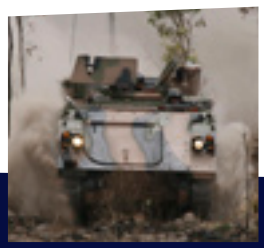
GOING TO THE NEXT LEVEL

the report of the

Defence Procurement and Sustainment Review



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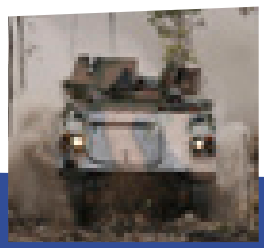

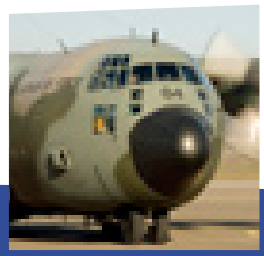

ISBN: 978 0 642 29688 7

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ACKNOWLEDGMENTS

I would like to acknowledge the assistance I have received from a team from Defence Materiel Organisation (DMO) and Department of Defence (Defence) led by Major General Tony Fraser. I would like to record my thanks to Tony and all members of the Secretariat and our editors for their enthusiasm, commitment and dedication to this task.

I would also like to acknowledge the information provided in the 59 formal public submissions received by the Review and the information in interviews and discussions with over 40 internal and external stakeholders.

The Review considered information available from the UK and US, where defence acquisition projects have also attracted increased scrutiny, and where governments have also embarked on reforms of defence acquisition processes.

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FOREWORD

The Government's investment in defence capability represents one of the largest discretionary items in the Commonwealth's budget. Department of Defence (Defence) and Defence Materiel Organisation (DMO) have over $100 billion worth of military equipment under sustainment, in the process of acquisition, or being planned over the next ten years. This includes the management of some 230 major projects worth over $20 million each and the sustainment of over 100 Australian Defence Force (ADF) fleets, platforms and weapon systems.

The size of this task has seen DMO grow to over 7,000 employees with an annual budget of nearly $10 billion. This makes it larger than over half of the current Departments of State.

On 7 May 2008, the Parliamentary Secretary for Defence Procurement, the Hon. Greg Combet, AM, MP, announced that I would conduct *'...a formal evaluation of the effectiveness of ongoing reforms to the Defence Materiel Organisation (DMO) [that] were implemented following the 2003 Review of Defence Procurement...'*.[1] In releasing the terms of reference (Annex A), Mr Combet echoed his Government's 2007 election commitment but also sought advice on *'...further potential reforms to the acquisition and through-life support of defence equipment'*.[2]

The Government has also made it clear to the Review and in a number of public statements that it expects within the defence procurement and sustainment systems:

- better results for the Australian Defence Force;
- greater transparency and accountability;
- improved efficiency and effectiveness; and
- better value for money.

The 2003 Defence Procurement Review, known as the Kinnaird Review, investigated systemic failures that had caused delay and cost increases in a number of major defence acquisition projects. The Kinnaird Review noted that:

> *The task of the Australian Defence Organisation is to define that capability [it needs] and assess all options by which it can be provided. The mission of the Defence Materiel Organisation is to procure and support the equipment that comprises the physical and technical core of that capability.*[3]

The Kinnaird Review made ten specific recommendations with a further twelve minor recommendations for potential reform across the whole procurement cycle. The implementation of the Kinnaird Review recommendations has resulted in wide-ranging reform and improvement in the capability development process in Defence, and the acquisition process in DMO.

---

1 Combet, G (Parliamentary Secretary for Defence Procurement), *Defence Procurement and Sustainment Review*, media release, 7 May 2008.

2 ibid.

3 *Defence Procurement Review 2003*, pp. i.

Currently the Government is conducting a major review of its defence policy through the development of a White Paper. The White Paper will survey the future strategic environment and consider the capabilities that are needed for the ADF. It is not within the realm of responsibility of this Review to consider these issues.

However, it is clear to me that, if Australia is to maintain or improve its 'strategic weight', we must seek to ensure our procurement processes are as efficient and effective as possible. This will help ensure that the ADF receives the capability it needs on time and within budget. It will also mean that we are able to extract the most we can from our relatively limited resources.

The White Paper could deliver a substantial list of capabilities to be acquired over the next two decades and the level of this force modernisation would test our current defence procurement system.

Therefore it is critical to get the proposed reforms contained in this Review underway to give the Government the best opportunity to deliver its White Paper outcomes.

It is often claimed that the two-pass process implemented following the Kinnaird Review has meant that we no longer have projects that perform badly—that all of the current problem projects pre-date the Kinnaird reforms.

This has largely been the case but two recent examples highlight that significant problems still exist within the defence procurement process.

The first was the acquisition of tactical unmanned aerial vehicles under Project JP 129. This project highlighted the continuing problems of scope creep and poor commercial practices within the current system, leading to the termination of the contract.

The second was Phase 3 of Project Land 121 which was to acquire a number of medium to heavy weight trucks for use by the Army. Again scope creep, poor capability definition and commercial practices resulted in the need for a refresh of the tender.

Both of these projects have meant that the ADF will be left waiting for capability that it needs, and that Australian taxpayers have no result for their investment. This is plainly unacceptable.

The Review considers within this report what can be done to ensure we do not face similar problems in the future. It considers the reforms that followed the Kinnaird Review and their implementation. It attempts to highlight where the reforms proposed in 2003 have not fully achieved the desired outcomes. It also acknowledges that those reforms implemented have helped to significantly improve the current system. Progress in the implementation of all the Kinnaird Review recommendations is summarised in Annex B.

In addition to this the Review also seeks to propose a series of further reforms to the current system of defence procurement and sustainment.

The proposed reforms within this report can be characterised under the themes of making the Defence Materiel Organisation more business-like and imposing commercial discipline on the defence procurement and sustainment processes.

It was apparent from the start of our work that further improvements to procurement and sustainment could not be achieved without a greater degree of business acumen and commercial discipline being applied.

All of the reforms are directed at delivering the Government's aims stated above with the primary concern being that the ADF gets the capability it needs and that the Government has the systems in place to give effect to the White Paper.

To this end each stage of the capability cycle is considered in the following chapters with specific reforms outlined at each stage. Following this discussion the Report then considers the necessary cultural and institutional changes that will be required to give effect to these reforms. Without these changes the Review is of the firm belief that some of its recommendations will be significantly weakened and will not deliver the full benefits intended.

The Government and Defence face a significant challenge in defence procurement over the coming decades. Given the size and importance of this task it is imperative that they are equipped to meet this challenge.

To achieve real and lasting improvement in the areas of defence procurement and sustainment, the implementation of the reforms contained within this report are fundamental.

In some sections of this report I identify shortcomings in the current processes. This should not be perceived as criticism of the areas or indeed of any individuals concerned. On the contrary, this Review has given me further insight into the dedication of the people currently involved in the task of equipping and sustaining the Australian Defence Force. My primary objective is that this Review will be a catalyst to elevate the procurement system and processes to the next level of maturity, operational effectiveness and commercial efficiency.

DAVID MORTIMER, AO
Review Chairman

18 September 2008

EXECUTIVE SUMMARY

Capability systems of the ADF have a 'life cycle' that begins with the identification of the need to address a current or potential capability gap. This need is progressively translated into a functional capability system that is operated and supported until it is ultimately withdrawn from service.

Reform across the life cycle will improve the delivery of critical capability for the Australian Defence Force when it is needed. It will provide Government with increasing levels of confidence that funds have been spent in Australia's national interests in the most efficient manner.

This Review evaluated progress made under the Kinnaird reforms and examined current acquisition and sustainment processes. The marked improvements in the capability development process in Defence, and the acquisition process in DMO, resulting from the implementation of these reforms are acknowledged. We conclude that reform in acquisition and sustainment should continue in order to extract maximum benefit across the capability systems life cycle.

We have identified five principal areas of concern, ranging from inadequate project management resources in the Capability Development Group, the inefficiency of the process leading to government approvals for new projects, shortages in DMO personnel, to delays due to inadequate industry capacity and difficulties in the introduction of equipment into full service. We have also considered measures to promote improved outcomes through a more commercially focused DMO.

Capability systems routinely remain in service for 20 or 30 years. It is therefore critical that new capability systems or upgrades are initiated on the basis of a long-term defence strategy. This demands high quality strategic and capability advice to Government. To ensure Government is empowered to set strategy and prioritise needs, the Review makes the following recommendations:

Recommendation 1.1
Defence should prepare an annual submission detailing current and future capability gaps and the priority for their remediation for Government consideration and approval. This submission would be developed by the Capability Development Group.

Recommendation 1.2
Defence should increase the rigour with which projects are assessed for entry into the Defence Capability Plan. Capability Development Group should develop the relevant information for a project's entry into the Defence Capability Plan and it should focus on achieving more disciplined cost, schedule and risk information for a project's entry. The information provided to Government should allow an informed decision on a project's suitability for entering the Defence Capability Plan.

Recommendation 1.3
The Defence Chief Finance Officer should assure the affordability of the Defence Capability Plan, including its impact on future personnel and operating costs, as part of the annual Defence budget considerations. To achieve this, the Defence Chief Finance Officer would audit the cost and schedule estimations within the Defence Capability Plan as developed by Capability Development Group to ensure they are as practical and as accurate as possible.

Recommendation 1.4
The public Defence Capability Plan should contain sufficient information on project scope and timing to enable industry to develop strategic business plans, and the explicit cost bands presently disclosed should be replaced by a measure relative to the DMO Acquisition Category framework.

The balance between cost, capability and risk is determined for new projects as requirements and timescales are defined. This process transforms Government-endorsed capability projects into costed, defined solutions presented to Government for approval. To increase the effectiveness of the approval process, the Review makes the following recommendations:

Recommendation 2.1
Government approval of major Defence projects should occur through a tailored application of the two-pass process. For simple acquisitions where project definition is complete, Government may decide that Defence Capability Plan entry satisfies first pass requirements. If the complexity or cost of a project is high or project definition is uncertain, a minimum of two passes should be employed.

Recommendation 2.2
To expedite the capability development process and allow the National Security Committee to focus on major issues, a subordinate subcommittee should be created to handle minor and less complex defence acquisition matters.

Recommendation 2.3
Any decisions to move beyond the requirements of an off-the-shelf solution must be based on a rigorous cost-benefit analysis of the additional capability sought against the cost and risk of doing so. This analysis must be clearly communicated to Government so that it is informed for decision-making purposes.

Recommendation 2.4
Prior to a project's entry into the Defence Capability Plan, Capability Development Group should prepare a capability submission that addresses the capability required along with the initial data relating to cost, schedule and risk. The cost, schedule and risk information would be developed by the relevant expert – DMO for military equipment estimates and appropriate Defence Groups for all other inputs to capability.

Recommendation 2.5
At entry into the Defence Capability Plan, a draft Materiel Acquisition Agreement should be developed detailing the responsibilities and expectations of the stakeholders. This agreement should be refined throughout the process as more information is gathered.

Recommendation 2.6
Capability Managers should be required to sign the capability submission acknowledging their understanding of the capability being requested and the proposed acquisition strategy.

Recommendation 2.7
DMO should be responsible for the equipment acquisition strategy throughout the requirements definition process.

Recommendation 2.8
Capability Development Group should be adequately resourced in terms of workforce numbers and skills to develop capability proposals and incorporate specialist advice from DMO and the Defence Science and Technology Organisation.

Recommendation 2.9
Capability Development Group and DMO should further develop their ability, and be adequately resourced to accurately estimate the cost and schedule of major acquisition projects.

Recommendation 2.10
The Chief Executive Officer of DMO should provide independent advice to Government on the cost, schedule, risk and commercial aspects of all major capital equipment acquisitions, and be a permanently invited adviser to Government committees considering defence procurement.

Following Government approval of a project, the capability solution is acquired and brought into service. During the acquisition process, DMO works with industry to turn Government-endorsed requirements into functional military equipment. Successful acquisition of equipment requires skilled project management. To ensure Defence and DMO continue to improve equipment acquisition, the Review makes the following recommendations:

Recommendation 3.1
To provide a firm baseline for the delivery of equipment, Capability Managers should sign the Materiel Acquisition Agreements.

Recommendation 3.2
As a fundamental principle, oversight and coordination of all elements necessary for the introduction of a capability should be exercised by the relevant Capability Manager.

Recommendation 3.3
Defence should implement a framework, through the Capability Managers, to coordinate all the inputs to developing military capability.

Recommendation 3.4
Capability Managers should report regularly to Government on the status of the capability development initiatives for which they are accountable.

Recommendation 3.5
For complex and demanding projects, the authority, responsibility and accountability of the Project Manager should be formally set out in a project charter. Project Managers should be held to account for meeting the financial and non-financial performance targets detailed in their charter.

Recommendation 3.6
An independent Project Performance Office should be established within DMO to review projects and assist project teams to solve problems where necessary.

Recommendation 3.7
DMO should continue to refine its approach to contracting so as to align with commercial practice. Contracts should reflect the risks of the procurement being undertaken.

Recommendation 3.8
Public-private partnerships should be applied to defence procurement on appropriate projects. DMO should evaluate all of the relevant issues and provide advice to Government on how best to implement public-private partnerships.

Recommendation 3.9
Projects should be assessed for their potential as a public-private partnership as part of the acquisition strategy developed by the DMO.

Recommendation 3.10
The Government should work with industry and State Governments to address the skills shortage.

Recommendation 3.11
The Government should consider implementation of the recommendations of the Joint Industry Training Task Force.

Recommendation 3.12
DMO staff development should be expanded to cover contractor management including influence, negotiation and relationship management.

Recommendation 3.13
Changes to the scope of projects should occur through a disciplined process that considers the merit of the change mindful of the impact on cost and schedule.

Recommendation 3.14
DMO should be held to account for delivering equipment and services as set out in the Materiel Acquisition Agreements.

Sustainment provides the services and products to meet the in-service materiel requirements of the ADF. Through-life maintenance and support account for more than half of the DMO annual budget and involve about two-thirds of its workforce. But DMO does not sustain the ADF alone; industry, and in particular Australian industry, plays a vital role by providing many of the goods and services needed. For this reason, DMO sustainment managers need to understand the commercial environment. To ensure that Defence and DMO work closely together to meet the requirements of the ADF, the Review makes the following recommendations:

Recommendation 4.1
Net Personnel and Operating Cost estimates should be updated annually as part of the budget process.

Recommendation 4.2
DMO and Defence need to further develop the key performance indicators in Materiel Sustainment Agreements and the systems needed to record sustainment performance and costs.

Recommendation 4.3
An independent Sustainment Efficiency Office should be created in DMO to measure, benchmark and find ways to improve the efficient delivery of sustainment to the Australian Defence Force.

Recommendation 4.4
Decisions to either purchase new equipment or maintain existing systems should be based on the through-life cost of each option regardless of whether the funding is from the acquisition or sustainment budgets.

Recommendation 4.5
Systems Program Office Directors should be empowered through greater delegation to deliver the performance levels set in Materiel Sustainment Agreements and, where necessary, to negotiate changes with Defence.

Recommendation 4.6
The authority, responsibility and accountability of the Systems Program Office Directors should be formally set out in a product charter. They should be held to account for meeting the financial and non-financial performance targets detailed in their charter.

Recommendation 4.7
The current functional split between Defence and DMO for warehousing, distribution and disposal should be retained but responsibility for vehicle maintenance should be returned to DMO.

Recommendation 4.8
Business improvement should continue in Defence and DMO to increase the visibility of costs due to warehousing, freight and disposal, and to reduce the costs of inventory storage and distribution.

Alignment of structure and culture with desired outcomes is critical to organisational success. To enable DMO to inform and support decision-making on defence procurement through the provision of independent advice on commercial matters, whilst remaining responsive to the needs of Defence through the effective and cost-efficient acquisition and support of military equipment, the Review makes the following recommendations:

Recommendation 5.1
DMO should become an Executive Agency under the *Public Service Act 1999*, and retain its Prescribed Agency status under the *Financial Management and Accountability Act 1997*.

Recommendation 5.2
To effect this change a charter should be drawn up between Defence and DMO which would clearly spell out the responsibilities of each agency. The charter should include provision for the Chief Executive Officer of DMO's continuing membership of the Defence Committee.

Recommendation 5.3
It should be mandated that the Chief Executive Officer of DMO must have significant private sector and commercial experience.

Recommendation 5.4
Acquisition funding should be directly appropriated to DMO on the basis of a budget submission from DMO outlining anticipated major capital equipment project expenditure.

Recommendation 5.5
Sustainment funding should continue to be provided through Defence to DMO, but Service Fee funding should be appropriated directly to DMO. The Service Fee should be based on anticipated workloads.

Recommendation 5.6
Government should set a target for no additional funds for real cost increases on major capital acquisition projects beyond approved changes to scope (or other legitimate reasons for a cost increase). This will be contingent on the Chief Executive Officer of DMO achieving the necessary independence and flexibility as provided by an Executive Agency to run the business.

Recommendation 5.7
The Defence Procurement Advisory Board should continue, with the current public sector membership, with an increased focus on providing advice to the Chief Executive Officer of DMO.

Recommendation 5.8
Defence should manage its relationship with DMO in terms of costs and delivery against performance levels.

Recommendation 5.9
The Chief Executive Officer of DMO should have greater flexibility to manage the organisation's workforce including control over appointments, remuneration and performance management.

Recommendation 5.10
A new General Manager – Commercial position should be created in the DMO at the Senior Executive Service Band 3 level, to manage strategic commercial issues and acquisition strategy, to support the Chief Executive Officer of DMO achieve a more business-like focus throughout the organisation, and to improve the performance of DMO business areas, with the broad responsibilities and role identified in this report.

Performance improvements will only be achieved through a highly disciplined and vigorous implementation effort. Change will only be fully effective if behaviours and culture are changed, and if commercial practices are embedded throughout DMO. Effective leadership, mentoring and support structures must accompany performance monitoring and improved reporting processes. The vision and strategy endorsed by the CEO must be clearly communicated and fully implemented throughout the organisation.

CHAPTER ONE

CAPABILITY PLANNING: STRATEGY AND NEEDS ANALYSIS

CAPABILITY PLANNING:
STRATEGY AND NEEDS ANALYSIS

The military capabilities of the Australian Defence Force have a 'life cycle' that begins with the identification of a current or future capability gap. That is, a shortfall between what the ADF has the capacity to do and what Government wants it to be able to do. This is progressively translated into a new capability system, or an upgrade to an existing system, which is then maintained in service until withdrawal. Once a capability is withdrawn from service, its physical assets are disposed of and associated personnel redeployed. As shown in Figure 1, the Capability Life Cycle is divided into five phases – Strategy and Needs, Requirements, Acquisition, In-Service (Sustainment), and Disposal.

Figure 1: *Strategy and needs is the first phase of the Capability Life Cycle*

Because capability systems routinely remain in service for 20 or 30 years, it is critical that new capability systems or upgrades are initiated on the basis of a long-term defence strategy. This demands high quality strategic and capability advice to Government.

STRATEGY

The Kinnaird Review noted that *'the determination of strategic priorities for the defence and security of the nation has obvious implications for the development of defence capability'*.[4]

After considering the advice then available to Government on strategic priorities, the Kinnaird Review recommended that:

> *Defence should present to government the following information in a succinct form on an annual basis:*
>
> - *an assessment of the types of contingencies Australia might face in carrying out the strategic tasks endorsed by government in Defence White Papers;*
> - *advice on the military force required in each contingency and the capacity of the ADF to apply this force now and in the future; and*
> - *advice on capability to be sustained, acquired or retired to ensure this can be achieved at acceptable cost.*[5]
>
> [Recommendation 1]

4 *Defence Procurement Review 2003*, pp. iii.
5 *Defence Procurement Review 2003*, pp. iv.

Defence's advice to Government on the likely contingencies Australia might face in the future, and the relative priority for being ready to respond, occurs through the development of Defence White Papers and Strategic Updates. Major acquisition decisions are ultimately based on the defence strategy set in these documents.

Because fundamental reviews such as White Papers are not conducted at regular intervals, Defence provides annual updates of its strategic guidance to Government. These annual updates satisfy Kinnaird's first recommendation by:

- articulating strategic priorities;
- identifying the contingencies Australia might face in the next 20 years; and
- identifying the relative priority for providing an armed response to these contingencies.

LINKING STRATEGY TO CAPABILITY

Defence devotes considerable effort to translating broad strategic guidance into priorities for the development of the ADF so as to close current or anticipated capability gaps. The result is a classified document called the Defence Capability Strategy. Although the Defence Capability Strategy effectively covers the subject matter of the last two elements of Kinnaird's first recommendation, it is an internal Defence document that is not considered or approved by Government. This falls short of Kinnaird's intention.

The Kinnaird Review noted that:

> *Judgements need to be made concerning what mix of capability and what trade offs between new and existing equipment are in the nation's interests. This is quite properly the prerogative of the elected government.*[6]

We agree. It is Government that should set priorities for the development of the ADF.

RECOMMENDATION 1.1

Defence should prepare an annual submission detailing current and future capability gaps and the priority for their remediation for Government consideration and approval. This submission would be developed by the Capability Development Group.

6 *Defence Procurement Review 2003*, pp. iii.

THE DEFENCE CAPABILITY PLAN

The most concrete expression of Government's priorities for the development of the ADF is the Defence Capability Plan (DCP). The DCP is a costed, rolling ten-year program of as yet unapproved major capital equipment projects.

The initial entry of a project into the DCP warrants close attention. There are always more capability gaps to be filled than available resources can meet. It is a simple fact of arithmetic that every entry in the DCP displaces one or more potential options. As a result, the DCP requires complex trade-offs between the funding and timing of alternative options, and between the cost and capability goals within options.

Government currently receives an 'omnibus' DCP submission from Defence that proposes new inclusions, deletions and, for individual projects, amendments to cost or schedule. The submission also includes a brief summary of the merits of each new proposal.

In the past, cost and schedule estimates in the DCP have shown a persistent trend to significantly underestimate the cost and time needed to deliver capability. This is especially the case for new entries in the later years of the plan.

The initial entry of a project into the DCP warrants close attention

The Australian Strategic Policy Institute stated that since 2000:

> *For the twenty-five projects that have been approved, costs rose from an initial estimate of $16.5 billion to $29 billion—a 76% increase. Even if we (generously) subtract 20-30% to account for inflation, a substantial systematic underestimation remains substantial. Only a little less dramatic is the increase in estimated costs for unapproved projects; from $24.4 billion to $39.4 billion, or a 61% increase, and these, of course, have the potential to rise further upon approval as has been the case for other projects.*[7]

Inaccurate cost and schedule estimates prevent the optimum allocation of resources and make it impossible to formulate an achievable DCP from the start. Then, when estimates inevitably have to be revised, Defence is left open to criticism about the care with which it plans or, worse still, is accused of deliberate bias in lowering the value of a project to ensure its inclusion in the DCP. These are serious issues, as the Kinnaird Review noted:

> *...for Government to remain confident that it is controlling this decision-making process the Australian Defence Organisation (Defence) must provide greater clarity in setting out the options available to develop and sustain ADF capabilities within a defined budget.*[8]

7 Australian Strategic Policy Institute 2008, *The Cost of Defence, ASPI Defence Budget Brief 2008-09* pp. 153-154

8 *Defence Procurement Review 2003*, pp. iii.

Rigorous analysis at DCP entry

The Review believes that more rigorous analysis must be applied to the entry of projects into the DCP. This would include more clearly defining what a project is to deliver, providing an initial judgement of the risk inherent in the project, and more accurately estimating its cost and schedule on the basis of evidence. Only by doing so will the Government have the information necessary to make informed decisions about the balance of investment across the DCP.

Current Defence guidance on cost estimation says that:

> *Cost estimates are prepared or updated in order to re-baseline the DCP and provide confidence that the cost estimates for the existing projects in the DCP are adequate to allow prioritisation and programming of new and existing projects. New projects will prepare cost estimates in accordance with the Entry to DCP process... Existing projects need to provide their most recent updated estimate... All cost estimates are to be prepared by sponsors..., cleared by management, and passed to [Capability Development Group] for independent review and clearance before serious DCP programming decisions are made."*[9]

The Review considers that this process is a sound basis for developing cost information for Government—be it as part of developing a Defence White Paper, a periodic Strategic Update, or the annual review of the DCP. A similar approach needs to be taken to setting the scope, schedule and risk aspects of projects upon entry to the DCP. To ensure that the full affordability of proposals can be assessed, net additional personnel and operating costs need to be similarly estimated and documented.

The Review acknowledges the challenge of identifying capability needs, forecasting cost and schedule, and estimating through-life costs at such an early stage. Fortunately, Defence has applied significant effort in recent months to further increase the rigour underpinning the DCP as part of developing the next Defence White Paper. This needs to continue. The Review considers it necessary to approach each DCP entry with data as accurate as possible on capability, cost, schedule and risk. The initial data will be coordinated within Capability Development Group (CDG), with input and existing resources within this Group focused on achieving more accurate forecasts in relation to costs, schedule and risk. More can also be done to develop the commercial acquisition strategy right from the inception of a project into the DCP and we return to this topic in the next chapter. Such an approach will better allow the Government to make an informed decision on whether a project should enter the DCP.

RECOMMENDATION 1.2

Defence should increase the rigour with which projects are assessed for entry into the Defence Capability Plan. Capability Development Group should develop the relevant information for a project's entry into the Defence Capability Plan and it should focus on achieving more disciplined cost, schedule and risk information for a project's entry. The information provided to Government should allow an informed decision on a project's suitability for entering the Defence Capability Plan.

9 Department of Defence 2006, *Defence Capability Development Manual 2006*, pp. 19.

Following entry into the DCP, Defence should continue to deepen its understanding of a project and advise Government if there are significant changes to the justification, scope, cost, schedule or risk which might warrant amendment in or removal from the DCP. This follow-up advice would come during the development of the capability proposal submission and the work being conducted on capability definition which is discussed in the next chapter.

Affordability of the DCP

Many of the submissions to the Review commented on the tendency for project costs to increase between entry into the DCP and final Government approval. This problem is not unique to Australia. In relation to defence procurements in the United States, the US Government Accountability Office has documented its concerns about cost increases from the point at which projects first gain in-principle Government approval to when they are fully approved.[10]

The international prevalence of rising project cost estimates does nothing to mitigate their corrosive impact. In the fixed funding envelope of the DCP, cost increases inevitably result in a combination of cancellations, scope reductions and delays elsewhere in the program. Similarly, increases to the projected personnel and operating costs of a planned capability unavoidably put pressure on other areas of future Defence spending.

The solution offered in one submission was – *'...One way to force discipline on Defence planning is to impose long-term fiscal discipline across the entire Defence budget.'*[11]

In the fixed funding envelope of the DCP, cost increases inevitably result in a combination of cancellations, scope reductions and delays elsewhere in the program

Currently, Government provides Defence with a ten-year funding horizon within which to plan. To encourage Defence to generate reliable cost estimates and plan comprehensively, the Review believes that Defence's Chief Finance Officer (CFO) should be responsible for assuring the affordability of the DCP annually, including follow-on personnel and operating costs.

10 US Government Accountability Office 2008, *Defense Acquisitions Better Weapon Program Outcomes Require Discipline, Accountability, and Fundamental Changes in the Acquisition Environment*, pp. 2.

11 Australian Strategic Policy Institute 2008, *The Cost of Defence, ASPI Defence Budget Brief 2008-09*, pp. 160.

RECOMMENDATION 1.3

The Defence Chief Finance Officer should assure the affordability of the Defence Capability Plan, including its impact on future personnel and operating costs, as part of the annual Defence budget considerations. To achieve this, the Defence Chief Finance Officer would audit the cost and schedule estimations within the Defence Capability Plan as developed by Capability Development Group to ensure they are as practical and as accurate as possible.

The Public Defence Capability Plan

An unclassified version of the DCP is published every two years or so to inform industry of the nature and size of prospective projects. The public DCP outlines Defence's equipment acquisition plans for the forthcoming decade so that potential suppliers can make informed decisions about their own strategic business plans.

For each project, the current public DCP provides:

- description and background;
- likely acquisition strategy;
- through-life support considerations;
- planned year of Government decision and entry into service;
- anticipated cost range; and
- opportunities for Australian industry.

The Review found that the provision of this information is seen as beneficial by industry and should largely be continued. However, the Review also concluded that providing explicit cost bands was contrary to the Commonwealth's commercial interests. Specifically, disclosing explicit dollar figures encourages potential suppliers to maximally interpret the scope of a project so as to use up available funds, rather than seek to meet the scope at minimum cost. Even in a competitive environment, the 'gaming' behaviour of bidders is likely to work to the Commonwealth's disadvantage if the amount of funds available is known.

For this reason, the Review felt that the Commonwealth's commercial interests and industry's legitimate planning requirements would be best served if the public DCP provided more detail on what was to be delivered and less on how much was available to be spent. While this might be perceived as reducing public transparency, the Review believes that this is outweighed by the longer-term benefits to the taxpayer of enhancing the Commonwealth's commercial position. Cost information will still be included in the classified version of the DCP.

providing explicit cost bands was contrary to the Commonwealth's commercial interests

To give some visibility of the scale, complexity and risk in a project, the Review believes that a measure relative to the DMO Acquisition CATegory (ACAT) framework should be included in the public DCP for each project. The ACAT framework is a project categorisation system that takes account of cost, risk, schedule, project complexity, technical difficulty, support demands and commercial availability. The framework has four levels, where Level I is the most costly, demanding and complex and Level IV the least.[12]

RECOMMENDATION 1.4

The public Defence Capability Plan should contain sufficient information on project scope and timing to enable industry to develop strategic business plans, and the explicit cost bands presently disclosed should be replaced by a measure relative to the DMO Acquisition Category framework.

12 Refer to Annex C – Acquisition Category Framework – for a more complete explanation.

CHAPTER TWO
CAPABILITY PLANNING: REQUIREMENTS DEFINITION

...The fact that specifications are inevitably somewhat open-ended creates substantial difficulties for the process of buying and modifying weapons. By their nature, contracts for complex weapons systems cannot exhaustively specify the full range of contingencies that can and likely will arise. Rather, significant elements will only be determined in the course of contract life, through the interpretation, addition, modification or deletion of contract conditions. This exposes both the buyer – in our case, DMO – and the seller to considerable risks...

Henry Ergas, Concept Economics submission

The increased utilisation of [off-the-shelf equipment] is an imperative for Defence, DMO and the major Defence Primes to ensure that capability can be delivered in a prompt, cost effective and open manner. Most militaries have drawn similar conclusions that they can't afford the cost, time and risk in managing custom development of bespoke solutions. In Australia's case, with small fleet sizes, this is even more relevant. In addition, the custom approaches are the antithesis of [Network Centric Warfare] where interoperability is paramount.

IBM submission

CAPABILITY PLANNING:
REQUIREMENTS DEFINITION

The requirements definition phase transforms Government-endorsed capability projects into costed, defined solutions. This starts with the entry of projects into the Defence Capability Plan and continues through to Government approval. In the Requirements phase a project's scope, cost (including through-life cost) and schedule are determined. In doing so, the balance between cost, capability and risk is set for the project.

Figure 2: *Requirements definition is the second phase of the Capability Life Cycle*

The Kinnaird Review stated that Defence capability development suffered as a result of:

> *...poor project definition, analysis and planning, before tenders have been sought from industry... The principal reason is that the current process of capability definition and assessment has generally lacked rigour and discipline.*[13]

To address these issues, Kinnaird recommended improving capability definition though a strengthened two-pass process of Government approval:

> *Government should mandate, and enforce via revised Cabinet rules, a rigorous two-pass system for new acquisitions with government considerations dependent on comprehensive analyses of technology, cost (prime and whole-of-life) and schedule risks subjected to external verification.*[14]
> [Recommendation 3]

The majority of submissions received by this Review supported the view that the strengthened two-pass process has led to significant improvements in the quality of information presented to Government, including greater clarity of issues and risks.

Despite the acknowledged benefits of the strengthened two-pass process, the Review believes that opportunities exist to further improve the efficiency and effectiveness of the Requirements phase. This chapter examines opportunities in the following areas:

- increasing the efficiency of the two-pass process;
- making greater use of off-the-shelf solutions;
- increasing accountability and alignment;
- providing the right skills for planning; and
- providing expert commercial advice.

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13 *Defence Procurement Review 2003*, pp. 9.
14 ibid., pp. v.

INCREASING THE EFFICIENCY OF THE TWO-PASS PROCESS

The Kinnaird Review described the two-pass process as:

> *The first pass stage is defined as the process during which options will be analysed to meet the identified capability gap, following government's review of the proposed strategic assessment... This analysis would involve a number of options being identified by Defence to achieve a required military effect to meet a capability gap that government has agreed exists...*
>
> *...First pass approval will provide funding for the approved options to be fully analysed and developed prior to second pass consideration by government. The capability gap, options for which have received first pass approval, would form part of the DCP. However, at this stage government is not committed to acquiring the capability, only to the conduct of detailed studies, analysis and, possibly, funded industry studies.*
>
> *The second pass stage is defined as the process during which the range of options approved following first pass are subject to detailed and rigorous assessment and the development and presentation to government of separate Acquisition Business Cases for each option. The outcome of second pass will be government approval for Defence to proceed to tender for the agreed solution...*[15]

Over time, the two-pass process proposed by the Kinnaird Review has evolved. Firstly and most significantly, DCP entry is now separate and distinct from first pass approval. This measure accommodates project entry into the DCP ten years before a proposal goes to Government for second pass approval.

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15 *Defence Procurement Review 2003*, pp. 15.

Secondly, solicitation (usually proceeding to tender) now occurs before second pass approval to provide Government with more accurate information including on costs. Figure 3 illustrates the Kinnaird Review's original scheme along with the evolved two-pass process currently followed in practice.

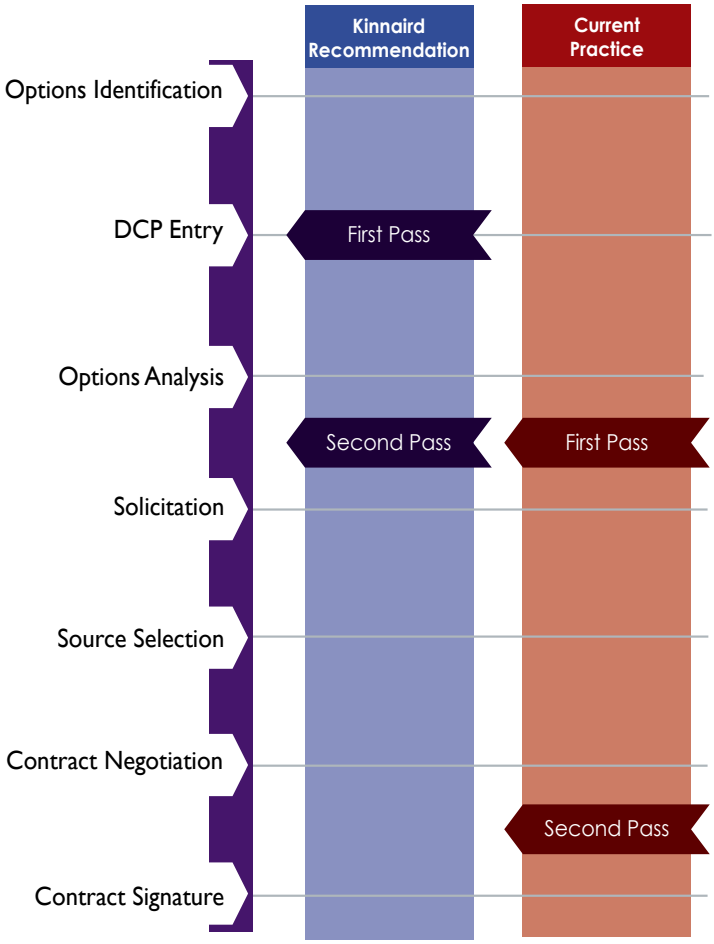

Figure 3: *Two-pass process*

At present, all major projects are required to undergo the same process—entailing broadly the same level of detail—regardless of complexity, maturity or risk. The result is that a project worth $60 million and one worth $1.5 billion generate the same amount of paperwork and take the same amount of time to be approved.

Figure 4 shows the time taken between first and second pass for the nine major projects that have completed the full two-pass process (separate first and second pass) since the Kinnaird process was introduced in 2004. The average time between first and second pass was 23 months. It is noteworthy that variations in the time taken are largely unrelated to the size or complexity of the projects.

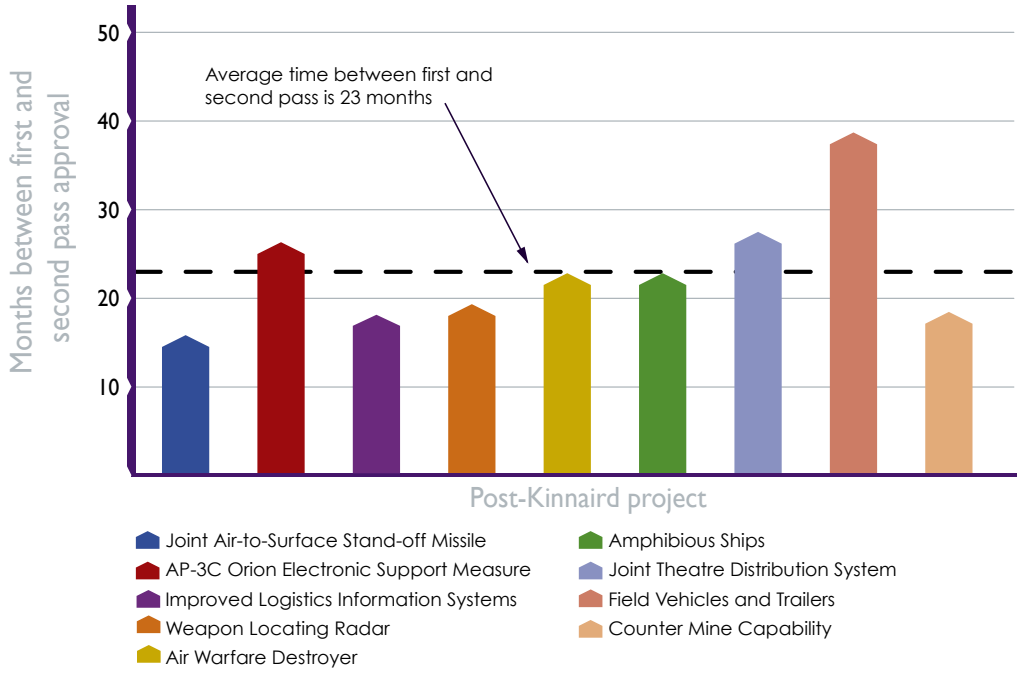

Figure 4: *Time between first and second pass for post-Kinnaird projects*

For every project, regardless of cost, maturity, complexity or risk, to go through the same process is inefficient. While it is appropriate for costly, complex and high risk projects to receive very close Government scrutiny prior to approval, the bulk of Defence projects are not in this class. As shown in Figure 5, 77% of projects fall into the least complex ACAT categories; ACAT III and ACAT IV. These projects represent 46% of the acquisition budget. The Review believes that there is scope to increase the flexibility and efficiency of the two-pass process, in particular for projects with lower risk.

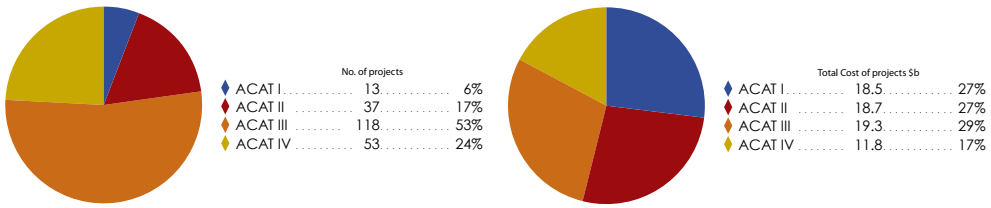

Figure 5: *Approved capital projects by acquisition category*

A tailored two-pass process

The primary objective of the two-pass process is to give Government sufficient information to make an informed, deliberate decision on each project. The Review believes that this does not require each and every project to be formally considered

twice by the National Security Committee of Cabinet as is currently envisaged. Already, flexibility has been shown with some accelerated acquisitions where first and second pass approvals have effectively been considered together. There is no reason why this should not occur where sufficient information is available to support an informed decision. Conversely, particularly complex projects, or those that make significant demands on national resources, have rightly been considered by Government on more than two occasions. The Air Warfare Destroyer project, for example, was considered five times.

The Review believes that it is time to tailor the process for project approvals based on project cost, complexity, maturity and risk. There should also be consideration of the effect on the economy and the impact upon national resources. Figure 6 illustrates the proposed tailored approval process.

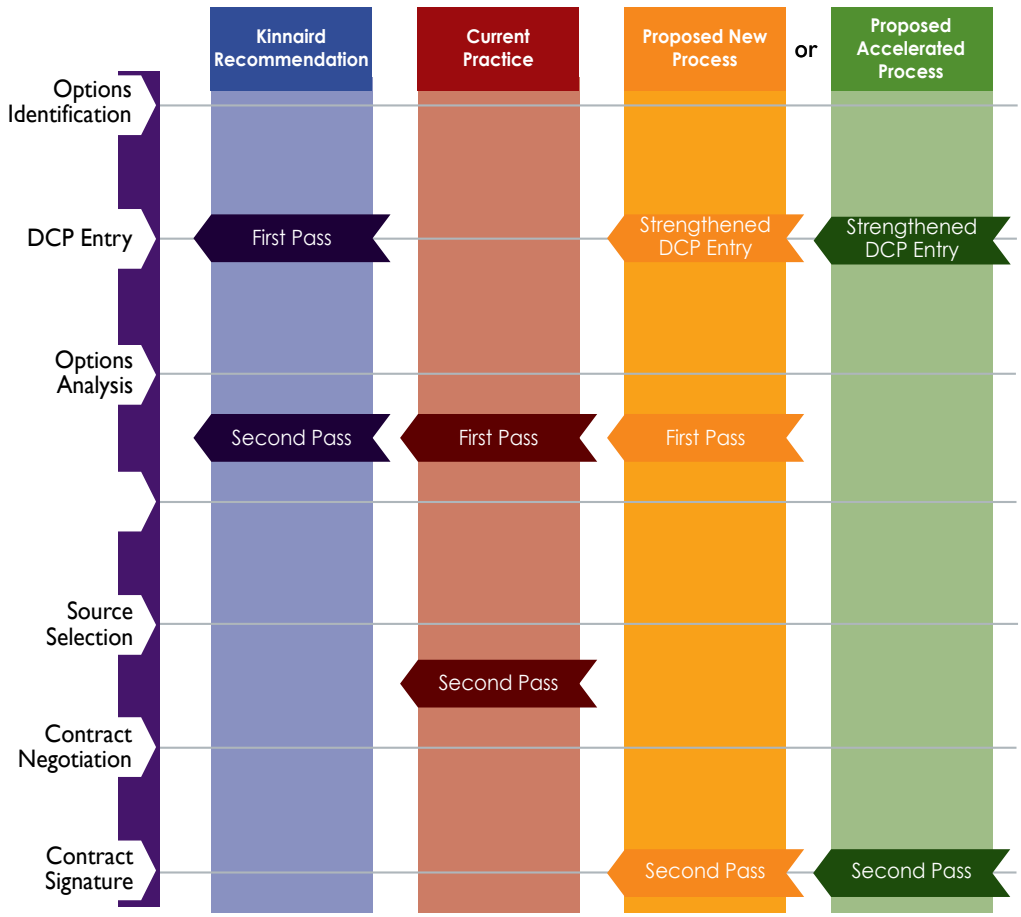

Figure 6: *Proposed tailored approval process*

Such an approach would see each project considered by Government in the most efficient way that allowed a properly informed decision. It would be up to Government to determine the appropriate pass process to apply to each project. With tailored approvals:

- Projects with a high degree of cost, complexity, significant technological risk, or which make significant demands on national resources would go through the full two-pass process or through multiple passes where necessary.
- Simple projects could skip first pass and go straight to source selection and second pass provided that the details of the project were sufficiently well-defined upon entry to the DCP.
- Accelerated acquisition of known solutions could be handled through a single consideration by government.

Examples of projects in these categories appear below.

PROJECT COMPLEXITY	PASSES UNDER A TAILORED TWO-PASS PROCESS (AFTER DCP ENTRY CONSIDERATION)
Accelerated acquisition of small capabilities and known and proven capabilities • Personal communications equipment • C-17 aircraft	second pass only
Simple projects • the technical refresh of a platform as part of an international user group • the re-supply of weapons acquired previously	source selection followed by second pass
Complex projects • multi-faceted projects that contain new acquisitions and upgrades for the same capability • projects that impact multiple platforms • projects involving systems and software integration	first and second pass (more if required)

The more detail that is put into the definition of a project upon entry into the DCP, the more likely it is that it can be prudently approved through a shortened process. Upon entry into the DCP, Government should decide how the project should proceed, on advice from Defence, through the two-pass process. Where uncertainty arises, the standard two-pass approach should be the default. A measure such as the ACAT framework could be helpful in deciding the best way for a project to proceed. The tailored two-pass process, and the impact on time taken for approval, is illustrated schematically in Figure 7.

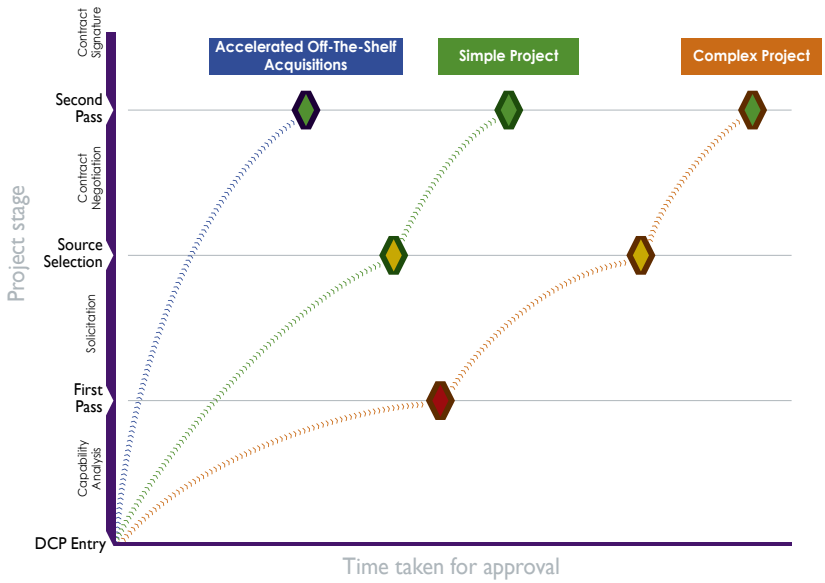

Figure 7: *Proposed tailored two-pass process*

RECOMMENDATION 2.1

Government approval of major Defence projects should occur through a tailored application of the two-pass process. For simple acquisitions where project definition is complete, Government may decide that Defence Capability Plan entry satisfies first pass requirements. If the complexity or cost of a project is high or project definition is uncertain, a minimum of two passes should be employed.

In the context of the current process that requires all proposals to be considered twice by Government, the Kokoda Foundation identified *'...a need for the [National Security Committee] to consider an alternative way of dealing with the large number of individual defence acquisition proposals…'*[16] The large number of proposals going to the National Security Committee could result in a heavy workload for that committee that could hinder its ability to focus on broader security issues.

Although the proposed application of a tailored two-pass process will help alleviate this problem, the Review also believes that Government should establish a subordinate or alternative subcommittee to consider smaller, less complex projects to reduce the National Security Committee workload. A subcommittee comprising the Defence Minister and including the Treasurer and Minister for Finance and Deregulation would seem to make sense. It would also make sense to have the Parliamentary Secretary for Defence Procurement, or an equivalent future position, sit on this subcommittee given their specific responsibility to understand the detail of these projects and provide advice to the Minister for Defence.

16 Kokoda Foundation (2008), *Optimising Australia's National Security Planning and Coordination for 2015*, Kokoda Papers No. 8, pp. 35.

To further reduce the workload for the National Security Committee, initial consideration of projects entering the DCP could also be examined by this separate subcommittee. This would not impact on the current delegations that allow lower cost projects to be approved at Ministerial level. The DMO ACAT system could be used to determine which projects are submitted to the new sub-committee.

RECOMMENDATION 2.2

To expedite the capability development process and allow the National Security Committee to focus on major issues, a subordinate subcommittee should be created to handle minor and less complex defence acquisition matters.

INCREASED USE OF OFF-THE-SHELF SOLUTIONS

Defence is well-served with specialist advice on the performance and operational employment of military equipment. Less well developed is its appreciation of the commercial and technical risk associated with military equipment acquisitions.

Consistent with this, a number of submissions to the Review suggested that Defence has often pursued a unique Australian solution, or modified an existing solution, without appropriate understanding of the attendant risks to cost, schedule and delivery. It is important that this be avoided in the future. While project requirements must ultimately reflect the demands of operational performance, they need to be tempered by the realities of cost, risk and what the market can deliver off-the-shelf and otherwise. Unless this is done, informed decisions about the appropriate mix of cost, schedule, risk and capability are impossible.

For the purposes of the Review, we have taken as a starting point the Australian Strategic Policy Institute's definition of off-the-shelf equipment. That is, equipment that:

a. *is already established in-service with the armed force of another country or Australia*

b. *is sourced from an established production facility (not just a Military Off The Shelf design)*

c. *has at most minor modifications to deliver interoperability with existing ADF and/or allied assets.* [17]

Off-the-shelf does not include upgrade projects where a number of off-the-shelf systems are purchased and integrated together for the first time. In practice, Defence acquisitions range in a continuum from purely off-the-shelf purchases through to highly developmental projects. The following box gives examples of recent projects.

17 Australian Strategic Policy Institute (2008), *The Cost of Defence ASPI Defence Budget Brief 2008-09*, pp. 161-162.

EXAMPLES OF PROJECT AND THEIR DEVIATION FROM OFF-THE-SHELF
Off-the-shelf • C-17 heavy airlift aircraft • Super Hornet fighter aircraft • Abrams Battle Tanks
Off-the-shelf with modifications • Armed reconnaissance helicopter • Air-to-air refuelling aircraft • Australian Light Armoured Vehicle (ASLAV)
Developmental • Seasprite • Airborne Early Warning and Control aircraft (AEW&C) • Collins class submarines

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. Figure 8 illustrates the impact on cost, schedule and risk of pursuing solutions beyond those that are available off-the-shelf.

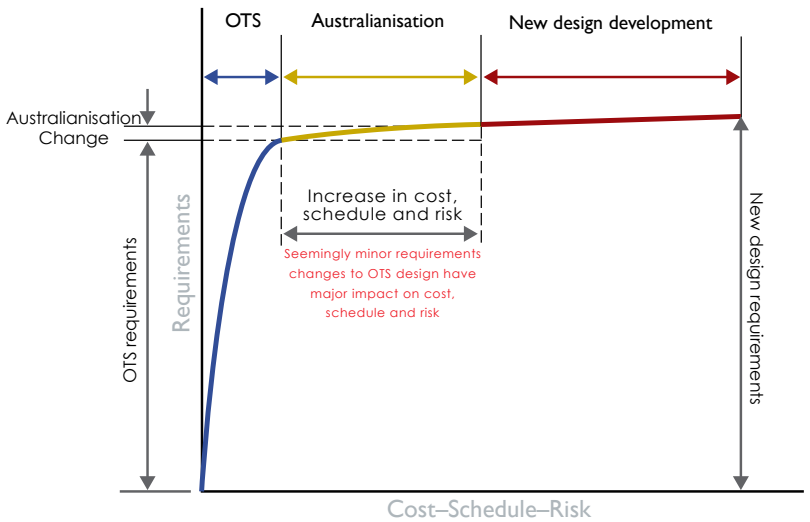

Figure 8: *Concept diagram – impact on cost, schedule and risk of volume of requirements*[18]

18 Diagram developed by DMO's General Manager Programs, Warren King.

Off-the-shelf solutions are not practical in every instance. At the very least, minor changes will almost always be necessary. For example, although the C-17 aircraft and Super Hornet fighter projects are considered off-the-shelf, they contain minor modifications to ensure interoperability with other ADF assets and systems. Minor modifications typically have a minimal impact on cost, schedule and risk. For example, replacing an existing instrument with one that displays in metric rather than imperial units is typically cheap, quick and has minimal risk. (This is not always the case; a seemingly minor software change to an aircraft's mission computer can carry considerable risk.)

Changes to an off-the-shelf option are also sometimes necessary to ensure compliance with ADF or broader Australian technical regulations—for example, air worthiness criteria. Because the modifications necessary to achieve compliance can inject significant risk and cost into projects, ADF regulatory authorities need to clearly understand where their requirements differ from international standards and be sure that those differences are necessary. Where changes are required due to technical regulatory requirements they should be approved by a high level Defence committee comprising Chief of CDG, Chief Executive Officer of DMO, and the relevant Service Chief. Where practicable, Defence's technical regulatory authorities should try to close the gap.

setting requirements beyond that of off-the-shelf equipment generates disproportionately large increases to the cost, schedule and risk of projects

In the case of upgrading an existing platform, an off-the-shelf solution is sometimes impossible because no upgrade package readily exists. While the cost and risk of such an upgrade can be reduced by using off-the-shelf components, the integration of disparate sub-systems has often proven to be a risky exercise in itself. In the long term, the merits of maintaining a platform on the same upgrade path as its parent country should be carefully considered—the need for unique upgrades often arises because of an earlier decision to 'go it alone'.

Finally, there will be times when there is simply no off-the-shelf solution that meets the requirements of the ADF. Even then, there may be options. Joining a foreign program developing the next generation of equipment will potentially be less risky than a unique Australian effort. The Joint Strike Fighter program is a good example of how Australia can leverage international effort to access cutting-edge technology in a cost-effective manner. Nonetheless, on occasions, the market may simply not be offering anything suitable now or in the future—as arguably was the case with the Collins class submarines—and the Commonwealth will have to bear the cost and risk of development alone.

To reduce the cost of projects, and mitigate the risk of schedule delays and cost increases within projects, the Review believes that Defence should increase its use of off-the-shelf equipment. Moreover, the Review judges that this can and will occur if

Defence is more business-like in analysing its requirements against what is available in the marketplace. Each and every decision to pursue a unique Australian solution needs to be made with a full understanding of not just the benefits but also the extra cost and risk of doing so.

With this in mind, the Kinnaird Review recommended that *'an off-the-shelf solution must be part of any set of options put to government to ensure that a benchmark is established against which the costs, military effects and schedule of all proposals can be assessed'*. In practice, this has not always been the case. For this reason this Review makes the following stronger recommendation.

RECOMMENDATION 2.3

Any decisions to move beyond the requirements of an off-the-shelf solution must be based on a rigorous cost-benefit analysis of the additional capability sought against the cost and risk of doing so. This analysis must be clearly communicated to Government so that it is informed for decision-making purposes.

INCREASING ACCOUNTABILITY AND ALIGNMENT

The process of developing ADF capability brings together the interests and expertise of stakeholders from across Defence. To ensure that project data is as robust as possible, and that stakeholders have a shared commitment to project goals, the Review believes that key information should be documented at critical milestones in the process.

CDG is responsible for informing Government of the capability, cost and schedule implications of the options under consideration to fill a capability gap.

CDG should define the capability gap, the project scope and proposed options. For each option, the cost, schedule and risk elements must be estimated. These estimates must be developed by the relevant subject matter expert. In the case of military equipment, DMO is the expert. DMO must also be responsible for the equipment acquisition strategy throughout the process. Defence Groups are the experts for other Fundamental Inputs to Capability (Annex D); for example Defence Support Group is the expert for facilities.

The maturity of information required at DCP entry and each subsequent approval point will be commensurate with the proposed approval process path. The capability proposal will be refined as it progresses through the approval process agreed by Government at DCP entry, culminating at second pass approval. Figure 9 describes the division of responsibilities for providing information through the typical capability approval processes.

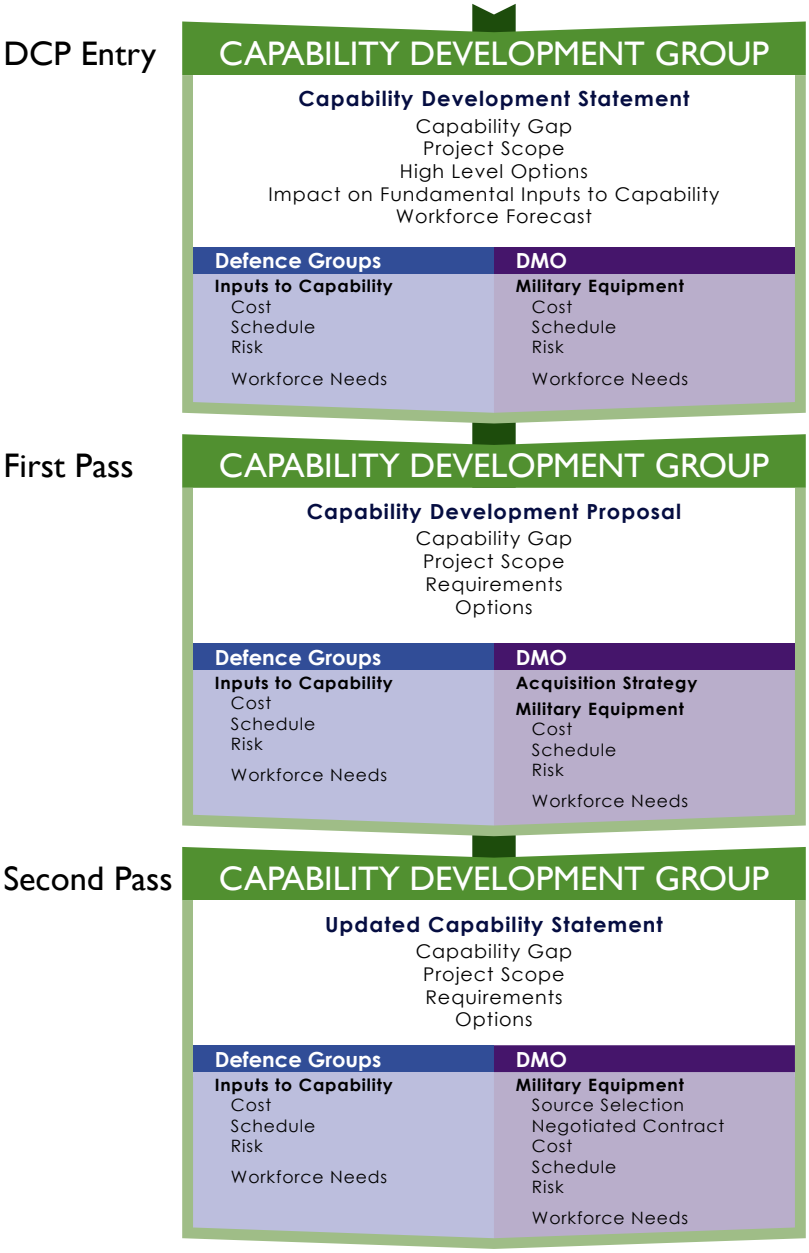

Figure 9: *Responsibilities in the capability approval process*

Essentially, CDG retains the lead on coordinating the capability submission whilst DMO is responsible for commercial issues surrounding the acquisition of the equipment and must sign-off at all decision points in the approval process. An agreed MAA would record DMO's responsibilities for the equipment acquisition.

Documenting accountabilities

Prior to seeking entry into the DCP, or first or second pass approval, formal agreement should be documented on the cost, schedule and capability requirements of projects.

To ensure clear accountability for the information put forward, agreement and sign-off should occur at the level of:

- Chief of Capability Development Group, as coordinator of the capability proposal, for the capability options and cost, schedule and risk information provided by Defence Groups.
- Capability Manager (usually a Service Chief) for acknowledgement of the capability options; and
- Chief Executive Officer of DMO for cost, schedule and risk for military equipment as well as for the development of an equipment acquisition strategy for the capability throughout the process.

This would require some change to the current system, namely DMO becoming responsible for military equipment estimates at DCP entry and each subsequent approval milestone. It will provide the Government with clear lines of accountability for each project.

Throughout this process clear communication between all stakeholders is essential. Integrated Project Management Teams can assist with this task. As representatives of the key stakeholders, the members of these teams can advise the executives they represent.

Consistent with this, a draft Materiel Acquisition Agreement (MAA) should be developed at the point of DCP entry and refined at each subsequent pass.

The MAA should clearly set out the expected capability requirements as defined by CDG and the Capability Managers. It should also reflect the business acquisition strategy developed by DMO. Importantly the MAA should also include an evaluation of all the relevant technical regulations and their impact on the acquisition. This MAA will be essential to ensuring that all stakeholders understand their respective responsibilities throughout the acquisition.

Where it becomes necessary to make significant changes after an approval milestone, these should be documented following agreement between stakeholders with authority commensurate with the impact. Substantial changes should be referred to the Minister, and if necessary the Government, for re-consideration.

This process will help provide discipline and reduce the potential for scope creep. It will also provide the Government with greater transparency of the acquisition process.

RECOMMENDATION 2.4

Prior to a project's entry into the Defence Capability Plan, Capability Development Group should prepare a capability submission that addresses the capability required along with the initial data relating to cost, schedule and risk. The cost, schedule and risk information would be developed by the relevant expert – DMO for military equipment estimates and appropriate Defence Groups for all other inputs to capability.

RECOMMENDATION 2.5

At entry into the Defence Capability Plan, a draft Materiel Acquisition Agreement should be developed detailing the responsibilities and expectations of the stakeholders. This agreement should be refined throughout the process as more information is gathered.

RECOMMENDATION 2.6

Capability Managers should be required to sign the capability submission acknowledging their understanding of the capability being requested and the proposed acquisition strategy.

RECOMMENDATION 2.7

DMO should be responsible for the equipment acquisition strategy throughout the requirements definition process.

PROVIDING THE RIGHT SKILLS IN THE CAPABILITY PLANNING STAGE

The Joint Committee of Public Accounts and Audit (JCPAA) in its report on *Progress on equipment acquisition and financial reporting in Defence* noted that:

> *It is clear from the evidence that decisions made in the early stages of the capability life cycle are critical to the long-term success of any Defence acquisition process. Ensuring that requirements are clearly articulated and communicated and that high levels of technical risk are managed effectively underpin the success of that process.*[19]

Within Defence, CDG takes the lead in planning the acquisition of new capability. The Review believes that the accuracy of information supplied to Government would be improved if CDG was better and more appropriately resourced to undertake its role, and received expert advice as outlined in the preceeding section.

The JCPAA also noted the importance of resourcing CDG appropriately:

> *The early phases of the capability development and acquisition cycle remain a critical area for the Department of Defence and the DMO. The clear articulation and communication of*

19 Joint Committee of Public Accounts and Audit, Report 411, *Progress on equipment acquisition and financial reporting in Defence*, pp. 75

requirements is vital to that process. Defence must retain a strong focus on the leadership of the Capability Development Group and resource the area appropriately.[20]

Currently, the core personnel in CDG are military officers on short term postings. The tenure of CDG staff is very short, averaging just 18 months, in an area where the work is complex in nature. The tenure of CDG staff is represented in Figure 10. It should be noted that most staff are below the EL 2(E) level[21].

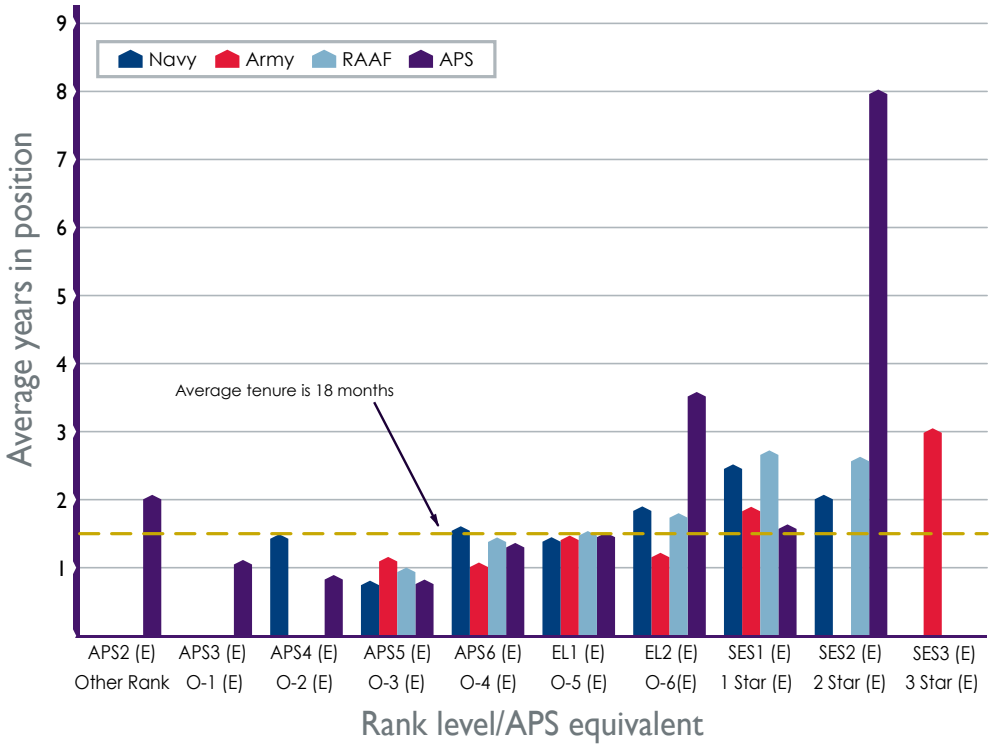

Figure 10: *Current time-in-position of CDG Staff by grade/rank*[22]

Extending the duration of postings to CDG would assist in developing the expertise needed to manage the complexity of project definition. While staffing CDG with military personnel ensures that capability requirements are informed by expert domain knowledge and recent operational experience, it falls short of providing the full range of skills needed to plan the multi-billion dollar acquisition program. Specifically, the Review considers it essential that CDG deepen its expertise in cost and schedule estimation and project management.

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20 ibid, pp. xvi.

21 Refer to glossary for an explanation of the APS classifications.

22 This figure shows the historical tenure of CDG staff in the standard Australian Public Service (APS) employment levels and in military equivalent ranks.

Given their respective roles, CDG and DMO each require their own expert cost estimation capabilities. To the extent that there are overlapping responsibilities for cost estimation, it is appropriate that CDG and DMO maintain overlapping capabilities. DMO will be responsible for estimating equipment acquisition and sustainment costs, and must provide input to CDG on these aspects of a project. CDG is responsible for other cost estimates and, ultimately, for bringing together the full range of through-life costs including equipment, personnel, training, sustainment and facilities. To ensure that the cost estimates in these domains are as accurate as possible, the Review believes that both CDG and DMO should improve their capability to estimate costs.

A similar overlap occurs in the project management skills needed by both CDG and DMO. CDG requires expertise in project planning and management. Not only does CDG take the lead in the initial definition of a project, but it is in these critical initial stages that the plan for the remainder of the project is formulated. It is no exaggeration to say that the work of CDG is critical to the success or failure of the acquisition that follows.

The skills to manage projects in the early stages of a project are different from those required to manage projects to specified requirements after approval. The former requires skills to deal with ambiguity, the latter to rigorously achieve a specific outcome. For this reason, CDG needs to augment its existing workforce to enhance its project management expertise; it is unrealistic to expect military personnel with limited training in project management to plan major acquisition projects.

DMO has been improving its project management skills. This should continue. Improving the ability to estimate and manage project schedules should be a priority for both DMO and CDG.

Finally, CDG also needs to be able to make effective use of the technical, engineering and commercial expertise it receives from DMO and the Defence Science and Technology Organisation (DSTO). In some areas this may require the addition of personnel with specialist expertise.

Applying the right skills early in the process will improve the quality of information provided to Government and increase the likelihood of equipment being delivered to the ADF on time, on budget and to specification.

Devoting sufficient resources early in the process

The Kinnaird Review said that:

> *The redirection of expenditure towards a greater emphasis on analysis and project definition before proceeding to tender should return dividends during the acquisition phase through greater certainty of costs and schedule, and a better understanding of technology risk. This proportion may be of the order of 10% to 15% of total project funds in relation to complex projects.*[23]

While project development funds are earmarked for early analysis and project definition, Defence spending on capability development is arguably lower than that suggested by Kinnaird given the number of complex projects undertaken. Currently some 8% of total project funds are applied to analysis and project definition.

Because reliable information on capability, risk, cost and schedule can only be gained through analysis and research, Defence and DMO should increase the resources devoted to these areas. This should not just include developing a better understanding of capability, risk, cost and schedule prior to project approval, but also gathering the best commercial advice on acquisition options.

Risk analysis in particular would benefit from increased investment, not just in terms of technology maturity but also integration risk, software risk, and commercial risk. DSTO is currently mandated to provide an assessment of technology maturity. Separate expertise is needed to support analysis of other project related risks.

The cost of undertaking comprehensive analysis prior to project approval should be considered a routine and legitimate part of any major capital acquisition. This investment should be considered in terms of the improved outcomes that could be achieved. Done effectively, better analysis will generate returns through more reliable project outcomes and reduced remediation costs.

RECOMMENDATION 2.8

Capability Development Group should be adequately resourced in terms of workforce numbers and skills to develop capability proposals and incorporate specialist advice from DMO and the Defence Science and Technology Organisation.

RECOMMENDATION 2.9

Capability Development Group and DMO should further develop their ability, and be adequately resourced to accurately estimate the cost and schedule of major acquisition projects.

23 *Defence Procurement Review 2003*, pp. 16-17.

Providing expert commercial advice

DMO is in a unique position to advise Defence and Government on important aspects of defence acquisitions. Consistent with this, the Kinnaird Review said that:

> *The external evaluation and verification of all [capability] proposals is essential. Importantly, government needs to be assured that adequate scrutiny is undertaken by Finance, the CFO [Defence] and DMO on costings; by the DMO on acquisition strategy, risk mitigation and schedule; by Defence's Corporate Support and Infrastructure Group (CSIG) on facilities issues; and by DSTO on technology feasibility, maturity, and overall technical risk. Apart from the involvement of Finance, Defence also need to consult appropriately with other central agencies.*[24]

> *The head of the DMO would report to government on detailed issues including tendering and contractual matters related to acquiring and supporting equipment.*[25]

Aside from being the principal centre of expertise available on many aspects of defence acquisitions, DMO is responsible for delivering military equipment to the ADF according to the cost, schedule and specifications agreed by Government. To be properly held to account for doing so, DMO needs to be able to provide independent advice to Government on matters within its remit.

At the point of DCP entry, and first and second pass approval, DMO should provide advice to Government on:

- project cost, schedule and risk;
- acquisition strategy, tendering, negotiation and contracts;
- industry capacity; and
- in-service equipment sustainment.

DMO should not provide advice to Government on military capability. This is rightly the exclusive responsibility of Defence.

DMO advice to Government should be conveyed in two ways. First, DMO should provide written advice (coordination comments in submissions to Cabinet) on major capital investment submissions in the same way as other agencies do now. Second, the Chief Executive Officer of DMO should be a permanently invited adviser to all Government committees considering defence equipment acquisitions to answer the Government's questions on these matters.

RECOMMENDATION 2.10

The Chief Executive Officer of DMO should provide independent advice to Government on the cost, schedule, risk and commercial aspects of all major capital equipment acquisitions, and be a permanently invited adviser to Government committees considering defence procurement.

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24 *Defence Procurement Review 2003*, pp. 17.

25 ibid., pp. 25.

Second pass announcements by Government

The Review is concerned that current tendering and negotiation practices do not always deliver the best possible commercial advantage to the Commonwealth. While the specific details of individual project solicitations can demand tailored approaches, the Review believes that the Commonwealth's commercial leverage could be enhanced through strategies including:

- negotiating draft contracts prior to second pass approval;
- selecting a preferred supplier but not announcing the selection until negotiations are complete; and
- conducting parallel negotiations with alternative suppliers where practicable.

In various ways these approaches protect the competitive bargaining power of the Commonwealth and enhance the prospects of achieving a value-for-money result for the taxpayer. The principle should be to ensure that the benefits of competition are not reduced by the premature announcement of Government decisions that lead, in effect, to a sole source negotiation.

The Review is strongly of the view that the choice of preferred tenderer should not be published until after contract negotiation is complete. Earlier disclosure can reduce competitive tension, lead to protracted contract negotiations and result in a poor commercial outcome.

CHAPTER THREE
CAPABILITY ACQUISITION

It is our view that the early formation of [Project Management Stakeholder Groups] (PMSGs) would provide an effective project executive mechanism that could guide project managers and ensure a clearer focus on outcome rather than process... Long term and empowered PMSGs could apply a simple model based upon viewing variations as contract management issues rather than always as scope creep. Establishing them early would, in our opinion, help ensure that the project scope is correct, clear and agreed before MAAs are executed.

Connell Wagner Pty Ltd submission

...the procurement process could be made more efficient and less time-consuming if DMO were more able (and willing) to make commitments and negotiate within boundaries approved by senior management rather than needing to take matters back for approval as often as currently occurs. In saying this, we acknowledge the need for parties to reserve their rights, and therefore recommend incremental improvement in this regard rather than wholesale change.

CEA Technologies Pty Ltd submission

DMO needs to consider fully implementing the appropriate discipline of 'change orders' for all changes, amendments etc to projects subsequent to 2nd pass approval. This will involve making appropriate managers directly responsible for ensuring that all changes are costed, are cost effective... and have had a full risk analysis conducted prior to approval. Industry should also be engaged as soon as a change is proposed...

Thiess Services Pty Ltd submission

CAPABILITY ACQUISITION

In the Acquisition phase, an approved capability solution is acquired and brought into service. This starts with Government approval of a project and continues through to the transition of the acquired equipment into service. During the Acquisition phase DMO works with industry to turn Government-endorsed requirements into functional military equipment.

Figure 11: *Acquisition is the third phase of the Capability Life Cycle*

Successful acquisition of equipment requires skilled project management throughout the Acquisition phase.

AREAS FOR IMPROVEMENT

Evidence obtained by the Review showed that cost growth is the most significant risk to projects prior to second pass approval, but that thereafter schedule slippage becomes the principal risk.

Of the top 30 DMO projects[26], about one third are expected to deliver on time or ahead of schedule. The remainder are anticipating delays varying from a few months to a number of years. There are many reasons for schedule slippage in major projects. Figure 12 shows DMO's analysis of the primary causes of schedule slippage to major capital projects in financial year 2007-08, (budget under-spends have been used as a surrogate indicator of delays).

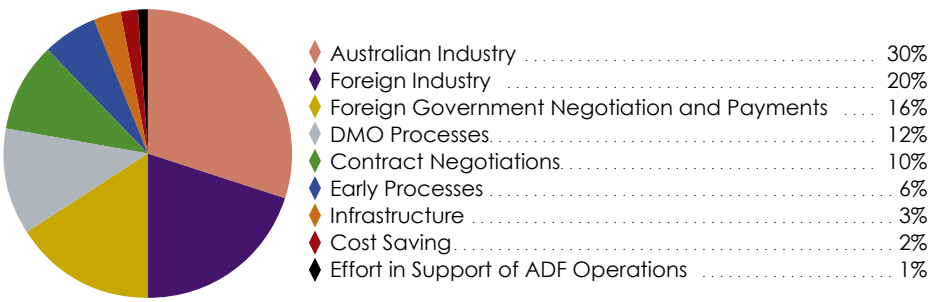

Figure 12: *Contribution to schedule slippage in financial year 2007-08*

It is noteworthy that the primary cause of delays was contractor non-performance, with 50% of delays by value attributable to the failure of either domestic (30%)

26 The top 30 projects are defined by forecast in-year expenditure published by Defence in annual budget statements and annual reports.

or foreign (20%) suppliers to deliver. Other reasons include delays in finalising negotiations with (and payments to) foreign governments (16%), delays within DMO's own processes (12%) and extended contract negotiations (10%).

This chapter explores ways to improve the acquisition of equipment including reducing the incidence and extent of schedule delays. These include:

- setting realistic schedules;
- improving the transition of projects to DMO;
- improving the governance and performance of projects;
- using the most appropriate contracting model and working constructively with industry;
- improving industry performance;
- formalising the management of scope changes after project approval; and
- accepting equipment into service.

SETTING REALISTIC SCHEDULES

The first step in delivering a project on time is to set a realistic schedule. For planning purposes, CDG and DMO generate an initial estimate of a project's schedule early in the capability development process. It is important that initial schedule estimates are revised as further information is gained. Moreover, schedules should be based on broad commercial experience rather than just the promises made by potential suppliers.

At the risk of stating the obvious, the early progress of a project is an important indicator of the achievability of its schedule. Delays in achieving second pass approval, for example, without a corresponding adjustment to planned completion dates or delivery requirements inevitably increase schedule risk. Accordingly, delays in meeting initial milestones should trigger a re-assessment of the achievability of all subsequent dates.

The Review analysed 75 projects approved since 2001 for which consistent planning data was available. Of these, nine projects were granted project approval with compressed schedules; as at May 2008, four of these nine projects were delayed. While the number of projects analysed is small, this suggests that any decision to reduce the time available to deliver a project should be taken mindful of the risk of subsequent delay.

IMPROVING THE TRANSITION OF PROJECTS TO DMO

The transition of responsibility for a project from CDG to DMO is a critical step in the capability development cycle. To be effective, transition demands close cooperation between DMO and CDG (and Defence more broadly) prior to second pass approval.

One way to facilitate cooperation is to establish a project team in DMO early in the process. The Review notes that in private sector bidding for major projects, the early establishment of a project team helps to mitigate risk and reduce delays. It follows that the early establishment of project teams in DMO would facilitate a smooth transition,

and enhance risk mitigation in early project planning. While CDG has responsibility for coordinating projects prior to second pass, DMO advises on cost, schedule, risk and on acquisition strategy. In addition, DMO conducts the necessary market solicitation exercises (requests for tender, invitations to express interest, etc.) prior to project approval.

To support the smooth transition of a project from CDG to DMO, both organisations must be adequately resourced. In the last chapter we stressed the importance of CDG being adequately and appropriately skilled to play its part. The same is true of DMO.

To enable DMO to establish project teams in a timely manner, project funds should include the cost of project office staff. DMO needs to have full control of these funds so that it can adapt its workforce to meet demands as a project moves through the capability life cycle. This is not the case at present. The Review found that, over the past 18 months, it had taken up to 12 months for Defence to approve requests from DMO for additional personnel. Delays in approving the recruitment of staff undermine the ability of DMO to accept projects from Defence and, more generally, to deliver and sustain equipment to meet the needs of the ADF. We return to the question of DMO's control of resources in Chapter 5.

In the last chapter we recommended that stakeholder agreement be documented at critical project approval milestones. This is especially important when projects transition to DMO. At present, MAAs document agreement between CDG and DMO on the scope, cost and schedule of an approved project. As such, MAAs constitute the baseline for measuring and reporting the performance of DMO.

Although Capability Managers are involved in the development of MAAs, the agreements are presently only struck between CDG and DMO. The Review believes that Capability Managers should also be signatories to MAAs. By doing so, they would formally agree to the scope and schedule of activity and thereby confirm the baseline against which delivery of equipment will be measured.

RECOMMENDATION 3.1

To provide a firm baseline for the delivery of equipment, Capability Managers should sign the Materiel Acquisition Agreements.

IMPROVING THE GOVERNANCE AND PERFORMANCE OF PROJECTS

Role of the Capability Manager

The Kinnaird Review identified the role of the Capability Manager as follows:

> *Capability managers will be accountable for monitoring and reporting to Government for the whole of capability from the point where government approves a particular capability option, that is at second pass approval, through to the time that the capability is retired from service. During the acquisition phase, the capability manager monitors the development of all capability elements, including equipment delivery by the DMO. This*

> *responsibility does not imply any authority to directly instruct the DMO on any aspect of its function as the manager of equipment acquisition.*[27]

Consistent with this, Recommendation 4 of the Kinnaird Review made the Capability Managers accountable for reporting to Government on the development of defence capability. This was a sound recommendation, but it left unresolved the question of who should coordinate, as opposed to simply oversight, the bringing together of the various elements of capability during the Acquisition phase.

there still needs to be a single point of accountability to coordinate all facets of capability during the Acquisition phase

The JCPAA noted that:

> *Progress on the implementation of Recommendation 4 of the Kinnaird Review remains deficient and should be attended to as a matter of priority.*[28]

Although CDG plans for and costs all the elements necessary to introduce capability, in practice this tends to occur only up to second pass. And while under the Defence business model the delivery of specific capability elements is the responsibility of individual agencies—for example, Defence Support Group delivers facilities—there still needs to be a single point of accountability to coordinate all facets of capability during the Acquisition phase.

Given that the Kinnaird Review made the Capability Managers accountable for routine and comprehensive reporting during the Acquisition phase, and that under current arrangements coordination of in-service capability is done by the Capability Managers, it makes sense that Capability Managers also co-ordinate the capability during the Acquisition phase.

To an extent, this is already occurring. In some cases Capability Managers have established a dedicated organisation within their Service employing project management principles to coordinate all of the activities required to deliver complete capability. But such an approach has not been uniformly applied.

To ensure that all inputs are properly taken into account in the development of capability, Defence should adopt a model along the lines mentioned above and preserve the authority and accountability of the Capability Managers. Also, consistent with the Kinnaird Review's Recommendation 4, Capability Managers should report regularly to Government on all aspects of the capability development projects that they are accountable for, including, but not limited to, the performance of DMO in delivering equipment on schedule and to specification.

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27 *Defence Procurement Review 2003*, pp. 24-25.

28 Joint Committee of Public Accounts and Audit 2008, *Report 411 Progress on equipment acquisition and financial reporting in Defence*, pp. xvi

RECOMMENDATION 3.2

As a fundamental principle, oversight and coordination of all elements necessary for the introduction of a capability should be exercised by the relevant Capability Manager.

RECOMMENDATION 3.3

Defence should implement a framework, through the Capability Managers, to coordinate all the inputs to developing military capability.

RECOMMENDATION 3.4

Capability Managers should report regularly to Government on the status of the capability development initiatives for which they are accountable.

Project manager authority and performance

Projects should be managed as business undertakings. Projects should be established as 'profit centres'[29] and should report in the same way that businesses report – actual performance against budgeted performance both in terms of financial and non-financial outcomes.

Defence and DMO use performance agreements between supervisors and their staff at all levels. These tend to be generic and cater, on the whole, for routine activities. Such an approach is ill-suited to managing the performance of individuals responsible for delivering complex and demanding defence acquisition projects.

For this reason, the Review believes that a formal project charter should be established between either the Chief Executive Officer of DMO, or the appropriate General Manager, and the project manager of all ACAT I and II projects and any other projects that require close management.

The charter should clarify the:

- role of the project manager including responsibilities, authorities, limitations and delegations;
- mechanism by which changes to project scope will be managed;
- performance expected of the project including specific goals in accordance with the project's MAA; and
- financial and other resources allocated to the project and the services it can expect to receive from elsewhere in DMO.

To be effective, charters must include measurable performance targets suitable for benchmarking. This, in turn, should be supported by a performance measurement

29 In the private sector, a profit centre earns revenue and incurs expenses. In a public sector organisation, there is no requirement that each profit centre earn an actual profit. The key requirement is to ensure that revenues (project budgets) are tracked against project costs and subject to disciplined management and reporting. Staff costs and overheads should also be recorded against projects.

system that provides project managers, and their supervisors, with objective evidence of how a project is tracking. Properly implemented, this would not only facilitate improvements within individual projects but also provide valuable performance information for DMO as a whole.

It is important that charters contain measurable financial performance targets, including annual and overall budgets for the life of the project and intermediate phasings. These projects should be treated as 'profit centres' and produce financial statements that account for direct income, expenses and project overheads.

Project performance against financial and non-financial targets should be recorded and available in DMO's corporate information systems—though it will take some time and work to evolve existing systems to achieve this.

For projects justifying this more intensive performance management regime, particular care will need to be taken with the selection and remuneration of project managers. We return to the issue of project manager accountability and remuneration in Chapter 5.

RECOMMENDATION 3.5

For complex and demanding projects, the authority, responsibility and accountability of the Project Manager should be formally set out in a project charter. Project Managers should be held to account for meeting the financial and non-financial performance targets detailed in their charter.

Project performance review

The Review believes that DMO needs an internal project review mechanism to identify and fix problems earlier than presently occurs. Such a mechanism would also provide the opportunity to transfer knowledge across the organisation.

To date DMO has used a range of review mechanisms, with varying success. DMO is presently implementing 'gate reviews' of projects to supplement the 'red team' and 'deep dive' reviews that have been operating over the past few years. These 'gate reviews' entail a formal review by senior managers and project personnel at key project milestones. The goal is to consider the project in sufficient detail to provide adequate assurance, and if necessary support, without overly disrupting the project office. The Review believes that the 'gate review' process should be expanded.

The Review believes that DMO needs an internal project review mechanism to identify and fix problems earlier than presently occurs

DMO should establish a Project Performance Office to be a centre of project management expertise working with project teams to fix problems. The Office should

principally be a source of timely and effective advice. This will help to drive cultural change across DMO through practical assistance which demonstrates business acumen. The Office should have sufficient authority to resolve problems wherever possible.

The Project Performance Office should examine both well-performing and faltering projects to collect 'lessons learned' that will support continuous improvement in DMO. Over time, the library of lessons will enable improvements to project management and help identify systemic problems across the organisation that need to be addressed.

RECOMMENDATION 3.6

An independent Project Performance Office should be established within DMO to review projects and assist project teams to solve problems where necessary.

USING THE BEST CONTRACTING MODEL AND WORKING CONSTRUCTIVELY WITH INDUSTRY

Contracting principles

DMO purchases range from highly developmental equipment through to off-the-shelf items and routine professional services. The negotiation and management of contracts is core business for DMO.

It is worrying, therefore, that a recurrent theme in submissions to the Review was dissatisfaction with existing contracting practice. Submissions commented on the complexity and administrative burden imposed by the current approach and the rigidity with which contracting terms and conditions are applied.

Overly complex and inflexible contracting can impose considerable compliance costs on industry; costs that are invariably passed back to the Commonwealth as overheads. For small contracts, potential suppliers with competitive products may decide not to bid because of the cost of doing so.

The Review believes that DMO could adopt a more commercial approach to contracting without compromising the Commonwealth's interests, and should therefore do so. A more commercial approach would include being more flexible in ensuring that the complexity of contracts is commensurate with managing the risks of the project. To achieve this, DMO should continue to benchmark its performance against commercial practice including for procurement and project management overheads.

DMO and industry have agreed to abide by the following seven principles to improve procurement practice:

SEVEN PRINCIPLES TO IMPROVE PROCUREMENT PRACTICE

Principle 1: Risks should be allocated to the party best able to manage those risks. To achieve this, each party should take responsibility for its actions (including the actions of its agents, subcontractors, and third party contractors);

Principle 2: All contract terms need to be certain, not capable of being changed except by mutual agreement, and should reflect the entire agreement of the parties;

Principle 3: The contract terms should reflect both the Commonwealth's requirement for value for money and industry's (including Small to Medium Enterprise's) need for commercially realistic terms, recognising the nature of contracting with the Commonwealth;

Principle 4: The contract terms should not allow a party to undermine fundamentally the essential bargain between the parties through the exercise of a unilateral discretion;

Principle 5: The contract terms should provide for appropriate rights and obligations of the Commonwealth and industry (including Small to Medium Enterprises) in relation to the protection, ownership and usage of Intellectual Property;

Principle 6: Generally, any issue arising under the contract should be able to be referred to a dispute resolution process. The dispute resolution process should be clear, balanced and efficient; and

Principle 7: The contract terms should be reasonably capable of being agreed and administered without undue burden.

The Review supports this principle-based approach and encourages the continuing refinement of these principles to improve contracting practice.

RECOMMENDATION 3.7

DMO should continue to refine its approach to contracting so as to align with commercial practice. Contracts should reflect the risks of the procurement being undertaken.

Alternative contracting methods

DMO employs a range of contracting methods including government-to-government sales, commercial fixed price contracts, and alliance arrangements. Given the right situation, each of these approaches can deliver good results. There are other approaches that have been used successfully by foreign governments but which are used less frequently by DMO. These alternative contracting methods include evolutionary acquisitions, staged procurements and public-private partnerships (PPPs). To ensure that DMO employs the best possible contracting approach in any given circumstance, these alternatives warrant close examination.

Evolutionary acquisitions begin by fielding an initial system that provides an acceptable, or at least workable, level of capability. Enhancements to the initial system then progressively incorporate planned improvements and changes based on user feedback. The advantages of an evolutionary acquisition are twofold. First, it has the flexibility to take advantage of emerging technical opportunities and respond to

changing user needs. Second, it avoids the risks inherent in a 'big bang' approach by incrementally building on a proven product.

Staged acquisitions, on the other hand, reduce risk by segmenting a procurement into discrete steps, each of which is evaluated before committing to the next. Steps may include:

- a project definition study;
- development of a prototype; and
- a design, or design and development, competition.

The Review believes that evolutionary and staged acquisitions would better enable DMO to manage project risk in certain circumstances, particularly in projects requiring extensive research and development or containing a significant level of systems integration.

A number of submissions to the Review argued that PPPs are a viable and attractive alternative to existing contracting methods. PPPs include a range of partnering arrangements between the private sector and government—each entailing a different mix of financial commitment and risk sharing between the partners. Ownership of assets in PPPs can be in either private or public hands, or can transition from one to the other at some point. The resulting capability can be operated by Defence, or provided as a service to Defence by the contractor.

It is important that the lessons learned from PPPs be applied to more traditional contracting methods to improve contracting outcomes wherever possible

PPPs can be applied to an entire project or only to parts. In the past, PPPs have most frequently been applied to specific elements of equipment projects. PPPs are an increasingly common approach to Defence facilities procurement. The flagship initiative in this regard is the $300 million Headquarters Joint Operations Command.

Under current policy, Defence studies the feasibility of using a PPP for all equipment projects valued at over $100 million. On completion of the study, Defence is to seek Government approval to continue exploring the PPP option or cease examination of this contracting model.

While PPPs will not always be appropriate in a defence context—taking assets to war complicates matters somewhat—the injection of industry innovation and transfer of risk to the private sector can improve schedule and cost performance. International studies show that this form of contracting is most effective where there is some stability in operating requirements after delivery.

PPPs are generally most suited to defence projects characterised by:

- potential dual use (Defence and commercial) of the service or asset;
- stable and well-defined performance measures;
- long term contracts;
- limited requirement to own the assets; and
- quantifiable and actual risk transfer to the private sector.

Defence procurements that potentially fit these characteristics include training systems, simulator projects, and capabilities where commercial off-the-shelf equipment is used in roles equivalent or similar to those in the private sector.

PUBLIC-PRIVATE PARTNERSHIPS IN DEFENCE

There are a number of examples where Defence has already entered into arrangements that have similar characteristics to PPPs; one from the aerospace sector is the Special Purpose fleet operated by 34 Squadron. The fleet consists of two BBJ 737 and three CL 604 leased commercial aircraft that are crewed by RAAF personnel and fly with RAAF livery. The aircraft are leased for 10 years under an annual consumption basis (similar to car fleet leases) and are maintained by the owning company as part of the contract.

The success of PPP projects appears to be strongly linked to rigorous planning which de-risks a project from the early stages. The process leading to a PPP includes a detailed analysis of the cost, schedule and risks of a project, and the potential costs if those risks manifest. Because the analysis has to be agreed by independent assessors representing the institution(s) financing the project, confidence levels tend to be higher than in traditional acquisitions.

For these reasons the Review believes that Defence should utilise PPPs to a greater degree in defence procurement. Projects which could potentially become procurement by PPP need to be identified at a very early stage in the Capability Life Cycle. In the development of the acquisition strategy by DMO the appropriateness of a PPP should be a mandatory consideration along with other models of procurement.

In analysing the appropriateness of a PPP approach, care also needs to be taken in assessing value-for-money. Value-for-money comparisons should take into account the historical performance of traditional procurements including risk mitigation and cost and schedule performance. The cost of finance should also be carefully analysed. It is instructive that PPPs (private finance initiatives) in the United Kingdom are moving towards the use of public capital to finance PPP procurements.

More detailed work is needed to thoroughly assess the opportunities that PPPs may present. DMO should be charged with the responsibility of evaluating the types of projects that may be suitable for a PPP, the criteria for assessment that need to be applied, the internal skills and external advice that DMO may require, and presenting advice to Government.

RECOMMENDATION 3.8

Public-private partnerships should be applied to defence procurement on appropriate projects. The DMO should evaluate all of the relevant issues and provide advice to Government on how best to implement public-private partnerships.

RECOMMENDATION 3.9

Projects should be assessed for their potential as a public-private partnership as part of the acquisition strategy developed by the DMO.

It is important that the lessons learned from PPPs be applied to more traditional contracting methods to improve contracting outcomes wherever possible.

IMPROVING INDUSTRY PERFORMANCE

For a mixture of practical and strategic reasons, Australia needs a capable defence industry. Some tasks would be more practical to do onshore—like the routine repair and maintenance of ADF platforms. Australia's self-reliant defence posture will always require a level of local defence industry capability.[30] The Government has an interest, therefore, in ensuring a healthy local defence sector.

Given the size of the Defence acquisition and sustainment budgets, the prospects for Australia's defence industry look good for the foreseeable future. Over the next decade the Government expects to spend over $100 billion replacing and maintaining defence equipment. Of this budget almost two-thirds is likely to be spent in Australia. While a significant share of this money will be spent on the major naval construction programs already underway (the Air Warfare Destroyer and Amphibious Vessels), the sustainment and upgrade of in-service equipment is likely to be the major task for local industry in the years ahead.

Analysis of market trends, including the globalisation of defence production, suggests that Australian-unique defence programs will become increasingly uneconomic in the future. While Defence demand is high in dollar terms, the volume of units required by the ADF is unlikely to lead to efficient manufacture. As a consequence, Australia has to explore ways to combine its demand with that of its allies to achieve economies of scale—as with the Joint Strike Fighter program.

The Review believes Defence must take advantage of acquisition opportunities, including off-the-shelf purchases and international programs, to contain costs and free-up local industry capacity for priority tasks. Even when defence self-reliance suggests an 'Australian' solution to sustain an important local defence industry capability, the cost of doing so must be understood.

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30 Australian Strategic Policy Institute 2008, *The Cost of Defence, ASPI Defence Budget Brief 2008-09*, pp. 162.

As the Australian Strategic Policy Institute correctly noted:

> *...defence acquisitions should be sourced from the international market without favour or prejudice to local suppliers, except in those circumstances where self reliance or through-life support capabilities are a critical factor. Where preference is given to local industry, the additional cost and risk should be identified so that the self-reliance being purchased can be tested for value-for-money and the opportunity costs fully understood.*[31]

Sourcing equipment from overseas can also create opportunities for Australian industry to supply products and sub-systems into global supply chains. The Government recognises this and supports local firms in doing so. This is a realistic response to the ongoing trends of globalisation and market concentration in the defence sector. The early success of Australian firms bidding into the massive Joint Strike Fighter program shows that Australia's defence industry can be internationally competitive.

The performance of industry is critical to the development and sustainment of the ADF. In some areas, industry is performing well. For example, in recent years Australian industry has responded effectively to the urgent demand for equipment to support ADF operations. But there are problems. As identified earlier, DMO analysis shows that approximately 50% of project schedule slippage is due to delays by local or overseas suppliers.

At least two factors are behind industry's failure to deliver. Industry is working with capacity constraints imposed by the skills shortage in the broader economy. Even when it comes to foreign suppliers, there are constraints due to high global demand in the aerospace sector and, more generally, due to the volume of US demand resulting from their high operational tempo. While there is little to be done to reduce capacity constraints internationally, the Review supports the positive steps being taken to boost skills in Australian defence industry.

Second, to some extent, the problem reflects poor scheduling, planning and risk appreciation by industry. Just as Defence and DMO find it hard to formulate realistic expectations of project progress, so too does industry. As defence sector skills improve, so too should performance.

To provide practical assistance to industry to deal with the challenges it faces the Review recommends that the Government look at measures to help industry address the current skills shortage.

Australian industry has responded effectively to the urgent demand for equipment to support ADF operations

31 ibid.

A recent DMO analysis, taking into account proposed future work and retention rates, suggests that the industry may need to recruit up to 20,000 skilled workers over the next decade. This shortage is particularly acute in the area of skilled engineers.

To address this problem the Government should work with industry and State Governments to support an increase in the skilled workforce. To this end the Review notes a number of worthwhile programs that have been recommended by the work of the Joint Industry and Training Task Force and recommends that the Government gives consideration to their implementation.

It is inevitable that there will continue to be delays in the delivery of equipment. To minimise delays, the DMO should, as part of its role as the defence acquisition and sustainment manager, continue to develop its understanding of the ability and capacity of Australia's defence industry. This knowledge should also be used to improve acquisition strategies, and to advise Government on possible areas in which skilling assistance would be beneficial to industry.

RECOMMENDATION 3.10

The Government should work with industry and State Governments to address the skills shortage.

RECOMMENDATION 3.11

The Government should consider implementation of the recommendations of the Joint Industry Training Task Force.

Contractor management

Contractor management is the management of contractor performance through influence and collaboration. The performance of DMO is fundamentally dependent on the performance of firms under contract to deliver equipment and services. It is usually the contractor that is best placed to improve project performance by redirecting resources to address risks and schedule slippage. It follows that contractor management is a key tool for DMO to influence project outcomes. Regardless of the contracting method used, DMO has to work with contractors to deliver results.

In recent years, DMO has made good progress in the developing project and contract management skills of its personnel. This needs to continue and be expanded to include a program to enhance contractor management skills.

RECOMMENDATION 3.12

DMO staff development should be expanded to cover contractor management including influence, negotiation and relationship management.

FORMALISING THE MANAGEMENT OF CHANGES TO REQUIREMENTS

Changes to the scope of a project can have a significant impact on its cost. As a general rule, the cost of a scope change increases as the project matures, as shown in Figure 13.

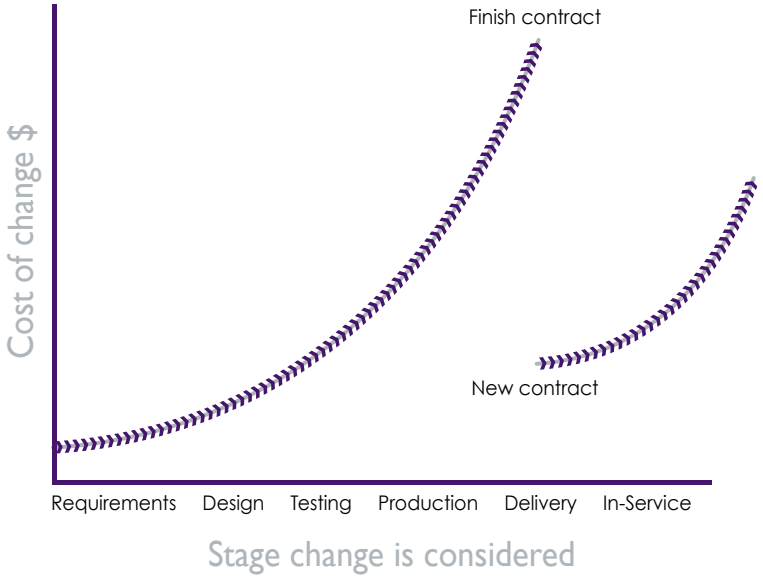


Figure 13: *Concept diagram – impact of scope change during life of project*

The cost of changing the scope of a project tends to be minimal during the requirements and design phases—it is relatively easy to make changes on paper. Scope changes become more costly during prototyping and testing and even more so during production. After delivery, the cost of modifying equipment remains high.

Changes to the scope of an approved project can be driven by many factors including:

- changes to the military threat environment;
- opportunities afforded by new technology;
- shifting regulatory demands;
- omissions in the original requirements; and
- accommodation of rising costs or manifested technical risk.

Because scope changes can increase the cost and extend the schedule of a project, it is important that they be formally approved and carefully managed. A robust process should be used to manage scope changes after second pass. Integral to such a process will be the clear delegation, and explicit limitation, of authority to make changes.

Changes to the scope of a project should only occur after assessing their merit mindful of the impact on cost and schedule. PMSG are an appropriate venue to carry out such an assessment. Proposed changes should be assessed by the relevant PMSG and a

recommendation made to the delegated authority. For significant changes this will mean formally going back to one of the capability committees convened by CDG and may, in some cases, require a decision from Government.

Once approved, a scope change should be recorded in an amended MAA along with attendant changes to cost and schedule.

It is inappropriate to arbitrarily apply project contingency funding to facilitate changes in scope. The application of contingency will depend on a thorough analysis of the original project scope and the scope change envisaged.

RECOMMENDATION 3.13

Changes to the scope of projects should occur through a disciplined process that considers the merit of the change mindful of the impact on cost and schedule.

ACCEPTANCE OF EQUIPMENT INTO SERVICE

The Review notes that gaps sometimes arise between what a project delivers and the expectations of the Capability Manager at the point of acceptance into service. There can be a number of reasons for this; some are the same as for changing the scope of a project, for example changed technical regulations, others reflect inadequate communication and the differing expectations of key personnel that change during the life of a project.

Irrespective of the cause, the Review believes that the recommendations already made on the role of Capability Managers and use of MAAs should reduce the divergence of expectations that sometimes arises between the point of project approval and acceptance into service. As a principle, DMO should be held to account for delivering equipment and services as set out in the MAA. DMO can only be held accountable for those aspects within its control.

RECOMMENDATION 3.14

DMO should be held to account for delivering equipment and services as set out in the Materiel Acquisition Agreements.

CHAPTER FOUR
CAPABILITY SUSTAINMENT AND DISPOSAL

Accordingly, I believe that a move to separate acquisition from sustainment, would lose the potential efficiencies to be harnessed through their amalgamation. Indeed, separation of acquisition from sustainment may serve acquisition well, but the real expense in supporting capability comes in the through-life sustainment costs, and therefore a short term gain (both financial and reputational) may be realised through such a separation, but this would likely be sub-optimal for Defence. I contend that far greater cost savings across the lifecycle can be achieved through better integration between acquisition and sustainment.

Commodore P. J. MARSHALL, personal submission

...our inventory management is broken, through decades of neglect, poor practices and the lack of appropriate systems... There's a massive amount of obsolete inventory... across Defence that should have been disposed of years ago, decades ago...

Nick Warner, Secretary of Defence, Speech to the Lowy Institute for International Policy

CAPABILITY SUSTAINMENT AND DISPOSAL

Sustainment provides the services and products to meet the in-service materiel requirements of the ADF.

Figure 14: *Sustainment and disposal are the fourth and fifth phases of the Capability Life Cycle*

Through-life maintenance and support account for more than half of the DMO annual budget and involve about two-third of its workforce. But DMO does not sustain the ADF alone; industry, and in particular Australian industry, plays a vital role by providing many of the goods and services needed. For this reason, DMO sustainment managers need to understand the commercial environment.

Sustainment requirements are dictated by the preparedness levels, training rates and operational tempo of the ADF. Failure to meet the targets set for sustainment can have a direct and immediate impact on ADF operations. Conversely, changing operational demands can require sustainment levels to rise at short notice. It follows, therefore, that Defence and DMO must work together closely during this phase of the capability life cycle.

The Kinnaird Review recognised that effective in-service support of equipment is just as vital as its initial procurement. In relation to sustainment, the Kinnaird Review recommended that:

> *Capability Managers should have the option to locate their representatives in the DMO to monitor the acquisition and logistics management of approved capabilities.* [Recommendation 9][32]

and that:

> *The role of the project governance boards should be extended to include through-life-support of ADF equipment and report to the head of the DMO on potential difficulties.* [Recommendation 10][33]

On the question of locating representatives within DMO (Recommendation 9), Capability Managers have advised the Defence Procurement Advisory Board that the reporting mechanisms put in place by Defence and DMO are adequate for them to monitor performance without having people in DMO. This has allowed personnel to be redirected to other tasks.

Recommendation 10 has been successfully implemented with Assurance Boards (previously known as Governance Boards) established with a mandate covering

32 *Defence Procurement Review 2003*, pp. ix.
33 ibid.

acquisition and through-life support. The Assurance Boards should be reviewed periodically to ensure their ongoing effectiveness.

AREAS FOR IMPROVEMENT

Although submissions to the Review generally reflected a high level of satisfaction with the delivery of sustainment services, opportunities for improvement remain. These include:

- assuring sustainment funding;
- improving the Materiel Sustainment Agreements; and
- streamlining logistic support arrangements.

PLANNING FOR PERSONNEL AND OPERATING COSTS

For at least the past decade, Defence has consistently failed to properly plan for the personnel and operating costs of new capability. While the recommendations made in the previous chapters on planning and financial discipline should make this less likely in the future, it is worth taking a closer look at the problem. Without adequate personnel and funds for sustainment, new equipment will not deliver the military capability intended.

From the earliest stages of planning, estimates should be made of the cost of crewing and operating a proposed new or upgraded capability. These through-life costs will often be offset by the cost of supporting an existing capability. The balance is described as the Net Personnel and Operating Cost (NPOC).

Initial NPOC estimates will be uncertain, but as a project is refined, so too should its NPOC estimate be refined. In addition to confirming NPOC estimates at each point in the approval process, Defence and DMO should update NPOC estimates annually as part of the budget process.

RECOMMENDATION 4.1

Net Personnel and Operating Cost estimates should be updated annually as part of the budget process.

IMPROVING THE MATERIEL SUSTAINMENT AGREEMENTS

Defence's demand for sustainment services are detailed in Materiel Sustainment Agreements (MSAs) that define the products and services to be provided and the price and schedule for delivery of those products and services. These agreements are developed between DMO and the respective Capability Managers.

Defence, as customer, sets sustainment requirements and priorities within the budget approved by Government. An 'open book' methodology assures Defence that costs

reflect defined requirements. Underlying assumptions and risk management measures should be detailed in the MSAs and any variations must be formally agreed by Defence and DMO.

The Review has found that the MSA framework has generated a healthy customer-supplier relationship between Defence and DMO. Advice to the Review from both Defence and DMO was that the MSAs are a workable mechanism for Capability Managers and DMO to use.

Overall, DMO is seen as delivering the level of sustainment that has been agreed with Defence. DMO reports monthly on sustainment performance to senior leadership within Defence and Government. This monthly report details performance against defined measures including availability of equipment and performance against agreed budget; other issues such as operational support, business management and technical issues are also canvassed.

DMO needs to focus on being a business-like supplier of products and services rather than trying to accommodate all that is asked

Despite the degree of satisfaction expressed, the Review believes that the intent for DMO to become more business-like is not yet adequately reflected in a mature customer-supplier relationship between Defence and DMO.

Capability Managers and DMO both exhibit a 'can-do' culture. While this can lead to positive outcomes—especially when supporting ADF operations—it can also result in agreeing to unrealistic performance targets that simply cannot be met from within available resources. To prevent this, DMO needs to focus on being a business-like supplier of products and services rather than trying to accommodate all that is asked. As this occurs, it will be equally important for the Capability Managers to become more informed customers.

Defining Key Performance Indicators

As customer, it is the responsibility of the Capability Manager to define the level of sustainment required. These sustainment requirements should ultimately reflect the level of preparedness that the Chief of the Defence Force directs the Capability Manager to maintain. The translation of this high level strategic guidance into day-to-day sustainment requirements has been achieved in some areas but requires ongoing attention and improvement. Representatives of the Capability Managers advised the Review that, in some cases, it was difficult to clearly articulate key performance indicators that provided a true measure of their needs.

The efficiency and effectiveness of DMO sustainment performance will not improve unless it is measured, and it cannot be measured in the absence of appropriate, quantifiable key performance indicators and accurate recording of sustainment costs. For this reason, DMO and Defence need to develop further the key performance indicators employed in MSAs, and the systems need to record sustainment performance and costs.

RECOMMENDATION 4.2

DMO and Defence need to further develop the key performance indicators in Materiel Sustainment Agreements and the systems needed to record sustainment performance and costs.

Sustainment Efficiency Office

The Review believes that DMO needs an internal Sustainment Efficiency Office to measure, benchmark and find ways to improve the efficient delivery of sustainment to the ADF. In parallel to the Project Performance Office suggested in the previous chapter, the Sustainment Efficiency Office would:

- review the efficiency of individual sustainment activities through measurement, benchmarking and microeconomic analysis;
- act as a centre of expertise to collect lessons learned and best practice on sustainment within DMO and in the commercial world;
- provide advice, support and mentoring to sustainment managers;
- research and understand the changing commercial environment for sustainment products and services; and
- advise the Chief Executive Officer of DMO on organisation-wide issues of productivity and continuous improvement.

RECOMMENDATION 4.3

An independent Sustainment Efficiency Office should be created in DMO to measure, benchmark and find ways to improve the efficient delivery of sustainment to the Australian Defence Force.

Obsolescence management

It is clear to the Review that the current separation of acquisition and sustainment funding can sometimes lead to decisions that use resources inefficiently. Specifically, decisions on whether to continue to maintain equipment, or purchase new equipment, should be based on the through-life costs of the options, not on the basis of whether funding is more readily available in either the acquisition or sustainment budgets. While this analysis is usually carried out for major platforms, it is less often the case for upgrades and the replacement/repair of sub-systems.

A long term view is required that takes account of the costs of managing obsolescence and the potential to upgrade capability with newer technology. For example, replacing an unreliable and difficult to maintain Global Positioning System (GPS) unit with a modern system increases capability and rectifies the obsolescence. However, replacing the old GPS with the more modern version usually has to be done through an acquisition project as it provides an enhanced capability.

The hurdles and timeframes of seeking Government approval and funding for an acquisition project can result in Defence deciding to continue to maintain and repair obsolete equipment—even though the long-term cost of doing so is greater. As a result, more money is spent and less capability is delivered than could otherwise be the case.

This can result in situations where DMO and Defence incur greater expense to maintain and repair obsolete equipment using sustainment funding rather than procuring new equipment via the acquisition program. This behaviour does not match the reality of obsolescence management and also slows down the response time for addressing impending obsolescence.

more money is spent and less capability is delivered than could otherwise be the case

In addition, the purchase of equipment from international programs has important consequences for managing obsolescence. It has become more common for international equipment to have centrally managed sustainment/upgrade programs, with participating nations belonging to an international users group. This is especially so with American equipment. There is presently insufficient guidance within Defence on how to manage approval of participation in such programs. At a minimum, Defence and DMO need to ensure that Government has sufficient information to decide on, and approve, the funding required for Australian equipment to be maintained at the same configuration supported by the overseas supplier. Failing to do this will increase the risks and complexity of managing obsolescence.

RECOMMENDATION 4.4

Decisions to either purchase new equipment or maintain existing systems should be based on the through-life cost of each option regardless of whether the funding is from the acquisition or sustainment budgets.

Delegation of authority

Systems Program Office (SPO) Directors manage the delivery of sustainment products and services by DMO. They are the sustainment equivalent of project managers. The Review believes that SPO Directors should be empowered through greater delegation to deliver the performance levels set in the MSAs and, where necessary, to negotiate changes with Defence.

Underlying this recommendation is the judgement that the current process for revising MSAs is unnecessarily time-consuming. For example, any change to MSAs must currently be agreed formally by the relevant Division Head (or two star military equivalent). Such a high level of central control is at odds with commercial practice. In the private sector, authority and day-to-day management responsibility tend to be much more closely aligned. This should become the norm in DMO.

Delegating authority to change MSAs down to Branch Head level would improve the situation, but a sliding scale of delegation to SPO Director level is recommended.

The Review believes that the delivery of sustainment services should be managed with authorities and accountabilities equivalent to those recommended for project managers. Formal product charters should be established with SPO Directors and should cover the responsibilities, performance levels, resources allocated and support made available to the SPO.

Like acquisition projects, DMO's product lines should be treated as 'profit centres'. They should produce separate financial statements that account for direct income and expenses as well as product overheads. The implementation of project and product financial statements would enable equivalent reporting at Divisional level.

RECOMMENDATION 4.5

Systems Program Office Directors should be empowered through greater delegation to deliver the performance levels set in Materiel Sustainment Agreements and, where necessary, to negotiate changes with Defence.

RECOMMENDATION 4.6

The authority, responsibility and accountability of the Systems Program Office Directors should be formally set out in a product charter. They should be held to account for meeting the financial and non-financial performance targets detailed in their charter.

STREAMLINING LOGISTIC SUPPORT ARRANGEMENTS

Logistics support is a key factor in the delivery of capability to the ADF. The Kinnaird Review noted that:

> *The functions covering strategic logistics and operational level logistics support, for which CJLOG [Commander Joint Logistics] is responsible directly to [Chief of the Defence Force] CDF, do not sit neatly with the core business of the DMO, which is the acquisition of defence equipment and the provision of through-life-support. We are of the opinion that the subject of location of many of the JLC [Joint Logistics Command] functions needs to be revisited by the Secretary and the CDF in conjunction with the head of the DMO.'*[34]

34 *Defence Procurement Review 2003*, pp. 45

In May 2004, Joint Logistics Command (JLC) was formally separated from the DMO, with strategic logistics, operational logistics support and physical logistics functions transferred to the Vice Chief of the Defence Force (VCDF). Equipment acquisition and through-life support functions remained in the DMO.

However, there continue to be concerns about the alignment of functions and the effectiveness of the current separation between DMO and JLC.

JLC is responsible for policy and procedures associated with inventory management, distribution and disposals and DMO is responsible for the conduct of sustainment activities that rely on services provided by JLC. Disposal management is shared by both DMO and JLC. Obsolescence management and identification of equipment for disposal are the responsibility of the Capability Managers, with JLC providing the physical disposal.

The allocation of responsibilities between JLC and DMO is illustrated in Figure 15.

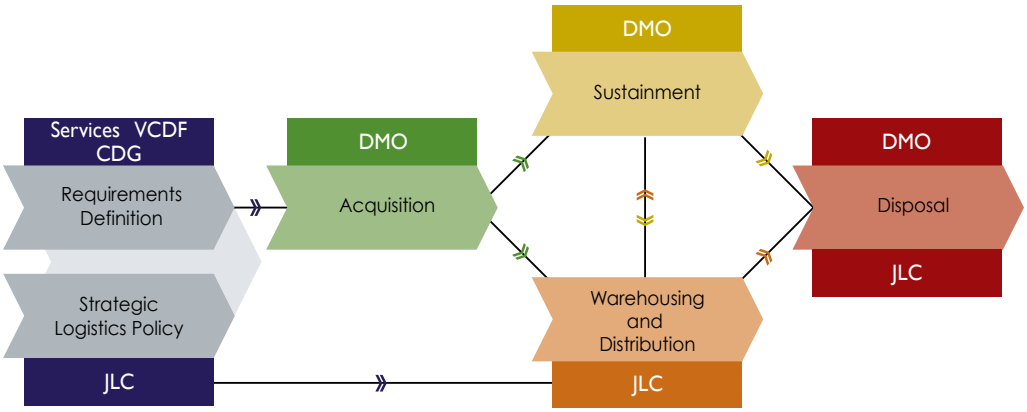


Figure 15: *Current allocation of supply chain responsibilities*

The relationship between DMO and JLC is workable, but it is hindered by the overlap and interdependence of functions performed between the two organisations. End-to-end management of sustainment activities (acquisition of inventory, warehousing, distribution and disposal) in one organisation would provide optimum control to enable better commercial decisions to be made. One option considered by the Review to achieve end-to-end control was to transfer the entire function to DMO. Further benefit could be gained by clarifying the business model. This could lead to efficiencies and enhanced accountability by clarifying roles and reducing the overlap and interdependence that currently exists. This model is illustrated in Figure 16.

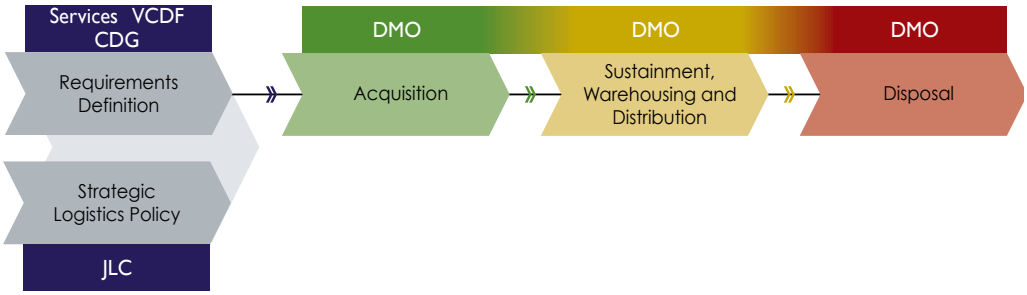


Figure 16: *Alternative allocation of supply chain responsibilities*

The argument against this option is that it is imperative to retain the full capacity for operational logistics within Defence and under the unambiguous control of the Chief of the Defence Force. The Review does not believe it has sufficient information to be able to make a fully informed recommendation on this matter. Pending further examination, the Review suggests that the current arrangements for inventory purchasing, warehousing and distribution be retained.

One area where the Review does recommend change is vehicle maintenance. Maintenance is a core function of DMO. But vehicle maintenance was transferred from DMO to JLC in 2004 as part of other activities which could not be separated at the time. The Review believes that vehicle maintenance should be returned to DMO to align with current arrangements for the maintenance of maritime and air platforms.

RECOMMENDATION 4.7

The current functional split between Defence and DMO for warehousing, distribution and disposal should be retained but responsibility for vehicle maintenance should be returned to DMO.

Warehousing

Inventory valued in excess of $8 billion dollars is stored in 649 warehouses across Australia. JLC has been critically examining opportunities for improvements to its warehousing. We support the proposed introduction of a dedicated warehouse management information system and other initiatives to establish a more business-like approach to warehousing and distribution.

The Review believes that the cost of warehousing and freight should be identified against the sustainment costs for each fleet, platform or weapon system and that JLC should be responsible for estimating those costs. Not only would this give a more accurate estimate of sustainment costs and improve the visibility of warehousing and distribution, but it would also increase the accountability of sustainment managers to store and distribute inventory efficiently.

Inefficiencies have been identified in the current distribution model. It is not uncommon for relatively low-value items to be purchased in bulk and stored centrally prior to being distributed interstate at significant expense. Defence already allows goods to be purchased locally or direct from source where it is cost-effective to do so. By requiring sustainment managers to account for the cost of storage and freight, a more business-like approach will be encouraged.

Disposals

Defence has recently identified $1.5 billion worth of surplus and obsolete inventory that is ready for disposal and initiated disposal action. This situation arose, in part, from a failure to comply with existing disposal policy due to inadequate management oversight. As the Secretary of Defence noted:

> '[Defence's] *inventory management is broken, through decades of neglect, poor practices and the lack of appropriate systems'*.[35]

Improvements should be made to prevent a recurrence.

The current Defence Instruction on Disposal of Defence Assets[36] states that planning for disposal must commence early in the life cycle of the asset. Ideally, consideration should commence during the initial planning stages and develop throughout the in-service phase culminating with a fully mature plan prior to disposal. Where costs are incurred in disposing of an asset, provision must be made. Disposal issues are normally given low priority, particularly in the early stages of the capability life cycle, but this needs to be rectified and the current management focus sustained.

RECOMMENDATION 4.8

Business improvement should continue in Defence and DMO to increase the visibility of costs due to warehousing, freight and disposal, and to reduce the costs of inventory storage and distribution.

35 Warner N, (Secretary of Defence), *256,800 Paper Hand Towels: Mending Defence's Broken Backbone*, Speech to the Lowy Institute For International Policy, 10 June 2008.

36 Department of Defence (2006), *Disposal of Defence Assets*, Defence Instructions (General) DI(G) LOG 4-3-008.

CHAPTER FIVE
DRIVING CULTURAL CHANGE IN DMO

...in other sectors the average salary earned by project managers handling the projects of the size comparable to the DMO's most complex projects is three (3) to four (4) times higher on average. It is our understanding that the DMO is constrained from hiring sufficiently capable project managers because of this constraint. A number of senior project managers have indicated to us that while they would like to work in Defence, the sector is notorious for not being able to provide sufficient incentives.

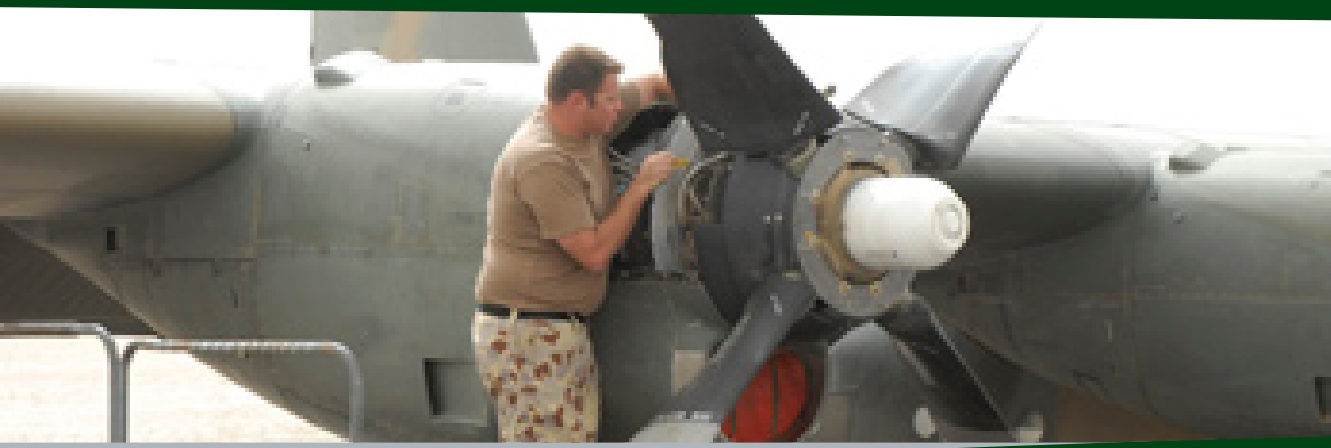
Bruce Ferguson, Helmsman Institute submission

DMO needs to be released from the arcane strictures of APS personnel management that make it hard to attract people with competitive commercial experience, and even harder to manage underperformance.

Australian Strategic Policy Institute, The Cost of Defence ASPI Defence Budget Brief 2008-09

It is very difficult for a Project Manager to control a project if the resources he/she has been given to complete a project are arbitrarily restricted. A project manager must be given the authority (and responsibility) to hire and fire staff as and when needed (in accordance with a fully resourced schedule) and pay whatever is necessary to attract the level of skills required. If this means that DMO needs to disassociate with the DECA [Defence Collective Agreement] then so be it. An extension to this is to include the estimated cost of project staff within the total project budget at second pass approval so that the cost of ADF and APS labour is not hidden and the true cost of assets to the taxpayer can be determined.

Robin Walters submission



DRIVING CULTURAL CHANGE IN DMO

The alignment of structure and culture with goals is critical to organisational success. With this in mind the Kinnaird Review recommended that:

- *A three star officer, military or civilian, should be responsible and accountable for managing capability definition and assessment…*[37]
- *The DMO should become an executive agency*[38]*…led by a Chief Executive*[39]*…*[with a mandate to] *establish a unique DMO identity and culture*[40]
- *An Advisory Board should be appointed with immediate effect, to provide advice and support to the head of the DMO…*[41]

Much has been achieved in the five years since these recommendations were made. The establishment of Capability Development Group was an important step; the improvements to capability development described earlier would probably not have occurred otherwise. The separation of DMO from Defence aimed to clarify and confirm the DMO's commercial task of delivering and maintaining defence equipment, and to clearly distinguish it from Defence tasks. This was to be achieved by providing:

- *...clear separation between capability development and delivery and maintenance of equipment*[42]
- *...DMO with a clear and separate role and identity from the department, and reinforc*[ing] *the need for distinct responsibilities and accountabilities*[43]
- *...a clear signal to staff that there will be cultural change...*[44] [to transform DMO into a performance driven organisation operating in a commercial environment]

To achieve this, the Kinnaird Review recommended that DMO develop a unique identity so that it could rapidly transform its culture to one focused on performance and results. Critically, in cultural change this was the only recommendation of that Review not adopted. An important milestone was the establishment of DMO as a Prescribed Agency under the *Financial Management and Accountability Act 1997*. While establishing DMO as a Prescribed Agency gave it some financial separation from Defence, it fell short of the independence envisaged by the Kinnaird Review when they recommended Executive Agency status. Although the transition to a Prescribed Agency has delivered a clearer role for DMO and greater transparency of transactions between DMO and Defence, the task is not complete.

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37 *Defence Procurement Review 2003*, pp. 11.
38 ibid, pp. 38.
39 ibid. pp 37
40 ibid pp 35
41 ibid, pp 33.
42 ibid.
43 ibid.
44 ibid.

The Kinnaird Review dealt in detail with the issue of DMO becoming an Executive Agency under the *Public Service Act 1999*, including addressing many of the 'myths' that surround such a view. Its recommendations on this are reproduced below:

> *A further option is to establish the DMO as an executive agency within the Defence portfolio. This provides the benefits that flow from structural separation in relation to a unique DMO identity and culture, and an improved relationship with Defence based on clearer and more transparent roles and accountabilities. However, the reduced degree of separation arising from retaining the DMO within the Defence portfolio* [compared to the other options of a separate Department or a Statutory Authority considered by Kinnaird] *is more appropriate recognising that the DMO is an integral part of the Defence function.*
>
> *It would, however, be essential that as an executive agency, the DMO retain close links to the Department to ensure that coordination and communication is maintained over the wide range of issues for which they retain a joint interest. These include communications and advice to Ministers, the development of capability proposals, and all aspects of the DMO's role in capital acquisitions and through-life-support. If these communications are not effective the DMO risks being cut off from key points of the decision making process within Defence*

A DMO executive agency, led by a chief executive who is supported by an advisory board, provides a real opportunity to ensure that significant and fundamental change will occur

> *Under the executive agency model the head of the DMO would report directly to the Minister for Defence. The CDF and Secretary also report to the Minister. This raises the possibility that some matters that cannot be agreed between them might need to be referred to the Minister for resolution.*
>
> *We note the argument that the case for a separate executive agency within the same portfolio is diminished where there is a single buyer (ie, Defence) and a single seller (ie, the DMO). This artificial 'market structure' is not a contestable environment and the purchaser has little power to penalise and replace the provider. We therefore concluded that purchaser provider arrangements were unlikely to be particularly effective in these circumstances.*
>
> *Similarly, we have been advised that there will be a need for 'due diligence' before establishing the agency. There will be a substantial range of issues to be fully considered by Defence and the DMO to ensure the changes are successful.*
>
> *On balance we consider that the most effective way to achieve a separate identity for the DMO is to establish it as an executive agency within the Defence portfolio. A DMO executive agency, led by a chief executive who is supported by an advisory board, provides a real opportunity to ensure that significant and fundamental change will occur.*

The executive agency would be subject to the Public Service Act 1999, and should be made a prescribed agency under the Financial Management and Accountability Act 1997. These arrangements are consistent with those for the Department of Defence. There would be no change in the overarching legal framework applicable to DMO employee remuneration, although the head of the DMO's remuneration would need to be determined by the agency Minister.

Structural changes to public sector organisations implemented by Commonwealth governments over the past several decades that have been designed to take more commercial or business activities outside direct government control often subsequently led to their privatisation. In the opinion of the Review, it would not be appropriate to privatise the DMO. Its work is inextricably linked to the defence function, with the critical aim of delivering defence equipment. It does not, and cannot, have any sensible rate of return target. It is a major procurement arm of the government, directly accountable for the expenditure of many billions of dollars of taxpayer funds in accordance with the Commonwealth's accountability obligations.[45]

A SEPARATE IDENTITY FOR DMO

Critically, this Review believes that prescription of DMO has not delivered the necessary accountability, authority, independence and control over inputs for it to be fully results driven and commercially oriented. The current arrangements, where delegations can be removed from the Chief Executive Officer by the Secretary of Defence, and where workforce adjustments can be rejected or delayed by Defence, mean that DMO does not have full control over its business.

prescription of DMO has not delivered the necessary accountability, authority, independence and control over inputs for it to be fully results driven and commercially oriented

The Government requires DMO to support decision-making on defence procurement with independent advice on commercial matters, and to provide Defence with effective and efficient acquisition and sustainment services. DMO's organisational structure and culture must facilitate these dual objectives.

To develop commercial acumen in DMO, the Kinnaird Review recommended a functional separation of DMO from Defence. Since his appointment in 2004, the Chief Executive Officer has recruited key personnel with commercial skills to inculcate commercial practices and provide commercial advice to Government and Defence on proposed acquisitions.

Notwithstanding these measures, the cultural change suggested by the Kinnaird Review is yet to penetrate deep into the organisation. A separate identity has not

45 *Defence Procurement Review 2003*, pp. 37.

been achieved. Many staff at all levels within Defence and DMO still consider DMO to be just one of the groups within Defence, rather than a separate agency. Financial, administrative and personnel management practices continue to reflect this lack of separation.

Within DMO, more work is required to develop a workforce that can provide considered and independent commercial judgements. To do so, the Chief Executive Officer of DMO needs full control of financial and non-financial resources, including the ability to engage or terminate, manage and remunerate staff who have the specific skill sets required for DMO. In addition, to provide independent commercial advice, DMO senior managers must be empowered to formulate and provide that advice – this is not the case under present arrangements.

To drive further reform there must be a clearer separation in the financial and non-financial resources allocated to and used by each agency

As a result of DMO's establishment as a Prescribed Agency, accountability and responsibility are now better aligned and inter-agency transactions are more transparent. However, the potential for moving resources between DMO and Defence without commensurate formal adjustments to expected outcomes undermines accountability and highlights the shortcomings of the existing arrangement.

The failure to separate fully the financial resources of the two agencies has limited clarity in authority, responsibility and accountability for each agency. The ongoing debate over which agency is responsible for the inadequacy of financial (both accrual and cashflow) and schedule estimates, indicates that responsibility and accountability are not yet properly aligned.

To drive further reform there must be a clearer separation in the financial and non-financial resources allocated to and used by each agency.

To meet the needs of Defence, the Chief Executive Officer of DMO must remain accountable to Defence, as the user and customer, for DMO's performance in acquiring and sustaining equipment to specified standards. To secure effective control without undermining accountability, the Review believes that this should continue to be achieved through a formal customer-supplier relationship, based on measurable performance.

A DMO far removed from Defence would not be well-positioned to understand the needs of its customer. A DMO closely integrated into Defence would be unable to develop a commercial orientation or culture nor be accountable for delivering independent advice. It follows that DMO should be given a greater degree of independence but be retained within the Defence portfolio.

This Review has re-examined each of the organisational status options considered by the Kinnaird Review and has found that the discussion remains valid. The major benefits that would flow from DMO becoming an Executive Agency as well as a Prescribed Agency are:

- full accountability for performance;
- better transparency of both financial and non-financial performance; and
- full control of personnel inputs.

Some of the benefits that would be gained are further described in the following table which identifies the requirements of an Agency Head under the *Public Service Act 1999*.

STRENGTHS IN BECOMING EXECUTIVE AGENCY AS WELL AS A PRESCRIBED AGENCY	PRESCRIBED AGENCY
Accountability – Full Accountability lies with the Agency Head • Head of Executive Agency, under the Agency Minister, is responsible for managing the Agency • The Head of an Executive Agency is accountable to the government, the Parliament and the public in the same way as the Secretary of a Department.	**Accountability – Is Split** • Management of Prescribed Agency split between Agency Head and Departmental Head • The Prescribed Agency Head is accountable through the Secretary of the Department
Transparency – Transparency is achieved though independent reporting to Ministers and Parliament • Head of an Executive Agency must assist the Agency Minister to fulfil the Agency Minister's accountability obligations to the Parliament to provide factual information, as required by the Parliament, in relation to the operation and administration of the Agency	**Transparency – Reporting is through the Departmental Secretary** • Relationship with Minister currently established through Ministerial Directive and the exercise of Minister of State powers under the Constitution
Control of Inputs – Full control of APS staff is provided through the Public Service Act • An Executive Agency Head has all the rights, duties and powers of an employer in respect of APS employees in the Agency.	**Control of Inputs – Control of Staff is as delegated** • A Prescribed Agency Head has all the rights, duties and powers of an employer delegated by Secretary of the Department.

It is rare that bodies established as Prescribed Agencies under the FMA Act, are not also established as Executive Agencies. The Department of Finance and Deregulation notes that:

> *Wherever possible, the Chief Executive of the Prescribed Agency would be the office holder who is the Agency Head of the Executive or Statutory Agency or, in other cases, the person with prime employment powers on behalf of the relevant body.*[46]

The Review has strongly concluded that the original recommendation of the Kinnaird Review, that DMO should be an Executive Agency as well as a Prescribed Agency, should be implemented.

This change would allow for greater transparency and accountability of the defence procurement process for the Government and Australian taxpayers. It would also allow for a more efficient and effective procurement process with the result being better results for the ADF.

Without such a change, the implementation of recommendations contained within previous chapters would be significantly weakened. The Chief Executive Officer of DMO must have the necessary control over DMO resources and staff to impose commercial disciplines on the defence procurement process. Without this independence from Defence, which is rightly more focused on capability definition rather than commercial matters, this would not be possible.

The strength of the current relationship between Defence and DMO is important in ensuring Defence's requirements are met. The level of constructive engagement should be preserved through the Chief Executive Officer of DMO continuing to attend the Defence Committee. We should retain close engagement between the two organisations at all levels to ensure that DMO supports capability development and sustainment as efficiently and effectively as possible.

To further promote this commercial identity it should be mandated that the Chief Executive Officer of DMO must have significant private sector and commercial experience.

RECOMMENDATION 5.1

DMO should become an Executive Agency under the *Public Service Act 1999*, and retain its Prescribed Agency status under the *Financial Management and Accountability Act 1997*.

RECOMMENDATION 5.2

To effect this change a charter should be drawn up between Defence and DMO which would clearly spell out the responsibilities of each agency. The charter should include provision for the Chief Executive Officer of DMO's continuing membership of the Defence Committee.

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46 Department of Finance and Administration 2003, Finance Circular No. 2003/01 *Prescribing Agencies under the Financial Management and Accountability Act 1997*, pp. 3.

RECOMMENDATION 5.3

It should be mandated that the Chief Executive Officer of DMO must have significant private sector and commercial experience.

A FUNDING MODEL TO ENHANCE ALIGNMENT

Moving DMO to an Executive Agency will provide control over personnel inputs. To provide complete accountability, transparency and control of inputs to DMO, the funding model for DMO must be adjusted. The model needs to ensure that control of funding for sustainment underpins the customer-supplier relationship between Defence and DMO.

At present, the majority of DMO's funding comes through Defence, with only a very small amount (approximately 1%) currently provided by direct appropriation from Government. The funding currently provided through Defence covers acquisition, sustainment and the costs of DMO delivering its services. The current funding model is illustrated in Figure 17.

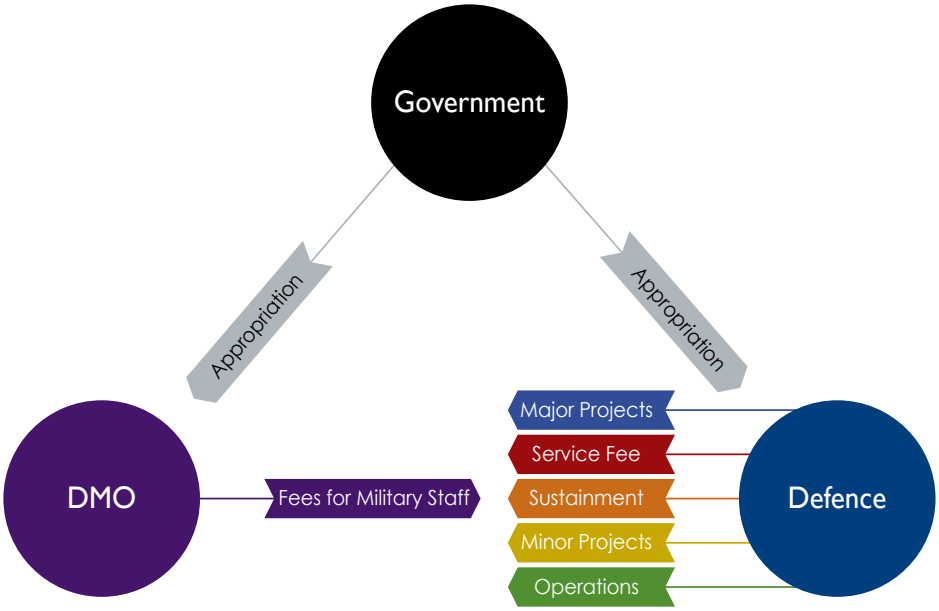

Figure 17: *Funding model – current*

The funding provided to DMO by Defence for sustainment reflects the customer - supplier agreements that are negotiated annually (Materiel Sustainment Agreements). As explained in Chapter 4, these agreements describe the sustainment services to be provided, define performance measures and identify costs. In this way, Defence can adjust its funding to DMO to reflect changes in operational tempo, rates of effort or priorities. As such, Defence rightly determines DMO's sustainment priorities in

accordance with its military requirements. Because it is vital that DMO sustainment activities reflect Defence's requirements, sustainment funding should continue to flow through Defence to DMO under arrangements like those now in place. Further to this, these priorities can be determined and communicated through the Chief Executive Officer of DMO's continued involvement on the Defence Committee and other formal interactions with Defence.

Government funding for acquisition projects (new equipment purchases and major mid-life upgrades) is currently provided to DMO by Defence. Contingency funds for projects are also held by Defence until authorised for use, at which point they are released to DMO. Where a project requires an increase in funding above the level already approved by Government, a formal request is made by Defence to Government. Where a project falls behind schedule, prepaid funds are returned to Defence or held by DMO as credits – on a case by case basis. The movement of acquisition funding between Defence and DMO is presently routine practice. However, it has the potential to dilute accountability for performance by DMO and Defence. In the final analysis, there is no benefit to have Defence act as the banker for DMO after Government has approved a project.

RECOMMENDATION 5.4

Acquisition funding should be directly appropriated to DMO on the basis of a budget submission from DMO outlining anticipated major capital equipment project expenditure.

This new funding model would provide Government with greater transparency of project slippage associated with financial underspends by making DMO directly accountable for acquisition funds. Projects that need more funding would still require a submission to Government from Defence and DMO seeking funding and providing justification. In the case of scope changes, Defence would have to justify the increase on capability grounds. If the increase was because of unanticipated costs, DMO would have to justify the increase. In this way, DMO would become more accountable for its management of projects. DMO needs contingency or a management reserve for normal risk management.

If the proposed reforms are fully implemented there should be a lesser requirement for Defence/DMO to seek additional funds from Government for real cost increases to projects for reasons not related to approved changes in scope.

The aim should be to achieve disciplined costing and performance against budget. The DMO should be held directly accountable by Government for its approved procurement budget and delivery of a project. Government should aim for a target of no real cost increases unrelated to approved scope changes (or other legitimate reasons), thus providing the necessary incentive for far greater discipline in the process. Again to achieve this it will be fundamental that the Chief Executive Officer of DMO is able to run DMO in the most business-like fashion with the necessary independence and flexibility to manage his or her budget.

The cost of DMO delivering its services to Defence is described as a Service Fee. The Service Fee covers the personnel and administrative costs of DMO providing acquisition and sustainment services to Defence.

The Service Fee comprises of 80-85% personnel (military and civilian) costs. It follows that the DMO service fee should be principally based on the cost of the workforce needed to deliver planned levels of sustainment and acquisition plus surge and corporate staffing overheads. The remainder of the Service Fee should be a percentage loading on forecast personnel costs to account for administrative expenses including travel and training.

To provide DMO with control over its inputs, Service Fee funding should also be provided to DMO through a direct appropriation. DMO should provide a separate budget submission in tandem with Defence for this purpose. The separate submission is essential to make DMO more accountable for its performance and use of resources.

At the moment, DMO pays Defence for the use of military personnel and other services. If DMO becomes an Executive Agency, further work will be needed to define, and clarify the cost of, support services provided by Defence to DMO and DMO to Defence for information technology, facilities and other services. Government would need to provide funding to support the establishment by DMO of the support services that it will need as an Executive Agency.

Other funding streams, resulting from Defence's emerging priorities, such as operations funding including Rapid Acquisitions and the Minor Capital Projects program should remain unchanged and be provided to DMO through Defence. The proposed funding model is illustrated in Figure 18.

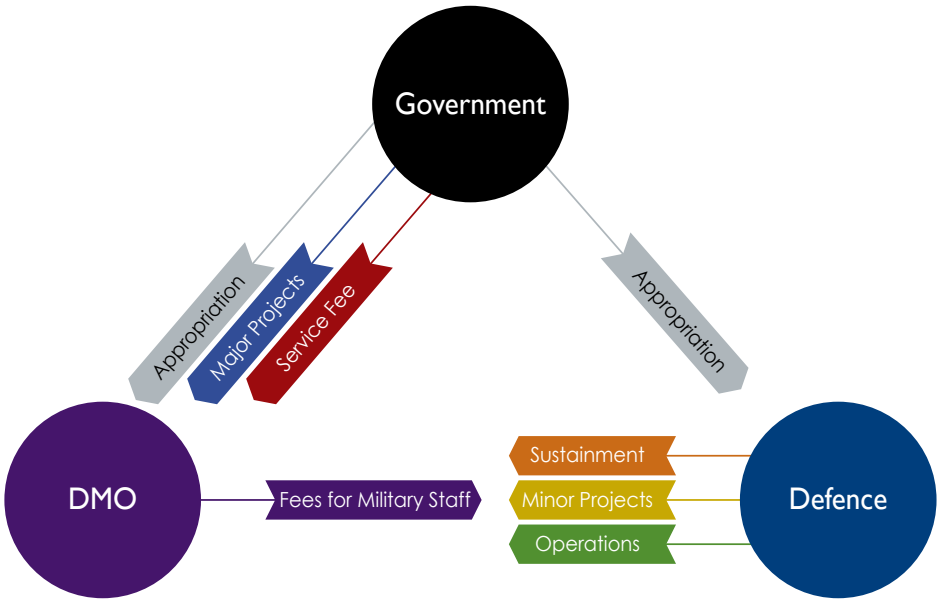

Figure 18: *Funding model – proposed*

RECOMMENDATION 5.5

Sustainment funding should continue to be provided through Defence to DMO, but Service Fee funding should be appropriated directly to DMO. The Service Fee should be based on anticipated workloads.

RECOMMENDATION 5.6

Government should set a target for no additional funds for real cost increases on major capital acquisition projects beyond approved changes to scope (or other legitimate reasons for a cost increase). This will be contingent on Chief Executive Officer of DMO achieving the necessary independence and flexibility as provided by an Executive Agency to run the business.

The Defence Procurement Advisory Board

The Defence Procurement Advisory Board was established in 2004 to monitor implementation of the Kinnaird Review's recommendations, support the Chief Executive Officer of DMO, and assist in maintaining the momentum of change. The Board did not have a management role, but provided strategic advice.

The JCPAA noted that:

> *The Committee was impressed with the role the Board plays in the oversight of the implementation of the Kinnaird Review recommendations and it would be concerned if the Board were disbanded and nothing were to take its place.*[47]

The Review agrees that the Defence Procurement Advisory Board should be retained and believes its Terms of Reference should be refocused. Now that the role of monitoring the implementation of the Kinnaird recommendations is essentially complete, there should be increased emphasis on providing advice to the Chief Executive Officer in a manner analogous to the board of a public company. The Board should also be charged with monitoring the implementation of the reforms recommended in this Review.

The Board could also assist Government in the selection of prospective candidates for future Chief Executive Officer appointments and provide advice on remuneration of senior DMO staff.

The composition of the Board—with four private sector members and four senior Departmental Secretaries—has proven to be sound and practical. The senior public sector members impart great strength to the Board and the current membership should be retained. The presence of public and private sector members allows a sound appreciation of public administration to be brought together with commercial perspectives.

RECOMMENDATION 5.7

The Defence Procurement Advisory Board should continue, with the current public sector membership, with an increased focus on providing advice to the Chief Executive Officer of DMO.

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47 Joint Committee of Public Accounts and Audit, Report 411, *Progress on equipment acquisition and financial reporting in Defence*, pp. 87

HOLDING DMO TO ACCOUNT

For the reforms outlined in this report to be successful, DMO must be held to account by Defence for providing the equipment and support it has agreed to deliver. Defence should manage its relationship with DMO in terms of delivery against performance levels based on meeting the requirements of the ADF. The internal management of DMO must become a matter for DMO , and Defence should elevate its focus to the quality, volume, timeliness and cost of the products and services it requires.

RECOMMENDATION 5.8

Defence should manage its relationship with DMO in terms of costs and delivery against performance levels.

WORKFORCE PLANNING AND MANAGEMENT

DMO needs to be able to better plan and manage its workforce. Effective workforce planning requires an understanding of the numbers and skills of personnel needed to meet forecast workloads. It is important to establish a clear baseline for the acquisition and sustainment businesses, where possible benchmarked against commercial practice. With the baseline developed, the personnel allocated to business areas can be tailored to meet each area's specific circumstances.

Over time, the demands on the DMO workforce will shift as workloads change. The challenge for workforce planning and personnel management is to engage, train, deploy and release staff to meet that changing workload.

The development of individuals' skills in DMO must continue if workforce demand is to be met and performance improved. DMO should recognise the expertise of its civilian and military staff and support them with training programs and development opportunities. Good progress has already been made. DMO has invested significantly in the professionalisation and training of project managers, and is developing similar programs for logistics, engineering, and technical personnel, as well as commercial and business managers.

Not all of DMO requirements for expertise can be met cost effectively from within its own workforce. DMO should engage expert external advisers on contract when it is not efficient to grow and retain particular skills within the organisation.

Remuneration and performance

The Kinnaird Review recommended setting remuneration levels to attract and retain project managers. Under current salary structures, rank or grade determines the salary of an individual and the positions that an individual can occupy. The rigid link between rank or grade and salary erodes DMO's ability to deliver results. Not only does the current arrangement make it difficult to attract and retain skilled personnel, it encourages skilled specialists to move into general management positions rather than continue to develop their core expertise. To counter this, DMO needs to adopt a more flexible approach to remuneration so that it can compete for the skills it needs in the broader economy.

Any increased remuneration would require a commensurate recognition of responsibility and accountability. Traditionally, public service personnel have benefited from a high degree of job security and limited accountability - this is one of the reasons why they have not been able to command the same level of compensation as their private sector counterparts. It follows that DMO should implement a rigorous performance management system and empower its managers to deal effectively with underperformance. The Advisory Board could assist in helping to establish commercially-based compensation and accountability standards.

RECOMMENDATION 5.9

The Chief Executive Officer of DMO should have greater flexibility to manage the organisation's workforce including control over appointments, remuneration and performance management.

Staff Turnover

Concerns about high staff turnover rates were raised during the Review. Figure 19 provides a snapshot of the average time-in-position for all staff in DMO. Note that the average time for military postings tends to be less than the currently agreed tenure, which ranges from two to four years (with the majority of project managers expected to have a tenure of four years). Although comparison with historic data indicates that the tenure of service personnel is mostly improving, this remains a concern.

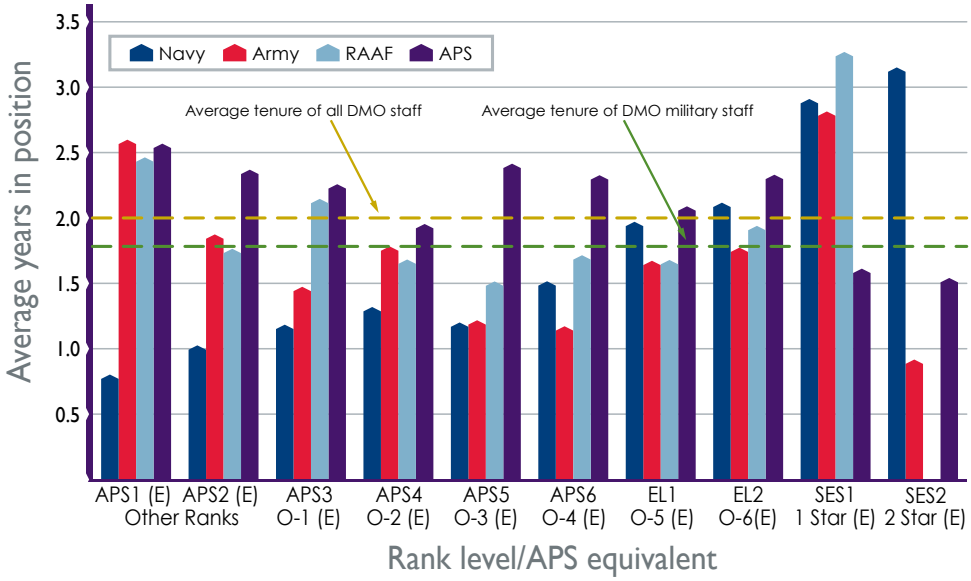


Figure 19: *Current time-in-position of DMO staff by grade/rank*[48]

48 This figure shows the historical tenure of DMO staff in the standard Australian Public Service employment levels and in military equivalent ranks. Refer to glossary for an explanation of the APS classifications.

The ANAO in its report on management of recruitment in the Australian Public Service reported research showing that new APS recruits typically perform at only 60% of their productive potential when first appointed, reaching 100% only after they have been in a position for a year[49]. Taking this into account, and noting that major acquisition projects can span many years and sustainment management requires deep domain knowledge, an average tenure of less than two years must be having a negative impact on DMO performance. It is therefore important that steps be taken to extend the tenure of military appointments to DMO, particularly for project managers, in line with the recommendation of the Kinnaird Review.

COMMERCIAL ORIENTATION AND PERFORMANCE

The Review has no doubt that the changes implemented following the Kinnaird recommendations, including the appointment of a commercially experienced CEO, have substantially improved the business management and orientation of DMO. It will be important in the future that the position of CEO continues to be filled by a person with commercial experience.

However, more needs to be done. The Review also believes that a new position of General Manager – Commercial should be created in the DMO at the Senior Executive Service Band 3 level. The position should be filled by a person with demonstrated and substantial private sector commercial experience. The position should also be supported by an appropriate team of commercially experienced and qualified staff.

a commercially experienced CEO has substantially improved the business management and orientation of DMO

The position itself would support the Chief Executive Officer of DMO to bring about the necessary cultural change in the DMO to becoming a more business-like organisation. It would reflect similar initiatives taken by the UK Ministry of Defence.

The Review intends that the new position would have responsibility across a number of areas identified in the recommendations, including:

- the development of acquisition strategies throughout the capability development process;
- supporting the Chief Executive Officer of DMO in the provision of independent advice to Government on cost, risk and schedule;
- benchmarking DMO performance in procurement and sustainment against best commercial practice;
- evaluating and implementing the approach of defence to public-private partnerships;

49 ANAO (2008), Audit Report Number 31 *Management of Recruitment in the Australian Public Service*, pp 42.

- overseeing contracting policy in procurement and sustainment, including the evaluation of opportunities for the wider use of performance-based contracting; and
- the development of the DMO's understanding of industry capacity and market viability in Australia and overseas.

It follows that the position would be responsible for the DMO's relationship with CDG and industry on strategic commercial issues including contracting, legal and procurement policy. Consideration should be given, in formulating the role of the General Manager – Commercial, to some internal restructuring of the DMO to ensure the best alignment of staff and skills in the contracting, legal and industry areas.

In considering this restructuring a distinction needs to be made between corporate and commercial functions. Corporate functions include the governance of the organisation as well as internal audit functions. Separate to this, the new General Manager – Commercial should have a group dedicated to fulfilment of the above responsibilities. Their functions would include an industry, contracting, economic, benchmarking and international engagement. There would also be a value in the establishment of a dedicated PPP unit to develop relevant policies for this method of contracting.

In vesting all of the above responsibilities with the DMO through the CEO and the proposed new position it will also be necessary to ensure that in the processes of approval for projects within Defence and in Government the independent view of the DMO on commercial issues and acquisition strategy is taken into account, and forms part of the necessary approvals for a project to proceed.

The General Manager – Commercial would be responsible for the proposed Project Performance and Sustainment Efficiency Offices recommended earlier in this report. It is important that these review and performance improvement functions are organisationally separate from the business areas that they will be working with. Placing them under the new position provides that separation and should encourage a commercial focus to their work.

RECOMMENDATION 5.10

A new General Manager – Commercial position should be created in the DMO at the Senior Executive Service Band 3 level, to manage strategic commercial issues and acquisition strategy, to support the Chief Executive Officer of DMO to achieve a more business-like focus throughout the organisation, and to improve the performance of DMO business areas, with the broad responsibilities and role identified in this report.

Information Systems

The ability of DMO to deliver equipment and support to Defence is contingent upon the information systems available to it. These systems set limits on DMO's ability to measure, report, analyse and, ultimately, to control its business. An examination

of the effectiveness of existing systems and reporting processes is likely to reveal opportunities for improvement. The goal should be to have systems that deliver the financial, personnel and management information needed for DMO to operate with a commercial orientation. Inevitably, improvements to information systems are expensive, time-consuming and often risky to undertake. Care should be taken to plan any changes in consultation with Defence.

'Cascade' of change

Successful implementation of the reforms proposed in this report will demand discipline and commitment throughout DMO. One of the concerns raised with the Review Team was that there was inconsistency in the adoption of the reforms across DMO.

There are probably a number of reasons for this. The most consistent factor identified in representations to the Review was a fear of making mistakes. The public sector is subject to high levels of internal and external scrutiny including by government committees, auditors, project review boards and other external reviews; staff are concerned (and not without reason) about the potential impact that mistakes of any magnitude can have on them.

Overcoming the fear of making mistakes means creating an environment where people are encouraged to manage rather than avoid risks. For this reason, any increased delegation of authority has to be accompanied by support from experienced and trusted senior personnel, and the introduction of more meaningful performance monitoring and reporting. If higher demands are made on personnel, then they need to be supported to meet the challenge.

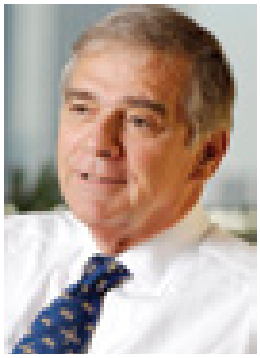
By mentoring and advising junior staff, senior DMO leaders can demonstrate and spread best practice. The vision and strategy endorsed by the Chief Executive Officer must be communicated clearly and implemented fully throughout the organisation.

Progress following the Kinnaird Review has been substantial and staff across Defence and DMO take seriously their contribution to delivering the needed capability to the ADF.

I have made a number of recommendations to effect ongoing and meaningful reform across the procurement and sustainment spectrum which I hope will assist those staff in their future endeavours.

Given the upcoming White Paper and the important procurement work likely to flow from that document, I believe that it is imperative that work to implement the recommendations of this Review commences as soon as possible.

DAVID MORTIMER, AO




06

TERMS OF REFERENCE DEFENCE PROCUREMENT AND SUSTAINMENT REVIEW

The Defence Procurement and Sustainment Review is to consider:

1. Progress in implementing the 2003 Defence Procurement Review including:
   a. the implementation status of Defence Procurement Review reforms;
   b. an assessment of Defence Procurement Review reforms;
   c. actions required to complete implementation of the Defence Procurement Review reforms.
2. Further potential reforms including, but not limited to:
   a. the effectiveness of the current framework for DMO financial and staff management;
   b. strategies to improve the skills, capacity and accountability of senior DMO staff;
   c. the potential for greater and more effective use of private sector project management and financial and legal expertise;
   d. the potential for utilisation of private sector involvement, such as through public-private partnerships, within defence procurement and sustainment;
   e. mechanisms by which changes to the scope and specifications of procurement projects can be made more accountable following second pass approval;
   f. the potential advantages and disadvantages of the greater utilisation of Military Off The Shelf (MOTS) and Commercial Off the Shelf (COTS) purchases;
   g. methods to improve the planning, management and oversight of developmental projects involving a high level of technical risk; and
   h. ways to provide more effective government oversight of the Defence procurement process including the future of the Defence Procurement Advisory Board.
3. Australian Defence Industry
   a. options to optimise Australian Defence Industry involvement while maintaining a high level of marketplace competition and value for money for the Australian taxpayer.

DEFENCE PROCUREMENT REVIEW IMPLEMENTATION PROGRESS REPORT

THEME 1: COMMUNICATING WITH GOVERNMENT: MATCHING CAPABILITY TO STRATEGY

THE DETERMINATION OF STRATEGIC PRIORITIES FOR THE DEFENCE AND SECURITY OF THE NATION HAS OBVIOUS IMPLICATIONS FOR THE DEVELOPMENT OF DEFENCE CAPABILITY.

Judgements need to be made concerning what mix of capability and what trade offs between new and existing equipment are in the nation's interests. This is quite properly the prerogative of the elected government. But for Government to remain confident that it is controlling this decision-making process the Australian Defence Organisation (Defence) must provide greater clarity in setting out the options available to develop and sustain ADF capabilities within a defined budget. (Report p.iii)

Recommendation 1

Defence should present to government the following information in a succinct form on an annual basis:

- an assessment of the types of contingencies Australia might face in carrying out the strategic tasks endorsed by government in Defence White Papers
- advice on the military force required in each contingency and the capacity of the ADF to apply this force now and in the future and
- advice on capability to be sustained, acquired or retired to ensure this can be achieved at acceptable cost

DESIRED OUTCOMES

- Annual information that allows Government to assess the consequences of strategic decisions for Defence capability.
- Inclusion of relevant strategic information in the annual Defence Management and Finance Plan.

Assessment of Progress:

Defence provides this type of information to Government in several different ways as part of the information supporting the Government decision making process. In July 2007, the then Minister for Defence released the Australian's National Security – A Defence Update 2007, which was the third Defence update since the White Paper of 2000. In releasing the update, the Minister noted the Government's recognition that the development of strategy is a dynamic process. As the international security environment and Australia's strategic circumstances change, there is a need for the Government to adjust its defence posture accordingly. On 22 February 2008, the Minister for Defence announced the commissioning of a new Defence

White Paper. The White Paper is a vital planning document that will form the foundation of future Defence capabilities. It will help the Government make fully-informed and cost effective decision about the military capabilities that are needed to defend Australia and to promote its interests.

THEME 2: DEFINING AND ASSESSING CAPABILITY

A STRENGTHENED CAPABILITY DEFINITION AND ASSESSMENT FUNCTION

Government has often been asked to sign off on acquisition proposals at a point where there has not been sufficient analysis within Defence to give confidence that financially and technically robust decisions are being made. Too often, poorly defined and inaccurately costed projects have been put to government and passed to the DMO to acquire. This gives rise to unrealistic expectations regarding the delivery of defence capabilities.

Accountability for managing the process of defining and assessing capability and achieving robust outcomes is diffused and overlaid by a complex system of committees. The position of Vice Chief of the Defence Force (VCDF) was intended to bring some focus to the management of developing ADF capabilities. However, given the numerous functions encompassed by the VCDF role, it has been difficult for any incumbent to give close and sustained attention to the vital task of capability definition and assessment.

A single point of accountability is needed to provide better integration of the capability definition and assessment process and to ensure that it maintains a joint warfare focus. (Report p.iv)

Recommendation 2

A three star officer, military or civilian, should be responsible and accountable for managing capability definition and assessment. This appointment should be on a full-time basis, with a defined tenure (minimum five years) to ensure a coherent, cohesive, holistic and disciplined approach.

DESIRED OUTCOMES

- A strengthened capability definition and assessment function
- The establishment of a single point of accountability for all aspects of capability definition and assessment
- The single point of accountability would be responsible for maintaining a joint warfare focus, and managing the Defence Capability Plan

Assessment of Progress:

In December 2003, a three-star officer was appointed to the position of Chief of Capability Development Group as the single point of accountability for all aspects of capability definition and assessment.

Capability Development Group has been progressing projects through the two-pass process. To date, nine major projects have completed the full two-pass process (separate first and second pass). Within the Capability Development Group, key developments include:

- Release of Defence Capability Development Manual, with the first edition issued in February 2005 and an updated edition in February 2007
- Improved cost estimation through new systems development
- Integration during 2005 of simulation, testing and evaluation in pre-second pass activities and the publication of the Defence Test and Evaluation Roadmap in 2008
- Development of MAAs with the Defence Materiel Organisation

A STRENGTHENED TWO-PASS SYSTEM

The process of capability definition and assessment notionally follows a two-pass system. However, as it is currently practiced, the system lacks rigour and discipline. It is also not based on mandatory endorsement of key decisions by relevant stakeholders, nor is external scrutiny applied to significant aspects of the proposals being forwarded to government.

A strong mandatory two-pass system should provide a precise and understandable process for the procurement of defence capabilities, which ensures that government will be presented with robust proposals.

It should be characterised by a higher proportion of project funds being spent on early analysis to provide better and more relevant information to government and to ensure that projects are less likely to develop problems during the acquisition phase. This would include rigorous analysis of technology, and cost and schedule risks, including external scrutiny and verification.

Most importantly, to provide a strong underpinning for the process, the two-pass system should be incorporated into the Cabinet Handbook, thus ensuring all proposals are considered using the same disciplined approach. (Report p.v)

Recommendation 3

Government should mandate, and enforce via revised Cabinet rules, a rigorous two-pass system for new acquisitions with government considerations dependent on comprehensive analyses of technology, cost (prime and whole-of-life) and schedule risks subjected to external verification.

DESIRED OUTCOMES

- A strengthened two-pass process
- The major processes be embodied in formal Cabinet arrangements
- Continued development of reasoned and fully investigated sets of options on which Government can make informed investment decisions; and
- A higher proportion of project funds should be spent on early analysis to provide more robust and relevant information to government and to ensure that projects are less likely to develop problems during the acquisition stage.

Assessment of Progress:

The two-pass approval process has been strengthened with the new process embodied in formal Cabinet arrangements since March 2004. All post-Kinnaird projects proceeding for approval are in the form and substance required under the revised two-pass process. Information presented to Government at first and second pass has been considerably improved since implementation of the Defence Procurement Review. Consistency of information is an area in which improvements have continued to be sought. While the revised two-pass approval process has been implemented, there will be a considerable time, up to several years, before sufficient projects have been progressed through the two-pass system to rigorously and robustly validate the methodology. To date, only nine major projects have completed the full two-pass process (separate first and second pass).

Minor Recommendation 2

The Report states (page 17) that, 'government needs to be assured that adequate scrutiny is undertaken:

- by Finance, the CFO (now CDG) and DMO on costings
- by the DMO on acquisition strategy, risk mitigation and schedule
- by Defence's Corporate Support and Infrastructure Group (CSIG) on facilities issues and
- by DSTO on technology feasibility, maturity, and overall technical risk…'
- The enhanced level of scrutiny being proposed might also require allocating new staff, with new skill-sets within Defence, particularly in relation to the assessment and definition of capability.

DESIRED OUTCOMES

- More rigorous analysis and scrutiny applied to the capability development process

Assessment of Progress:

The analysis of costs in capability development submissions for first and second pass, including Fundamental Inputs to Capability, has improved. Cost scrutiny is conducted by Department of Finance and Deregulation and Defence. The Defence Science and Technology Organisation provides technical assessments for all projects, and the DMO developed an overall project maturity score that is being applied to acquisition projects and sustainment activity.

Minor Recommendation 4

In addressing the two-pass approval process the Report noted (page 13) that procedures might be developed 'to handle the clearance of less complex proposals by the Minister for Defence'.

Assessment of Progress:

The Government agreed to increase the delegations of the Minister for Defence in 2004. Delegations are reviewed periodically to ensure that they remain at an appropriate level.

Minor Recommendation 6

The Report suggests (page 19) that 'an off-the-shelf alternative must be part of any set of options put to government'.

DESIRED OUTCOMES

- Establish a benchmark against which the costs, military effects and schedule of all proposals can be assessed.

Assessment of Progress:

The requirement to include an off-the-shelf alternative in any set of options presented to Government has been incorporated into the Cabinet Handbook and the Defence Capability Development Manual. Initial business cases and acquisition business cases being presented to Government include specific advice about the level of military and/or commercial-off-the-shelf content being proposed. However, the full cost of any 'Australianisation' options is not yet being consistently represented in first pass submissions.

Minor Recommendation 7

The report notes the importance of test and evaluation (T&E) in acquisition projects and concludes (page 20) that 'greater resources need to be allocated to conduct comprehensive and rigorous T&E programs as part of project funding'.

DESIRED OUTCOMES

- To apply a more comprehensive and rigorous test and evaluation program to the capability life cycle.

Assessment of Progress:

The importance of test and evaluation planning has been widely accepted within Defence. Projects progressing through the revised two-pass approval process are required to present Test Concept Documents for review. The quality of these documents has improved significantly. Testing and evaluation is also being considered more comprehensively across the capability life cycle.

Minor Recommendation 8

The report observes in relation to capability development in Defence (page 10) that 'the committee framework appears overly complex with a series of committees reporting to committees'. It concludes that, 'the complex committee system should … be reviewed'.

DESIRED OUTCOMES

- A more streamlined committee process.

Assessment of Progress:

A review of committee arrangements in 2004 led to the abolition of the Defence Capability Sub-Committee. In 2006, the roles and structures of the senior Defence committees were reviewed. Some changes were implemented. In 2007, the Defence Management Review recommended that a new top level committee replace the Defence Committee (DC) and Chiefs of Service Committee (COSC). It also recommended that Defence should review the need for all other committees. Defence agreed to streamline the DC/COSC committees and to review all other committees.

Minor Recommendation 10

The Report argues (page 17) that for Finance to meet its responsibility to Cabinet on the review of costings in submissions, it needs additional resources.

DESIRED OUTCOMES

- Department of Finance and Administration provides government with independent evaluation and verification of proposals.

Assessment of Progress:

Since, 2004, the Department of Finance and Deregulation has established a dedicated branch to scrutinise and provide advice to Ministers on Defence capability proposals. This dedicated Branch also advises Ministers on other matters with capability impacts. The Branch works closely with the CDG and DMO to improve its ability to analyse the information available on capability proposals and provide Government with an independent evaluation of cost information. However, system support and staffing issues need to be resolved before the implementation can be considered as being fully completed.

Minor Recommendation 11

The Report proposes (page 18) that 'standardised technology readiness levels (TRLs) should be used to assess the technology maturity of equipment.

Assessment of Progress:

The Defence Science and Technology Organisation (DSTO), in consultation with the Capability Development Group and the DMO, has developed policy and instructions for assessment of a project's technological maturity and its technical risk at appropriate decision points in the capability systems life cycle. Each option presented to Government at First and Second pass has a statement of technical risk developed by the DSTO. This statement addresses the level of maturity of the technology and advises on its availability and overall effectiveness, within the timescales proposed for the introduction of this capability. The technology readiness level methodology is used as a vehicle for expressing basic technology readiness information, and contributes to the overall assessment of technical risk. The technical readiness levels are also used to inform the project maturity score which is provided by the DMO in each submission. The Project maturity score includes assessments of technical understanding and difficulty.

THEME 3: MANAGING CAPABILITY

DEFENCE, AND ULTIMATELY GOVERNMENT, MUST BE CONFIDENT THAT THEY RECEIVE AN ACCURATE AND COMPREHENSIVE REPORT ON ALL ASPECTS OF CAPABILITY DEVELOPMENT AT EACH STAGE IN THE CAPABILITY CYCLE.

Capability managers, the most prominent being the Service Chiefs, should be made responsible and accountable for monitoring and reporting to government on all aspects of approved defence capabilities. However, capability managers would not assume management responsibility in other functional areas in Defence or exercise control over budgets or funding in these areas.

To properly perform their role, the capability managers will require sound and reliable financial and budget systems within Defence. However, taking into account the present state of Defence's financial systems, transition to improved arrangements will take time, perhaps two to three years. (Report p.v-vi)

Recommendation 4

Following second pass approval, the capability managers should have the authority and responsibility to report, and be accountable for reporting, on the development of defence capability. To undertake this role they should have access to all information necessary to enable them to fully inform government on all aspects of capability.

DESIRED OUTCOMES

- To provide accurate and comprehensive reporting on all aspects of capability development at each stage in the capability cycle.

Assessment of Progress:

Processes to implement this recommendation are in place but the outcomes are still to be fully demonstrated. The Chief of Capability Development Group, acting on behalf of Capability Managers, presents monthly reports to the Defence Committee on the progress of approved acquisition projects. Similarly, the Chief Executive Officer of DMO presents monthly reports to the Defence Committee and the Minister on acquisition projects and sustainment activities managed by DMO.

THEME 4: PROCURING AND SUPPORTING DEFENCE EQUIPMENT

DRIVING CHANGE FROM THE TOP DOWN

The creation of the DMO provided a single point of accountability for the acquisition and through-life-support of Defence equipment and gave rise to a number of important reforms in the management of the acquisition process. But, despite what has been achieved, the task of transforming the DMO into a performance driven organisation is far from complete.

In performing its project management role the DMO operates in a commercial environment but has yet to fully develop a culture to match the tasks it is required to perform.

Establishing an Advisory Board that is independent of operational processes and able to provide advice and support to the head of the DMO will assist the pace and quality of change. The Board should include private sector members to enable the head of the DMO to draw upon appropriate business skills and experience to inject a stronger commercial focus into the DMO. Public sector representatives, who would be external to the DMO, would ensure government oversight of the DMO to help drive the change process. (Report p.vi)

Recommendation 5

An Advisory Board should be appointed with immediate effect, to provide advice and support to the head of the DMO and report to the National Security Committee of Cabinet on the implementation of all Defence Procurement Review recommendations.

DESIRED OUTCOMES

- A broad base of experience is available to provide advice and support to the Chief Executive Officer of DMO on strategic issues.
- Government receives regular reporting on the implementation of the DPR.

Assessment of Progress:

The Defence Procurement Advisory Board was established in March 2004 to advise and support the Chief Executive Officer of DMO in improving DMO. The Advisory Board membership comprised both private and public sector members. The Board provided regular reports to Government on the implementation of the Defence Procurement Review recommendations.

A SEPARATE IDENTITY FOR THE DMO

The transformation of the DMO into a more business-like organisation will require it to have a clear and separate identity from the Defence Department. This will bring clarity to the commercial task of delivering and maintaining defence equipment separate from broader Defence tasks.

A number of options for bringing about this separation were considered. However, on balance the most effective way is likely to be through establishing the DMO as an executive agency within the Defence portfolio.

This would establish clear separation between capability development and delivery and maintenance of equipment. It would provide the DMO with a clear separate role and identity from the department, and reinforce the need for distinct responsibilities and accountabilities. It would provide the DMO with more flexibility in determining staff remuneration, and provide a clear signal to staff that there will be cultural change.

The Advisory Board would advise on implementation of the executive agency. (Report p.vii)

Recommendation 6

The DMO should become an executive agency [the then Government decided that DMO be created as a prescribed agency].

DESIRED OUTCOMES

- The DMO becoming a Prescribed Agency by 1 July 2005.
- Develop DMO to be a more performance and outcomes driven, business-like organisation.
- Establish a more transparent relationship between DMO and Defence that ensures alignment of accountabilities, responsibilities and authority.
- Flexibility to adjust financial and staffing resources to meet workload – within Government regulatory framework.
- Introduce self-discipline into the DMO that obviates the need for externally imposed controls.

Assessment of Progress:

The DMO became a Prescribed Agency under the Financial Management and Accountability Act 1997 on 1 July 2005. Agency Agreements established between DMO and Defence provide a more transparent relationship. More discipline in DMO processes has been introduced but further cultural change is needed for DMO to become more outcomes focused and business-like in its operations.

A more transparent relationship was established between DMO and Defence through agency agreements for approved acquisition projects and all the platforms and products currently in service. These agreements continue to be refined with clearer enunciation of the key result areas and performance measures. Reporting to Defence on the outcomes requires improvement but is constrained by the limited availability of flexible management reporting systems.

Minor Recommendation 5

The Report suggests (page 35) that the Head of DMO should have several 'powers', including:

- to be able to recommend against project proposals that do not have adequate risk analysis or are not fully costed;
- delegated powers to provide remuneration flexibility to attract highly skilled and experienced staff; and
- to concentrate solely on developing and managing the organisation without distractions such as the need to deputise for the Secretary of Defence.

DESIRED OUTCOMES

- To adequately empower the Head of DMO to enable achievement of Government outcomes.

Assessment of Progress:

The Chief Executive Officer of DMO can recommend to the Secretary of Defence/CDF against project proposals that do not have adequate risk analysis or are not fully costed. The Secretary of Defence has provided the Chief Executive Officer of DMO with the appropriate delegations for appointment and remuneration of staff in consultation with the Secretary.

PROJECT MANAGEMENT

Successful project management requires well-qualified and highly skilled project managers backed by project and financial systems that provide immediate access to reliable and accurate information on project costs, schedule and performance.

Project managers play the principal role in the acquisition of defence equipment and provide a direct interface with industry. Project management needs to be better recognised and developed as a major resource in the DMO, requiring high quality people with the requisite skills and experience.

Currently, most projects are managed by military staff posted into the DMO by the Service Chiefs and usually cycled through the position for no longer than the duration of a military posting. The head of the DMO has limited power to influence these appointments.

The DMO is applying significant effort in improving its project management systems and processes. However, further work remains to be done to ensure the timely rollout of these new systems and their consistent take up across the DMO. (Report p.vii-viii)

Recommendation 7

Project managers should be selected on merit by the head of the DMO particularly for their project management skills. Managers could be drawn from the military, industry or the public service and they should be accountable to the head of the DMO and have minimum tenures, usually of five years. Remuneration levels should be set at the relevant level to attract and retain project management specialists.

DESIRED OUTCOMES

- DMO staff have the requisite skills, qualifications and experience to ensure effective and efficient delivery of DMO projects.
- Establish a transparent connection between complexity of work, performance and reward, in order to attract and retain quality staff and encourage a greater focus on outcomes and accountability.

Assessment of Progress:

While the processes are largely in place, further work is required to ensure that all outcomes are achieved. Project managers (both military and civilian) are selected on merit, with tenures and remuneration determined as appropriate. Standards for skills, qualifications and experience for Project managers have been set within the Project Managers Certification Framework. Long term trends on certification programs are not yet available as on average the programs have

only been in place for 18-24 months. It will take some time before sufficient data can be gathered to determine if the certification program is positively influencing retention of certified technical staff.

APPOINTMENT OF OTHER STAFF TO THE DMO

Military personnel play an important role in the DMO. Their involvement in the organisation is confirmation of the DMO's central purpose to bring together acquisition of capital equipment and systems and through-life-support of equipment for the ADF.

The DMO should be able to continue to utilise ADF staff in a wide variety of roles, but this should be based on requirements that would apply to all DMO staff. In particular, they would commit to a minimum tenure for their DMO role, and would be accountable to the DMO for their performance. (Report p.viii)

Recommendation 8

The head of the DMO should be consulted on military postings to the DMO and should have the authority to accept only those ADF personnel who possess the requisite skills and experience.

DESIRED OUTCOMES

- Military staff within the DMO have the requisite skills and experience to meet the needs of the organisation, are committed to a minimum tenure and are accountable to the DMO for performance. A staffing policy was in place by July 2005.

Assessment of Progress:

DMO military staffing policy has been implemented. Since July 2005, the Chief Executive Officer of DMO and each of the Service Chiefs have signed Military Workforce Agreements (MWAs) annually. These agreements address workforce allocation and management of military staff assigned to the DMO. The Chief Executive Officer of DMO is consulted on military postings to DMO, and he has the authority to accept only those personnel who possess the requisite skills and experience. Average tenure of military staff has improved but remains lower than agreed in the MWAs.

REPRESENTING CAPABILITY MANAGERS IN THE DMO

The Service Chiefs, in their role as capability managers, should retain the right to place military staff in the DMO to monitor acquisition and logistics management on their behalf.

This would be similar to the role of the operator's representative within the project management team on major private sector projects.

These appointments should be on the basis that these staff are not acting as project managers or engaged in any other direct role that is part of the project management process. (Report p.ix)

Recommendation 9

Capability managers should have the option to locate their representatives in the DMO to monitor the acquisition and logistics management of approved capabilities.

Assessment of Progress:

This option was not taken up. Capability Managers indicated that the enhanced reporting mechanisms put in by Defence and DMO provided them with sufficient information and have improved their ability to monitor performance.

PROJECT GOVERNANCE BOARDS

Project governance boards were introduced to advise the head of the DMO on issues surrounding capital acquisition projects and have received wide support throughout Defence. Expanding their focus to incorporate through-life-support would recognise the importance of ongoing support for the operational availability and effectiveness of defence equipment. (Report p.ix).

Recommendation 10

The role of the project governance boards should be extended to include through-life-support of ADF equipment and report to the head of the DMO on potential difficulties.

DESIRED OUTCOMES

- Availability of independent advice on the management of sustainment activities.

Assessment of Progress:

This recommendation aimed to expand the scope and importance of governance boards, and it has been successfully implemented. The DMO's Assurance Boards now performs this function.

In addition to the ten major recommendations, a suite of other suggestions was made. Most of these related to the defence capability cycle, and have accordingly been addressed above. Those others are addressed below.

Minor Recommendation 1

The Report expresses the opinion (page 46) that 'the location of many JLC functions needs to be revisited by the Secretary and the CDF in conjunction with the head of the DMO'.

DESIRED OUTCOMES

- Organisational structures are aligned to the core businesses of DMO and Defence.

Assessment of Progress:

The location of the joint logistics function has been reviewed and the organisational structure realigned. The Joint Logistics Command, which was formerly part of the DMO, was transferred to Defence in 2004. Most of the functions have been integrated into Defence. The Defence and the DMO financial statements have been adjusted to reflect the asset control that results from the changed organisational structures. For the most part, inventory is now held on Defence's accounts.

Minor Recommendation 3

The Report expresses the view (page 45) that 'it is difficult to see that a Defence industry policy function is appropriately retained in the DMO'.

Assessment of Progress:

The Minister for Defence agreed in 2004 that the industry policy function should remain in DMO, with the exception of the export compliance function, which was relocated to the Strategic Policy Group within Defence. There have been significant developments in DMO's relationship with industry. The Chief Executive Officer of DMO has regular meetings with the Chief Executive Officers of major defence industry companies, and agreement has been reached on contracting reforms that will improve schedule management. The engagement of small to medium enterprises in wider industry discussions is helping these companies to work with Defence. Initiatives have been put in place to assist industry to upskill and develop its workforce to met future demands.

Minor Recommendation 9

The Report suggests (page 27) that Defence financial systems 'are not structured in a way that provides capability managers with a transparent view of the whole-of-life budget'.

DESIRED OUTCOMES

- Systems provide reliable information in terms of cost, schedule and performance to enable managers to monitor and report on capabilities from a whole-of-life perspective.

Assessment of Progress:

Defence and the DMO both recognise the importance of having fully functional systems which provide accurate and timely information for managers to make business decisions. Defence financial information management systems have been progressively improved since 2003 but there remains room for further improvements.

Minor Recommendation 12

The Report suggests (page 46) that 'greater consideration should be given to alternative methodologies in strategic procurements, such as incentive contracts and alliance contracts'.

DESIRED OUTCOMES

- To have available a range of contracting options to enable mutually beneficial and enforceable contracts.

Assessment of Progress:

A more rigorous approach to engaging contractors and suppliers in the acquisition process has been applied. A range of contracting options is available to DMO when considering the acquisition of Defence equipment. Initial work to improve contracting arrangements achieved varying levels of success. Further improvements have been on-going.

ACQUISITION CATEGORY FRAMEWORK

The Acquisition Category (ACAT) Framework is used by the Defence Materiel Organisation to categorise projects. The acquisition category level of a project is assessed against six attributes – acquisition cost, project management complexity, schedule complexity, technical difficulty, operation and support, and commercial. The largest, most demanding and complex projects are categorised as Acquisition Category I (ACAT I) and ACAT II. Less demanding projects are categorised as ACAT III and ACAT IV.

Definition

The definition[50] of each of the four Acquisition Categories is as follows:

ACAT I ACAT I projects are major capital equipment acquisitions that are normally the ADF's most strategically significant. They are characterised by extensive project and schedule management complexity and very high levels of technical difficulty, operating, support and commercial arrangements.

ACAT II ACAT II projects are major capital equipment acquisitions that are strategically significant to the ADF. They are characterised by significant project and schedule management complexity and high levels of technical difficulty, operating, support arrangements and commercial arrangements.

ACAT III ACAT III projects are major or minor capital equipment acquisitions that have a moderate strategic significance to the ADF. They are characterised by the application of traditional project and schedule management techniques and moderate levels of technical difficulty, operating, support arrangements and commercial arrangements.

ACAT IV ACAT IV projects are major or minor capital equipment acquisitions that have a lower level of strategic significance to the ADF. They are characterised by traditional project and schedule management requirements and lower levels of technical difficulty, operating, support arrangements and commercial arrangements.

The Project Decision Support Matrix in Table 1 establishes six major attributes against which assessments of levels of complexity are made viz:

Acquisition Cost: The Acquisition Cost includes the cost of the materiel system (that is, mission system plus support system), plus facilities costs. Requirements development and through life operating and support costs are empirically 6-10% and 3-4 times of acquisition cost respectively. Therefore, consideration of acquisition cost inherently also considers requirements development and through life operating and support costs.

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50 Defence Materiel Organisation 2006, *Acquisition Categorisation Framework – Policy for the Categorisation of Projects August 2006*, pp. 8.

Project Management Complexity: Project Management Complexity is expressed as management characteristics beyond those associated with traditional project management knowledge areas, conducted in a project execution environment which is novel and uncertain with very high-level political interactions. This attribute is a major discriminator for ACAT I and II assignment.

Schedule Complexity: Schedule Complexity is a measure of the inherent complexity brought about by schedule pressures on the project requiring the application of varying levels of sophistication in schedule management.

Technical Difficulty: Technical Difficulty is a measure of the inherent complexities associated with technical undertakings such as design and development, assembly, integration, test and acceptance.

Operation and Support: Operation and Support is a measure of the complexity associated with the readiness of the organisation and environment into which the system will be operated and supported and sustained.

Commercial: Commercial is a measure of the readiness and capability of industry to develop, produce and support the required capability and the complexity of the commercial arrangements being managed including the number and level of interdependency of commercial arrangements managed by the DMO.

The acquisition category of projects are assessed against six major attributes shown in the Project Decision Support Matrix with a numerical score assigned based on the assessment. The score range for the four ACAT levels are:

- ACAT I: Score range 95 -100
- ACAT II: Score range 81 – 94
- ACAT III: Score range 43 – 80
- ACAT IV: Score range 30 – 42

PROJECT DECISION SUPPORT MATRIX

ATTRIBUTE COMPLEXITY LEVEL	ACQUISITION COST	PROJECT MANAGEMENT COMPLEXITY	SCHEDULE	TECHNICAL DIFFICULTY	OPERATION AND SUPPORT	COMMERCIAL
4 [LOW]	<$100m	Relies predominantly on traditional Project Management knowledge	• Routine schedule management issues • Requires the application of routine project monitoring and control measures	• Low system complexity • Limited hardware and/or critical software development • Limited amount of systems integration	• Very similar system/equipment exists in ADF • No new operation and support infrastructure changes needed • Sustainment can fit in an existing Systems Program Office	• Existing companies have supplied almost identical systems • Contracting arrangements and contracts are complex but contract management is routine
3 [MODERATE]	$100m-$500m	Relies predominantly on traditional Project Management knowledge	• Difficult schedule management matters expected to arise from time to time • Requires the application of difficult remedial schedule management measures	• Moderate system complexity • Moderate level of hardware and/or software development • Moderate systems integration.	• Similar system/ equipment exists in ADF • Some operation and support infrastructure changes needed • Sustainment can fit in an existing Systems Program Office with minimal change	• Companies have previously demonstrated capability to develop and produce systems • Contracting arrangements and contracts are complex and require a high level of contract management
2 [HIGH]	$500m-$1.5b	Significant	• Complex schedule management issues with competing priorities and persistent pressure on delivery date(s) • Requires the application of innovative schedule management initiatives	• High system complexity • High level of hardware and/or software development • High systems integration	• Some systems/ equipment do not exist in ADF • Major operation and support infrastructure changes needed • Sustainment may require moderate changes to an existing Systems Program Office	• Individual company capabilities exist but not previously combined to produce required capability • Project will challenge extant industry capabilities • Contracting arrangements are complex or there is high level of interdependency between a number of commercial arrangements being managed by the DMO
1 [VERY HIGH]	>$1.5b	Extensive	• Extremely complex schedule management issues with competing/ conflicting priorities and persistent high-level pressure on delivery date(s) • Requires the application of innovative schedule management initiatives and frequent high-level management intervention.	• Very high system complexity • Very high level of hardware and/or software development • Very high systems integration	• Most major systems/ equipment do not exist in ADF • Significant operation and support infrastructure changes needed • Sustainment could require a new Systems Program Office to be put in place or major changes to existing Systems Program Office(s)	• New industry capabilities may need to be introduced • Project is at the margins of extant industry capability maturity levels • Contracting arrangements are highly complex and there is very high level of interdependency between a number of commercial arrangements being managed by the DMO • Novel commercial practices required to undertake the project

FUNDAMENTAL INPUTS TO CAPABILITY

'Capability' in the Defence context is the combined effect of multiple inputs. It is not the sum of those inputs, but the synergy that arises from the way those inputs are combined and applied that determines the level of capability in a particular context. In Defence, the 'Fundamental Inputs to Capability' (FIC), are categorised and broadly defined as:

ELEMENT	DESCRIPTION	KEY PROVIDER
Personnel	All people within Defence, both military (permanent and Reserves) and civilian. The input incorporates recruiting, individual training and all conditions of service and employment, including entitlements, salaries and wages, superannuation and allowances.	**Capability Manager**
Organisation	Flexible functional groupings with an appropriate balance of competency, structure and command and control to accomplish their tasks. This input also includes critical organisations that directly support the ADF effort.	**Capability Manager**
Collective Training	A defined training regime undertaken by organisations that is validated against the preparedness requirements for operations, derived from Government guidance. The regime is to include frequency and depth of competency in skills with a particular emphasis on long-term readiness critical war fighting skills.	**DMO** for contracted training and training artefacts of new of upgraded mission and support systems
Major Systems	Systems that have a unit cost of A$1million or more, or have significant Defence policy or joint Service implications designed to enhance Defence's ability to engage military power. Input includes, but is not limited to, ships, tanks, missile systems, armoured personnel carriers, major surveillance or electronic systems, and aircraft.	**DMO**
Supplies	Supplies needed for Defence to operate including stock holdings, provisioning lead times, serviceability and configuration status.	**DMO**
Facilities	Buildings, structures, property, plant, equipment, training areas, civil engineering works, through life maintenance and utilities necessary to support capabilities, both at the home base and at a deployed location. Input may involve direct ownership or leasing.	**DMO** for equipment and systems **Defence Support Group** for facilities

ELEMENT	DESCRIPTION	KEY PROVIDER
Support	Infrastructure and services from the wider national support base within Australia or offshore which are integral to the maintenance of Defence effort. The input is encompassing and could originate from civil/private industry/contractors, other Government agencies and international support base agencies.	Supplies to **DMO** for mission and support systems and System Program Offices
Command and Management	Written guidance such as regulations, instructions, publications, directions, doctrine, tactical level procedures and preparedness documents required for Defence to support decision making, administration and operations. Input also includes funding not readily attributable to any other FIC element (for example, discretionary funding).	**Capability Manager DMO** for logistics systems and ensuring authorised engineering and maintenance organisations are in place

ACRONYMS

ACAT	Acquisition Category
ADF	Australian Defence Force
CDF	Chief of the Defence Force
CDG	Capability Development Group
CFO	Chief Finance Officer
DCP	Defence Capability Plan
DMFP	Defence Management and Finance Plan
DMO	Defence Materiel Organisation
DPR	Defence Procurement Review 2003
DSTO	Defence Science & Technology Organisation
FIC	Fundamental Inputs to Capability
MAA	Materiel Acquisition Agreement
MSA	Materiel Sustainment Agreement
NPOC	Net Personnel and Operating Cost
PMSG	Project Management Stakeholder Group
PPP	Public-Private Partnership
SPO	Systems Program Office

GLOSSARY OF TERMS

Acquisition
Involves purchasing, leasing or other ways by which the Defence Materiel Organisation procures a materiel capability or system for use by the Australian Defence Force.

Acquisition Category Framework
Refer to Annex C.

Acquisition Phase
The third phase of the Defence capability life cycle. This is the process of procuring an appropriate materiel system to meet the identified requirements while achieving the best value for money over the life of the system.

Australian Defence Force
Refers to the Royal Australian Navy, the Australian Army, and the Royal Australian Air Force.

Australian Defence Organisation
Consists of the Australian Defence Force and the Department of Defence.

Australian Public Service Classifications
All Australian public servants are employed under the *Public Service Act 1999*. Generally, agencies will describe and/or group classifications according to their own specific responsibilities. The most common classifications used are as follows:

- Senior Executive Service (SES) Band 1, 2 and 3 are senior leaders and managers;
- Executive Level (EL) 1 and 2 are middle managers;
- Australian Public Service (APS) level 5 and 6 are senior administrative, technical, project and service positions, which may have supervisory roles;
- Australian Public Service (APS) level 3 and 4 are general entry level positions and general administrative, technical, project and service positions, and graduate positions; and
- Australian Public Service (APS) level 1 and 2 are general administrative and service positions, cadetships and trainees.[51]

Capability
The power to achieve a desired operational effect in a nominated environment within a specific time and to sustain that effect for a designed period. Capability is generated by Fundamental Inputs to Capability comprising organisation, personnel, collective training, major systems, supplies, facilities, support, command and management.

Capability Development
A broad term for those activities involved with defining requirements for future capability, principally during the Requirements Phase of the capability systems life cycle.

Capability Development Group
Capability Development Group has the responsibility for taking capability proposals from initial Government consideration and financial endorsement to final approval by Government.

Capability Gap
An outcome of analytical studies and joint military experiments which identify current and prospective capability needs that cannot be met within current force structures.

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51 APS Commission *Cracking the Code: Fact Sheet 3*, June 2007.

Capability Life Cycle
A capability's whole of life, from initial identification of a need through to its disposal. Within Defence, the capability life cycle has five phases – Needs, Requirements, Acquisition, In-Service and Disposal.

Capability Manager
The role of a Capability Manager is to raise, train and sustain in-service capabilities through the coordination of Fundamental Inputs to Capability.

Defence Capability Plan
The Defence Capability Plan outlines the Government's long term Defence capability plans. It is a detailed, costed ten-year plan comprising the unapproved major capital equipment projects that aim to ensure that Defence has a balanced force that is able to achieve the capability goals identified in the Defence White Paper and subsequent strategic updates.

Defence Capability Strategy
The Defence Capability Strategy sets the vision for the transformation of the ADF into the future and sets out capability goals along with explanations of how they will be met from within available resources. It details what capabilities will be acquired, retained or disposed of in future. While it covers all fundamental inputs to capability, it will also specifically explain how the Defence Capability Plan is linked to strategic guidance.

Defence Management and Finance Plan
The Defence Management and Finance Plan is designed to ensure that Defence fulfils the requirements of the Government's budget process and also meets the Australian Defence Organisation's internal resource management needs. It forms part of the Defence's submission for the Annual Budget and Forward Estimates along with new policy submissions for funding supplementation. The DMFP is considered by Cabinet as part of the annual budget process. It provides Defence with a ten-year funded plan that details performance and resourcing levels and provides a benchmark for achievement.

Defence Materiel Organisation
A Prescribed Agency within the Defence Portfolio. The Defence Materiel Organisation's purpose is to equip and sustain the Australian Defence Force. It is accountable directly to the Minister for Defence on matters under the Financial Management and Accountability Act 1997, while remaining accountable to the Secretary of Defence and Chief of the Defence Force for administration under the Public Service and Defence Acts.

Defence Procurement Review (also known as the Kinnaird Review)
The Defence Procurement Review (known as the Kinnaird Review) was conducted in 2003. It was established to investigate systemic failures that had caused delay and cost increases in a number of major defence acquisition projects. The Defence Procurement Review made ten major recommendations with a further twelve minor recommendations for potential reform across the whole procurement cycle. In September 2003, the Government agreed to broadly accept the recommendations.

Defence White Paper and Updates
Defence White Papers and subsequent Updates present the Government's long-term strategic direction and commitments for Defence and capability requirements for the ADF over the longer term. They provide a plan for the development of Australia's armed forces, with a commitment to provide the funds required.

Disposal Phase
The final phase of the Defence capability life cycle, and occurs once the materiel system reaches the end of its life.

Evolutionary Acquisition
Enables capabilities to be upgraded in a planned way from the delivery of a specified initial capability to eventual achievement of a full capability.

Final Operational Capability
The point in time at which the final subset of a capability system that can be operationally employed is realised. Final Operational Capability is a capability state endorsed by Government at Second Pass and reported as having been reached by the capability manager.

First Pass Approval
The process that gives Government the opportunity to narrow the alternatives being examined by Defence to meet an agreed capability gap. First pass approval allocates funds to enable the options endorsed by Government to be investigated in further detail, with an emphasis on detailed cost and risk analysis.

Fundamental Inputs to Capability
Refer to Annex D.

Initial Operational Capability
The point in time at which the first subset of a capability system that can be operationally employed is realised. Initial Operational Capability is a capability state endorsed by Government at Second Pass and reported as having been reached by the capability manager.

In-Service Date
The In-Service date is the year in which the first elements of the capability are planned to enter service, though not necessarily be ready for operational deployment.

In-Service Support
The management and execution of support activities to ensure continued attainment of the intended operational capabilities of the system or equipment during the in-service phase.

Integrated Project Team
A team bringing together personnel from all the stakeholder groups associated with a project. Such teams typically include representatives of the customer and all supplier groups, and are empowered to consider all aspects of the development and ongoing support aspects of the project.

Kinnaird Review
Refer to Defence Procurement Review.

Materiel Acquisition Agreement
An agreement between Capability Development Group and the Defence Materiel Organisation, which states in concise terms what services and products the Defence Materiel Organisation (as supplier) will deliver to Capability Development Group, for how much and when.

Materiel sustainment
The management and provision of products and services needed to meet the preparedness and performance requirement of a materiel system, from the time of acceptance into operational service until disposal at a minimised life cycle cost.

Materiel Sustainment Agreement
An agreement between a Capability Manager and the Defence Materiel Organisation, which states in concise terms what in-service support services and products the Defence Materiel Organisation (as supplier) will deliver, for how much and when.

Net Personnel and Operating Cost
Net Personnel and Operating Cost is the difference between future and current mature operating costs associated with a capability, facility, system or specific item of equipment. It reflects the net difference between the cost estimates to operate a new, upgraded or replacement capability offset by the funding available to operate the current capability.

Off-the-shelf
A product that is already established in-service with the ADF or another military or Government body or commercial enterprise in a similar form to that being purchased at the time of the approval being sought (First or Second Pass). The product is sourced from an established production facility and requires (at most) minor modifications with very low risk and complexity to meet regulatory compliance or interoperability with existing ADF and/or allied assets.

Project Management Stakeholder Group
Project Management Stakeholder Group provides input into the management/operational aspects and outcomes of projects

Post-Kinnaird Projects
Only projects with both first and second pass approval (or a combined pass) after 1 April 2004 are considered to have progressed through the full Kinnaird approval process.

Pre-Kinnaird Projects
Projects with either first and/or second pass approval before 1 April 2004.

Requirements Definition Phase
The second phase of the Defence capability life cycle. It defines the requirements, including operational support concepts and specification.

Second Pass Approval
The final milestone in the Requirements Phase, at which point Government will endorse a specific capability solution and approve funding for the Acquisition Phase. The project cannot proceed to the Acquisition Phase until this approval is obtained from Government.

Service Chiefs
The Chiefs of Navy, Army and Air Force

Staged Procurement
Staged procurement involves the use of a staged or structured acquisition strategy to break the procurement process into more manageable parts and refine the market testing process. A staged procurement acquisition strategy is used mostly for high value complex and strategic procurements.

Strategy and Needs Analysis Phase
The first phase of the Defence capability life cycle. This phase commences when a capability gap is identified and a materiel solution is required. This may occur when a system needs to be introduced, improved or replaced.

Sustainment Phase
The fourth phase of the Defence capability life cycle. During this phase, the individual Fundamental Inputs to Capability that make up the capability system are operated, supported, modified as necessary and managed by the relevant authorities in Defence.

Through-life Costs
All the costs incurred once a capability, system or equipment has been introduced into service, including all the costs associated with ownership and disposal.

Through-life Support
A whole-of-life management methodology that takes an integrated approach to all aspects of supportability and readiness of a materiel capability or system.


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