time features a comprehensive, coherent description of the range of programs in place to support the competitiveness of Australia's defence industry. These programs need to be effective not just individually, but together so they support the defence industry over the course of the capability life cycle.

The Government is investing \$445.7 million in programs over the period 2009-10 to 2018-19 to boost the competitiveness of, and provide opportunities for, the Australian defence industry. The Statement provides details on policy initiatives announced in the Defence White Paper 2009 that are funded to a total of \$104.8 million.

\$59.9 million is devoted to the Global Supply Chain (GSC) Program. Through the GSC program, overseas prime contractors create opportunities for Australian industry in their global supply chains and those of their major subcontractors.

The Statement provides further detail of the Government's approach to Priority Industry Capabilities (PICs), and establishes a new \$44.9 million PIC Innovation Program. This is a practical, long term program that will help sustain the research, design and engineering workforces of industry in PIC areas.

The Government is committed to implementing the policy set out in this document. The ultimate goal of the Government's defence industry policy is to ensure that the Australian Defence Force receives the materiel, systems, support and sustainment that it needs; that Australian taxpayers get the best value for their money; and that local firms obtain real and substantial opportunities to win business both domestically and internationally.

This Defence Industry Policy Statement sets out the Government's vision for how Defence and industry will work together to achieve this outcome.

The Hon Greg Combet AM MP
Minister for Defence Materiel and Science

EXECUTIVE SUMMARY

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 the 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.

In turn, this presents both challenges and opportunities for Australia's defence industry. It is a challenge for small to medium enterprises (SMEs) that need to accommodate major investment decisions made in Europe and North America. Yet 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.

At the same time, the Defence White Paper 2009 (*Defending Australia in the Asia Pacific Century: Force 2030*) and the Strategic Reform Program (*The Strategic Reform Program: Delivering Force 2030*), which includes the Government Response to the Mortimer Review, are having a significant impact on defence industry in Australia. They are already driving changes to Defence and the Australian Defence Force (ADF), many of which will affect Australia's defence industry.

For its part, the Government has a number of expectations of defence industry. Industry must become more resilient and self-reliant if it is to prosper and grow in the future. It can no longer expect the Government to use offsets or local content quotas to help protect Australian defence industry from overseas competition. Previous experience has shown that this approach is not in the best interests of Government, industry or Defence – and the Government is committed to an open and competitive defence marketplace.

This means that the Government has had to fundamentally change the principles and orientation of our defence industry policy. As a result, the Government has reviewed its defence industry policy, which is underpinned by four key principles:

Setting clear investment priorities: Defence industry investment priorities must be driven by the Government's endorsed strategic tasks for Defence and the military capability needs that derive from these tasks. The Defence White Paper 2009 and the Strategic Reform Program articulate clear strategic priorities for Defence, which this Statement applies in the defence industry context.

The Statement provides a much clearer outline of the role of the Priority Industry Capabilities (PICs) in defence industry policy. In reaching decisions based on value for money in PIC-related procurements,

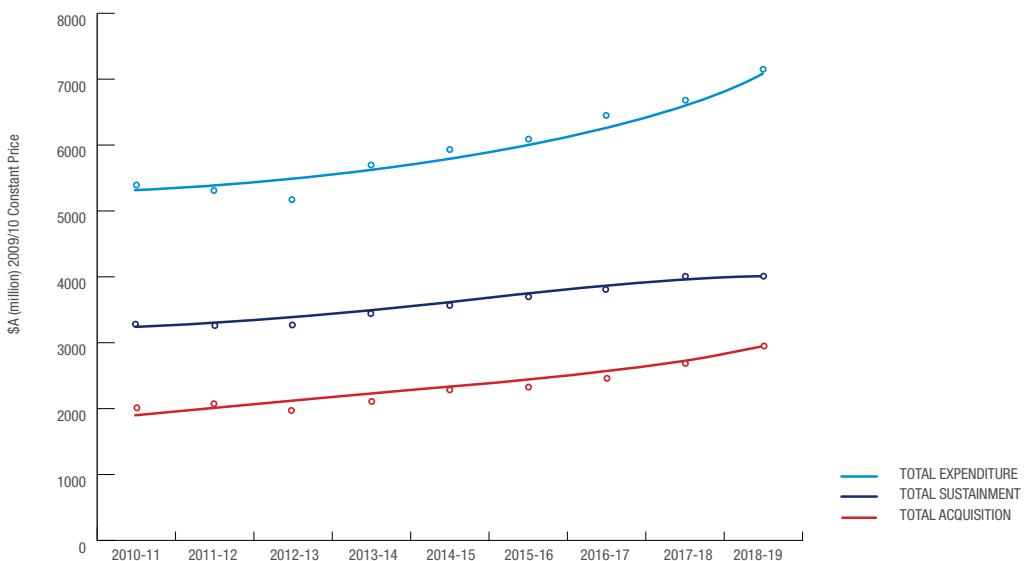
Government may take into account factors such as Australian industry impacts, the national interest, broader strategic factors, and other whole-of-government considerations.

Establishing a stronger Defence – industry relationship: Sound relations between Defence and industry require clear communication between all parties. This Statement also advances a considerably more flexible approach to defence procurement and contracting, where varying kinds and levels of risk are managed through the appropriate procurement and contractual vehicles.

Seeking opportunities for growth: The Government will seek to increase the opportunities for Australian defence industry to identify and make the most of business opportunities within Australia and overseas. This is not about providing industry with expensive taxpayer-funded (or backed) guarantees, but rather encouraging a competitive industry base that has opportunities to grow and is supported by forward-looking and flexible Government policies.

Overall, the long term outlook for defence capability project expenditure is positive. Fluctuations are inevitable due to the spending profile of defence acquisition projects; however there is strong growth projected over the decade.

Sustainment expenditure, which generally accounts for almost half of total defence materiel expenditure, reflects more uniform growth – it will increase over time, in line with the long term growth in acquisition expenditure. While most sustainment expenditure is spent within Australia, it should be noted that sustainment cost reductions under the Strategic Reform Program are to be reinvested in capital equipment acquisition over the next ten years. The following Chart shows the anticipated project and sustainment expenditure in Australia by the Defence Materiel Organisation (DMO) out to 2018-19.



Building skills, innovation and productivity: The Government will ensure that Australian defence firms have every opportunity to enhance their capacity for innovation, skilling and productivity. This is important for Australia's defence and will help to sustain viable defence industry enterprises into the future.

The Government is committed to increasing the opportunities for Australian defence industry to identify and make the most of business opportunities within Australia and overseas. Measures to secure these opportunities include the Defence Export Unit, which promotes Australian defence industry in markets around the world, and the Australian Industry Capability (AIC) and Global Supply Chain (GSC) programs that offer opportunities to become part of the supply chains of the global primes.

In addition, the Government has a range of programs to improve the competitiveness of Australian defence industry through developing the skills of the workforce, fostering innovation and boosting productivity.

To this end, the Government has dedicated \$445.7 million over the period from 2009-10 to 2018-19 for a range of programs that industry can access to improve their competitiveness, their capacity for innovation, their ability to enter export markets and the skills of their workforce. This includes initiatives worth \$104.8 million announced in the Defence White Paper 2009.

The main challenge for defence industry policy is not to articulate new concepts or establish new assistance programs. It is to set clearly communicated goals, develop the frameworks and processes to implement those goals and to customise these programs to assist industry across the entire capability development life cycle, with programs complementing each other.

For example, to enable SMEs to break into global supply chains, the Defence Industry Innovation Centre can help them to become 'internationally competitive' by benchmarking their performance against best practice and facilitating access to other programs from federal and state governments. Once they have the resources, capability and capacity to compete internationally, companies can then enter the GSC program.

The figure below demonstrates how these programs complement each other to support the growth of the Australian defence industry across the entire capability development cycle.

THE CAPABILITY LIFE CYCLE AND INDUSTRY PROGRAMS

Industry Support Measures

Industry benefits

DCP Entry

- Capability Technology Demonstration Program (CTD + Extension)
- Defence Materials Technology Centre (DMTC)
- Public version of the Defence Capability Plan (DCP)
- Australian Industry Capability (AIC) Planning
- Efficient two way flow of capability information – (ePortal)
- Australian Industry Capability (AIC)
- PIC Innovation Program
- Business Access Offices

- Industry capability demonstration to the ADF
- Develop, share and leverage innovative materials and manufacturing technologies across Aircraft and Maritime Platforms, Armour Applications and Propulsion Systems.
- Increased industry knowledge to foster greater certainty for investment in Defence industry capacity

1st PASS

- Skilling Australia's Defence Industry (SADI)
- Industry Skilling Program Enhancement (ISPE)
- Defence Industry Innovation Centre (DIIC)
- AIC / Global Supply Chain (GSC) planning

- Increase in both the quality of the existing workforce skills and the qualified of skilled personnel available to industry.
- Growth in Australia's specialised skills base by enlarging the pool of qualified engineers, technicians, trades people and project managers through the creation of additional 'smart' jobs
- The provision of opportunities for rural and regional Australia, where many major ADF platforms (and their components) are constructed and/or supported through life
- Enhanced opportunities to participate in the development of a range of innovative defence technologies.
- Increased productivity / competitiveness of Australian defence industry.

2nd PASS

- Industry showcasing defence industry capability on the ePortal
- Market Intelligence / increased business opportunities

- Enhances industry awareness / knowledge of defence business opportunities
- Increased participation in AIC / GSC program
- Enhanced industry knowledge and understanding of doing business with Defence.
- Enhanced DMO knowledge of Australian defence industry capability.
- DMO / SPO market intelligence of Australia's defence industry capability

Acquisition

- Export promotion and facilitation by Defence Export Unit
- DMO / company AIC Implementation Plans
- Industry showcasing defence industry capability on the ePortal
- Market Intelligence / increased business opportunities
- DMO e Portal and Industry Capability Information System
- Quality of Management and Government Assurance
- Technology Assistance Agreements
- Company Scorecards and Comparative Benchmarking
- Defence Strategic Reform Program – Sustainment Re-investment Office
- Mentoring and training by Defence Primes under the GSC program

- Enhanced Australian defence industry access to international markets
- Participation by Australian defence industry in contracts >\$50m or where there are PIC implications.
- International Material Cooperation G2G approvals leveraged for technology transfer.
- Industry participation in Defence contracts leveraged as part of OEM GSCs
- Increased participation in defence procurement by Small to Medium Enterprises
- Continuous improvement of firms participating in acquisition contracts >\$10m
- Increased potential for Australian firms to participate in new technology acquisition.

Sustainment

- Contracted SADI Program training initiatives
- Industry Skilling Program Extension
- Defence Industry Innovation Centre (DIIC)
- Company Scorecards and Comparative Benchmarking
- Performance Based Contracting under Defence SRP
- Access to technology licenses in sustainment
- Procurement policy for asset disposal
- Defence Industry Skilling Taskforce (DIST)
- Capability Development Advisory Forum (CDAF)
- Rapid Prototyping, Development and Evaluation (RPDE)

- Continuous improvement of firms participating in sustainment contracts.
- Leveraging expert experience to provide through life support as efficiently as possible
- Continuous improvement of firms participation in sustainment contracts subject to Defence SRP.

Disposal

- Disposal of assets through public auction, tenders, private treaty, transfer to another government agency
- Facilitate foreign government approvals for equipment disposal

- DSTO / Defence industry collaboration to extend the economic life of systems / platforms / assets (e.g Airframe and maintenance of F – 111 aircraft)
- Industry participation in equipment disposal and demilitarisation processes.

Since it was elected in 2007, this Government has:

- identified and announced the PICs;
- released the 2009 Public Defence Capability Plan (DCP), as well as announcing further enhancements to the Public DCP;
- launched the Defence+Industry ePortal;
- launched the AIC program;
- established the GSC program;
- established the Industry Skilling Program Enhancement package, which included:
 - establishing the Defence Industry Innovation Centre;
 - establishing three Defence Industry School Pathways Programs;
 - funding an Industry Component to the Defence Technical Scholarships Program;
 - funding an Engineering Scholarship Program;
 - sponsoring ReEngineering Australia (REA);
 - expanding the DMO Institute;
 - expanding the Masters of Military Systems Integration;
 - funding a Masters of Systems Support Engineering;
 - establishing a Professional Doctorate in Systems Engineering;
 - instituting an Industry Downturn Response Strategy; and
 - funding a Defence Industry Sector Branding Strategy;
- expanded the Company ScoreCard program;
- funded the New Air Combat Capability Industry Support Program;
- established the Defence Materials Technology Centre Program; and
- launched the Defence Export Unit.

This Statement includes several new programs and initiatives. The Government has established the \$44.9 million PIC Innovation Program to provide funding to companies to encourage innovation in relation to the PICs. Under the PIC Innovation Program, companies will be encouraged to submit innovative proposals (relating to one or more PICs) to Defence for direct funding. For example, a company may seek to develop their capability into another domain or develop a new application

The Government will also establish the Defence Industry Innovation Board (which will feature representatives from both Defence and industry) to better coordinate the innovation programs that are available to industry and improve communication about these programs. Importantly, the Board will also oversee the PIC Innovation Program and advise Defence and Government on appropriate resource allocation under the program.

The Government established the \$59.9 million Global Supply Chain program in 2009. Under the program, DMO establishes GSC Deeds with selected multinational primes to facilitate opportunities for Australian defence industry to compete in the primes¹ global supply chains. Annexes established under the Deed provide funding for the prime to conduct GSC activities and contain the details of its proposed GSC endeavours.

Finally, the Government has established the AIC Implementation Unit to improve implementation of AIC policy within Defence and to audit System Project Offices to ensure that the AIC plans in contracts are enforced.

Defence's Strategic Policy Division will also take on a role in developing defence industry policy, to ensure tighter alignment between Defence's strategic and defence industry policy.

The Government needs a strong, successful and skilled defence industry if it is to deliver the ADF that Australia needs for the future. This Statement provides the framework to ensure that Australia has the defence industry it needs to deliver and support the future ADF.

¹ In the Australian defence industry context, prime contractors are defined as companies which contract directly with the DMO and employ more than 200 people working essentially full-time on Defence projects.

INTRODUCTION

1.1 The Government's Defence White Paper 2009, *Defending Australia in the Asia Pacific Century: Force 2030*², sets out a comprehensive plan for Australia's defence in which nearly every major Australian Defence Force (ADF) platform and system will be replaced or modernised over the next twenty years.

1.2 Chapter Nine of the Defence White Paper 2009 identifies the Government's key capability priorities for modernising and enhancing the ADF to address Australia's strategic interests and Defence's principal tasks. Force 2030 will focus on expanded maritime capabilities, complemented by enhanced air combat, land, strategic strike, information superiority and cyber security capabilities. The estimated cost of acquiring these capabilities is between \$245 billion and \$275 billion (in 2009-10 dollars) out to 2030.

1.3 At the same time, the Strategic Reform Program will strengthen accountability and planning and increase productivity across Defence, creating around \$20 billion of cost reductions which will be reinvested to build a stronger ADF and a better Defence organisation.

1.4 Australia's defence industry is critical in achieving these vital national goals. At present Australia's defence industry employs approximately 29,000 people and supplies in excess of \$5 billion worth of materiel and services to Defence each year. The demand for industry's materiel and services will grow substantially as Defence builds the more muscular ADF outlined in the Defence White Paper 2009.

1.5 Experience shows that capacity in defence industry cannot be taken for granted. Industrial capacity needs to be planned, built, managed and continually re-shaped – industry must plan, and must be able to plan, to ensure it can play its part. The defence industry policy presented in this Statement sets out how the Government plans to work with industry to build a stronger ADF.

1.6 A key reason for releasing a new Defence Industry Policy Statement is to ensure the delivery of the future ADF outlined in the White Paper. Industry needs a clear understanding of what Defence expects from its suppliers and industry needs to know what it can expect from Defence as a customer.

1.7 Since coming to office in November 2007, the Government has been implementing the initiatives set out in the 2007 Defence and Industry Policy Statement, while identifying where further improvements are needed. This policy statement consolidates existing programs and commitments and goes further in

² Australian Government, 2009 Defence White Paper, *Defending Australia in the Asia Pacific Century: Force 2030*, Canberra, 2009. The document is available electronically at <http://www.defence.gov.au/whitepaper/index.htm>

promoting productivity, innovation and capability growth in industry. This will help to ensure that defence enterprises can gain appropriate returns from new opportunities at the same time as they meet Defence's capability needs.

1.8 The goal of defence industry policy is to strengthen the ADF and to help underpin Australia's security. With this in mind, this Government's policy is to ensure that the ADF receives the materiel, systems and support that it needs and that Australian taxpayers get the best value for their money. We want to give local firms every opportunity to win work at home and abroad, to ensure that local defence industry³ has the planning basis for necessary investment and growth and to assist those within the industry to develop the skills required to deliver and sustain Force 2030.



1.9 Only a competitive and efficient local defence industry can meet these goals. 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.

³ New Zealand firms are considered to be part of Australia's local defence industry, consistent with the longstanding Closer Economic Relationship between Australia and New Zealand. However, New Zealand firms are only able to access the following defence industry programs: Business Access Offices, the Defence+Industry ePortal and the Australian Industry Capability Program, excluding the Global Supply Chain elements of this program. Further questions regarding eligibility should be directed to the relevant Defence coordinator for each program. These contact details are set out in Annexes B – E.

1.10 Consequently, the Government's defence industry policy is based on four key principles:

Setting clear investment priorities.

- Defence industry investment priorities must be driven by the Government's endorsed strategic tasks for Defence and the military capability needs that come from these tasks. The Defence White Paper 2009 and the Strategic Reform Program articulate clear strategic priorities for Defence, which this statement applies in the defence industry context.

Establishing a stronger Defence – industry relationship.

- Sound relations between Defence and industry require clear communication between all parties.

Seeking opportunities for growth.

- The Government will seek to increase the opportunities for Australian defence industry to identify and make the most of business opportunities within Australia and overseas. This is not about providing industry with expensive taxpayer-funded (or backed) guarantees, but rather encouraging a competitive industry base that has opportunities to grow and is supported by forward-looking and flexible Government policies.

Building skills, innovation and productivity.

- The Government will ensure that Australian defence firms have every opportunity to enhance their capacity for innovation, skilling and productivity. This is important for Australia's defence and will help to sustain viable defence industry enterprises into the future.

1.11 The Government has established a series of programs to underpin these principles, which are outlined in detail in Chapter 5 and Annexes B – E. These programs target different aspects of the capability development process so that industry has opportunities to improve its skills and competitiveness across the entire capability life cycle. Collectively, these programs will aid industry in meeting the Government's defence industry policy goals.

1.12 This Statement is divided into six chapters. Chapter Two discusses the changing defence industry environment and its implications for Australia's defence industry, while Chapter Three outlines the implications for industry of the Strategic Reform Program (including the Government Response to the Mortimer Review). Chapter Four discusses in more detail the principles underpinning the Government's defence industry policy, with Annex A setting out the Priority Industry Capabilities in more detail. Chapter Five and Annexes B – E outline the programs that the Government has established for Australia's defence industry. Chapter Six concludes the Statement.

2 AUSTRALIAN DEFENCE INDUSTRY IN A GLOBAL MARKET

2.1 Defence industry encompasses many elements of the Australian research and development, manufacturing and services sectors. It features a number of intersecting challenges and interdependencies, ranging from the technological demands of weapons production and systems integration to the influence of decisions made by foreign governments and corporations.

2.2 The global and domestic defence industrial scene is challenging, but it also offers valuable opportunities for local defence industry to win work and gain access to markets and technology, and for Government to get the best value for money from competitive, globally-connected suppliers.

THE GLOBAL DEFENCE INDUSTRIAL SCENE

2.3 Global defence industry has changed significantly over the past two decades, driven by factors affecting the supply and demand of defence goods and services. The past two decades have seen, for example, a growth in strategic uncertainty; changing global power balances; the rise of new global players; and the emergence of new strategic discontinuities such as global terrorism and political, economic, environmental, social and demographic changes.

2.4 Global defence spending declined during the 1990s following the end of the Cold War,⁴ while spending in Australia's region was particularly affected by the 1997 Asian Financial Crisis. However, over the last decade, this trend reversed as a result of new security challenges, the need to modernise Cold War-era capabilities and strong economic growth. Consequently, global defence expenditure increased by 45 per cent in real terms between 1998 and 2007.⁵

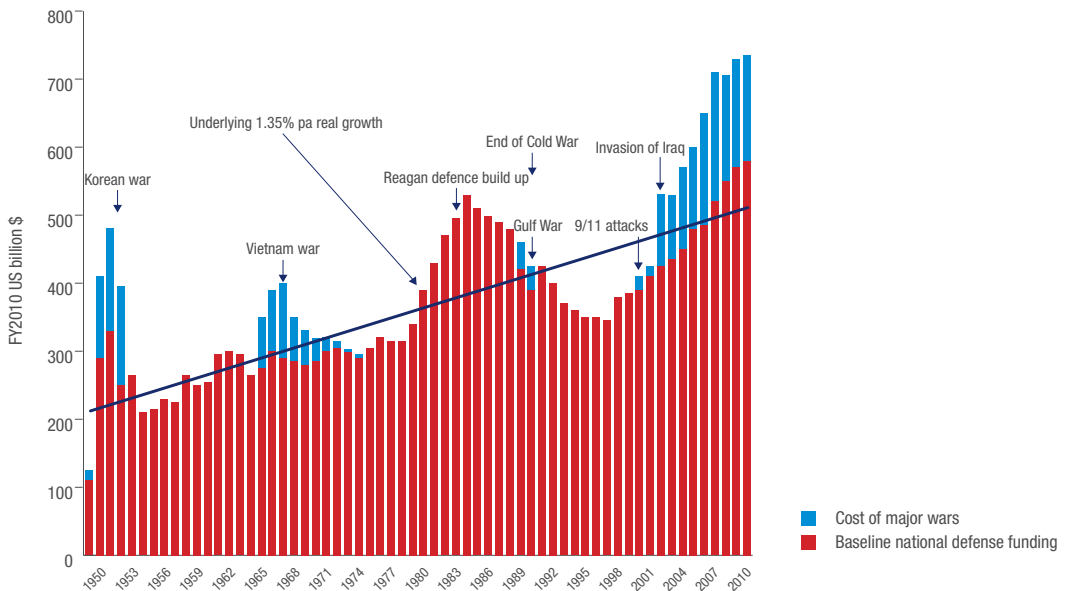
2.5 Figure 1 shows the peaks and troughs in United States (US) defence expenditure over the last 60 years, which highlights the changes in defence spending following the Cold War.⁶

⁴ World military expenditure declined, on average, by 4.5 per cent per year between 1988 and 1997. The deepest cuts over this period were made by Russia and other successor states of the Soviet Union. Spending also declined significantly in Africa, North America and Central America, where there were cuts of around one-third over the decade. See Stockholm International Peace Research Institute (SIPRI), *1998 Yearbook*, Stockholm, 1998, viewed on 28 April 2010, <http://www.sipri.org/yearbook/1998/06>. SIPRI also note in the same publication that in some Asian countries 'the military budgets adopted for 1997 were cut as a result of the financial crisis in the region, and future expenditure plans are being revised downwards.'

⁵ SIPRI, *2008 Yearbook*, Stockholm, 2008, pp.175-178. In 2008, military expenditure accounted for 2.4 per cent of global gross domestic product – see SIPRI, *2009 Yearbook*, Stockholm, 2009, p.179.

⁶ The chart is taken from Thompson, M., *Trends in US defence spending: implications for Australia*, Australian Strategic Policy Institute, Canberra, March 2010, p. 2.

Figure 1: Real US national defence spending 1950 – 2011



2.6 Defence spending and procurement trends in the Asia-Pacific region are especially significant for Australia. As the Defence White Paper 2009 made clear, regional military expenditure has grown due to the shift of global economic weight to the Asia-Pacific, the rise of China and India, and the modernisation of Southeast Asian military forces. However, the scale and pace of this growth has been uneven across the region, and the Global Economic Crisis has curtailed spending in many Asia-Pacific countries.⁷ While the development of more potent military capabilities in our region presents challenges for Australia’s strategic planning, it also presents opportunities for defence industry in the Asia-Pacific as regional markets expand and supply chains globalise.

The dilemma of rising costs

2.7 The continually rising costs of modern weapons systems and other defence materiel is a critical factor in shaping the global market. Each successive generation of weapons, platforms and systems is designed to outperform its predecessors (and those of potential adversaries). This additional performance comes at a price. The unit cost of each new generation of equipment exceeds that of its predecessor, with real costs estimated to increase by two to four per cent every year, depending on the type of equipment.

2.8 Governments and industry have adjusted to this relentless rise in the real unit cost of military equipment by maintaining smaller equipment and platform fleets, increasing the length of time between new generations of equipment, and consolidating previously separate capabilities into multi-role platforms.

⁷ Defence White Paper 2009, paragraphs 4.51-4.54, p.38

2.9 The evolution of Australia's air combat platforms is typical of these trends. In 1950, Australia operated 560 combat aircraft across five separate fleets. We now have around 100 F/A-18 A/B, F/A-18F and F-111 aircraft, with the F/A-18F Super Hornet replacing the retiring F-111 fleet. Subject to Government approval, a single fleet of around 100 F-35 Joint Strike Fighter aircraft is expected to replace those three fleets by the 2020s.

2.10 Smaller volume and less frequent production runs put pressure on the commercial viability of arms production. As a result, the number of firms designing and manufacturing weapons systems has fallen over several decades. This trend accelerated following the end of the Cold War, as industry responded to globalisation and the decline in worldwide defence spending with a wave of corporate consolidations.

2.11 As a result, the share of total arms sales of the world's top five defence companies outside China increased from 22 per cent in 1990 to 43 per cent in 2005.⁸ For example, in the US the number of major defence contractors fell from 30 in 1995 to six in 2005, despite the massive size of the domestic US market. In Europe, shrinking domestic arms markets forced major producers to depend more on foreign sales. Significant consolidation and rationalisation has also occurred in China and Russia, despite greater state control over defence industry in these countries.

Globalisation and interdependence

2.12 The increasing trend towards globalisation over the last several decades has had significant impacts on the defence industry. One of the key features of this is the increasing globalisation of both capital and skilled labour. The concentration of capital has enabled defence industry companies based in one country to invest in companies in other countries to reduce costs, gain access to new and innovative technologies and expand their market position. Similarly, the increased mobility of skilled labour has also supported globalisation of the defence industry by allowing skilled workers to move internationally to where their abilities are most highly valued.



⁸ SIPRI, 'Concentration in the arms industry', 24 March 2010, http://www.sipri.org/research/armaments/production/researchissues/concentration_aprod

2.13 As a result, globalisation has enabled greater consolidation within defence industry, with fewer (but much larger) companies now dominating the international defence market. In response to the increasing consolidation, the US has passed the new Weapons Systems Acquisition Reform Act (see Case Study 1). The Act includes provisions to address the vertical integration of the US defence industry and to retain diversity of supply. The Act also addresses the increasing costs of US weapons purchases and reporting requirements.

CASE STUDY 1: THE US WEAPONS SYSTEM ACQUISITION REFORM ACT 2009

The US Congress unanimously passed the Weapons Systems Acquisition Reform Act in 2009. The Act includes organisation and personnel changes, acquisition policy and process changes, and Congressional reporting requirements.

Key provisions in the Act include the appointment of a Director of Cost Assessment and Program Evaluation (CAPE) within the US Department of Defense, who reports directly to the Secretary and Deputy Secretary of Defense. The Director CAPE will issue policies and establish guidance on cost estimating and developing confidence levels for these estimates.

The Act also created a Director of Developmental Test and Evaluation (DT&E) and a Director of Systems Engineering (SE). The Director DT&E will be the principal advisor to the Secretary of Defense on developmental test and evaluation, will develop policies and guidance for conducting testing and evaluation, and will review, approve, and monitor testing for major acquisitions. The Director SE will be the principal advisor to the Secretary on systems engineering, will develop policies and guidance for systems engineering and will review, approve, and monitor systems engineering testing for major acquisitions.

In terms of workforce, the Act increases the number of acquisition personnel by 20,000 positions over the 2010-2015 period.

Of these new positions, 9,000 are expected to be civilians experienced in contracting, cost estimating, pricing and contract oversight. The US also intends to convert 11,000 contractors to federal employees, primarily in program management, systems engineering, logistics management and business management.

Under the Act, acquisition strategies must include the option for competition at the prime and subcontract levels throughout the capability life cycle. Directed subcontracting is not seen as appropriate and there are already concerns about how acquisition decisions in the Quadrennial Defense Review may affect defense industry competition, which has reduced with private sector consolidation over the last several years.

The Act also requires prime contractors, when making decisions, to give 'full and fair consideration' to qualified sources other than themselves for major subsystems and components. This also runs counter to the vertical integration that has been occurring in the US defence industry due to consolidation.

In passing the Act, Congress sought more visibility and accountability of defence acquisition. As a result, the Act requires the new Directors – as well as some existing appointments – to provide a range of new reports to Congress to increase oversight of US military capability acquisition.

2.14 In another example of the globalisation of the defence industry, the eight major defence companies with which Defence does business are listed on stock exchanges in four different countries (France, Sweden, the US and the United Kingdom). Only one of these eight companies is Australian-owned, and none are listed in Australia.

2.15 Most western countries now source the bulk of their complex defence materiel through imports or collaborative programs from a relatively small number of prime suppliers based in the US and Europe. At the same time, the specialisation entailed in complex projects, and the proliferation of technologies such as information systems, have created new opportunities and dependencies in the global defence industry.

2.16 The complex systems development and integration involved in modern defence projects has led to new partnerships and networks between the prime suppliers and their suppliers and contractors. Strategic alliances and joint ventures between firms have grown readily and lucrative niches have emerged for small and medium enterprises within the global supply chain. This has led to new opportunities for defence industry in countries such as Australia.

2.17 International cooperation makes increasing economic sense as the costs of development and production grow. Such cooperation has characterised the evolution of European defence industry for many years. Even the US relies on the engagement of allies in programs such as the Joint Strike Fighter (JSF) to share costs. The trends listed above have combined to globalise defence production.

2.18 For Australian defence companies, this trend indicates clear advantages in becoming part of the global supply chain of the primes. Measures that defence companies can access to improve their ability to become part of the global supply chain are outlined later in the Statement.

Barriers to global competition

2.19 However, firms pursuing opportunities in the global supply chain still face obstacles, constraints and risks. The global defence marketplace is sometimes influenced by protectionist approaches that support national defence industries and reduce competition and transparency in contracts. While Australia adopts a different policy approach, these arrangements are a reality that Australian defence industry must face in any decision to invest in an overseas business opportunity.

2.20 Technology transfer and intellectual property (IP) restrictions pose another significant challenge. Multinational defence industry primes and suppliers are highly protective of their IP as a major source of their competitive edge. Domestic legislation, such as export control laws, can also prohibit them from transferring their proprietary technologies, even to wholly-owned subsidiaries in closely allied countries.

CASE STUDY 2: COOPERATING WITH THE UNITED STATES TO IMPROVE TECHNOLOGY ACCESS AND EXPORT CONTROLS

The Australian Government is looking for opportunities to improve access to US technology, which is a key enabler in building and sustaining Defence capability. Australian industry access to US technology is crucial to support ADF capability.

When ratified, the Australia-US Treaty on Defense Trade Cooperation will provide greater access and sharing of equipment, technology, information and services between Australia and the US. The Treaty will establish an 'Approved Community' of US and Australian government agencies and private defence companies that must comply with security and regulatory requirements in exchange for the licence-free export of specified defence goods and services within the Approved Community.

The Treaty will improve the timeliness of our access to US technology, expedite the delivery of new defence projects, and improve the whole-of-life sustainment of military equipment. The Treaty will also offer enhanced opportunities for Australian industry to bid for support work for equipment Defence acquires through the US Foreign Military Sales program and improved prospects to support US-origin equipment. It also offers Australian industry increased opportunities to participate in US defence programs.

The Australian Government welcomes moves by the US to reform its export control system, as announced by US Defense Secretary Gates in March 2010. The US Quadrennial Defense

Review, released in February 2010, recognised the need to reform the US export control system, which impedes cooperation, technology sharing and interoperability with allies such as Australia.

The Australian Government provided input to the US review of its export control system in December 2009. This input outlined the key challenges that the US export control system presents for the Australian Government and industry and identified areas in which reform could improve the US-Australian alliance while still protecting US defence technology.

In its input, the Government identified the difficulties with the current US International Trade in Arms Regulations (ITAR) processes. These include: the complexity of the current process; variations in US companies' interpretations of the process; and the management of access by individuals based on their country of birth (the issue of US-defined dual nationals). The complexity of the ITAR requires major investment by both the Australian Government and defence industry to familiarise staff with the ITAR requirements and train them in compliance. Australian companies also face the challenge of reconciling their obligations for meeting ITAR requirements for dual nationals with Australian domestic laws. The Australian Government realises that these issues are complex and that the pace at which potential solutions are being identified is frustrating for industry. The Government is working cooperatively with the US to identify and deliver effective solutions as efficiently as possible.

2.21 The Government recognises the challenges local companies face when competing in the global market. But profitability can be enhanced when local companies participate in the global supply chain rather than relying on the Australian market alone. The Australian Government cannot ensure that these problems will be overcome in every case, but is working with its partners to address them through binding agreements and collaborative programs. When making the case for open and transparent competition in the global defence market, it is useful to be able to demonstrate clearly the competitiveness of Australia's local defence industry. Other programs that are available to industry to increase their opportunities to become part of the supply chain of the global primes are set out in Chapters Four and Five of this Statement.

THE AUSTRALIAN DEFENCE INDUSTRY ENVIRONMENT

Economic and industry reforms in Australia

2.22 The microeconomic reforms of the 1980s and early-1990s contributed to the surge in Australia's productivity growth during the mid- to late-1990s. The purpose of these reforms was to improve economic efficiency in Australia and to promote a more competitive market environment.

2.23 Microeconomic reform began when the Hawke-Keating Government floated the exchange rate in late 1983 and relaxed some capital controls. The heightened competitive pressure from these changes prompted further substantial labour market, institutional and regulatory reforms. In addition, tariffs on all imported products have fallen sharply since the mid 1980s.

2.24 Overall, the reforms in the 1980s and early 1990s removed a series of government interventions in the marketplace and placed a greater emphasis on markets to allocate resources, provide greater choice to consumers and sharpen incentives to be more productive. The reforms led to greater market competition, labour market flexibility, macroeconomic stability and financial market efficiency. These changes played important roles in bringing about the reorganisation of production and work practices, enabling firms to reduce costs and take advantage of technological developments, which enhanced productivity growth during the 1990s.

From industry policy to innovation policy

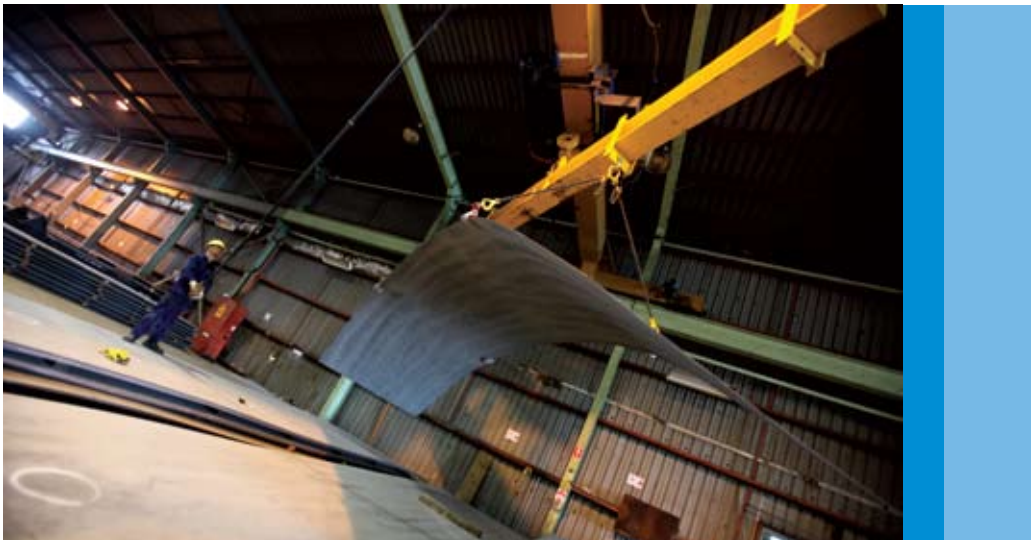
2.25 The reforms of the 1980s shifted Australian industry policy from one with an inward-looking protectionist approach to one that embraced innovation and openness to international competition as drivers of productivity. Quotas on imports were eliminated and tariffs reduced. Today, many tariffs on manufactured products have been eliminated and most of those that remain are set at the low level of five per cent.

2.26 Government procurement policy has followed a similar trend. It has moved away from offsets programs towards competitive procurement based on value for money criteria that encourages Australian industry to be internationally competitive and globally integrated.

2.27 The Government, however, recognises the barriers faced by Australian suppliers and seeks to increase the opportunities for Australian industry to participate in major projects in Australia and overseas. This approach facilitates Australian industry to gain a foothold in major projects by promoting innovation,

the development of competitive capability and the ability of industry to take advantage of investment opportunities. There is a strong emphasis on industry development, and in particular the formation of strategic alliances, to position capable Australian businesses to leverage opportunities and integrate into global markets.

2.28 Current industry policy, while continuing the trend towards a more competitive and globally integrated Australian industry, is strongly focused on support for innovation. The Australian Government provides a range of programs to encourage and promote innovation for Australian firms. Specific programs for defence industry are described in Chapter Five and Annex E.



Fostering innovation

2.29 Innovation is the key to making Australia more productive and more competitive. In May 2009, the Australian Government released its ten year agenda for the reform of Australia’s innovation system, *Powering Ideas – An Innovation Agenda for the 21st Century*.⁹

2.30 Powering Ideas sets an agenda to make Australia more productive and more competitive and is supported by a \$3.1 billion increase in funding from 2009-10 to 2012-13. It outlines how the Australian Government will improve skills and expand research capacity; increase incentives for innovation in business, government and the community sector; and boost domestic and international collaboration. Support for business innovation includes:

- a new research and development (R&D) tax credit which will replace the existing, outdated R&D Tax Concession by providing \$1.4 billion R&D support per annum. The new tax incentive will provide more generous benefits to Australian firms for undertaking R&D and is better targeted towards R&D that benefits the wider Australian community than the existing tax

⁹ Australian Government, *Powering Ideas – An Innovation Agenda for the 21st Century*, Canberra, 2009, http://www.innovation.gov.au/innovationreview/Documents/PoweringIdeas_fullreport.pdf

concession. It provides certainty of assistance and improved administrative arrangements, which will make it easier for firms to access the incentive; and

- establishment of the \$196.1 million (from 2009-10 to 2012-13) Commercialisation Australia initiative, which will provide support on a competitive basis to researchers, entrepreneurs and innovative firms to commercialise their ideas for new products, processes and services.

The Need for Competitiveness, Innovation and Productivity

2.31 The Commonwealth Procurement Guidelines 2008 establish value for money as the core principle underpinning all Australian Government procurement. This requires comparative analysis of all relevant costs and benefits of each proposal throughout the whole procurement life cycle (known as whole-of-life costing).

2.32 Cost is not the only determining factor in assessing value for money. A whole-of-life value for money assessment includes consideration of factors such as:

- the fitness for purpose of the good or service offered;
- the performance history of each prospective supplier, including schedule and delivery performance;
- the relative risk of each proposal;
- the flexibility of the good or service to adapt to possible change over the procurement life cycle;
- financial considerations including all relevant direct and indirect benefits and costs over the whole procurement life cycle; and
- the evaluation of contract options (for example, contract extension options).¹⁰

2.33 A key element of the Government's approach to securing value for money is competition. This applies as much to Defence procurement as any other area of Commonwealth purchasing. There are good reasons for this: competition encourages innovation, helps drive productivity and promotes efficiency. Local industry needs to be ready to compete for defence work, including against foreign suppliers. As a result, local industry must be competitive to be successful in supplying and supporting the ADF.

2.34 An innovative defence industry base with high levels of productivity can provide the ADF with flexible and efficient solutions to emerging problems. For example, the Rapid Prototyping, Development and Evaluation (RPDE)¹¹ program has enabled industry and Defence to work collaboratively to develop innovative solutions to issues affecting capability and current operations.

Defence industry in the nation's economy

2.35 Australia's defence industry comprises an important part of Australia's wider national economic and industrial capacity. For example, in 2008-09, the Australian manufacturing sector, which includes most of Australia's defence industry, made up approximately ten per cent of the total economy.¹²

¹⁰ This information is taken from Australian Government, *Commonwealth Procurement Guidelines*, Canberra, December 2008, p. 10. Please note that, in this context, direct and indirect benefits and costs are benefits and costs to the Commonwealth.

¹¹ See Chapter Five for further detail on this program.

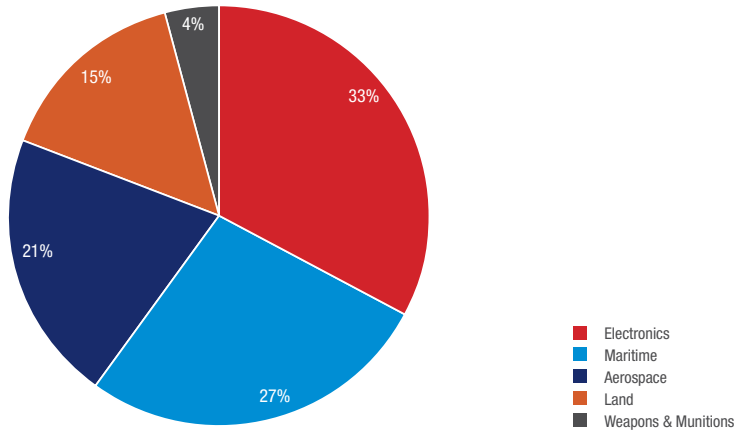
¹² Department of Innovation, Industry, Science and Research, *Key facts – Australian industry 2008-09*, accessed 29 March 2010, <http://www.innovation.gov.au/Section/Industry/Documents/KeyFactsIndustry0809.pdf>

Within the manufacturing sector, defence industry is concentrated in five main areas of final demand:

- shipbuilding and repair;
- aircraft assembly, modification and repair;
- electronics and computing;
- vehicles; and
- clothing.

2.36 Around 80 per cent of expenditure in Australia by DMO, Defence’s materiel acquisition and support agency, is concentrated in the electronics, maritime and aerospace sectors, as Chart 1 illustrates.

Chart 1 – Defence expenditure by sector



2.37 Together, these five industry groupings account for around 14 per cent of Australia’s total manufacturing output.¹³ However, the defence materiel industry differs significantly in its contribution to each group. For example, estimates suggest that Defence expenditure supports 63 per cent of all shipbuilding and repair work carried out domestically. Similarly, Defence projects account for around 31 per cent of all aircraft assembly, modification and repair work in Australia.

¹³ Calculated by Defence using ABS publication 8221.0 – Table 2. Industry Value Added, Employment, and Wages and Salaries, Industry Class, 2006–07 (published 26 August 2008). The ANZSIC (2006) codes deemed to be defence-related are: 1351 – Clothing manufacturing; 1352 – Footwear manufacturing; 2299 – Other fabricated metal product manufacturing n.e.c.; 231 – Motor vehicle and motor vehicle part manufacturing; 2391 – Shipbuilding and repair services; 2394 – Aircraft manufacturing and repair services; 2419 – Other professional and scientific equipment manufacturing; 242 – Computer and electronic equipment manufacturing; and 243 – Electrical equipment manufacturing.

2.38 In contrast, Defence materiel contributes less than three per cent to Australia's electronics, vehicle and clothing markets.¹⁴ Nonetheless, in the case of electronics, the absolute value of Defence expenditure is still significant. This is because of the size and recent growth of electronics manufacturing and Defence's integral role in the area of the electronics market dealing with specialised information technology and systems integration applications. In areas like systems integration, Defence demand often provides the basis for critical industry skills development.

2.39 Australia's defence materiel industry undertakes an impressive range of tasks. Almost every platform in the ADF is repaired and maintained in Australia. Furthermore, over the past decade some of the ADF's most sophisticated land, sea and air platforms have undergone major upgrades in Australia. Local firms are involved in the assembly of advanced helicopters, the manufacture of world-leading infantry mobility vehicles, the development of complex communications systems and the provision of logistical support to the ADF.

2.40 Our present fleets of submarines, ANZAC-class frigates, patrol boats and mine-hunters were all built in Australia. In recent years, local industry has also supported ADF units deployed on operations across a wide range of theatres, delivering essential equipment and upgrades at very short notice.

2.41 The present capacity and capability of Australian defence materiel industry reflects the success of extensive industry restructuring and the out-sourcing of support activities in the 1980s and 1990s. These reforms delivered greater productivity and competitiveness for industry and clearly signalled that defence industry was not exempt from the comprehensive reform of the Australian economy during this period.

2.42 This remains the case. The Government's defence industry policy is consistent with its broader agenda to transform the Australian economy, building long term global competitiveness and productivity growth through investment in infrastructure, innovation and skills.

The primes in local defence industry

2.43 The defence industry in Australia, including the primes and Small to Medium Enterprises (SMEs), employs around 29,000 people.¹⁵ SMEs account for approximately 50 per cent of employment in the sector.

2.44 About 70 per cent of the value of defence materiel produced in Australia for DMO is initially sourced from the eight prime contractors listed in Table 1. Around 30 per cent of this work is subsequently subcontracted to smaller firms in Australia and overseas. In total, these eight companies recorded sales revenue of \$3.8 billion in 2008.

2.45 These primes (with the exception of ASC Pty Ltd) are all owned by overseas corporations – a consequence of the increasing globalisation of the defence industry. For the overseas-owned primes, Australian defence-related sales and exports typically represent between 0.5 and 3.5 per cent of their parent company's global revenue.

¹⁴ Calculated by comparing DMO expenditure in each industry sector against the ABS industry data in footnote 13. The figures for DMO expenditure in each industry sector are estimates produced using an expenditure model maintained within DMO.

¹⁵ SMEs are Australian and New Zealand firms with fewer than 200 employees.

Table 1: The Primes in Australian defence industry¹⁶

| Prime | Parent Company/Owner | Country of Origin | Key business in Australia | Per cent of parent's total revenue from Australian sales and exports | Stock Exchange listed on |
|---------------------------|-----------------------|-------------------------|--|--|--------------------------|
| ASC Pty Ltd | Australian Government | Australia | Submarine maintenance and ship construction | Not applicable | Not applicable |
| Australian Aerospace | EADS | France, Germany & Spain | Helicopters | < 1 | Euronext Paris |
| BAE Systems Australia | BAE | UK | Varied, including aircraft maintenance and upgrades, ship construction and maintenance, upgrades to the M113 armoured personnel carriers and support to the Black Hawk helicopters | 3.2 | London Stock Exchange |
| Boeing Defence Australia | Boeing | US | Aircraft production and maintenance | 0.5 | New York Stock Exchange |
| Raytheon Australia | Raytheon | US | Combat systems integration | 1.3 | New York Stock Exchange |
| Saab Systems | Saab AB | Sweden | Land and maritime combat management and C2 systems | 3.1 | Stockholm Stock Exchange |
| Lockheed Martin Australia | Lockheed Martin | US | Electronic and Information systems delivery and support | < 1 | New York Stock Exchange |
| Thales Australia | Thales | France | Ship upgrades and maintenance, production of military vehicles and provision and maintenance of EO | 3 | Euronext Paris |

Small to Medium Enterprises

2.46 Despite the primes' prominence in the local industry landscape, they would not be able to meet the needs of customers without SMEs. Around one-third of Defence's spending on acquisition and sustainment goes to SMEs. Estimates suggest that there are over 3,000 SMEs in Australia's defence industry, mostly subcontractors to the primes.¹⁷

2.47 The relationship between the primes and the SMEs is crucial. Defence needs strong relationships between these organisations to ensure that its capability needs are developed on time and on budget. The primes need to nurture and support the SMEs, which are a vital source of innovation and niche capability in the local defence marketplace. In turn, the SMEs need a strong relationship with the primes to capitalise on their products and to use these relationships to gain access to the global defence market.

¹⁶ Table based on data held by DMO.

¹⁷ Based on data held by DMO.

Industry participation in Defence's non-equipment procurement

2.48 While this Statement focuses on the Defence materiel environment, local industry also has a significant role in providing the non-equipment support Defence needs. Defence currently awards contracts valued at approximately \$4 billion to \$5 billion per financial year across 23 categories of non-equipment goods and services, which include:

- fuel;
- clothing;
- explosive ordnance;
- infrastructure and building construction and maintenance;
- travel;
- professional services, such as legal, engineering, environmental and management advice;
- training;
- research and development;
- advertising;
- freight and cartage;
- health services;
- removals;
- hospitality;
- catering and food;
- utilities;
- security services;
- cleaning;
- grounds maintenance;
- office supplies;
- waste management;
- stores management;
- office furniture; and
- other garrison support services.

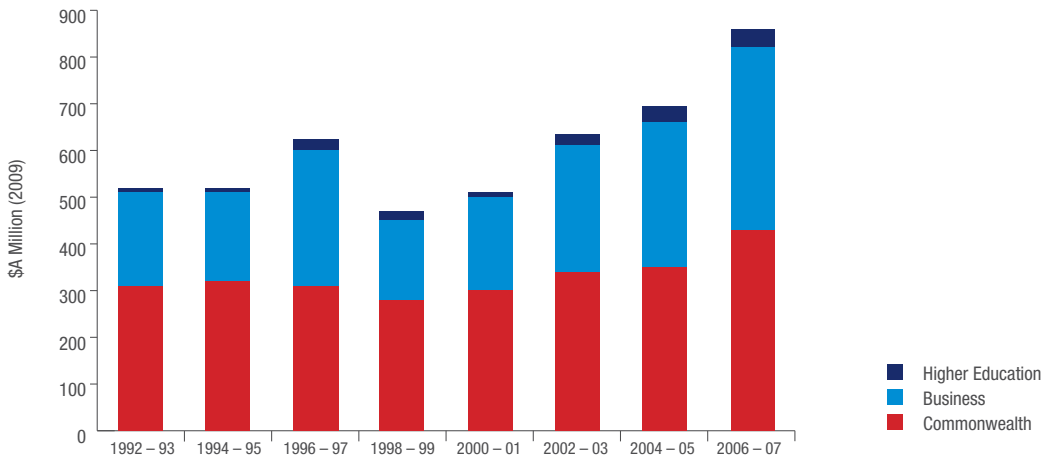
2.49 These goods and services are provided to Defence establishments in several capital city and regional locations spread across Australia.

2.50 This Statement does not deal with the procurement of business information and communication technology (ICT), to which broader whole-of-government ICT policy applies.

Research and Development

2.51 The Commonwealth has previously provided the majority of defence-related R&D funding. Defence-related R&D in Australia totalled \$880 million (2009 \$A) in 2006-07, the latest year for which figures are available. However, as Chart 2 illustrates, the share provided by business has gradually increased, reaching 46 per cent in 2006-07, compared to the Commonwealth's 49 per cent. Over the decade to 2006-07, Defence R&D expenditure has increased by about 45 per cent in real terms, reflecting the increasing sophistication of military technology.

Chart 2: Defence-related R&D funding, 1992-93 to 2006-07¹⁸



Implications for defence industry

2.52 Despite the fact that Australian defence industry has significant capacity and capability for an economy of our size, there are limits to the manufacturing and research and development base that can be supported solely by Defence. In all but a few cases, it no longer makes either economic or strategic sense for Australia to design and manufacture complex weapons systems through every stage of development. In any case, the globalisation of defence industry and the economy as a whole means that complete self-sufficiency is both impractical and unnecessary. It is noteworthy that Sweden and Israel, which have both sought to maintain high levels of defence self-sufficiency, are not fully self-sufficient and rely substantially on foreign military sales to recoup their investment costs.

2.53 Consequently, Defence relies heavily on overseas suppliers, especially for the most complex military capabilities. This reliance either takes the form of direct off-the-shelf purchases or the use of foreign designs, components, systems and expertise for construction, integration or upgrades in Australia. With the exception of ASC, there are no Australian owned defence industry primes. This is a challenge for Australian SMEs who must accept investment decisions made in Europe and North America, but it is also an opportunity for them to make profits by integrating into the global supply chains of international primes.

¹⁸ ABS 81120DO008_200607 Research and Experimental Development, All Sector Summary, Australia, 2006-07.

2.54 Australia should not, however, underestimate its ability to leverage its weight as a customer. Australia was the world's eighth largest arms importer from 2001-07, making it a valuable market for global primes.¹⁹ In 2008, the respected publication Jane's Defence Weekly listed Australia as one of the 'golden markets' for the global defence industry – markets characterised by significant real growth in defence spending and openness to the global market.²⁰

2.55 The effort to deliver Force 2030 on schedule will substantially increase Defence's rate of investment in new equipment over the next twenty years, with \$60 billion worth of major capital equipment projects in the Public Defence Capability Plan 2009. As a result, defence industry will need to significantly increase its local capacity and capability over this time. This will enable local industry to benefit from larger economies of scale. But it will also demand a rate of growth in industry capacity to deliver and support Force 2030 higher than the rate of defence industry growth over the past decade. This clearly indicates a need for investment. Australian defence industry objectives will be discussed in greater detail in Chapter Four.



¹⁹ SIPRI, Arms Transfers Database, 15 February 2009, www.sipri.org/contents/armstrad/at_db.html

²⁰ Jane's Defence Weekly, 'Golden markets', 22 October 2008, http://jdw.janes.com/public/jdw/industry_quarterly.shtm

3 DEFENCE IN CONTEXT

THE STRATEGIC REFORM PROGRAM

3.1 Chapter Nine of the Defence White Paper identifies the Government's key capability priorities for modernising and enhancing the ADF to address Australia's strategic interests and Defence's principal tasks. Force 2030 will focus on expanded maritime capabilities, complemented by enhanced air combat, land, strategic strike, information superiority and cyber security capabilities.

3.2 The Government has directed fundamental reform in Defence to ensure that these capabilities are developed on time and sustained and supported at an affordable cost to the taxpayer. Industry already plays a crucial role in delivering and sustaining ADF capability. It will have an even more important role to play in the future as Defence implements the Strategic Reform Program (which includes the Government Response to the Mortimer Review),²¹ including making substantial changes to the delivery of materiel sustainment (maintenance, repair, provisioning and inventory).

3.3 The Strategic Reform Program will comprehensively strengthen accountability, planning and productivity within Defence, making the organisation more efficient and effective and reducing costs by around \$20 billion, which will be reinvested in building a stronger ADF. A large share of these cost reductions, including some that can only be achieved through close cooperation with Australian defence industry depend upon reducing both the cost and demand for goods and services purchased by Defence. These cost reductions are not about cutting Defence's overall expenditure or capability. Instead, they focus on reducing costs in some areas, so that this money can be invested in developing Force 2030.

3.4 Defence will depend on effective relationships with industry to deliver Force 2030 and the Strategic Reform Program. To support this approach, industry must have a clear understanding of Defence's capability and support requirements, and the priorities for domestic industry capability.

3.5 The Strategic Reform Program is not simply about cutting costs. It encompasses deep and fundamental changes that go to the heart of the way Defence and industry conduct business. It will drive changes both in culture and organisational behaviour, not only within Defence, but also within industry. Defence will work with industry to scope and implement these reforms and provide industry with the necessary information and guidance it requires to complete its contracted tasks.

²¹ The report of the Defence Procurement and Sustainment Review (more commonly known as the Mortimer Review) is available at <http://www.defence.gov.au/publications/mortimerReview.pdf>. The Government's Response to the Review is available at http://www.defence.gov.au/publications/Mortimer_Review_Response.pdf.

3.6 For industry, the Strategic Reform Program means that Defence will be looking at its entire operation to identify opportunities for greater efficiency and effectiveness in its procurement of goods and services. Defence will therefore be looking for procurement solutions that maximise value for money while still delivering the capability Defence needs.

3.7 Key activities under the Strategic Reform Program which will affect the Defence – industry relationship include:

- **Smart Sustainment** – Productivity improvements in support arrangements for 100 military systems and platforms, including reforms to maintenance and inventory.
- **Logistics** – Rationalisation of storage and distribution, including improved processes, modernisation of maintenance facilities for vehicle and equipment fleets and the use of automated identification technology.
- **Non-Equipment Procurement** – Consolidation of procurement of general services, changes to policy, usage and demand, and improvements to support services to remove waste and duplication.
- **Workforce and Shared Services** – Increased use of shared service delivery models and the elimination of unnecessary work.
- **Information and Communications Technology** – Consolidation and standardisation of the Defence information and communications technology environment, including consolidation of data centres and support services. Tighter cost control, new sourcing strategies and faster decision and delivery cycles will all be introduced.

THE GOVERNMENT RESPONSE TO THE MORTIMER REVIEW

3.8 The implementation of the Mortimer Review reforms forms part of the Strategic Reform Program and will provide a range of benefits for industry. These include:

- earlier formulation and consideration of the acquisition strategy and earlier industry involvement in developing these approaches;
- improved and more accurate costing estimates from Defence;
- faster decisions from the Government by improving the capability acquisition approval process;
- improved Defence planning of timelines and tender dates;
- the consideration of public-private partnerships for relevant projects;
- continued investment in Skilling Australia's Defence Industry and related programs;
- greater attention to through-life costing in decision-making; and
- a more businesslike and commercial culture in DMO.

3.9 Engaging industry and the Defence Science and Technology Organisation (DSTO) earlier in the acquisition process to assess capability proposals for technical risks will help to retire risk in some projects. This earlier engagement will assist Defence to make trade-offs between cost, capability and risk, develop the acquisition strategy and provide advice on drivers of other risks, such as cost and schedule.



3.10 Additionally, in response to the Mortimer Review, Defence will improve its ability to deliver and support ADF assets more efficiently and effectively. Defence will also adjust the way it develops, acquires and sustains military capability. These reforms are significant and will involve major challenges for all stakeholders. As part of the reforms, Defence will:

- strengthen its capacity to provide independent advice to the Government on the cost, risk, schedule and acquisition strategies for major capital equipment; and
- work with industry to reduce overheads throughout the entire procurement system.

3.11 Further detail on these reforms, how Defence is implementing them, and what they will mean for industry are described in Chapter Four.

THE PUBLIC DEFENCE CAPABILITY PLAN AND SUSTAINMENT EXPENDITURE

3.12 The Public Defence Capability Plan (DCP) 2009,²² which was released on 1 July 2009 and updated in February 2010, contains over \$60 billion of projects. The Public DCP will continue to be adjusted over time due to changing strategic priorities and economic circumstances, the maturity of projects, the evolution of technology in the options under consideration, and operational experience.

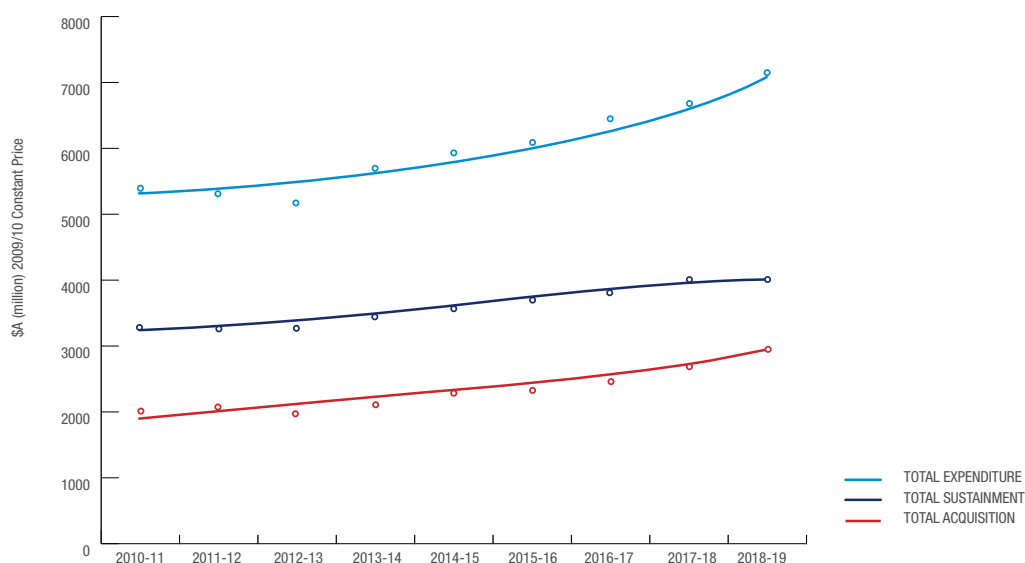
²² The Public DCP is available at <http://www.defence.gov.au/dmo/id/dcp/dcp.cfm>

3.13 Overall, the long term outlook for defence capability project expenditure is positive. Fluctuations are inevitable due to the spending profile of defence acquisition projects; however there is strong growth projected over the decade.

3.14 Sustainment expenditure, which generally accounts for almost half of total defence materiel expenditure, reflects more uniform growth – it will increase over time, in line with the long term growth in acquisition expenditure. While most sustainment expenditure is spent within Australia, it should be noted that sustainment cost reductions under the Strategic Reform Program are to be reinvested in capital equipment acquisition over the next ten years.

3.15 Chart 3 shows the anticipated project and sustainment expenditure in Australia by DMO out to 2018-19.

Chart 3 – DMO in-country project and sustainment expenditure to 2018-19



A more useful Public Defence Capability Plan

3.16 The Public DCP is the critical mechanism through which the Australian Government signals its defence capability needs and intentions for future major capital equipment acquisitions to industry. This in turn guides industry's own investment and skilling decisions. In the cases of overseas primes, the Public DCP is a key communication tool which Australia can use to influence the investment decisions of these global companies. With this information, companies can undertake strategic planning to best position themselves to tender for those projects in their area of interest and begin to collaborate with their partners. For overseas primes, they can begin to work with the Australian SMEs they will need for given projects.

3.17 In October 2009, Defence engaged the Australian Strategic Policy Institute (ASPI) to conduct a review of the Public DCP to identify options to enhance the value to industry and to optimise the timing of Public DCPs to increase transparency of planning. This review, which was delivered to Defence in December 2009, made a number of useful recommendations on how to enhance the value to industry of public Defence capability planning information. The recommendations fall into four broad categories: increasing the range and precision of publicly available information; enhancing the flow of information between Defence and industry; improving the reliability of publicly available information; and providing more useful information about priorities for industry.

3.18 The ASPI report is part of a broader effort to improve the Public DCP. The Government has released the ASPI report and Defence's response.

3.19 The Government has already announced changes to the Public DCP to include clearer and more useful information for defence industry. The key theme of the changes is to increase the information available to industry, as well as to improve the accuracy and reliability of that information. The revised Public DCP will:

- contain information on projects out to a ten year horizon, with greater certainty of scope, costs and schedule for projects in the earlier years;
- include guidance information on project phases which are in the early years (pre-First Pass) of the program;
- include 'planning' information on project phases which are between First Pass and Second Pass;²³
- break out each project phase separately to allow guidance information or more definitive planning information to be provided according to the maturity of the phase;
- define Initial Operational Capability (IOC), Full Operational Capability (FOC), Initial Materiel Release (IMR) and Life of Type to the extent appropriate to the maturity of the proposal. The IOC and FOC definitions will also be described in operational terms;
- include indicative timings for market solicitation and IMR at the level of precision appropriate to the maturity of the proposal;
- include in the Australian Industry Opportunities section:
 - applicable Australian Industry Capability guidelines particularly for projects which are approaching Second Pass approval;
 - a description of any PIC aspects of projects; and
 - details of any facilities requirements related to the project phase;
- contain preamble pages that refer to Major Capital Facilities and Minors programs to provide a more unified approach for all Defence capability planning; and

²³ Following Government approval for DCP entry, there are two further opportunities for Government to decide on which capability options will be investigated or acquired, known as the 'two-pass' process:

a. **First Pass consideration** is when the Government considers whether one or more options should be developed, whether industry should be engaged in this process, and the workforce and expenditure required for Defence to undertake detailed analysis of the agreed capability options.

b. **Second Pass consideration** is when the Government considers funding the acquisition of a specific capability system with a well-defined budget and schedule.

- contain more information on the broad capability planning process and improved expenditure projections. DMO Commercial Group will continue to develop modelling tools for this purpose; and
- include links to the Major Capital Facilities Program on the Defence Support Group website, and links to all extant Minor Capital programs on other Defence websites in the online version of the Public DCP.

TIME FOR A NEW DEFENCE INDUSTRY POLICY STATEMENT

3.20 When the Rudd Government was elected, it decided to implement the practical elements of the 2007 Defence and Industry Policy Statement pending the release of the new Defence White Paper and the Strategic Reform Program. Defence and industry have made good progress in implementing the initiatives outlined in the 2007 Statement, due to the cooperation and responsiveness of industry.

3.21 The Government has successfully implemented thirty-three of the thirty-nine practical initiatives identified in the 2007 Defence and Industry Policy Statement. Of the remaining six, the intent of three policy initiatives was satisfied through other means and the implementation of the remaining three initiatives is on schedule.

3.22 However, more needs to be done to ensure that Australian industry can play its full part in meeting the goals of the Defence White Paper 2009. Achieving the demanding capability goals of Force 2030 will also require reform and continuous improvement in Defence's processes, as well as significant growth in industry capacity.



3.23 Following the Global Economic Crisis, the pace of economic and industrial consolidation has continued. Australia needs industry with sufficient agility and resilience to meet the competitive demands of the global market while at the same time meeting the capability needs of the ADF. The globalisation of defence industry and the policy implications that arise from this have significant implications for Australia. Australian defence industry policy needs to ensure that it keeps up with these changes and addresses any emerging issues.

3.24 The main challenges for defence industry policy are not to articulate new concepts or establish new assistance programs – they are to set clearly communicated goals, develop the frameworks and processes to implement those goals as effectively and efficiently as possible, and to customise these programs for industry across the entire capability development life cycle. This is why it is time for a new Defence Industry Policy Statement.

4 KEY PRINCIPLES FOR A SMARTER AND MORE AGILE DEFENCE INDUSTRY BASE

4.1 As the previous Chapter indicates, the Defence White Paper 2009 and the Strategic Reform Program outline Defence and the ADF's future priorities. This Chapter outlines the implications for industry of these priorities and what Government expects of industry in response.

4.2 Defence needs to set priorities for defence industry for two purposes. The first is to ensure that industry is ready to meet Defence's future capability needs, as outlined in the 2009 White Paper. The second is to ensure that industry has the business intelligence on future Defence capability needs that will let it make appropriate investment decisions.

4.3 The only way to ensure a viable and resilient industry base is to allow market forces to determine which companies will be successful, innovative and able to survive. Past efforts to prop up companies that were not commercially viable failed, but only after both Defence and industry had wasted a lot of money.

4.4 This Statement represents a new stage in relations between Defence and industry. For its part, Defence accepts the responsibility to be open with industry about its capability needs in order to allow industry to make realistic decisions. Setting industry priorities is part of this approach.

4.5 The Government has identified four key principles to guide defence industry policy:

- setting clear investment priorities;
- establishing a stronger Defence – industry relationship;
- seeking opportunities for growth; and
- building skills, innovation and productivity.

4.6 Many of the approaches that follow from these principles will be familiar to defence industry. But while the principles may be simple, their implementation involves significant policy and business challenges. They need to be clearly understood because they underline the Government's strong commitment to competitive economic policy, building skills, productivity and innovation, reforming Defence and ensuring value for money in delivering Force 2030.

SETTING CLEAR INVESTMENT PRIORITIES

4.7 The first principle of the Government's defence industry policy is that defence strategy and the capability needs of the ADF will determine Defence's investment priorities. Decisions about value for money for the Commonwealth will frame the consideration of whether to source Defence's capability needs from local or overseas-based firms. The Government does not intend to use the defence budget to subsidise uncompetitive sectors or firms within the Australian economy.

Identifying priorities for Australian industry capability

4.8 The Public DCP is the principal means through which the Australian Government signals to industry its defence capability needs and intentions for future major capital equipment acquisitions. This in turn guides industry's own investment and skilling decisions. However, the Government has also outlined a series of Priority Industry Capabilities (PICs) that are strategically important to the ADF.²⁴ Importantly, the PICs identify capabilities, rather than specific companies.

4.9 The 2009 White Paper defines the Priority Industry Capabilities as those industry capabilities which would confer an essential strategic advantage by being resident within Australia, and which, if not available, would significantly undermine defence self-reliance and ADF operational capability.

4.10 Defence identified the PICs during 2008, as part of the development of the Defence White Paper 2009. To identify the PICs, Defence considered a wide range of critical industrial capabilities and assessed the credible contingencies where the capability would be required, as well as the possible risks to ready and reliable supply of each capability. Based on this analysis, a senior Defence committee endorsed a series of PICs, which were subsequently agreed by Government.

4.11 There are currently 12 PICs (outlined in greater detail in Annex A), which Defence will closely monitor to ensure that industry capacity is sufficient to support Australia's capability needs. The PICs are certain parts of:

- acoustic technologies and systems;
- anti-tampering capabilities;
- combat uniform and personal equipment;
- electronic warfare;
- 'high end' system and 'system of systems' integration;
- high frequency and phased array radars;
- infantry weapons and remote weapons stations;
- in-service support of Collins Class submarine combat system;
- selected ballistic munitions and explosives;
- ship dry docking facilities and common user facilities;
- signature management; and
- through-life and real time support of mission critical and safety critical software.

²⁴ Through the Defence White Paper 2009, the Government provided industry with information about the PICs and introduced a broader category of capabilities of interest to Defence (known as the Strategic Industry Capabilities). The Government subsequently announced the capabilities covered by the PICs in mid-2009.

4.12 Due to their potential to become PICs, the Government also monitors a broader range of capabilities, known as the Strategic Industry Capabilities (SICs). The SICs are capabilities which provide Australia with enhanced defence self-reliance, ADF operational capability, or longer term procurement certainty. To gauge the overall condition of the SICs, Defence considers factors such as the proposed level of utilisation of these industries offered through tender responses, the performance of these industries under contract, Company ScoreCard information, and information obtained through engagement with industry associations and the network of Business Access Offices. The SICs, which are described in greater detail in Annex A, are:

- composite and exotic materials;
- elements of national infrastructure, including:
 - supply and storage of aviation fuel;
 - provision of terrestrial and space communication systems; and
 - logistic infrastructure for using Darwin and Townsville;
- geospatial information and systems;
- guided weapons;
- naval shipbuilding;
- protection of networks, computers and communications;
- repair and maintenance of specialist airborne early warning and control systems;
- repair, maintenance and upgrading of armoured vehicles;
- repair, maintenance and upgrading of aircraft (including helicopters);
- secure test facilities and test ranges;
- systems assurance; and
- system life cycle management.

The need to regularly review the Priority Industry Capabilities

4.13 The capabilities that Australia currently needs to be available domestically are different from those required even a decade ago – and they will continue to change over time. For example, in the past, Australian industry has provided much of the equipment and services that the ADF (or its predecessors) required. However, since then Australia's strategic circumstances have changed significantly and consequently Defence's requirements of Australian industry have also changed. Further, the increasing globalisation of the defence industry in recent years has enabled Australia to source many of its Defence acquisitions from other countries – a trend which can be expected to continue in the future. This means that the PICs need continued reassessment to ensure that they remain up to date and relevant.

4.14 In addition, the PICs reflect currently available technology and contemporary industry and market structures, strategic guidance and Government demand patterns – they are effectively a snapshot of Defence’s capability priorities for domestic industry at this point in time. But technology and the ADF’s capability needs change rapidly. Strategic guidance and demand patterns also change over time.

4.15 The PICs need to be regularly reviewed and updated to take account of these changes. This will occur through the annual classified Defence Planning Guidance (DPG).²⁵ While some capabilities may be added to the PICs through this review process, industry should also expect that some current PICs will not need to be retained in the future.



4.16 Through the DPG, the PICs will be regularly assessed against Australia’s long term strategic capability needs for the ADF. In the Defence White Paper 2009, the Government identified the ADF’s principal tasks and its primary operating environment²⁶ which is a harsh, largely maritime and littoral environment, and one that ranges from tropical to more temperate climates. It covers a vast expanse, with extensive areas that have limited infrastructure available to support ADF operations. These features, combined with the ADF’s principal tasks and military strategy, means that the attributes of Force 2030 include:

- information superiority through excellent information, surveillance and reconnaissance and networked systems;
- operationally flexible systems (i.e. multi-role systems that offset small numbers of platforms);
- precision effects;
- survivable and robust systems;

²⁵ The Defence Planning Guidance is the Government’s premier defence planning document between White Papers. It is discussed in Chapter Thirteen of the Defence White Paper 2009.

²⁶ See pp51-52 and pp53-57 of the Defence White Paper 2009. The White Paper defines Australia’s primary operating environment as extending from ‘the eastern Indian ocean to the island states of Polynesia, and from the equator to the Southern Ocean. That area contains all Australian sovereign, offshore and economic territories, such as Cocos (Keeling) Islands, Christmas Island, Heard and McDonald Islands, Macquarie Island, Norfolk Island, and also waters adjacent to the Australian Antarctic Territory. (p. 51)

- interoperability of systems with allies, coalition partners and other Australian Government agencies; and
- a regional capability advantage through systems superiority.

4.17 The Government will carefully consider these strategic factors when making capability and sourcing decisions – and when determining the PICs. In addition, the Government will also take into account Australia’s strong international alliances and cooperative relationships, which provide, in varying degrees, assurance of equipment supply to the ADF.

4.18 The Government will continue to advise industry of any changes to the PICs. The Public DCP provides the key mechanism for the Government to inform industry about any changes to its capability priorities. However, the Government may also communicate directly with industry to advise them of any changes to the PICs.

Government consideration of the PICs in acquisition and sourcing decisions

4.19 When making procurement and sourcing decisions, the Government will always emphasise the need to obtain value for money for the Australian taxpayer through competition. This emphasis applies in all defence-related procurement and sourcing decisions. As noted above, the PICs identify capabilities, rather than companies. Accordingly, in making its decisions based on value for money, the Government does not guarantee future work or funding for particular companies.

4.20 Nevertheless, in reaching its decision based on value for money in PIC-related procurements, the Government may take into account factors such as Australian industry impacts, the national interest, broader strategic factors, and other whole-of-government considerations.

4.21 Defence is currently assessing whether there is adequate investment in the PICs, based on known acquisition and sustainment demand, to maintain them at an appropriate level of capability to meet the ADF’s needs. It is important that local defence industry understands that the listing of a capability as a PIC will not in itself lead to Government financial assistance. Actions to sustain a PIC may include:

- demand management – managing the timing of new projects through the Public DCP to maintain regular work where possible;
- access to export promotion, skills development and company activities through programs such as Skilling Australia’s Defence Industry (SADI) and the Defence Industry Innovation Centre (DIIC);
- developing longer term contracting arrangements;
- accessing the PIC Innovation Program (see Chapter Five); and
- in some cases, ensuring that requests for tender seek separate costings for work that must be undertaken in Australia.

4.22 More than 3,000 SMEs are involved in supplying Defence, including many highly innovative companies that possess niche skills and capabilities. The Government recognises that SMEs are important to sustaining the PICs and this is why many of the industry-development initiatives identified in this Statement are particularly targeted at SMEs.

CASE STUDY 3: MAINTAINING THE PHASED ARRAY RADAR PRIORITY INDUSTRY CAPABILITY

CEA Technologies, which specialises in radar technology, has developed and manufactured a world-leading phased array radar for the Royal Australian Navy (RAN). The radar allows the RAN to more effectively detect and track numerous targets simultaneously, including enemy ships, aircraft and missiles.

The new system is being incorporated into the RAN's fleet of Anzac-class frigates as part of the Anti Ship Missile Defence phase of SEA 1448. While the radar is expected to be installed on all eight Anzac-class ships, the radar will initially only be fitted to HMAS Perth as part of a trial of the system.

The need for a trial phase was a concern to CEA Technologies, which has to maintain staff and skills, and manage supply chain issues while HMAS Perth trials the new radar. To assist the company, Defence agreed to a gradual release of project funding (subject to the achievement of certain milestones) to acquire parts for ships two to eight and then proceed with the sub-assembly of systems for ships two and three. This approach is assisting CEA Technologies and its major Australian subcontractors to maintain their capabilities through the trial period. The identification of phased array radars as a Priority Industry Capability was a factor in the Government's decision to adopt this strategy.

Off-the-shelf solutions

4.23 The Mortimer Review clearly argued the case for consideration of off-the-shelf solutions in Defence procurement. It noted that 'experience shows that setting requirements beyond that of off-the-shelf equipment generates disproportionately large increases to the cost, schedule and risk of projects. Some of the reasons for this are easy to identify. For a small purchaser like Australia, the cost of modifying or developing new systems is invariably spread across a small production run. In contrast, off-the-shelf purchases bring the benefit of larger economies of scale. Even more important, off-the-shelf purchases avoid the considerable risks to cost and schedule inherent in developing new weapons systems.'²⁷

4.24 As a result, and as outlined in the Defence White Paper 2009, the Government will use military-off-the-shelf (MOTS)²⁸ and commercial-off-the-shelf (COTS) solutions, wherever possible, as the benchmark against which to undertake a rigorous cost-benefit analysis of the military effects and schedule aspects of all proposals.²⁹

²⁷ See *Defence Procurement and Sustainment Review* (the Mortimer Review), p18. For further information about the Review's discussion of off-the-shelf equipment, see pp. 17-20.

²⁸ The Defence Procurement and Sustainment Review defines military-off-the-shelf equipment as that which 'is already established in-service with the armed force of another country or Australia; is sourced from an established production facility; and has at most minor modifications to deliver interoperability with existing ADF and/or allied assets.' See *Defence Procurement and Sustainment Review*, p. 17. In turn, the Review drew this definition from Australian Strategic Policy Institute, *The Cost of Defence ASPI Defence Budget Brief 2008-09*, 2008, pp. 161-162.

²⁹ See paragraph 16.17, p. 127, of the Defence White Paper 2009.

4.25 A key implication of this for industry is that developmental options will be compared against MOTS and COTS options during this process. This means that, to be selected, local developmental options will need to be competitive in comparison to MOTS and COTS options when the cost, capability, schedule and risk are taken into account. It also means that industry will be able to benchmark against the solutions available to deliver Defence's requirements and position itself to be competitive.

4.26 There will be occasions where modifications are required for an off-the-shelf (OTS) option,³⁰ or the OTS option is manufactured in Australia either under licence (in its entirety or component manufacturing) as an Australian system, or is assembled in Australia. Where they are selected, OTS options may offer significant opportunities for local industry.

4.27 The Government acknowledges that considering MOTS and COTS solutions poses some risks to sustainment, particularly in relation to overseas manufactured MOTS or COTS systems. The support and sustainment of this equipment may expose Defence to long supply chains and dispersed global manufacturing. The Government has responded to these issues by encouraging the primes to increase local capability by investing in Australia.

ESTABLISHING A STRONGER DEFENCE – INDUSTRY RELATIONSHIP

4.28 Both Defence and industry have clear expectations of the commercial relationship that exists between them. The relationship between Defence and industry must be based on:

- clear information and open channels of communication, so that goals, priorities and risks are mutually understood; and
- incentives for competitiveness through performance-based contracts that deliver the best results for Defence and industry.

4.29 The reforms resulting from the Strategic Reform Program will entail a closer working relationship between Defence and industry. Under these reforms, industry can expect to be involved at an earlier stage in the development of commercial acquisition strategies.

4.30 Defence will also work closely with industry to reduce overheads throughout the procurement system and to develop a more businesslike approach to delivering projects on time, on budget and to Defence's requirements. This new approach should improve Defence's understanding of, and responsiveness to, industry's needs and constraints. It should also provide industry with a clearer understanding of Defence's capability needs.

4.31 As part of these reforms, DMO has appointed a new General Manager, Commercial, to manage high-level commercial issues and acquisition approaches, drive a more businesslike attitude within DMO and improve the performance of DMO's business areas. This will assist DMO to provide advice on acquisition strategies throughout the capability development process and improve DMO's understanding of industry capability and market viability. All of these changes will improve DMO's relationship with industry.

³⁰ For example, modifications may be required to meet Australian regulations or to make the equipment interoperable with the rest of the ADF, other Australian Government agencies and our allies.

4.32 In keeping with Defence's move to a more strategy-led organisation, Defence's Strategic Policy Division has taken carriage of producing this and subsequent industry policy statements to ensure that there is close alignment with the Defence White Paper 2009 and other strategic guidance. Strategic Policy Division will also work closely with DMO and other agencies in the future to ensure there is alignment between Defence's industry policies and programs and its broader policy and capability needs. This will result in a more strategy-driven approach to a range of industry policy issues. DMO's Industry Division remains the point of contact for all industry programs.

The importance of clear communication

4.33 Defence industry policy cannot succeed unless there is clear communication between Defence and industry. Industry needs clear, timely and reliable information about Defence's goals and expectations in order to make sound investment decisions and develop appropriate skills in its workforce. Similarly, Defence needs to know what skills and capabilities are available from Australian industry and their main cost drivers.

4.34 The Government has clear expectations of the commercial relationship between Defence and industry. Defence must deliver value for the taxpayer. Government will provide industry with information, set priorities, promote skilling and encourage innovation. The Government also recognises the importance of cash flow and profitability if industry is to be an enduring partner in the national defence enterprise.

STAYING CONNECTED

The biennial three-day Defence+Industry Conference provides industry with the opportunity to understand Defence's needs. This conference provides an opportunity for industry to develop an understanding of Defence's approach to capability development, procurement and sustainment, which is vital to a successful defence industry.

Supporting the conference is a trade exhibition where more than 300 leading defence industry companies have an opportunity to demonstrate

their products and innovations.

DMO's Industry Division, which facilitates growth in the capacity and competitiveness of the local defence industry, organises this event. Further information is available at www.defenceandindustry.gov.au

In addition, Defence maintains an active role, with industry, in the biennial Land Warfare Conference, the Pacific Maritime series of expositions and the International Aerospace exposition (the Avalon Airshow).

4.35 Defence needs to use the business acumen and commercial awareness of the defence industry and engage industry's knowledge of the technology and materiel that they provide. More than this, Defence needs to engage more effectively with industry to develop a stronger understanding of systems and equipment, and to increase its awareness of what technologies industry is developing for the future. This is vital to identify and secure the most cost effective productivity improvements, and to plan for future opportunities and challenges.

4.36 Defence will look to industry, including SMEs, for innovative ideas on how to drive these reforms across the defence sector. As the Government cannot engage directly with every SME, it expects that the primes' dialogue with Defence will be informed by their close relationships with their suppliers and contractors.

4.37 The return to a ten-year Public DCP planning horizon will also improve communication with industry by providing a longer term view on Defence's capability development intentions. Where projects are closer to approval, the Public DCP will also include additional detail about Defence's intentions and timeframes. The improvements to the information included in the Public DCP were discussed in Chapter Three.

4.38 But Defence needs to do more than just provide more information to industry. It also needs to listen carefully to what industry has to say and address industry's concerns. DMO's 360° View ScoreCard program (discussed in Chapter Five and Annex E) offers industry a way of providing confidential feedback to the DMO Executive and the Government on DMO's performance as a project and contract manager.

4.39 This program, as well as the new Defence Industry Innovation Board and the reinvigorated Capability Development Advisory Forum (discussed in Chapter Five) will improve the dialogue between Defence and industry and offer new avenues for industry to provide feedback to Defence on areas where it can improve its own performance. Importantly, this dialogue will be most effective when industry participants are frank and open in their discussions with Defence.

BEING PREPARED

The Defence and Industry Study Course (DISC) is a unique development program run by DMO for future Defence leaders from the public and private sectors.

DISC participants gain an understanding of how Defence identifies its needs and goes about acquiring and sustaining equipment. Participants have unique access to Defence

decision makers and establishments to see how selected elements of the ADF operate.

By developing a better understanding of how Defence operates, industry participants have a better chance of being successful when competing for and delivering Defence projects. More information is available at www.disc.gov.au

Incentives for competitiveness

4.40 One of the key reforms of the Strategic Reform Program's Smart Sustainment initiative is performance-based contracting with a particular focus on using incentives to drive outcomes. While Defence already uses incentive contracts in some areas, wider use may provide benefits both to Defence and its suppliers. Under a performance-based contract, Defence can get better value for money when maintaining and enhancing its military equipment – including through lower prices – while successful suppliers can benefit through more predictable profits and greater continuity of work as a result of rolling contract extensions or longer contracts (with strong off ramps if companies fail to perform).

4.41 Performance-based contracts allow companies to invest in productivity improvements and encourage greater cost consciousness in suppliers by directly aligning their work with Defence's commercial and operational requirements.

4.42 Under a performance-based contract, Defence will be less concerned about how work is done than with the military capability that the work delivers. Performance measures will be set to reflect not only the operational needs of the ADF, but also options open to Defence to trade off the functionality, availability and cost to deliver military capability.

4.43 DMO plans a phased implementation of incentive-based contracts. To generate industry participation and ideas, DMO issued a discussion paper in October 2009 and received industry responses in November 2009. Proposed performance-based models will be progressively released to industry for review and comment during 2010. Further details on incentive-based contracts, and other types of contracts used by Defence, are outlined below.

CASE STUDY 4: PERFORMANCE-BASED CONTRACTING FOR REPAIR AND MAINTENANCE OF MAJOR SURFACE SHIPS

DMO recently reviewed the way in which it contracts its major surface ship repair and maintenance, with a view to reducing costs, increasing industry certainty and improving naval operations through improved ship availability. This work costs Defence an average of \$150 million annually.

The current practice of competitively tendering every Major Fleet Unit repair and maintenance episode is inefficient. The disaggregation of the maintenance program places contractors in a stop-start routine generating start-up and wind-down costs for both the contractor and Defence. Putting every individual ship repair contract out to tender failed to secure value for money because the lack of continuity prevented naval ship repair companies from investing in the infrastructure and workforce needed to deliver the best price.

As a consequence of this review, DMO proposed a strategy involving long term performance-based contracts with 'batching' ships based on class and/or home port. This contracting method may also include a 'total asset' management approach, incorporating the provision of material support, failure analysis and remediation, ship modifications, and configuration and supply chain management services.

Combining repair and maintenance with these additional services, which are currently all contracted separately, is expected to deliver greater efficiencies and savings. A key incentive for industry is the certainty stemming from long term contracts, with an ability to then invest in the workforce and infrastructure to meet performance-based targets, and to progressively adopt lessons learned from prior repair and maintenance activities as a key aspect of their continuous improvement program.

Defence's non-equipment procurement and industry

4.44 Under the Strategic Reform Program, the Defence Support Group (DSG) has lead responsibility for developing reforms of Defence's non-equipment procurement (NEP). As part of this role, DSG is engaging with industry to deliver value for money for Defence, undertake continuous business improvement, and develop stronger relationships with the NEP industry sector. DSG is currently implementing a range of strategies to enhance local industry participation in the supply of non-equipment goods and services to Defence.

4.45 Further, under the Strategic Reform Program, Defence will deliver \$4.5 billion in cost reductions in NEP expenditure over the next decade. Extensive participation by local industry in future competitive procurement processes will be vital to delivering the NEP cost reductions.

4.46 While there are no major barriers to industry participation in NEP, Defence will continue to ensure that local industry is aware of the scope and value of NEP and the range of goods and services that Defence purchases. Many of these are similar to those in commercial industry, and are likely to provide opportunities for businesses already established in these market sectors.

4.47 Local SMEs, small businesses and national level firms have been successful in winning non-equipment contracts awarded by DSG, either directly or indirectly (through subcontracting arrangements). Potential suppliers can improve their chances of winning NEP business by properly identifying and understanding NEP priorities and requirements – which are set out in the publicly available Strategic Reform Program material.³¹ This is important to not only effectively plan and bid for NEP-related tenders, but to also ensure the provision of appropriate industry capabilities and capacity to service particular NEP requirements across various local, regional and metropolitan locations.

4.48 The Government's defence industry policy also provides local enterprises with opportunities to improve their productivity, skilling and innovation through access to the programs outlined later in this Statement.



³¹ For further information on the Strategic Reform Program and associated opportunities, see <http://www.defence.gov.au/srp/index.htm>

Approaches to contracting

4.49 When selecting an appropriate type of contract, a significant factor is the risk inherent in the procurement and how this risk will be allocated between the supplier and Defence. Different levels of risk require different contracting approaches in order to achieve value for money.

4.50 Defence always seeks to select an approach that best balances the full range of risks associated with the procurement and facilitates the most appropriate risk sharing and management of these risks between the supplier and Defence for the best value for money. The party that has most knowledge of a risk and is best able to manage that risk should be the party that bears and costs that risk. Different types of contract and their advantages and disadvantages are discussed in more detail below.

Defence's acquisition and sustainment contracting templates

4.51 Defence's Australian Defence Contracts (ASDEFCON) suite of tendering and contracting templates and the AC565 and SP020 simple procurement forms provide a set of proforma documents for use when drafting solicitation and contract documents for goods and services procured by Defence. These templates are the primary contracting vehicle for the acquisition and sustainment of capability for the ADF.³²

4.53 DMO continues to consult with industry to further improve and develop the ASDEFCON suite. This consultation occurs through industry groups such as the Australian Industry Group (AiG) and the Australian Industry Defence Network (AIDN). This consultation is framed by a set of key contracting principles which were agreed between DMO and AiG in late 2007.

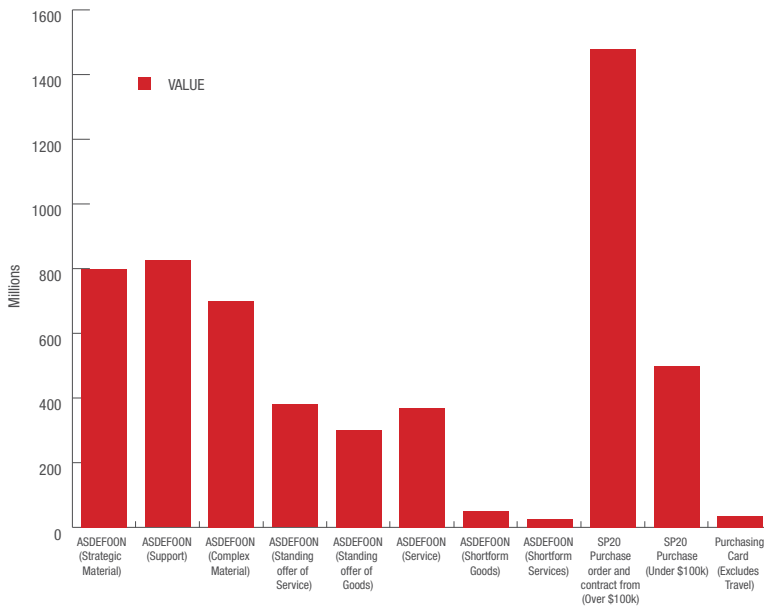
4.54 To progress these consultations, DMO and industry form joint working groups to focus on key procurement issues, for example, cost of tendering drivers such as appropriate ASDEFCON template selection, and the quantity of tender and contract data required from industry through the procurement life cycle. In addition, joint working groups are considering better approaches for key commercial issues such as limitation of liability and insurance.

4.55 The purpose of this consultation and ASDEFCON suite improvement is to retain the efficiency benefits for Defence and industry of standardised templates while also ensuring sufficient flexibility in the suite to cater for different types of procurement. An example of current template development is the transforming of the current strategic level ASDEFCON (Support) template into an integrated performance based contracting template, and the development of complex and simple level support templates to fill recognised gaps in the suite. These updated and new templates are scheduled for release during July 2010.

4.56 Chart 4 and Table 3 set out the number and value of commercial contracts entered into by DMO in 2008-09 (excluding procurements made under the Foreign Military Sales program). Of particular note is the overwhelming number and value of contracts entered into by DMO using the simple procurement SP020 form.

³² This suite is accessible at http://www.defence.gov.au/dmo/DMO/function.cfm?function_id=45.

Chart 4 – DMO contracts and value – financial year 2008-09



Conventional contract approaches

Fixed price

4.57 In a fixed-price contract, the contract price for the goods and services is unalterable, except where a contract amendment is agreed (such as when further quantities are ordered). Fixed-price contracts provide maximum incentive for suppliers to perform because they bear any cost overrun. The cost risk allocation to the supplier will not come at an excessive contingency premium to Defence when there is a high reliability of the cost estimate (such as for off-the-shelf items or standard services) and when the market is competitive.

4.58 DMO primarily uses fixed-price contracts for its procurements. The United States Government has also recognised the benefits of fixed-price contracts and is seeking to move away from cost reimbursement, and time and materials (T&M) contracts. In June 2007, the US General Accountability Office (GAO) found that there had been an increasing reliance on T&M contracts for US Defense contracting.³³ The US Office of Management and Budget identified initiatives for agencies (including the US Department of Defense) to support a reduction in money spent through new 'high risk contracts', such as cost-reimbursement contracts, T&M contracts and those contracts which are awarded non-competitively.³⁴ As a result, for the 2011 fiscal year, the US Department of Defense intends to reduce its use of T&M contracts by 17 per cent.³⁵

³³ GAO Report 07-273, Defense Contracting: Improved Insight and Control's Needed over DoD's Time and Materials Contracts, June 2007.

³⁴ Office of Management and Budget, Acquisition and Contracting Improvement Plans and Pilots, *Saving Money and Improving Government*, December 2009, p. 6 – available from http://www.whitehouse.gov/omb/reports_default/

³⁵ Budget of the United States Government, Fiscal Year 2011, available from <http://www.whitehouse.gov/omb/budget/Overview/>

Table 3 – DMO Contracts and Value – FY2008-09

| NAME | NUMBERS | VALUE | AVERAGE VALUE |
|---|---------|-----------------|---------------|
| ASDEFCON (Strategic Materiel) | 9 | \$796,123,915 | \$88,458,213 |
| ASDEFCON (Support) | 41 | \$811,478,781 | \$19,792,165 |
| ASDEFCON (Complex Materiel) | 219 | \$699,850,231 | \$3,195,663 |
| ASDEFCON (Standing Offer for Services) | 205 | \$388,179,635 | \$1,893,559 |
| ASDEFCON (Standing Offer for Goods) | 197 | \$306,377,664 | \$1,555,216 |
| ASDEFCON (Services) | 238 | \$344,906,401 | \$1,449,187 |
| ASDEFCON (Shortform Goods) | 6 | \$36,929,385 | \$6,154,898 |
| ASDEFCON (Shortform Services) | 8 | \$4,404,592 | \$550,574 |
| SP20 Purchase order and contract form (Over \$100k) | 1,518 | \$1,476,088,156 | \$972,390 |
| SP20 (Under \$100k) | 80,566 | \$552,576,447 | \$6,859 |
| Purchasing Card (Excludes Travel) | 29,298 | \$15,302,020 | \$522 |
| Total | 112,305 | \$5,432,217,227 | \$48,370 |

Variable price or economic price adjustment

4.59 Variable price or economic price adjustment contracts allow for specific contract costs to be varied during the contract period in accordance with agreed price variation formula and indices. Variable price contracts may allow for variations in exchange rates and labour and/or material costs.

4.60 These types of contracts are normally used where costs are expected to vary due to factors beyond the reasonable control and responsibility of the supplier (for example, if the contract is for a long period or if market prices are unstable). The advantages and disadvantages of using variable price or economic price adjustment contracts are similar to those of a fixed-price contract, except that the supplier offsets some risk and may be able to offer lower prices by avoiding unnecessary contingency.

Cost reimbursement

4.61 Cost reimbursement contracts are cost-sharing arrangements used in circumstances where the contract costs cannot be accurately estimated due to high risk and uncertainty associated with the required supplies. By reimbursing the supplier for the costs incurred during the high-risk or developmental aspects of the contract, Defence only pays the actual costs incurred by the supplier. This approach significantly reduces the supplier's risk in performing the work.

4.62 The disadvantage with cost reimbursement contracts is that they provide little incentive for suppliers to provide the goods and services efficiently (i.e. at minimum cost to Defence) because the supplier is still paid for all cost overruns and still receives profit. As a result, Defence only uses these types of contracts for discrete elements in high risk or uncertain projects.

4.63 In addition, to limit the cost risk, Defence normally puts in place price ceilings. The supplier then bears any costs incurred in excess of the price ceiling. The price ceiling allows scope to cover a reasonable contingency to cover the cost uncertainty, but it also allows Defence to pay a lesser amount if not all of the contingency is required.

Innovative contract approaches

Incentive-based

4.64 Incentive contracts encourage suppliers to meet or improve upon the performance, delivery, cost and/or quality estimates detailed in the contract. This is achieved through linking supplier performance to specified targets. If these targets are not met, then the supplier will forego profit. The advantage of incentive contracts is that they avoid the need for the supplier to build major contingencies into the contract price. The essential elements of an incentive contract are:

- a target cost – which should be the best estimate determined mutually by Defence and the supplier of what the costs will be when the work is done;
- a target fee – which is the amount of profit payable without adjustment if the costs come out at target cost; and
- a share formula – which determines how the excess cost (over-run) or cost savings (under-run) will be shared between Defence and the supplier.

4.65 If the actual cost exceeds the target cost, the supplier is paid its costs plus the target fee, less a proportion of the over-run in accordance with the share formula. If the actual costs are less than the target, the supplier is paid its costs plus the target fee plus a proportion of the under-run.

4.66 There are many possible incentives available for use in incentive contracts and a common alternative in sustainment contracts is to link payments to a sliding scale of achievement against key performance indicators. This concentrates supplier attention on consistently high performance and continuous improvement and innovation throughout the entire contract period. These types of incentive contracts are known as performance-based contracts.

Alliance contracting

4.67 Large contracts that involve significant development or integration with other systems need a great deal of mutual interaction between the supplier and Defence. This interaction will result in changes to Defence's specifications, with consequent cost and schedule impacts that need to be renegotiated. In these situations, Defence may prefer to adopt alliance contracts to encourage cooperation between the contracting parties.

4.68 The emphasis in alliance contracts is on building strong commercial relationships. The underlying premise is that open communication and trust between alliance participants enables:

- early identification of risks and resolution of issues;
- cost reduction through continuous improvement and innovation; and
- the provision of quality project outcomes with reduced costs for all participants.

4.69 Defence considers alliance contracting approaches when the characteristics in a project make traditional contracting approaches less suitable and analysis demonstrates that the benefits of managing risks in an alliance contracting arrangement outweigh the significant costs of establishing and supporting the alliance.

4.70 In order to meet the Commonwealth's legislative and policy accountability requirements, Defence uses a number of modifications to the 'pure' alliance approach. Hybrid alliance approaches enable the Commonwealth to capitalise on the collaborative relationships with industry while preserving more traditional contract rights and remedies. This protects the Commonwealth's financial and risk exposure. Key modifications to the pure alliance approach can include:



- a clear requirement under the contract that it is the industry participants that have the obligation to deliver the contract;
- alteration of the 'no fault, no sue' approach to enable the Commonwealth to terminate for default and seek damages in certain circumstances;
- collective decision making and governance structures that still enable the Commonwealth to issue binding directions on significant matters;
- a clear liability regime between the parties where not all cost or outcomes are shared by the parties;
- industry participant obligations are generally joint and several;
- payments of fees are moderated by progress and can be suspended until key milestones are achieved;
- ability for the Commonwealth to step in and complete the program in certain circumstances;
- liquidated damages; and
- retention of performance guarantees.

CASE STUDY 5: THE AIR WARFARE DESTROYER ALLIANCE

The current project to build three air warfare destroyers uses an alliance-based contract because a great deal of mutual decision making is required by the suppliers and Defence (including on cost/capability trade-offs) to be successful.

The Air Warfare Destroyer Alliance is a trilateral agreement between Defence, the shipbuilder (ASC Pty Ltd) and the combat system systems engineer (Raytheon Australia). This hybrid contracting methodology aligns supplier and Defence interests through joint responsibility for program outcomes. The alliance is based on a number of principles that foster mutually beneficial relationships while retaining some traditional contracting remedies and incentives. Some of the main features include:

- cooperation and collaboration through the use of integrated project teams;

- a 'best for program' culture;
- transparency via open book accounting;
- collective decision-making;
- shared risks and collaborative risk management;
- liquidated damages;
- key performance indicators and incentives for early delivery; and
- robust governance structures in order to resolve issues at the lowest possible level.

Alliance participants are reimbursed direct costs, with profit (including corporate overhead) at risk depending on the overall program outcomes (including cost, schedule and capability). Cost overruns and underruns are shared through adjustments to the fee.

Public-private partnerships

4.71 A public-private partnership (PPP) arrangement is generally considered for major asset and infrastructure procurements and is often used to support, or in conjunction with, the delivery of related services. Specifically, the potential for a PPP approach exists where there is opportunity to:

- acquire long term contracts (up to 15 – 30 years) involving asset based procurement, with a whole-of-life cost in excess of \$100 million;
- group a range of individual service and asset provision contracts into a single long term contractual arrangement; and
- implement a performance-based contract.

4.72 The appropriate use of PPPs can provide significant benefits to the public sector, such as access to specialist expertise and innovation, the opportunity to transfer risk to those better able to manage it, and improved project management. Other advantages include:

- a strong incentive for the contractor to maintain high standards of service over the project's life cycle, as both its capital and future profit are at risk under the payment regime if performance standards are not met;
- services provided on a timely basis as payment is dependent upon delivery;
- a better understanding of the total cost of providing the required service, which will ultimately lead to more efficient use of public money;
- a legal commitment by the contractor to the price agreed in the contract (plus any stated inflationary components), provided the agency does not change its output or scope requirements; and
- a strong incentive for the contractor to adopt innovative and more efficient ways of delivering the asset and associated services in order to reduce its costs while meeting performance standards.

4.73 However, value for money may be difficult to achieve as it is often more expensive for the private sector to raise capital than for the Australian Government to do so directly. In addition, PPP arrangements often involve a more complex set of operational, management and financial risks than traditional procurement approaches.

4.74 Equitable risk allocation is particularly difficult with assets that are used in combat and PPPs are less likely in those cases. Any consideration of PPPs requires engaging financial modelling, project financing, risk assessment and tax specialists to help determine the implications of available options for the relevant agency and the Australian Government. Finally, it is not always possible to transfer the risks that are unique to some Defence acquisitions to the private sector at a reasonable cost.

SEEKING OPPORTUNITIES FOR GROWTH

4.75 In the past, Australia sought to develop and maintain its defence industries through schemes that guaranteed a share of work to local firms through offsets or targets. This proved to be counterproductive; by sheltering local firms from foreign competition, such schemes impeded productivity gains, reduced the competitiveness of the local operators, and resulted in industry segments that lacked depth.

CASE STUDY 6: WHY OFFSETS DON'T WORK³⁶

In 1981, the F/A-18 Hornet was selected to replace the RAAF's ageing Mirage fighters. The announcement included details of an industry program under the then Australian Industry Participation (AIP) program and included both 'designated' and 'offset' work. Designated work consisted of activities conducted by Australian industry for the Commonwealth's own strategic reasons and attracted a cost premium. Fourteen Australian companies participated in the designated work, which was completed in 1989. The program also included offset work, in which 47 Australian companies participated

The total cost premium to the Commonwealth of the F/A-18 AIP program was about 17 per cent of the acquisition and support costs. To justify this, the 'flow-on' benefits to Defence and defence industry were expected to include additional work for Australian industry, in excess of the investment costs and the skills and technology transfer, which could be used on the F/A-18 and other programs.

A departmental review of the F/A-18 Industry Program, published in 1994, found that few

of the stated industry objectives were fully realised. While several of the participating companies were able to secure new contracts, the Report noted that:

- '... the expected level of follow on support for the Australian F/A-18 ... [did] not eventuate and the resulting incremental sales were, on average, below industry's expectations';
- 'Industry, on average, has been even less successful in its commercialisation via offset sales and sales beyond offsets, despite the US prime's obligations'; and
- 'US subcontractors generally refuse to allow Australian firms to continue to manufacture their products or use their processes beyond the mandated production program'.

The report concluded that 'based on these results, the F/A-18 designated work program must be regarded less than successful in providing Australian Aerospace Industry with the degree of ... opportunities that Government and Defence claimed would flow from these programs.'

4.76 In general, offsets and quotas do not work. They provide a revenue stream only for the period of the acquisition contract and related only to the goods being procured at the time. For example, applying an offsets approach for JSF would only see Australian industry competing for work on about 100 aircraft, as opposed to the current situation where they are competing for work on more than 3000 aircraft – a much more significant revenue stream.

4.77 Instead of protecting local defence firms from foreign competition, Defence now seeks to increase the opportunities for them to win work in global programs. This represents a fundamental move away from offsets. Under this policy, there will be no local industrial participation targets. Any nominated local industry activities will be individually costed and will only be funded as part of the Defence procurement process if they are deemed to represent value for money.

³⁶ Department of Defence, Industry Involvement & Contracting Division, *Review of the F/A-18 industry program*, March 1994.

4.78 Seeking opportunities for growth is not only about increasing exports. It also encompasses increasing opportunities for local growth through opportunities generated by the Australian Industry Capability (AIC) program (see Chapter Five). The AIC program requires tenderers to provide AIC plans which demonstrate how they will maximise opportunities for Australian companies by market testing their capabilities and competitiveness. The nature of Defence projects can provide an advantage to Australian companies over overseas firms, particularly in sustainment. However, they must still form the basis of a commercial solution by winning work on merit.

4.79 Some global primes are accustomed to doing business in overseas markets distinguished by Government protection. If they intend to work with the Australian Government, they need to be aware that Australia's defence market is different from protected markets overseas.

4.80 The Government recognises that there are barriers to open competition in defence procurement in some overseas countries and is working with its partners to address this issue through binding agreements and collaborative programs. It also has other measures to address protectionist approaches – the Defence Export Unit promotes Australian defence industry in markets around the world, and the AIC and Global Supply Chain (GSC) programs offer opportunities to become part of the supply chain of the global primes. In addition, the Government also has in place a range of programs to improve the competitiveness of Australian defence industry through developing the skills of the workforce and fostering innovation.



Encouraging responsible exports

4.81 Given the lucrative opportunities available in the global supply chain, encouraging exports is a crucial element of the Government's defence industry policy. Exports can develop and enhance industry capabilities by sharing development and non-recurring engineering and overhead costs with other customers. In addition to the benefits for exporters, finding overseas customers for Australian products and services used by the ADF helps to create economies of scale for Defence.

4.82 The Defence Export Unit (DEU) was established in 2007 to boost Australian defence industry exports and advance important industry capabilities required to sustain the ADF. The DEU promotes Australian defence industry overseas, matches Australian company capabilities to identified overseas export opportunities, provides advice to Australian industry on defence exporting and available assistance and coordinates a whole of government approach to defence exports. To date, DEU has helped Australian companies win contracts in excess of \$550 million. The DEU includes senior military officers (one from each service), who act as Defence Materiel Advocates to help open military doors and promote Australian capabilities to foreign governments.

4.83 Australian defence industry capabilities are not always as well known or understood in the international marketplace as they should be, and they are often not considered in the critical early stages of an overseas procurement project. For this reason, DEU is developing new export campaigns with other Government agencies to promote Australia's defence industry and to better target foreign defence requirements that match Australian defence industry capabilities.

CASE STUDY 7: AN AUSTRALIAN SME SUCCESS IN THE US

During 2009, the DEU assisted eight Australian companies to present proposals to the US Department of Defense Comparative Testing Office (CTO). The CTO is a 'gateway' to doing business with the US Armed Forces, with participation in the program often leading to sales to the US military. Of the eight proposals that Australia submitted, five were accepted for further evaluation. For Australia to gain five out of the nineteen programs awarded worldwide in 2010 is testament to Australian industry's innovation and competitiveness.

One of the companies that the DEU promoted was Marathon Robotics Pty Ltd. This small New South Wales company produces an innovative and unique robotic technology called the Rover system that aids live fire training. The CTO was

very impressed with the capability and potential of the Rover system.

In September 2009, the DEU led a trade mission to the 2009 US Modern Day Marine Exhibition, which included Marathon Robotics. The US Marine Corps was so impressed with the Rover system that they placed an immediate order worth several million dollars to further evaluate the system. In April 2010, the US Marine Corp signed a contract which includes nine separate further purchase options that has the potential to generate over US\$200 million of export sales. These initial sales and the CTO program are likely to generate more interest across the other elements of the US military and the potential for greater export sales.

Defence export controls

4.84 The proliferation of conventional arms and weapons of mass destruction (WMD) pose a potential threat to regional and global stability. It is in Australia's national interest to ensure that would-be proliferators are denied access to defence and dual-use goods, services and technologies that may contribute to illicit activities. Australia also takes its obligations under United Nations and other sanctions regimes seriously. In addition, it is a member of many international treaties and regimes that pursue a common approach to export control.

4.85 The Minister for Defence has legislative responsibility to authorise or prohibit the export of defence and dual-use goods, or the supply of services or technologies that are of proliferation concern. It is important that industry understands the regulatory framework for export controls and their obligations to comply with these regulatory requirements.

4.86 Goods and technologies that are most likely to contribute directly to proliferation activities are listed on the Defence and Strategic Goods List (DSGL).³⁷ These regulated items require export approval and it is unlawful to export them without a permit or licence.

4.87 The general effectiveness of the 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.

4.88 It is not possible to identify or describe all the non-regulated goods and technologies which may contribute to a WMD or missile program. Where the export or supply of these goods and technologies might contribute to a WMD program, the Minister for Defence has the power under the Weapons of Mass Destruction (Prevention of Proliferation) Act 1995 (WMD Act) to prohibit them. In considering an application, the Minister takes into account a number of factors including the utility of the good, the end user and the risk of diversion. Defence uses both open source and classified information to assess these factors. Prohibitions under the WMD Act are rare and the Australian Government does not exercise such powers lightly.

CASE STUDY 8: DEFENCE EXPORT CONTROLS

Regrettably, not all commercial transactions are what they seem. Australian goods and services have been exploited by proliferators for illicit purposes despite their sale having every appearance of being legitimate.

For example, in 2003, the Australian Government approved the export of a mass spectrometer to Iran to be used for civilian agricultural and medical research, including cancer diagnosis. The Australian Government

received, as part of the export application, assurances from the Iranian Government that the spectrometer would be used for the stated purposes.

However, in 2004 the International Atomic Energy Agency discovered that this Australian-supplied spectrometer had been used to support the Iranian nuclear program by testing enriched uranium samples.

³⁷ Further information on the DSGL is available at <http://www.defence.gov.au/strategy/deco/dsgl.htm>

4.89 Case Study 8 provides an example of a dual-use good being exported and diverted to an illicit program against Australia's national interests and demonstrates why the Government takes its export control obligations so seriously.

4.90 The Defence Export Control Office (DECO) assesses applications for the export or supply of defence and dual-use technologies on behalf of the Minister. DECO seeks the advice of other Government agencies, such as the Department of Foreign Affairs and Trade and the Australian Customs Service, to ensure a whole-of-government approach to export controls. DECO conducts an outreach program and provides free training to industry to raise awareness of and promote compliance with the export control regulations.

4.91 Further information about defence and dual-use export controls, the WMD Act and support for exporters is available at www.defence.gov.au/strategy/deco

CASE STUDY 9: WEAPONS OF MASS DESTRUCTION (PREVENTION OF PROLIFERATION) ACT 1995

The WMD Act enables the Australian Government to prohibit goods and the provision of services, including technology, where the Minister for Defence has reason to believe or suspect that if delivered to a particular place they would or might be used in a WMD program. This also incorporates ancillary activities used to support such programs including those used to maintain facilities or equipment, operate machinery or equipment, handle or move materials or components contributing to nuclear, biological or chemical weapons that are capable of causing mass destruction or missiles that are capable of delivering such weapons.

The Act applies to transactions done in Australia, or transactions done outside Australia by Australian citizens; a person ordinarily resident in Australia; or bodies incorporated in Australia.

The following types of transactions may be controlled by the WMD Act:

- the supply of goods both within and outside Australia;
- the export of goods and technology which are not regulated by the Customs Act 1901; and
- providing services, such as:
 - the provision of technology or know-how;
 - the procuring of another to supply or export goods or provide services;
 - working as an employee, consultant, or advisor; or
 - training.

International materiel cooperation

4.92 DMO maintains a number of relationships through formal government-to-government agreements with allies and other partner nations in order to:

- ensure that Australia has access to the world's best technologies, systems and capabilities;
- promote best practice in defence contracting;
- explore collaborative activities and benchmarking of acquisition and sustainment processes;
- coordinate global responses to commercial behaviours in the international defence supply chain;
- set in place bilateral quality assurance arrangements, saving money for both industry and governments; and
- streamline technology transfer arrangements.

4.93 These agreements provide a framework for industry to enter into arrangements with foreign counterparts. By establishing these agreements, DMO has negotiated common procedures on issues such as technology transfer, export control regulations and intellectual property rights. These arrangements can assist an Australian defence company looking to partner with a foreign supplier. DMO's offices in London and Washington are also available to assist companies with introductions and advice on doing business in the Americas, the United Kingdom and Europe.

Foreign Military Sales

4.94 The Foreign Military Sales (FMS) program is a US Government program through which eligible foreign governments can purchase US military equipment, services and training from the US. Australia has used the FMS program since 1963 and has made over 500 separate acquisition and support arrangements under FMS in the last ten years.

4.95 The FMS system includes a 'total package approach', which offers Australia the opportunity to acquire the full complement of goods and services necessary to field, maintain and employ major items of equipment. This concept addresses areas such as training, technical assistance, publications, initial and follow-on support as necessary.

4.96 The Australian Government appreciates that Australian industry has some concerns with the FMS program – and the AIC plans and the GSC program are designed to address some of these concerns.³⁸ However, when considering an FMS procurement, the Australian Government needs to consider a range of issues, including:

- the fact that some equipment (such as classified systems) is only available through the FMS system;
- the need to have access to US inventory in times of emergency or for operations;

³⁸ Further detail on these programs is available in Chapter Five and Annex D.

- the reduced prices achieved through economies of scale when procurements are combined with US acquisitions;
- the lead times involved in a procurement; and
- Australia's long term military-military relationship with the US, including interoperability³⁹ of forces.

4.97 Australia pays all costs associated with an FMS acquisition through an administrative charge for each procurement. However, in order to encourage standardisation of US equipment with Australian forces, the US occasionally waives these charges, which can result in the business case for an FMS acquisition being stronger than other procurement options. Overall, an FMS acquisition can provide shorter schedules, lower risk, lower cost and improved operability with US forces.

4.98 There are also some disadvantages to FMS procurements, such as limited opportunities for Australian firms to join the global supply chain, especially where US production lines are fully established and limited access to source code and data to enable Australian enhancements. The Government evaluates all of the advantages and disadvantages of FMS procurements before making an acquisition decision.

4.99 Australian industry is well positioned to assist the ADF in supporting and maintaining FMS equipment fleets. Additionally, under both the AIC and GSC programs (discussed in greater detail in Chapter Five), companies offering US military equipment under an FMS approach are required to examine opportunities for Australian industry on a best value model. For example, under the Boeing GSC deed, a number of Australian companies have won work on the new P-8 Poseidon Maritime before the Australian Government has made an acquisition decision on this platform. In addition, local companies also won work on the CH-47 Chinook aircraft prior to the Government making an acquisition decision on that platform.

Working with other Australian Government agencies

4.100 The Australian Government offers a range of programs to assist potential Australian exporters. In particular Austrade, the Government's trade and investment development agency, provides a range of services to Australian businesses looking to export their products and services. Austrade has a network of offices in over 55 countries and offers practical advice, market intelligence and support to Australian businesses of all sizes.

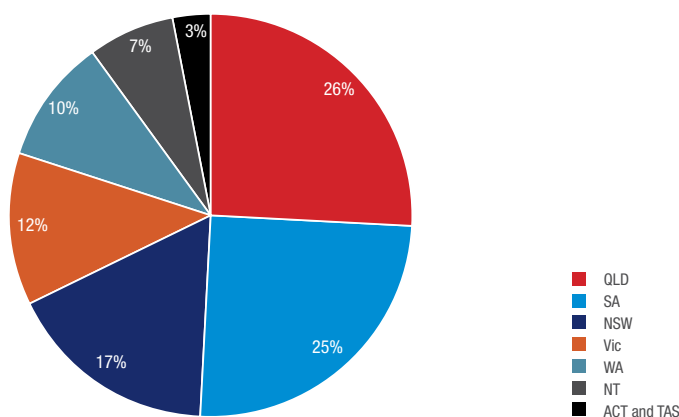
4.101 The DEU works closely with Austrade; the Department of Innovation, Industry, Science and Research; state and territory governments; and industry associations to facilitate and promote defence exports and opportunities for Australian companies.

³⁹ The ADF defines interoperability as 'the ability of systems, units or forces to provide the services to, and accept services from other systems, units or forces, and to use the services so exchanged to enable them to operate effectively together, be they single Service, joint, combined (coalition) or whole of nation (domestic).' Interoperability should not be confused with integration, which is when platforms and systems are generally designed and built with tightly bound connections for the express purpose of creating a larger system.

Working with state and territory governments

4.102 As Chart 5 shows, Australia's defence industry is concentrated on the east coast and in South Australia. However, it also shows that all Australian states and territories participate in the defence industry. Several state governments have recently engaged the defence market by providing capital investment and bearing risk that would normally otherwise be borne by industry. This offers an opportunity for Defence to work more closely with state and territory governments to align policies related to the defence industry in areas such as skills and infrastructure, leading to greater efficiencies.

Chart 5 – Defence industry representation by state and territory⁴⁰



4.103 Indeed, this work has already commenced. For example, under the Industry Skilling Program Enhancement (ISPE) initiative (see Chapter Five), and working with the state governments in Western Australia, South Australia and New South Wales, the Government has established the School Pathways Programs in Advanced Technology, Marine Studies and Advanced Manufacturing Industry.

4.104 The **Advanced Manufacturing School Pathways Program** is being implemented in the Hunter Region of New South Wales to increase the pool of young people ready to move from school into further education, apprenticeships, internships, and part-time work/study combinations in defence industry. The program is led by Regional Development Australia – Hunter and involves study visits, work placements and the contextualisation of curriculum to ensure participating students have the skills required for a career in defence industry.

4.105 The **Advanced Technology School Pathways Program** is being implemented in South Australia and concentrates on advanced technology, with the aim of increasing the number of students studying mathematics, science and engineering. The program involves lead and partner schools developing industry focused curriculum and establishing (or strengthening) links with defence industry.

4.106 The **Marine Industry School Pathways Program** is being implemented in Western Australia and provides students with the skills necessary to pursue a career in the maritime sector and increasing the number of students pursuing mathematics, science and engineering. Links with industry are central to the program.

⁴⁰ DMO internal analysis.



4.107 These three programs demonstrate the increasing cooperation between federal, state and territory governments to support Australia's defence industry.

4.108 As Australia's population ages, and as competition for skilled employees increases, these programs aim to increase the pool of skilled young Australians who may join the ranks of the Defence industry in the future.

BUILDING SKILLS, INNOVATION AND PRODUCTIVITY

4.109 Productivity growth is a key determinant of long term living standards and has contributed significantly to Australia's per capita gross domestic product (GDP) growth over the past three decades. Further improvements in productivity are crucial for Australia's future economic prosperity. Australia's recent productivity performance has slowed, averaging only 1.4 per cent over the past decade, compared with 2.1 per cent in the 1990s.⁴¹

4.110 Innovation is a key driver of productivity. It refers to the introduction of new or improved goods and services and the implementation of better processes. It can include the development of new technology, an adaptation of existing technology to a new use or organisational and managerial change. A competitive and stable economy is important for encouraging innovation. Competition increases the incentive to innovate and encourages the flow of information between firms and across economies.

4.111 Australia cannot maximise its productivity without increasing its capacity for invention and discovery. Innovation is needed to improve the services industry delivers and the way it delivers them. It is the key to making Australia more productive and more competitive. Successful innovation requires creative, management, organisational, teamwork and entrepreneurial skills. It depends on the ability of individuals to build and foster relationships that provide for knowledge sharing, scenario planning, collaboration, flexibility and lateral thinking, business management and promotion and marketing skills. The challenge now is to develop the innovation skills needed for the future, which means improving skills and creativity across industry.

⁴¹ Australian Government, *Australia to 2050: future challenges – The 2010 Intergenerational Report*, Canberra, 2010, p. 22.

4.112 It is especially important to build the innovation capacity of smaller firms. While new business models and information and communication technologies offer Australian businesses direct access to global supply chains and distant markets, many small firms lack the technical capacity to exploit these opportunities. This makes it hard for smaller Australian firms to develop and commercialise new ideas, which means that they can be forced offshore, where the value they create is captured by other countries, rather than Australia.

4.113 Australia's SMEs have often provided an innovative niche capability in support of Defence, especially in the area of high technology. Due to the value of these capabilities to the ADF's combat and logistical edge, Defence has established the programs outlined in Chapter Five to enable local companies, especially SMEs, to improve their innovation, productivity and competitiveness.

4.114 It is also important to recognise the links between building skills and innovation and industry identifying and obtaining further opportunities for growth. Companies with highly-skilled and innovative workers will be in a better position to take advantage of these opportunities as they arise than companies whose record in these areas is not as strong.

Supporting innovation

4.115 Defence, through DSTO, provides a range of mechanisms that Australian firms can access to build their science and technology expertise and capabilities to support Defence. These include engagement in Commonwealth-funded programs, such as the Cooperative Research Centres program, collaborative research and development with industry, and licenses for DSTO-developed technologies and intellectual property. Additionally, there are several Defence programs open to local industry to improve their capacity for innovation. These programs are discussed in Chapter Five.

Building a skilled defence industry

4.116 One of the challenges in maintaining a competitive defence industry sector in Australia is ensuring that the numbers and skills of the workforce match current and future demands. Defence industry is faced with an ageing demographic, quickly changing technologies and competition for skilled workers from other areas of the economy such as the mining and energy sectors.

4.117 While a whole-of-government approach is necessary to address economy-wide challenges, Defence has developed a number of specific programs that defence companies, especially SMEs, can use to overcome skill and capability shortfalls. These programs, described in Chapter Five, are aimed at enhancing industry capability and competitiveness by addressing skills shortages and improving productivity.

ScoreCards and productivity

4.118 An important way to encourage higher productivity within Australian defence industry is to provide major Defence suppliers with regular advice on their contract performance. This includes, where confidentiality permits, data that benchmarks a supplier's performance against others operating in similar areas of technology. DMO has already begun providing performance benchmark reports to all participants in its Company ScoreCard program.

4.119 The ScoreCards provide the Government with regular feedback on companies' contract performance within Australia's defence industry and are an important source of information in Defence tender evaluations. Past performance is an indicator of a company's future performance on Defence contracts and will be given greater consideration by future tender evaluation boards. Similarly, benchmarking reports are a powerful feedback mechanism for companies seeking performance improvement in Defence markets.

4.120 The Government will expand ScoreCards data collection to monitor adherence to the Strategic Reform Program. In addition, use of ScoreCards will be expanded, where practical, to include a larger number of major subcontractors on defence projects. Further, ScoreCard performance benchmark reports will be issued annually to all industry participants in the program.

Coordination of programs

4.121 Implementation of the Defence White Paper 2009, the Public Defence Capability Plan, and the Strategic Reform Program (including the Government Response to the Mortimer Review) present major challenges for both Defence and industry. They require Defence and DMO to act with greater transparency and defence industry to become more responsive, productive and competitive.

4.122 The programs available to industry (detailed in Chapter Five and Annexes B – E) represent a comprehensive package that defence companies, particularly SMEs, can access to enhance their competitiveness locally and globally and hence enhance their ability to support the ADF.

4.123 The individual programs are sponsored by different areas of Defence and operate at different stages of the capability development development life cycle. To better coordinate the innovation programs that Defence makes available to industry and to improve communication regarding these programs, Defence will establish a Defence Industry Innovation Board. A senior executive from the defence industry or innovation sector will chair the Board, which will include membership from the primes, the SME and innovation communities, DMO and DSTO, the Department of Innovation, Industry, Science and Research, industry associations, unions and other government departments.

5

PRACTICAL STEPS TOWARDS A SMARTER AND MORE AGILE DEFENCE INDUSTRY

5.1 The Government has established a range of programs to give effect to its defence industry policy and is announcing a number of new initiatives and refinements to existing policy in this Statement. These programs can be grouped according to the Government's four key defence industry policy principles:

- setting clear investment priorities;
- establishing a stronger Defence – industry relationship;
- seeking opportunities for growth; and
- building skills, productivity and innovation.

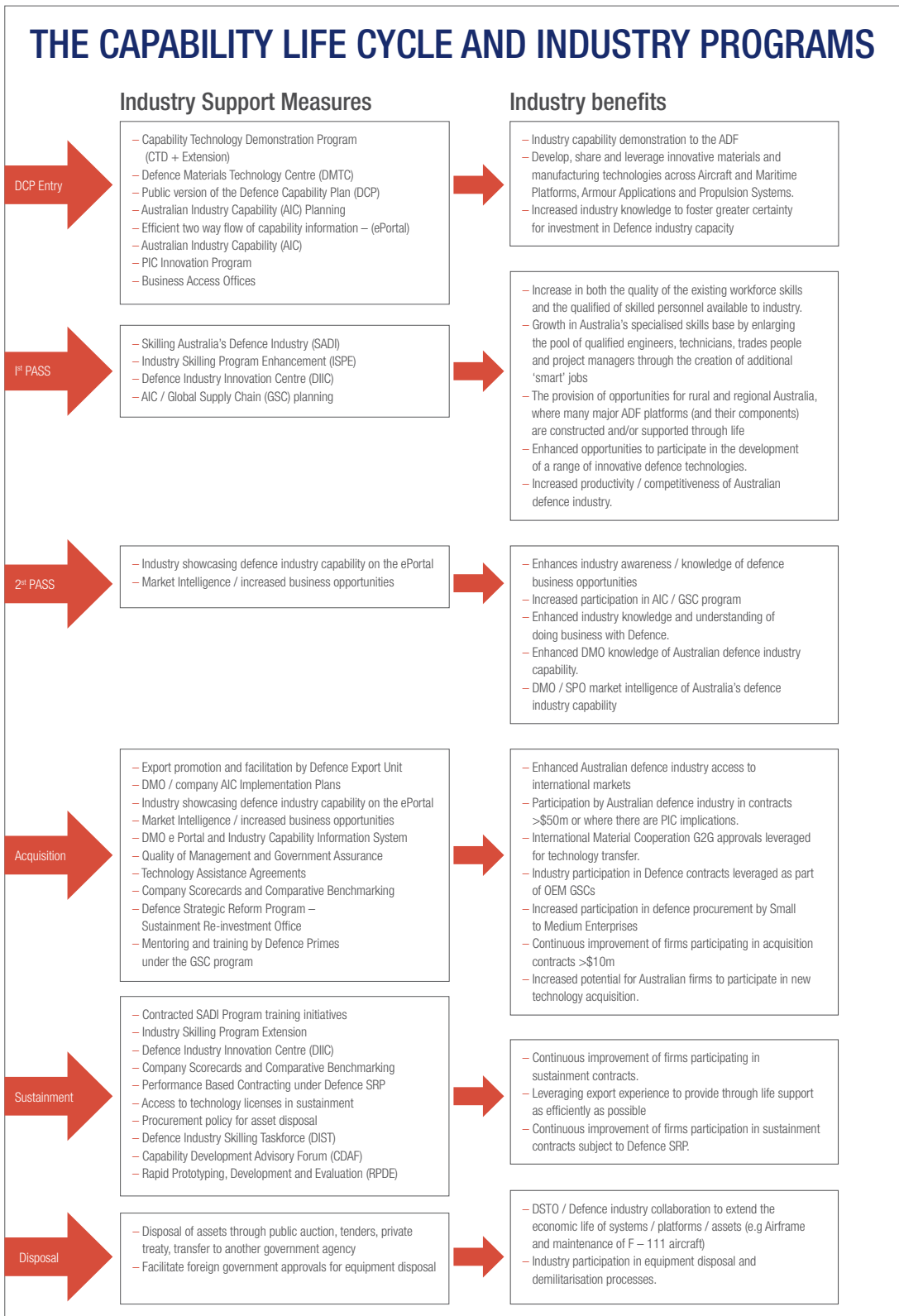
5.2 This Chapter outlines the initiatives the Government will promote in each of these four areas. The Annexes to this Statement contain more detailed explanations for each initiative and identify points of contact where interested parties can learn more.

5.3 The Government, through Defence and DMO, is investing a total of \$445.7 million in programs specifically for Australian defence industry out to 2018-19. This funding includes \$44.9 million to sustain the Priority Industry Capabilities (PICs), \$59.9 million for the Global Supply Chain (GSC) program, \$34 million for the Defence Export Unit, \$89 million for the Skilling Australia's Defence Industry program, \$49.2 million for the Industry Skilling Program Enhancement package and \$27.1 million for the Defence Future Capability Technology Centre Program. Finally, as approved in the 2009 Public DCP, the Government is investing \$51 million in research and development through funding for the Capability and Technology Demonstrator program, as well as \$31.6 million for the Capability and Technology Demonstrator Extension Program.

5.4 The remaining funds are for a number of information and communication technology-enabled initiatives, such as the Defence+Industry ePortal and the Company ScoreCard program, as well as additional funding to provide the DMO Business Access Offices with greater flexibility to assist local industries and funding for the New Air Combat Capability Industry Support Program.

5.5 As Figure 2 shows, there are individual industry programs that relate directly to specific elements of the capability development life cycle. This requires DMO, Capability Development Group and other areas of Defence to work together to maximise the benefits and ensure that resources are directed to the areas of highest priority.

Figure 2: The Capability Life Cycle and Industry Programs



5.6 These programs will be most effective when they complement each other to support the growth of the Australian defence industry across the entire capability development cycle. For example, to enable SMEs to break into global supply chains, the Defence Industry Innovation Centre can help them to become ‘internationally competitive’ by benchmarking their performance against best practice and facilitating access to programs from Austrade and federal and state governments. Once they have the resources, capability and capacity to compete internationally, companies can then enter the Global Supply Chain Program.

Setting clear strategic priorities

5.7 This Statement has identified Defence’s strategic priorities for defence industry and the goals and principles of its defence industry policy. Through the Defence White Paper 2009 and the Strategic Reform Program, the Government has also outlined its future investment priorities for Defence and the ADF.

5.8 In Chapter Four, this Statement outlined the measures that the Government may use to maintain the PICs. One of the key measures is through the creation of the PIC Innovation Program.

5.9 PIC Innovation Program (\$44.9 million to 2019). The Government has decided to refocus the PIC Centres of Excellence concept which was announced in the Defence White Paper 2009. The funding set aside for the PIC Centres of Excellence will be reallocated to the new PIC Innovation Program to provide more direct and practical programs to Australian defence industry, particularly SMEs, for PIC related activities.

5.10 Under the PIC Innovation Program, companies will be encouraged to submit innovative proposals (relating to one or more PICs) to Defence for direct funding. For example, a company may seek to develop their capability into another domain or develop a new application. To attract funding, proposals must clearly support one or more PICs and must have good prospects for driving additional work in Australian industry or provide cost savings for future Defence contracts.

5.11 Funding provided under the PIC Innovation Program will be in the form of a contractual arrangement with the company, and will be limited to \$3 million to \$4 million in any one instance. Companies will have to match this funding and will also be obliged to report regularly to Defence on the application of the funds and on the company’s future business prospects. Contracts for non-Defence customers or export orders resulting directly from the application of these funds will trigger a partial or total repayment by the company of the amount previously paid by Defence.

5.12 Defence contracts will be expected to reflect a price discount equivalent to the amount previously provided by Defence. The amount discounted will be transferred from the acquisition budget of the project to the PIC Innovation Program to renew its funding pool. Any applications relating to activities normally eligible for funding under the Capability and Technology Demonstrator program would be referred to that program for prioritisation and would not be processed through the PIC Innovation Program.

5.13 PIC Innovation Program proposals will need to demonstrate that the capability to be acquired would not have otherwise been funded by the company (or its owner) in the ordinary course of business. Proposals will also need to ensure that competition aspects are addressed – Defence will not attempt to ‘pick a winner’ and then experience subsequent price increases imposed by a monopoly supplier.

5.14 Defence will develop a set of guidelines for the operation of this program in time for the first annual funding round in late 2010. A standing panel of Defence stakeholders will be established to recommend which of the competitive proposals will be selected for funding. The Defence Industry Innovation Board will oversee the PIC Innovation Program and advise Defence and the Government on appropriate resource allocation under the program.

Establishing a stronger Defence – industry relationship

5.15 Having identified priorities for Defence, the ADF and Australia's defence industry, the Government needs to ensure that it clearly communicates these priorities to industry. Consequently, a key part of the Government's defence industry policy is establishing a stronger relationship between Defence and industry.

5.16 A central part of developing a stronger Defence – industry relationship is to ensure that there is clear, close and consistent communication between the two groups. Defence will provide accurate, timely information to defence industry to enable it to make sound investment decisions and to position their companies for the opportunities in Defence acquisition and sustainment projects. The initiatives outlined later in this Chapter further complement those identified below.

5.17 Public Defence Capability Plan. The Public Defence Capability Plan is the Government's primary means for communicating its capability needs and intentions to defence industry. It lists all Defence's unclassified major capital acquisition projects and informs industry and other interested parties of the range of Defence acquisition projects and the opportunities these present.

5.18 As the Government announced earlier this year, the Public DCP will return to its ten-year forward view to allow industry to make better investment decisions and to develop teams to compete for Defence projects. The Government has made a series of changes to the Public DCP to include additional – and more accurate and reliable – information to guide industry's investment and skilling decisions. These changes were outlined in Chapter Three.

5.19 Capability Development Advisory Forum. The Capability Development Advisory Forum (CDAF) provides advice to Defence on high level capability development issues. This enables industry to communicate regularly with senior capability decision-makers in Defence on a range of capability issues. CDAF has 12 members: two permanent Defence members (Chief, Capability Development Group and CEO DMO) and ten rotating members from industry (four representatives from large contractors, four from SMEs and two from industry associations). It will meet twice a year in the margins of major Defence and industry events, such as the biennial Defence and Industry Conference.

5.20 In the future, CDAF will also be a conduit for industry views early in the capability development process to assist Defence to test capability proposals. CDAF is most effective and valuable when industry participants are frank and open in their discussions with Defence.

5.21 Defence+Industry ePortal. The Defence+Industry ePortal is a web-based source that provides comprehensive and authoritative information on industry capability for Defence and Defence information for industry. It provides access to reliable information on opportunities for companies, including SMEs,

to participate in Defence acquisition and sustainment programs. This single point of communication makes it easier for defence industry to share information with other companies and obtain further details on Defence projects or programs.

5.22 The ePortal also provides a searchable industry capability information system to enable business (especially SMEs) to register and showcase their capabilities and obtain access to information on business opportunities. This enables companies to share information on their respective capabilities and to form teams to compete for Defence projects. In providing information to the ePortal, it is important that companies offer complete and accurate information that is of value to supply chain participants.

5.23 The Government launched the ePortal on 1 July 2008 and since then, there have been over 218,000 hits on the home page and more than 33,000 capability searches. In addition, the ePortal now includes linkages to the Defence Minors Program, which allows industry to become more informed on the status of entry level projects, particularly those within the grasp of SMEs.

5.24 DMO Business Access Offices. The DMO Business Access Offices are regional centres of expertise located in each mainland capital city. They provide a local point of contact for industry, particularly SMEs, to engage with Defence, and offer one-on-one guidance, training and briefings to industry.



5.25 They also provide local Defence knowledge on defence industry matters, including on emerging company capabilities. They liaise closely with state and territory governments and are the local contact point for the Unsolicited Promotional Product Offer Scheme and the Defence Recognised Supplier Scheme.

Seeking opportunities for growth

5.26 In addition to winning work on Australian materiel procurement and sustainment, Defence recognises that access to opportunities in the global defence market can help to build viable Australian defence companies. In view of this, Defence has developed a number of programs to assist and

prepare industry to compete in the global market. By improving Australian industry's capability and competitiveness, the programs outlined below will enable local industry to better support the ADF's future capability requirements. All of these initiatives are targeted primarily at SMEs to provide them with access to programs that they can use to improve the skills and innovative capacity of their workforce and to increase their access to export markets.

5.27 The Government recognises that there are barriers to open competition in defence procurement in some countries and is working with its partners to address this issue through collaborative programs and binding agreements. The programs outlined below form part of the Government's response to these concerns. The AIC and GSC programs relate to several different elements of the capability development life cycle (see Figure 2).

5.28 Australian Industry Capability Program. A key Government objective is to use major Defence projects to create opportunities for Australian defence industry. To address this issue, the Government launched the Australian Industry Capability (AIC) program in 2008 to maximise opportunities for Australian industry to compete in defence procurements on a best value basis.

5.29 Importantly, the AIC program⁴² addresses the capability needs of the ADF and seeks to improve the competitiveness of Australian defence industry. The program does not guarantee work for Australian firms, but gives them the opportunity to compete fairly on their merits. While the AIC program applies commercial leverage on prospective suppliers, only those firms that are efficient and competitive, and have the right product, will benefit.

5.30 Under the AIC program, all bids for Defence projects valued above \$50 million or projects with PIC implications must include an AIC plan to examine participation by Australian industry on a value for money basis. For procurements below \$50 million, bids are required to maximise cost-effective Australian industry participation. While there is no requirement to provide a formal AIC plan, details of local work must be summarised in an AIC schedule, which is a key component of a tender.

5.31 Source selection assesses the opportunities in the AIC plan under the value for money criteria. The successful tenderer's AIC plan is included in the contract as an enforceable provision. The AIC Program also applies to US companies offering US military equipment under the Foreign Military Sales program. These companies are required to examine opportunities for Australian industry on a best value model.

5.32 To provide additional impetus to the AIC and other related programs, Defence has created an AIC Implementation Unit which will:

- work within DMO to ensure that the AIC program is fully integrated into other industry programs, such as the Defence Export Unit, the GSC program, DMO Business Access Offices and the Defence Industry Innovation Centre;
- use procurements below the AIC threshold to further enhance Australian industry participation and improve the visibility of industry achievements; and

⁴² Further information on the AIC Program and the AIC Toolkit is available at www.defence.gov.au/dmo/id/aic. Based on the Public DCP 2009, Defence anticipates that about 90 projects will require AIC plans.

- enhance the implementation of AIC policy by:
 - engaging with Capability Sponsors and System Project Offices on all planned acquisition and sustainment projects to embed AIC requirements in these projects;
 - incorporating AIC policy requirements into key procurement documents; and
 - conducting random audits of System Project Offices to ensure that the AIC plans embedded in contracts are enforced.

CASE STUDY 10: AN AIC SUCCESS

Raytheon Australia, as part of the AIC program and project AIR 5349 Phase 2 (Super Hornet acquisition), identified Brisbane-based Microe Limited as a likely provider of chip technology for its V-3 radar warning receiver. This led to the signing of a contract worth about \$8 million.

Due to Microe's performance, quality and price on this contract, Raytheon subsequently established Microe as a long term capability partner under Raytheon's Global Supply Chain Deed arrangement with DMO. This has led to further contracts and likely work for Microe valued at between \$5 million to \$7 million per year.

5.33 Global Supply Chain Program (\$59.9 million to 2019). As part of its policy to identify opportunities for Australia's defence industry, the Government established the GSC program in 2009. The GSC program creates opportunities for Australian industry in the global supply chains of overseas prime contractors and their major subcontractors. The program targets foreign prime contractors and original equipment manufacturers (OEMs) at the point of most influence in the procurement cycle.

5.34 Under the GSC program, primes and OEMs develop company specific programs to evaluate Australian suppliers for participation in their global supply chain. Annexes established under the Deed provide funding for the prime to conduct GSC activities and contain the details of its proposed GSC endeavours. A GSC prime examines its production requirements and identifies suitable opportunities across all product lines before selecting qualified Australian companies to receive these bid opportunities based on a best fit. The Australian companies must have the capability and capacity to submit offers on a best value basis and win the work on merit against global competition.

5.35 It also delivers training and mentoring programs to Australian companies to better position them to take advantage of these opportunities. Participating Australian companies can improve production and management processes and are also better able to support the ADF's future capability needs.

5.36 The program aims to maximise opportunities for local companies to compete successfully in global supply chains. The Government has committed more than \$50 million over ten years to this program. Local industry, in turn, will have to commit resources to take advantage of the opportunities that the program offers.

5.37 A key part of both the GSC and AIC programs will be to educate overseas primes on the differences from previous practices. To date, the Government has signed Global Supply Chain deeds with three companies – Boeing, Raytheon and, most recently, Thales.

CASE STUDY 11: PRODUCTION PARTS AND WORKING WITH GLOBAL SUPPLY CHAINS

Defence's first experience in establishing GSC deeds was through working with Boeing to create the Office of Australian Industry Capability (OAIC). Production Parts was an early participant, drawing on their proven experience in the JSF project.

Managing Director of Production Parts Pty Ltd, Peter Nicholls, has had first hand experience in the benefits and challenges of global supply chains. 'Our company recognised the benefits in seeking work from offshore many years ago. Traditionally we were bidding on low volume work for our particular Australian needs. Production Parts now has the opportunity to bid

on larger global volumes' Nicholls said. 'But like all things it is not an easy street. Companies must be prepared to establish relationships with offshore primes and that means lots of overseas travel. One can't expect to make one trip and come back with an order. SME's need to recognise the costs of the initial commercial engagement – travel, tendering costs, quality requirements and so on all come at a price. One must also consider the volatility of our dollar and apply appropriate hedging to cover the risks of a widely fluctuating currency. But even given these challenges, the rewards of long term higher volume work makes the engagement very attractive.'

5.38 Defence Export Unit (\$34 million to 2019). Given the lucrative opportunities available in the global supply chain, encouraging exports is a crucial element of the Government's defence industry policy. The Defence Export Unit (DEU) was established in 2007 to boost Australian defence industry exports and advance important industry capabilities required to sustain the ADF. To date, DEU has helped Australian companies win contracts in excess of \$550 million. The DEU includes senior military officers (one from each Service), who act as Defence Materiel Advocates to help open military doors and promote Australian capabilities to foreign governments. The DEU was discussed in greater detail in Chapter Four.

5.39 New Air Combat Capability Industry Support Program (\$8.5 million out to 2014). This program was established in conjunction with the Australian Government approval to acquire the F-35 Joint Strike Fighter under Project AIR 6000. The objective of the program is to provide funding to Australian companies and research organisations to support the development of new or improved capabilities that may enhance winning work in the production, sustainment and follow-on development phases of the Joint Strike Fighter Program.

Building skills, innovation and productivity

5.40 Many companies, including SMEs, lack the skills and experience to build on an innovative design or a technological development to successfully compete for Defence business. Defence understands this and has put together a number of initiatives to develop the skills of industry to make companies more effective suppliers to Defence. Collectively, the initiatives outlined below are designed to improve the skills base for Defence industry and promote future innovation and creativity.

5.41 The programs outlined below predominantly target SMEs. The programs also target different and specific elements of the capability development life cycle, offering opportunities to industry to improve their skills across a range of areas.

5.42 Defence Industry Innovation Board. In line with this Statement's increased attention to innovation, to ensure a clear focus on delivering the ADF's capability needs and to assist in coordinating the wide range of industry programs that Defence manages, Defence will establish a Defence Industry Innovation Board.

5.43 The Board will be chaired by a senior executive from the defence industry or innovation sector, with membership from the primes, the SME and innovation communities, DMO and DSTO, the Department of Innovation, Industry, Science and Research, industry associations, unions and other government departments. As outlined earlier in this Chapter, the Defence Industry Innovation Board will also oversee the new PIC Innovation Program and advise Defence and Government on appropriate resource allocation under the program.

5.44 Skilling Australia's Defence Industry (\$89 million to 2015). Australia's defence industry faces a significant shortfall in both the quality and quantity of available skills. The Skilling Australia's Defence Industry (SADI) initiative offers opportunities to industry to generate additional skilled positions, to raise the skill level of existing employees, and improve skills training in defence industry, both in terms of quality and quantity. The program provides grants to companies for training activities where there is an identified skills shortage in technical, trade and professional skill sets including project management, engineering, technical trades, logistics and scheduling.

5.45 The long term purpose of this program is to ensure that industry has the skills to deliver the capability required by the ADF through expanding Australia's specialised skills base, providing opportunities for rural and regional Australia (where many major ADF platforms are constructed) and enhancing opportunities for companies to participate in developing innovative defence technologies.

CASE STUDY 12: FORGACS AND THE SADI PROGRAM

Funding provided under the SADI program has assisted Forgacs Engineering Pty Ltd to build its production team for the Air Warfare Destroyer project. Forgacs has dry-docking and engineering facilities located at ports across eastern Australia and is expecting to grow its workforce to more than 550 people during the AWD project.

In addition to employing skilled staff, Forgacs is in the process of recruiting 40 apprentices to work on the construction of hulls for the three new

Air Warfare Destroyers. Funding provided by the SADI program has enabled Forgacs to ramp-up ahead of its production requirements for the Air Warfare Destroyer by advancing training programs and recruiting new employees, including the apprentices. As Steve Morley, Forgacs' Group Operations Manager states, 'our continued commitment to apprenticeships, together with the assistance through the SADI Program has enabled us to retain our skilled employees and ensure the capability is utilised within defence industry'.

5.46 Industry Skilling Program Enhancement (\$49.2 million to 2014). As the economy expands in coming years, it is vitally important for Defence and defence industry to address the challenges associated with skill shortages and strong competition for those skills from other sectors. In addition, Defence and defence industry also need to increase the number of potential recruits to defence industry, beginning with school students. In particular, Defence and industry must ensure that these students have both the career pathways available to enter defence industry and that they have studied the subjects required for a career in defence industry.



5.47 To address these issues, the Government announced the Industry Skilling Program Enhancement (ISPE) package of initiatives in November 2008. The package, in conjunction with state and territory governments, defence industry and other agencies, seeks to expand the pool of skilled workers from which the defence industry can recruit; enhance employment and career pathways in the sector and address specific defence industry capability skills gaps. It also assists potential defence industry workers by increasing their knowledge of the career pathways available in defence industry. There are 14 specific initiatives under ISPE:

- the Advanced Manufacturing School Pathways program;
- the Advanced Technology School Pathways program;
- the Marine Industries School Pathways program;
- Defence Technical Scholarships;
- the Engineering Scholarship program;
- sponsorship of ReEngineering Australia;
- expansion of the DMO Institute;

- establishment of a Master of Military Systems Integration-Conversion degree;
- establishment of a Master of Systems Support Engineering degree;
- establishment of a Professional Doctorate in Systems Engineering degree;
- strategies to address skill shortfalls in the PICs;
- the Defence Industry Innovation Centre (see below);
- the Industry Downturn Response Strategy; and
- the Defence Industry Sector Branding Strategy.

5.48 All 14 ISPE initiatives (except the Engineering Scholarship Program, which will be tendered in late 2010) have been established or are in the final stage of development. The two postgraduate programs in Systems Support Engineering and Systems Engineering will be offered from late 2010 and defence industry can expect to apply for selected DMO Institute courses from mid-2010. In addition, industry associations and companies are already using marketing material incorporating the defence industry brand, while a number of career fairs or other activities have targeted surplus workers from other industries.



5.49 Defence Industry Innovation Centre – funded through the ISPE. The ISPE funds the Defence Industry Innovation Centre (DIIC) to increase the productivity, competitiveness and sustainability of SMEs that support Defence.

5.50 The DIIC is based in Victoria and has business advisers in Perth, Adelaide, Melbourne, Sydney and Brisbane. The business advisers deliver integrated, practical services that help SMEs improve productivity, build internal capability and capitalise on their potential growth, potentially including a business review. Some assistance is also provided to implement recommendations of the business review (which may include benchmarking against best practice and other diagnostic services), develop new ideas through the placement of researchers and for networking and education initiatives that focus on relevant innovations, technologies, expertise and best practice amongst firms.

5.51 The DIIC is operated by staff from the Department of Innovation, Industry, Science and Research and is part of the Government's Enterprise Connect network that helps Australian SMEs boost their productivity, innovation and competitiveness. Further information is available at www.enterpriseconnect.gov.au

5.52 Defence Industry Skills Taskforce. The Defence Industry Skills Taskforce (DIST) draws its membership from Defence, other Australian Government departments and representatives of industry, industry associations and unions. It develops options and strategies to build and retain Defence and defence industry workforce skills, and to attract and retain employees in Defence and defence industry.

5.53 Company ScoreCards. The purpose of the Company ScoreCard program is to monitor, assess, record and report the performance of DMO contracts. The main objectives of the ScoreCard program are to improve the overall performance of DMO contracts and increase dialogue between DMO and its contractors and major subcontractors.

5.54 Under the Company ScoreCard program, DMO project managers assess the contract performance of DMO's significant contractors and major subcontractors. Their performance is assessed every six months against nine categories – including against the critical areas of technical performance, cost and schedule. Companies have the opportunity to review and challenge assessments of their performance. These assessments also inform future source selection decisions.

5.55 Since November 2007, the Company ScoreCard program has been enhanced in three important respects. Firstly, ScoreCard data has been used to provide companies with an annual report on how their individual performance compares with that of firms operating in similar areas of defence technology. Benchmarking of this kind encourages poorly performing companies to improve their productivity and signals to strongly performing firms the importance of maintaining high standards of delivery. Feedback from industry on this approach has been very positive.

5.56 Secondly, the program has been amended to capture important elements of the way companies respond to Defence's Strategic Reform Program. In particular, the program now enables DMO to clearly identify and monitor where companies have introduced improved management practices designed to improve their cost competitiveness. Thirdly, DMO has recently extended the program to provide companies with the ability to alert DMO to instances in which the cost structure of industry has been adversely affected by delays in the start of Defence projects.

5.57 360° View ScoreCard. This program allows industry to provide feedback on DMO's performance as a project and contract manager. DMO prime contractors assess and report on the performance of DMO in the development and management of acquisition and sustainment contracts. Contractors are encouraged to provide frank and honest assessments of DMO performance. DMO invites industry feedback twice each year and this feedback is compiled and provided to the DMO Executive for consideration and discussion with project staff. Feedback provided through this mechanism is used to drive contract and project management improvement in DMO and to improve internal management strategies. The Government also reviews the feedback provided on DMO through the program.

5.58 As well as the skilling initiatives outlined above, Defence also provides seed funding to companies developing selected new technologies to encourage Australian innovation in Defence technology. This is done through the following four initiatives:

- The **Capability and Technology Demonstrator (CTD) Program (\$51 million to 2013)** allows industry to demonstrate how advanced technologies can enhance ADF capability and promotes innovation, productivity and competitiveness in local industry. Each year it funds selected projects that demonstrate how technology can enhance Defence capability in a previously unexplored manner. The CTD is a collaborative program that includes DMO and is led by DSTO.

Through the CTD Program, Defence assists companies to bridge the ‘gap’ between technology development and uptake for commercialisation and/or manufacture by industry. In addition, the Program encourages the formation of multidisciplinary teams to design and monitor the projects through to demonstration, enhancing engagement between Defence capability managers, scientists and industry representatives.

Participation in the CTD Program can also assist industry through the skilling and retention of valuable technical specialist staff. In addition to the direct capability benefits, Defence also benefits from the introduction of a number of new companies, particularly SMEs, to the Defence industry base through the CTD Program.

CASE STUDY 13: KESTREL – SENTIENT VISION SYSTEMS

In 2006, Defence selected a proposal by Sentient Vision Systems for Kestrel, a software system for real-time detection of motion in a video stream for further development under the CTD program. The RAAF test flew Kestrel in an AP-3C Orion aircraft using an early developmental form of the system 16 months into its 22 month development project. Despite its immaturity, the test flight performed very well. Consequently, the Maritime Patrol Group decided to examine Kestrel's operational utility in the Middle East where operational flights demonstrated that the system was very useful.

Following this success, Kestrel was further developed under the CTD Extension Program. The two-year extension contract, which

began in early 2009, aims to extend Kestrel's capabilities beyond the land environment to the littoral and open ocean.

Dr. Paul Boxer, Managing Director of Sentient Vision Systems said that ‘As a result of the CTD program, our initial technology has matured into a world-leading aerial surveillance system. The technology has entered service and we understand the ADF is now using it in the Middle-East theatre of operations. This technology would not have been developed without the CTD program and we wish to ensure that we, and other innovative Australian companies, continue to have the opportunity to bring new technologies to Defence via the CTD program.’

- The **Capability and Technology Demonstrator Extension (CTDE) Program (\$31.6 million to 2012)** funds further development of selected technologies identified through the CTD program to help the technology mature and to support the potential transition of the technology into capability. The CTD and CTDE programs also encourage technology development in Australian industry and provide opportunities for industry to become long term technology suppliers to the ADF.

CASE STUDY 14: JDAM-ER

JDAM-ER (Joint Direct Attack Munition – Extended Range) is a story of successful technology development supported by Defence's CTD and CTDE programs. JDAM-ER is the culmination of long term glide bomb research and development by the DSTO, and collaboration with its industry partner, Hawker de Havilland, an Australian subsidiary of the Boeing Company.

The glide bomb concept was first developed in the early 1980s and subsequent flight trials identified a number of possible improvements, leading to the next weapon concept (known as Kerkanya), an Aboriginal word meaning 'kestrel hawk'.

In 2001, DSTO and Hawker de Havilland agreed on a licence for the Glide Test Vehicle and Kerkanya technology to develop the wing kit concept. In the same year, the CTD project was

approved with the objective of demonstrating improved navigation and target accuracy by integrating the Hawker de Havilland-manufactured wing kit with Boeing's JDAM tail kit on a 500lb bomb. JDAM is a Boeing product that offers highly accurate (GPS-based) guidance for standard bombs through the fitting of an advanced tail-mounted guidance kit.

Due to a successful demonstration of an evolved JDAM-ER with lower drag and extended range, in 2007 Defence selected the project for further development as the first project funded under the new CTDEP. The project presented the RAAF with a highly accurate weapon that can be deployed at extended ranges, giving a launch aircraft advanced strike capability at a safe stand-off distance from threats. Its further development under the CTDEP has now seen it progress into the Public DCP as project JP 3027.

- The **Rapid Prototyping, Development and Evaluation (RPDE)** program uses a combination of Defence, industry and academic expertise to quickly develop innovative solutions to issues affecting capability and current operations. A 'Board' of representatives from Defence and industry guides the program. Defence's Capability Development Group proposes the projects, which are approved by a senior Defence steering group. Each project is expected to be resolved within a short timeframe, with projects normally lasting up to 18 months from start to completion. The focus of RPDE is on producing capability that can be readily integrated into Defence. RPDE outcomes can play an important role in risk mitigation for large Defence acquisition projects. Involvement in RPDE offers industry insights into Defence capability issues and, in turn, drives industry innovation.

The US Institute for Defense and Government Advancement recently recognised RPDE in its annual Network Centric Warfare Awards. RPDE won the Outstanding Network Centric Program from a Coalition Partner category.

CASE STUDY 15: RAPID PROTOTYPING, DEVELOPMENT AND EVALUATION (RPDE) PROGRAM

In July 2006, Defence engaged RPDE to identify solutions to improve the efficiency, simplicity, timeliness and accuracy of reports on personnel movements to, from and within the Middle East Area of Operations, and transfer this information into Defence's human resources system. Through its unique operating model, RPDE was able to engage multiple companies to collaboratively scope and investigate the problem, identify possible solutions, develop two separate proof-of-concept demonstrators and identify the requirements for a mature system.

At the completion of the activity, RPDE provided a detailed plan to implement the full system solution which enabled Defence to confidently select and engage a single company to finalise development and deliver the full system. The activity was able to go from initial problem statement to implementation of a mature solution in 20 months. The RPDE personnel tracking activity demonstrates the benefits that can accrue to both Defence and industry when multiple organisations work together, sharing ideas to tackle highly complex urgent problems.

- The **Defence Future Capability Technology Centre (DFCTC) Program (\$27.1 million to 2016)** is a collaborative venture pooling the expertise and resources of industry, universities and research bodies to develop defence technology for the ADF. The Government established the Defence Materials Technology Centre (DMTC), the first centre under the DFCTC program, in May 2008. The Centre develops and delivers new materials and manufacturing processes for specific Defence industry gaps.

Through industry-led collaborative research programs, the DMTC develops and delivers advanced materials and manufacturing technology that can be incorporated into defence industry products and services directly supporting the ADF. Since it was established in May 2008, the DMTC has pursued industry participation across four broad research programs. The DMTC also runs education and training programs, both internal (PhD scholarships, technical and program management training) and external (short courses in subjects such as blast physics or component design).

6 CONCLUSION

6.1 The Government has identified four key principles to guide its defence industry policy:

- setting clear investment priorities;
- establishing a stronger Defence – industry relationship;
- seeking opportunities for growth; and
- building skills, innovation and productivity.

6.2 These principles underpin the Government's approach to, and engagement with, the defence industry. The Defence White Paper 2009, in combination with the Strategic Reform Program (which includes the Government Response to the Mortimer Review), is bringing major changes to how Defence and the ADF conduct and manage their business. This Statement has outlined the key changes and what they mean for industry. Defence needs to work closely with industry to deliver these reforms effectively and efficiently.

6.3 At the same time, the Government's long term plan for Australia's future defence force will generate substantial new opportunities for Australia's defence industry. These new opportunities should also lead to an expansion of the defence industry sector to meet these increased requirements.

6.4 Having set investment priorities for industry, the Government needs to ensure that it communicates these priorities clearly and that it engages industry directly on key issues. The Public Defence Capability Plan is the key mechanism for communicating Defence's capability acquisition intentions.

6.5 Another area where Defence is engaging much more directly with industry is in Defence's long term capability planning, through groups such as the Capability Development Advisory Forum. This greater engagement should provide Defence with a better understanding of the defence marketplace and the technologies and skills that industry has to offer. It also provides an opportunity for industry to share their views early in the capability development process to assist Defence to test capability proposals.

6.6 Similarly, Defence is establishing a Defence Industry Innovation Board to better coordinate and communicate the measures and initiatives available to industry. The Board will be chaired by a senior executive from defence industry, with membership from the primes, the SME community, DMO and DSTO, the Department of Innovation, Industry, Science and Research, industry associations, unions and other government departments. The Board will also oversee the Government's new PIC Innovation Program and advise Defence and Government on appropriate resource allocation under the program.

6.7 As this Statement sets out, the Government is committed to an open and competitive defence industry. This means that companies in the defence industry need to be resilient and self-reliant. While the Government maintains a range of programs and initiatives that defence industry can access to build the skills or capability of their workforce, or to obtain ideas on how to market their ideas, it is industry's responsibility to identify opportunities and make the most of them. If industry wants to survive, it needs to rely on its own intellectual and financial resources, rather than looking to the Government for assistance.

6.8 To be successful, Australian companies need to adapt to the fundamental changes in the character of the defence industry over the last twenty years. During this period, the number of major international defence companies has declined, as the industry has consolidated following the end of the Cold War. The way forward for many Australian defence companies is to better integrate themselves into the supply chains of these global primes. It is through integration into these supply chains that industry will prosper and obtain access to global ideas about the defence industry. Again, while the Government maintains several programs to assist industry with this process, it is industry's responsibility to make the most of these programs to secure the opportunities in these supply chains. Establishing this connectivity is vital for the future of Australia's defence industry.

6.9 The primes also have a responsibility for the longer term survivability of the SMEs. SMEs are a key source of innovation and new ideas – and the primes need to recognise and encourage this. Innovation will assist Australian industry as it seeks to assure its place in the supply chain of the global primes but will also benefit the primes by offering access to new ideas and approaches to challenges. As the major companies that contract to governments around the world, the primes have a responsibility to nurture and support the SMEs. Primes that develop and maintain a successful network of SMEs will be better placed to meet the challenges facing the defence industry in the future.

6.10 The Government needs a strong, successful and skilled defence industry if it is to deliver the ADF that Australia needs for the future. This Statement provides the framework to ensure that Australia has the defence industry it needs to deliver and support the future ADF.



A ANNEX A TO DEFENCE INDUSTRY POLICY STATEMENT 2010

PRIORITY INDUSTRY CAPABILITIES AND STRATEGIC INDUSTRY CAPABILITIES

Priority Industry Capabilities

Acoustic technologies and systems: This capability includes the world class capabilities Australia has in the development and through-life support of underwater acoustic systems. These industry capabilities are important as they provide leading edge capabilities that are not always available from overseas sources. In some cases, there are national sovereignty reasons to manage our own data and systems.

Anti-tampering capabilities: These capabilities are incorporated into components or systems to prevent the unauthorised opening of the system, or access to the internal workings or intellectual property. The capabilities are important to protect our own or an ally's intellectual property when the capabilities are exported, and to provide assurance that a system has not been tampered with and will operate as expected. Anti-tampering capabilities have important roles to play in system assurance and in the protection of computers, networks and information systems.

Combat uniform and personal equipment: This capability relates to the ability to undertake ongoing development of the combat uniform, specifically multi-spectral and other signature reducing characteristics, and enhancements to personal survivability (such as ballistic, blast and flash protection). It does not include non-combat clothing nor imply local manufacturing is always necessary.

Electronic warfare: These industrial capabilities include electronic warfare countermeasures development and validation; electronic warfare reprogramming, system and 'tuning' integration of overseas-developed electronic warfare systems to meet our operational needs; the management of threat libraries; and, importantly, selective product development to maintain high-end electronic warfare knowledge and capability. As electronic warfare provides an essential capability edge for many of our major war-fighting capabilities, there is a need to have a responsive and effective indigenous electronic warfare industry sector that can be relied upon to adapt and integrate new systems to meet the needs of our operational posture, including maintaining those elements essential for our operational military and security requirements.

'High end' system and 'system of systems' integration: This capability relates to the ability to integrate complex systems on board ADF platforms and conduct 'system of systems' integration of off-the-shelf capabilities into the ADF's command and control networks. This ability to undertake systems integration in Australia is a fundamental national sovereignty requirement to enable the ADF to decouple from specific allies' products and take selective advantage of world best military capability developments. Australian industry's ability to support complex 'system of systems' integration is also essential to deliver the ADF's Network Centric Warfare vision.

High frequency and phased array radars: This capability includes the development and support of the indigenously developed world leading capabilities embodied in the Jindalee Operational Radar Network and the phased array radar currently being installed on ANZAC frigates. These capabilities are important as they are indigenously developed with world leading algorithms and intellectual property, providing very effective capabilities in their respective environments.

Infantry weapons and remote weapons stations: This capability is the provision of the required level of through-life support to the ADF direct fire weapons fleets (pistols, rifles, machine guns and grenade launchers) and the relatively new capability of remote weapon stations. The local industry importance is for efficiency and effectiveness reasons, recognising that some small arms are heavily 'Australianised'.

In-service support of Collins-class submarine combat system: The selection of this capability as a PIC highlights the knowledge, experience and capacity that have been developed in Australia to support a unique ADF platform.

Selected ballistic munitions and explosives: This is the capability to manufacture some high usage munitions, ammunition components, propellants and explosives. This capability is important as it reduces strategic risks through providing guaranteed supply sources for some high usage munitions as well as efficiency advantages through managing local production and inventories to reduce the cost of ownership.

Ship dry-docking facilities and common-user facilities: These capabilities are required for ongoing support and maintenance of our naval capabilities, but more importantly is the need for these capabilities to be available in a conflict for battle damage repair. This includes the provision of ship dry-docking facilities on both the east and west coast and for patrol boats in northern ports. It also includes the common-user facilities for ship building and repair.

Signature management: These industrial capabilities include the capabilities and coatings used for signature management on submarines, naval vessels, land and air platforms including sound minimisation, radar absorbent materials, infrared absorbent paint and materials and stealth technology. These capabilities provide leading edge technologies to some of our most important ADF capabilities and are often not available to us from overseas sources.

Through-life and real time support of mission critical and safety critical software: These capabilities are for real time, or near real time, adjustment to software associated with critical systems (combat systems). Recognising that some systems change and support activities cannot occur over the 'usual' software upgrade timelines, a local industry capability is required for national sovereignty reasons around the need

to be able to manage our own systems and data, and to adapt systems to meet our unique requirements. Our capability edge is achieved by incorporating a mix of world best technologies into our systems and accordingly we need to have an indigenous software capability to integrate these systems and to provide through-life support.

Strategic Industry Capabilities

Composite and exotic materials: This is the ability to research, design, manufacture, integrate, maintain, repair, and precision machine specialist alloys and composite materials that are an integral part of many ADF platforms and components. The ADF requires local industry to:

- research, design and manufacture composite and exotic materials;
- integrate such materials into ADF platforms;
- conduct both routine and battle damage repairs of these materials; and
- assist with fatigue and corrosion control.

This capability also includes the design, manufacture and application of anechoic coatings/tiles (rubber composite), ceramic appliqué and multilayered ceramic coatings, ballistic protection to enhance platform and personnel survivability, laser cladding and titanium machining technologies, and the conduct of stress and repair analysis, especially of composite defects.

Elements of national infrastructure: Defence relies upon the national infrastructure for its day-to-day operations and support. A number of elements of that infrastructure are of strategic importance to the ADF:

- **Supply and storage of aviation fuel (and national fuel supplies generally).** National fuel supplies are predominantly imported, especially aviation fuels. This highlights the ADF's need for access to quality fuel and the local requirements for adequate storage, quality control and distribution capabilities.
- **Provision of terrestrial and satellite communication systems.** This is access to sufficient communications infrastructure to transfer, receive, and securely disseminate, ADF information. It includes the ability to access commercial satellites, most notably in the UHF band.
- **Logistic infrastructure in and around Darwin and Townsville.** This infrastructure enables these locations to be used as mounting bases. The focus is primarily on ports, but also includes the facilities and infrastructure required to house additional Defence equipment and personnel, along with the availability of local support services.

Geospatial information and systems: The provision of geospatial information and systems, including software development, is associated with global positioning and inertial navigation systems, as well as precision guided weapons. Precision navigation capabilities and precise terrain data underpin many military capabilities and are a critical input for situational awareness, targeting and weapons deployment.

The ability to understand, adapt and integrate such capabilities is crucial to the effective employment of the ADF. The timely provision of analysed and accurate geospatial data (including electronic warfare-related

threat library data) to the ADF cannot be accomplished without the provision of secure communications links, programming assistance and through-life support for hardware and software.

Guided weapons: Defence needs to be able to procure, repair, maintain, test and evaluate guided weapons systems to ensure the weapons are delivered safe and fit for purpose to the ADF. As most guided weapons are procured from overseas, the local capability requirement is to maintain guided weapons and conduct through-life surveillance testing of the inventory. Specific capabilities include:

- guided weapons test and maintenance operations, disposals, and maintenance and calibration of support and test equipment;
- guidance systems software support;
- image recognition software;
- electronic counter countermeasures;
- signal processing;
- target tracking;
- navigation control;
- fusing;
- electronic and electro-optic assemblies;
- propulsion;
- fuel;
- fire control;
- launcher/discharge systems;
- identification friend or foe (IFF);
- cryptographic identification systems;
- insensitive munitions (both warhead and propulsion); and
- missile software modification and engagement simulations.

Naval shipbuilding: This covers specialist design, construction and engineering services; warship repair, maintenance, upgrade, rebuild and overhaul capabilities; selected development and production; and submarine design and construction.

These capabilities maintain the operational availability of Royal Australian Navy vessels and are important to ensure that the ADF can meet its preparedness targets. Australia's maritime geography is such that the inability to undertake critical repairs in Australia would be an unacceptable strategic risk. Specific capabilities include:

- **Ship propulsion systems.** The repair and maintenance of diesel engines, gas turbines, shafts, propellers and generators.

- **Hulls, systems and structures.** The repair and maintenance of hull and structural components, modules and mechanical, electrical and environmental and life support systems.
- **Mission and weapons systems.** The repair, maintenance and certification of guns, missiles, decoy systems and associated fire control and combat systems.
- **Submarine design and construction.** This capability includes specialist submarine design knowledge to enable Australia to be a smart buyer and the capabilities to enable construction of the future submarine in Australia. While Australia will not necessarily design a submarine from scratch, the ability to adapt an overseas design, or utilise 'best of breed' technologies to meet Australian requirements, will be vital to the development of an effective submarine capability.
- **Submarine repair, maintenance and upgrade.** This encompasses the ability to maintain operational availability of submarines and to conduct selected upgrade, overhaul and rebuild activities. The Australian submarine is a unique capability for which the in-country support base has developed considerable knowledge relating to the specialised, restricted and classified sub-systems. Specific capabilities within this capability include:
 - *Hull, environmental, electrical and propulsion system.* The repair and maintenance of submarine hull, engines, batteries, power control systems and specialised environmental and life support systems; and
 - *Weapon discharge systems.* The repair, maintenance and certification of torpedo and missiles systems and their associated control systems.

Protection of networks, computers and communications: This includes:

- cyber defence for the safeguarding of ADF information;
- encryption techniques;
- firewall and anti-virus software;
- communications security testing services, including emanations (Tempest) testing;
- through-life support of cryptographic equipment;
- system life cycle management capabilities (to maintain and extend the service life of ADF systems); and
- novel repair techniques.

The protection of critical national security information, intellectual property and command and control networks is vital to the operations of the ADF. While many protection products will be bought on the world market, some required products are not available. Australian industry therefore has an important role to play in the development of protective capabilities and the provision of services to Defence.

Repair and maintenance of specialist airborne early warning and control (AEW&C) systems: The repair and maintenance of specialist Airborne Early Warning and Control systems, including:

- tactical data links, multi-role electronically scanned array radar, IFF, communications and electronic support systems;
- secure test facilities;
- land-based, air and maritime test ranges for testing and evaluating weapons, signatures and electronic warfare systems; and
- the development and support of targeting and precision navigation capabilities through the timely provision of accurate geospatial data and systems critical for situational awareness, targeting and weapons deployment.

The local industry repair and maintenance capability will be important for efficiency and effectiveness reasons and to ensure that the ADF can meet its preparedness targets.

Several of these systems are new technologies for Australia and the development of appropriate levels of local industry capabilities and skills is crucial. The ability to understand, adapt and integrate such capabilities will be critical to the effective employment of AEW&C by the ADF.

Repair, maintenance and upgrading of armoured vehicles: The ADF needs a capability to repair and maintain ADF armoured and specialist military vehicles locally. Planned upgrades include enhanced protection, lethality and mobility. Scheduled repair and maintenance is critical to ensure armoured vehicles are available when required. Local industry requires sufficient skills to service the platforms and their major sub-assemblies, and to work closely with Army trades personnel. Such capabilities need to cover the following areas:

- **Structural and survivability systems.** This includes the use in chassis, hull and turret of composite, Kevlar, optical and specialist glass (eg. S2), and ballistic materials; and active and passive counter-surveillance/signature management.
- **Propulsion and mobility systems.** Encompassing engines, generators, drive trains, running gear and suspension components, and fuel systems.
- **Lethality systems.** The repair, maintenance and upgrading of electronic, electro-optic and electro-mechanical components, target acquisition, fire control, weapons and weapons control, and ammunitions systems.
- **Environmental control.** Covering air conditioning, nuclear, biological, and chemical defence.
- **Hydraulics.** Covering pumping and transfer systems.
- **Delivery systems.** Including fire control, armament and self-protection systems.

Repair, maintenance and upgrading of rotary- and fixed-wing aircraft: The repair, maintenance and upgrading of rotary- and fixed-wing aircraft includes overhaul and rebuild activities required to maintain effectiveness, meet preparedness targets and also urgent operational needs. While the rebuild of some sub-systems

is undertaken overseas, especially where Australia is not permitted access to the original equipment manufacturer's intellectual property, there is a need for a local capability for aircraft repair and maintenance. Specific local capabilities include:

- **Propulsion and mechanical systems.** The repair and maintenance of rotors, hubs, engines, landing gear and transmissions.
- **Mission systems.** The repair and maintenance of radar and electro-optic/infrared sensors, weapons systems and specialised mission systems.
- **Avionics systems.** The repair and maintenance of navigation systems, communication systems and aircraft flight instrumentation.
- **Air frames and structural.** The repair and maintenance of fuselages, windscreens, panels, and management of the overall structural integrity.
- **Environmental and life support systems.** The repair and maintenance of air-conditioning systems, liquid oxygen, survival and escape equipment.

Secure test facilities and test ranges: This capability relates to the availability of maritime, air and land based ranges for testing and evaluating weapons, signatures and electronic warfare systems. The availability of local testing capabilities is important to conduct classified tests of leading technologies. While overseas testing does occur, this is generally more expensive with the data often being accessible by the test host. Test ranges are likely to be owned by the Commonwealth with industry providing testing equipment and services. Much of the equipment currently utilised on test ranges is obsolete and inadequate for modern day systems testing. As these ranges are modernised, industry will have a role to play in managing ranges, through-life support of the equipment and conducting tests.

System assurance capabilities: This capability includes systems assurance for land-based systems and systems onboard ADF platforms. It includes information and communications technology hardware and software, control, environmental and delivery systems. The desired outcome is confidence that these systems are 'fit for purpose' by functioning as intended and are free of exploitable vulnerabilities, whether intentionally or unintentionally introduced, designed or otherwise inserted.

System life cycle management: These capabilities extend the service life of ADF systems by providing active life management, including life extension, fatigue management and the development of innovative and novel repair techniques. Both industry and DSTO have previously developed a number of unique capabilities in Australia which have enabled a number of ADF systems to remain operational and effective long beyond their planned life. For example, industry contributed significantly to extending the service life of ADF platforms such as the F-111 (which was in service for over 30 years) and the Caribou (which served for over 50 years).

B ANNEX B TO DEFENCE INDUSTRY POLICY STATEMENT 2010

SETTING CLEAR INVESTMENT PRIORITIES: PROGRAMS

| Name | Priority Industry Capability (PIC) Innovation Program |
|-------------------------------------|---|
| Established | 2010 |
| Purpose | <ul style="list-style-type: none"> • Provide more direct and more practical support to Australian defence industry, particularly SMEs, for PIC-related activities. |
| Main features | <ul style="list-style-type: none"> • Companies will be encouraged to submit innovative proposals (relating to one or more PICs) to Defence. A company may seek funding for the acquisition of capital equipment to develop their capability into another domain or develop a new application. • Funding in the form of a contractual arrangement with the company, and will be limited to an amount of up to \$3 million to \$4 million in any one instance. The company will have to match this funding and will also be obliged to report regularly to Defence on the application of the funds and on the company's future business prospects. • Contracts for non-Defence customers or export orders resulting directly from the application of these funds will trigger a partial or total repayment by the company of the amount previously paid by Defence. • Defence contracts will be expected to reflect a price discount equivalent to the amount previously provided by Defence. • Proposals under the PIC Innovation Program will need to demonstrate that the capability to be acquired would not have otherwise been funded by the company (or its owner) in the ordinary course of business. • Defence will develop a set of guidelines for the operation of this program in time for the first annual funding round in late 2010. |
| Funding | \$44.9 million to 2019 |
| Defence coordinator contact details | TBC |
| Further information | Not applicable |
| Related programs | SADI, DIIC, DEU, GSC |

C ANNEX C TO DEFENCE INDUSTRY POLICY STATEMENT 2010

ESTABLISHING A STRONGER DEFENCE INDUSTRY RELATIONSHIP: PROGRAMS

| Name | Capability Development Advisory Forum (CDAF) |
|-------------------------------------|---|
| Established | Not applicable |
| Purpose | <ul style="list-style-type: none"> • Better coordinate Defence programs to promote innovation and productivity in Australian defence industry throughout the capability development life cycle. • Provide a conduit for industry to put forward its views early in the capability development process. • Enable Defence to test capability proposals. |
| Main features | <ul style="list-style-type: none"> • Chief of Capability Development Group and Chief Executive Officer of the Defence Materiel Organisation are co-chairs. • CDAF consists of 12 members – two permanent Defence members (the co-chairs) and ten rotating industry members, consisting of representatives from four large contractors, four from SMEs and two from industry associations. • CDAF will meet twice a year in the margins of major defence industry events, such as the biennial Defence and Industry Conference. |
| Funding | Not applicable |
| Defence coordinator contact details | Director Interoperability & International Engagement Capability and Plans Branch Capability Development Group PH: 02 6265 7043 |
| Further Information | Not applicable |
| Related programs | Not applicable |

| Name | Defence+Industry ePortal |
|-------------------------------------|--|
| Established | July 2008 |
| Purpose | <ul style="list-style-type: none"> • A comprehensive, authoritative source of industry capability information for Defence and Defence information for industry that provides improved opportunities for companies and SMEs to join in Defence acquisition and sustainment programs. |
| Main features | <ul style="list-style-type: none"> • A resource and information source for Defence, Defence contractors and overseas organisations looking for Australian associates to find potential suppliers, partners and subcontractors. • Nearly 4,000 users from Defence and industry. • Over 1,300 companies showcasing their capabilities. • Registered users have access to enhanced levels of company capability information. • Future Defence business opportunities are regularly posted, including upcoming requests for tender. • The ePortal is being expanded to: <ul style="list-style-type: none"> – allow Australian companies to register for participation in export markets through the GSC program; – allow prime contractors, first or second level subcontractors or general suppliers of good and services to register interest in Public DCP projects; – allow industry to obtain information on any changes in Public DCP and minors projects phasing; – allow industry to provide feedback on Strategic Reform Program and other Defence programs; and – provide training and briefings on how to optimise Defence and industry use of the ePortal. |
| Funding | Not applicable |
| Defence coordinator contact details | <p>The Defence + Industry ePortal Service Desk is managed by Fujitsu Australia Limited. Australian users please call: 1800 125 968 or email the Service Desk at DPLUSI.ServiceDesk@au.fujitsu.com New Zealand users please call 0800 451 532 or email the Service Desk at DPLUSI.ServiceDesk@au.fujitsu.com</p> <p>Available from 9:00am to 5:00pm Monday – Friday (Australian Eastern Standard Time)</p> |
| Further information | http://www.dplusi.defence.gov.au/ |
| Related programs | Australian Tax Office's ABN Lookup and the Department of Innovation, Industry, Science and Research's VANGUARD e-authentication brokerage services for trusted information exchanges. |

| Name | DMO Business Access Offices |
|-------------------------------------|--|
| Established | Not applicable |
| Purpose | <ul style="list-style-type: none"> • Provide a local interface for industry, particularly SMEs, to engage with Defence. |
| Main features | <ul style="list-style-type: none"> • Located in each mainland capital city. • Maintain working relationships with state and territory government bodies. • Manage industry programs including the Unsolicited Promotional Product Offer Scheme and the Defence Recognised Supplier Scheme. • Regularly visit companies, Defence units and other Defence agencies to better understand industry capability, local requirements and issues. • Can provide: <ul style="list-style-type: none"> – one-on-one guidance; – face-to-face training; – facilitated briefings; – local knowledge and intelligence on defence industry matters, including on emerging company capabilities, back to Defence; and – potentially market capabilities to support the ADF. |
| Funding | Not applicable |
| Defence coordinator contact details | <p>Director National Defence Industry Liaison Program DMO (02) 9393 2337</p> <p>BAOs are located in mainland capital cities to cover QLD, NSW/ACT, VIC/TAS, SA, WA and NT</p> |
| Further information | http://www.defence.gov.au/dmo/DMO/function.cfm?function_id=35 |
| Related programs | Not applicable |

D ANNEX D TO DEFENCE INDUSTRY POLICY STATEMENT 2010

SEEKING OPPORTUNITIES FOR GROWTH: PROGRAMS

| Program Name | Australian Industry Capability (AIC) Program |
|-------------------------------------|--|
| Established | 2008 |
| Purpose | <ul style="list-style-type: none"> • Leverage major Defence projects to create opportunities for Australian defence industry. • Influence foreign prime contractors and OEMs, including Australian-based subsidiaries, to ensure cost-effective delivery of acquisitions and maintenance and encourage investment in Australia. • Make technology transfer an attractive proposition for large foreign original equipment manufacturers. |
| Main features | <ul style="list-style-type: none"> • Does not guarantee work for local firms but gives them the opportunity to compete on their merits. • Bids for Defence projects valued above \$50 million (or projects with PIC implications) must include an AIC plan that examines Australian industry participation on a value-for-money basis. <ul style="list-style-type: none"> – Maximising Australian industry participation on a cost-effective basis is also a fundamental requirement for procurements under \$50 million. While there is no requirement to provide a formal AIC plan, details of local work is to be included in the Price and Delivery Schedule (PDS) and the work conducted by Australian industry is to be summarised in an AIC schedule. • During source selection, opportunities presented in the AIC plan are included in the value-for-money criteria and assessment. • The AIC plan of the successful tenderer is included in the contract and is enforceable. • US companies offering US military equipment under the Foreign Military Sales scheme are required to examine opportunities for Australian industry on a best-value model. • Key procurement documents, including the Defence Policy Procurement Manual and ASDEFCON modified to incorporate AIC policy requirements. |
| Funding | Not applicable |
| Defence coordinator contact details | AIC Implementation Unit Assistant Director AIC Implementation Tel: (02) 6144 2752 E-mail: aic.info@defence.gov.au |
| Further information | More information and the AIC Toolkit is available at www.defence.gov.au/dmo/id/aic |
| Related programs | GSC Program |

| Name | Global Supply Chain (GSC) Program |
|-------------------------------------|---|
| Established | 2009 |
| Purpose | <ul style="list-style-type: none"> • Creates opportunities for capable local firms to compete for work in the global supply chains of multinational primes and their major suppliers. |
| Main features | <ul style="list-style-type: none"> • Works with foreign prime contractors and original equipment manufacturers to create opportunities for Australian industry in their global supply chains and those of their major subcontractors. • Encourages overseas primes to develop company specific programs to evaluate Australian suppliers for inclusion in their global supply chains. • Acts at the point in the procurement cycle where the program can have the most influence on primes and original equipment manufacturers. • Educates overseas primes on Australia's defence industry policy. • GSC program has established agreements with Boeing, Thales and Raytheon. • Develops and delivers targeted training and mentoring programs to better position Australian companies to take advantage of the supply chain opportunities. • Key performance indicators to be established to measure effectiveness of the program. • Australian companies can register for participation in the GSC program on the ePortal. |
| Funding | \$59.9 million out to 2019 |
| Defence coordinator contact details | <p>Australian Industry Capability Branch</p> <p>E-mail: gsc.info@defence.gov.au</p> |
| Further information | http://www.defence.gov.au/dmo/id/aic/ |
| Related programs | AIC Program, Defence Export Unit |

| Name | Defence Export Unit (DEU) |
|-------------------------------------|--|
| Established | 2007 |
| Purpose | <ul style="list-style-type: none"> Assist Australian defence industry in export sales in order to sustain strategically and operationally important defence industry capabilities. |
| Main features | <ul style="list-style-type: none"> In conjunction with other relevant government and industry agencies, develop plans and campaigns for international marketing of specific products. Collection, analysis and dissemination of targeted market intelligence on opportunities for Australian defence exporters. Identify impediments in foreign defence markets. Coordination of the formation of Industry Capability Teams based on specific export promotion campaigns and activities. With defence industry support, establish an Australian national presence under the Team Australia banner at international defence exhibitions and targeted trade missions. Coordination of access to ADF assets to demonstrate their capabilities to potential international customers. Provision of high-level advocacy/promotion of Australian defence companies, capabilities and products. Coordination of letters of support for Australian products in service with the ADF from Ministers, Service Chiefs and other officers/officials to their international counterparts. Coordination of appropriate engagement between industry and foreign government/military agencies. |
| Funding | \$34 million out to 2019 |
| Defence coordinator contact details | Defence Export Unit E-mail: teamaustralia@defence.gov.au |
| Further information | More information is available at www.defence.gov.au/teamaustralia http://www.defence.gov.au/dmo/about/domains/deu.cfm |
| Related programs | AIC Program, GSC Program |

| Name | New Air Combat Capability Industry Support Program |
|-------------------------------------|---|
| Established | Establishment expected later in 2010 |
| Purpose | <ul style="list-style-type: none"> • Enables Australian companies and research organisations to support the development of new or improved capabilities that may enhance their ability to win work in the production, sustainment and follow-on development phases of the JSF Program. |
| Main features | <ul style="list-style-type: none"> • Provides support for: <ul style="list-style-type: none"> – the development of a manufacturing or sustainment capability that is required in order to become eligible to compete for an opportunity that is, or may become, identified in a JSF Industry Participation Plan; – the development of an industry capability that is required to enhance a company's competitiveness in meeting the requirements of a request for proposal, request for information or a request for quotation, that is to be issued by a JSF prime or OEM; – a study that is related to a capability that is required by the JSF program office, a JSF prime or JSF OEM; – a research effort that either contributes to an identified or potential future JSF capability enhancement or to a manufacturing improvement that results in reduced cost and/or improved performance of a product or process. |
| Funding | \$8.5 million out to 2014, funded through the NACC Air 6000 Phase 2A/B approval |
| Defence coordinator contact details | Director JSF Industry Team NACC PH: 02 6144 1535 |
| Further information | TBA |
| Related programs | Not applicable |

ANNEX E TO DEFENCE INDUSTRY POLICY STATEMENT 2010

BUILDING SKILLS, INNOVATION AND PRODUCTIVITY: DEFENCE PROGRAMS

| Name | Defence Industry Innovation Board (DIIB) |
|-------------------------------------|---|
| Established | To be established during 2010 |
| Purpose | <ul style="list-style-type: none"> Better coordinate Defence programs to promote innovation and productivity in Australian defence industry throughout the capability development life cycle. Oversee PIC Innovation Program and advise Defence and Government on appropriate resource allocation under the program. |
| Main features | <ul style="list-style-type: none"> Selected senior executive from the defence industry or innovation sector. Representatives from primes, SME and innovation communities, DMO and DSTO, the Department of Innovation, Industry, Science and Research, industry associations, unions and other government departments. |
| Funding | Not applicable |
| Defence coordinator contact details | TBA |
| Further information | Web page under development |
| Related programs | Not applicable |

| Name | Skilling Australia's Defence Industry (SADI) |
|-------------------------------------|--|
| Established | Not applicable |
| Purpose | <ul style="list-style-type: none"> • Address the significant shortfall in the quantity and quality of workforce skills available to defence industry to ensure it can provide the materiel and capabilities the ADF requires. |
| Main features | <ul style="list-style-type: none"> • SADI is a grants program that provides companies with funding to improve the skills of their employees in key trade and technical skill areas. • The program is open to prime companies and SMEs and funding is provided to successful companies on a reimbursement basis for skilling activities undertaken. |
| Funding | \$89 million out to 2015 |
| Defence coordinator contact details | Director Industry Policy and Programs (02) 6144 2722 Deputy Director Skilling Australia's Defence Industry (SADI) Program (02) 6144 2727 E-mail: IndustryDiv.SADIProgram@defence.gov.au |
| Further information | http://www.defence.gov.au/dmo/id/sadi/index.cfm |
| Related programs | ISPE, DIST, DIIC |

| Name | Industry Skilling Program Enhancement (ISPE) |
|---------------|--|
| Established | November 2008 |
| Purpose | <ul style="list-style-type: none"> • A package of 14 initiatives to increase the skills base of defence industry, create pathways into the defence industry sector and address industry capability skills gaps. |
| Main features | <ul style="list-style-type: none"> • DMO has partnered with Commonwealth, state and territory governments, regional bodies, universities, defence industry and defence industry associations to establish the programs. • The package includes: <ul style="list-style-type: none"> – Advanced Manufacturing School Pathways Program. This program is being implemented in the Hunter Region of New South Wales to increase the pool of young people ready to move from school into further education, apprenticeships, internships, and part-time work/study combinations in defence industry. The program is being led by Regional Development Australia – Hunter and involves study visits, work placements and the contextualisation of curriculum to ensure participating students have the skills required for a career in defence industry. – Advanced Technology School Pathways Program. This program is being implemented in South Australia and concentrates on advanced technology with the aim of increasing the number of students studying mathematics, science and engineering. The program involves lead and partner schools developing industry-focused curriculum and establishing or strengthening links with defence industry. – Marine Industry School Pathways Program. This program is being implemented in Western Australia and provides students with the skills necessary to pursue a career in the maritime sector and increasing the number of students pursuing mathematics, science and engineering. Links with industry will be central to the program. – Defence Technical Scholarships. Defence has introduced an industry component to the ADF Defence Technical Scholarship program to provide recipients with exposure to defence industry in addition to the ADF. The introduction of defence industry visits and marketing material on the sector introduces students to careers in defence industry. – Engineering Scholarship Program. The program links engineering students with defence SMEs by providing engineering students with scholarships for the industry placement component of their studies. The scholarship program targets those engineering streams deemed in short or critical supply by defence industry and will increase the number of student engineers exposed to defence SMEs, thereby increasing the likelihood they will pursue employment in defence industry. – Sponsorship of ReEngineering Australia (REA). Defence has sponsored REA to raise school students' awareness of engineering and defence industry careers through the REA Forum. REA promotes engineering as a potential career path early in the education process. – DMO Institute expansion. Defence will offer selected courses of the DMO Institute to defence industry and further courses will be developed to improve the skills base of DMO and defence industry. Expansion of DMO Institute programs will address an immediate skilling shortage and provide companies with access to programs that may not otherwise be readily available. – Master of Military Systems Integration – Conversion. Defence has provided funding to convert an existing Masters of Military Systems Integration (MSI) program to flexible delivery mode. The program, offered by the University of South Australia, will increase access by all stakeholders (industry, DMO, DSTO and the ADF) and will be unrestricted by geographical location or time. – Master of Systems Support Engineering. This course is being introduced to equip senior engineering and project managers with the knowledge and understanding to develop and deliver integrated support solutions. BAE Systems is leading the development of the course, with input from SAAB and ASC. The course will be offered by the RMIT and the University of South Australia. – Professional Doctorate in Systems Engineering. This program will increase the capacity and capability of defence industry in the area of systems engineering. It will blend coursework with research. The Professional Doctorate will be offered by the University of South Australia and the University of Adelaide. |

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|--|--|
| Main features Continued | <ul style="list-style-type: none"> – Strategies to address skill shortfalls in the PICs. This funding will be used to address the skilling needs in PICs. – Defence Industry Innovation Centre. See separate box below. – Industry Downturn Response Strategy. Targeting staff from who have become surplus due to a downturn in another industry provides Defence with the opportunity to quickly grow the available labour pool and secure skilled and experienced workers. The Defence and Industry Skills Taskforce will monitor the media and intelligence networks and DMO will coordinate timely career fairs or other such events to target displaced workers. – Defence Industry Sector Branding Strategy. Overarching all other ISPE initiatives is the Defence Industry Branding Strategy, which focuses on marketing initiatives to attract prospective employees to defence industry. Use of the recently developed defence industry logo and slogan is central to this strategy. |
| Funding | \$49.2 million out to 2014 (including DIIC – see below) |
| Defence coordinator contact details | <p>Director Industry Policy and Programs (02) 6144 2722</p> <p>Deputy Director Industry Programs (02) 6144 2725</p> |
| Further information | http://www.defence.gov.au/dmo/id/industry_skilling/ |
| Related programs | DIST, DIIC, SADI |

| Name | Defence Industry Innovation Centre (DIIC) |
|-------------------------------------|--|
| Established | September 2009 |
| Purpose | <ul style="list-style-type: none"> Enables defence SMEs to increase their workforce skills, productivity and competitiveness. |
| Main features | <ul style="list-style-type: none"> Eligible defence SMEs are matched with experienced business advisers in Perth, Adelaide, Melbourne, Sydney and Brisbane who conduct a business review of the company and/or provide defence-related specialist advice and guidance. SMEs are encouraged to implement the recommendations of the business review through a Business Tailored Advisory Grant. Grants are also available to assist with the placement of researchers from universities or public research agencies into businesses where such a placement would help to develop a new idea with commercial potential. These grants also provide networking opportunities to improve the firm's business through improved awareness of, and education in, relevant innovations, technologies and best practices. |
| Funding | Funded through the ISPE package |
| Defence coordinator contact details | Director Industry Policy and Programs Ph. 02 6144 2722 |
| Further information | http://www.enterpriseconnect.gov.au/Pages/AlternateHome.aspx |
| Related programs | SADI, ISPE |

| Name | Defence Industry Skills Taskforce (DIST) |
|-------------------------------------|---|
| Established | 2010 |
| Purpose | <p>To provide advice, analysis, ideas and strategies with particular reference to:</p> <ul style="list-style-type: none"> ensuring a critical mass of skills relevant to the Defence sector; identifying and growing the skills to deliver and sustain the ADF's capabilities and equipment as detailed in the Defence White Paper 2009 and Public Defence Capability Plan; and building the skills required in Defence and defence industry to deliver the Defence Strategic Reform Program and specifically the SMART Sustainment and Logistics streams. |
| Main features | <ul style="list-style-type: none"> The taskforce consists of representatives from Defence including DMO, other government departments, defence industry, industry associations and unions. The taskforce takes a national approach and works with defence industry, state and territory governments and education providers to ensure the sector has the level of labour and skills it requires. |
| Funding | Not applicable |
| Defence coordinator contact details | Director Industry Policy and Programs (02) 6144 2722 Deputy Director Industry Programs (02) 6144 2725 |
| Further information | Not applicable |
| Related programs | ISPE, DIIC |

| Name | Capability and Technology Demonstrator (CTD) Program |
|-------------------------------------|--|
| Established | 1997 |
| Purpose | <ul style="list-style-type: none"> • Allows industry to demonstrate how advanced technologies might enhance ADF capability. • Assists local companies to improve their innovation, productivity and competitiveness. |
| Main features | <ul style="list-style-type: none"> • Provides funding to selected projects that demonstrate how technology might enhance Defence capability in a previously unexplored manner. • A year-long selection round opens in April each year, with a publicly advertised call for project proposals. • Can also provide: <ul style="list-style-type: none"> – seed funding to develop detailed CTD proposals; and – project viability funding to enable companies to retain staff and maintain infrastructure for proposed CTDs before approval of the proposal; and – concept definition funding to enable companies to develop a proposal for the CTD Program. |
| Funding | \$51 million out to 2013 |
| Defence coordinator contact details | CTD Program Office DSTO Telephone: 02 6128 6501 Toll free number: 1800 647 946 Email: ctd@defence.gov.au |
| Further information | http://www.dsto.defence.gov.au/collaboration/3743/ |
| Related programs | CTDEP |

| Name | Capability and Technology Demonstrator Extension (CTDE) Program |
|-------------------------------------|---|
| Established | 2007 |
| Purpose | <ul style="list-style-type: none"> • Fund further development of selected CTDs to help bridge the gap between the demonstration of a technology and the fielding of a product. |
| Main features | <ul style="list-style-type: none"> • Selected CTD projects are further developed while more closely examining suitability of the item for ADF use. • Provides industry with the opportunity to demonstrate new technology to Defence while highlighting the potential performance and technical risks associated with implementation. |
| Funding | \$31.6 million out to 2012 |
| Defence coordinator contact details | CTD Program Office DSTO Telephone: 02 6128 6501 Toll free number: 1800 647 946 Email: ctd@defence.gov.au |
| Further information | http://www.dsto.defence.gov.au/collaboration/3743/ |
| Related programs | CTD |

| Name | Rapid Prototyping, Development and Evaluation (RPDE) |
|-------------------------------------|---|
| Established | 2004 |
| Purpose | <ul style="list-style-type: none"> Harnesses Defence, industry and academic expertise to quickly develop innovative solutions to issues affecting ADF capability and current operations. |
| Main features | <ul style="list-style-type: none"> Brings together expertise from a diverse group of companies and academia as small teams to quickly develop innovative solutions to complex battlefield capability and support problems. Operations are guided by a 'board' comprising representatives from Defence and Industry. Activity proposals are approved by a steering group comprising 1-star representatives from across Defence. Has established relationships with a very wide range of Australian industry, both primes and SMEs, and academia. Can engage industry and academia at an early stage of Public DCP projects to define possible options and their costs, consistent with competition policy. Proposals must: <ul style="list-style-type: none"> enhance integration, responsiveness and efficacy of ADF capability; benefit from collective (defence, commercial and academic) knowledge and experience; and lead to a rapid outcome, normally within 18 months. |
| Funding | From CDG Project Development Funds, typically \$12 million per year. |
| Defence coordinator contact details | Stakeholder Liaison Manager RPDE Program Ph (02) 6124 7900 |
| Further information | www.rpde.org.au |
| Related programs | Not applicable |

| Name | Defence Future Capability Technology Centre (DFCTC) Program |
|-------------------------------------|--|
| Established | 2008 |
| Purpose | <ul style="list-style-type: none"> A collaborative venture to pool the expertise and resources of industry, universities and research bodies to develop defence technology for the ADF. |
| Main features | <ul style="list-style-type: none"> The Defence Materials Technology Centre (DMTC), the first centre under the DFCTC program, conducts research programs in air platforms, marine platforms, armour applications, and propulsion systems. It also provides education, training and commercial programs. The DMTC aims to develop high-tech materials for use in future Defence acquisitions. |
| Funding | \$27.1 million out to 2016 |
| Defence coordinator contact details | Business Development Manager Business and Commercialisation Office DSTO Ph. (03) 9626 8848 |
| Further information | www.dmtc.com.au |
| Related programs | Not applicable |

| Name | Company ScoreCard Program |
|-------------------------------------|--|
| Established | 2000 |
| Purpose | <ul style="list-style-type: none"> • To monitor, assess, record and report the performance of DMO contracts. • The main objectives of the program are to improve the overall performance of DMO contracts and increase dialogue between DMO and its contractors and major subcontractors. |
| Main features | <ul style="list-style-type: none"> • Under the Company ScoreCard Program, DMO project managers assess the contract performance of DMO's significant contractors and major subcontractors. • Assessments are given for six month reporting periods (October to March and April to September) against nine categories: <ul style="list-style-type: none"> – adherence to the contracted schedule of work; – adherence to contract cost schedules; – technical performance on delivering a product that meets the requirement; – meeting the contracted Australian Industry Capability requirements; – adherence to all other contracting requirements; – willingness to identify, register and manage intellectual property; – development and maintenance of healthy working relationships; – management of, and adherence to, quality systems in its business processes; and – management of an earned value management system in its contract. • Companies have the opportunity to review and challenge assessments of their performance. These assessments inform future source selection decisions. |
| Funding | Not applicable |
| Defence coordinator contact details | Director Company ScoreCard and Information Management (02) 6144 2704 |
| Further information | http://www.defence.gov.au/dmo/id/cscard/csc_home.cfm |
| Related programs | 360° View ScoreCard Program |

| Name | 360° View ScoreCard Program |
|-------------------------------------|---|
| Established | 2000 |
| Purpose | <ul style="list-style-type: none"> The program enables industry to monitor and assess the DMO's contract performance, particularly in the area of requirements and contract management. |
| Main features | <ul style="list-style-type: none"> The 360° View ScoreCard informs the DMO Executive of industry's perception of DMO project office performance and contributes to contract and project performance improvement within the DMO. Provide feedback to DMO twice a year (in parallel with the Company ScoreCard reporting process) – the reporting periods are October to March and April to September. The performance criteria that industry assesses DMO against are: <ul style="list-style-type: none"> – ability to meet agreed milestones and the review the contracted schedule; – understanding of significant cost drivers; – requirements management, which measures understanding and application of contract requirements; – effectiveness in articulating and implementing Australian Industry Capability requirements; – Contract management (including project management); – effectiveness in intellectual property management; and – ability to maintain business relationships. |
| Funding | Not applicable |
| Defence coordinator contact details | Director Company ScoreCard and Information Management (02) 6144 2704 |
| Further information | http://www.defence.gov.au/dmo/id/cscard/csc_home.cfm |
| Related programs | Company ScoreCard |

