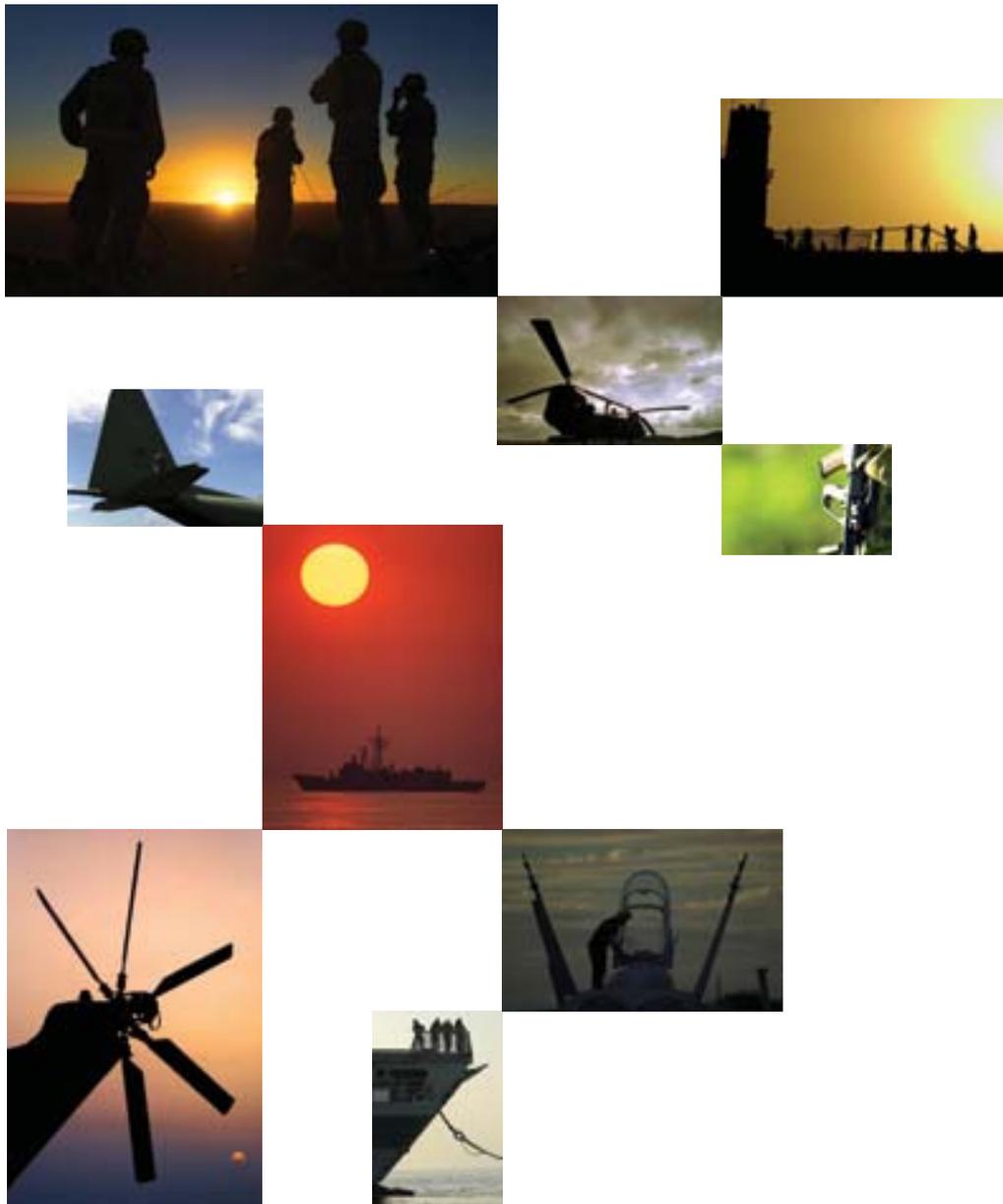


# Defence

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## Procurement Review 2003



Defence

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**Procurement Review 2003**

**15** August 2003

Dr Peter Shergold  
Secretary  
Department of the Prime Minister and Cabinet  
and Chair of the Secretaries Task Force on Defence Procurement

## **REPORT OF THE DEFENCE PROCUREMENT REVIEW**

In December 2002 we were engaged to conduct a review of problems associated with major Defence acquisition projects.

In accordance with those arrangements we submit the Report of the Defence Procurement Review.

Yours sincerely,



**Malcolm Kinnaird, AO**  
Review Chairman



Len Early, PSM  
Review Team Member



Dr Bill Schofield, AM  
Review Team Member

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## FOREWORD

In East Timor, Afghanistan, and in Iraq, our defence forces have been engaged in a series of challenging and dangerous operations. In each case, the Australian Defence Force demonstrated a degree of operational effectiveness, tactical skill and overall professionalism that won high praise from allies, and confirmed the respect in which the Australian Defence Force is held by the Australian people. To a significant extent their success and their safety in these deployments depended on earlier decisions that defined and then acquired the defence capability that ensures they can achieve their objectives.

The task of the Australian Defence Organisation is to define that capability 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.

The practical consequences of how well these tasks have been performed can be measured in terms of the protection of the nation's interests and the safety of its front line defence personnel.

But the outcomes have not always been as positive as the Australian people, or government, have a right to expect.

Cost overruns have led to pressure on the financial resources available for defence. In some instances major capital equipment has been delivered to the Services many years after its planned introduction. Budgets have been balanced by reducing capability. It would be unfair to suggest that Defence has ignored these issues. On the contrary, problems have been recognised, their causes identified and important reforms have been implemented.

However, the evidence gathered by this Review leaves little doubt that there needs to be more change, that it needs to be more rapid and more fundamental in reshaping systems, structures, and organisational culture.

To do otherwise will add more risk to what is already a difficult and high-risk international environment for the nation, and to the safety of the men and women of the Australian Defence Force who are tasked with its protection.

## **Acknowledgments**

We have been greatly assisted in conducting this Review by the readiness of staff at all levels of the Department of Defence to engage with us and to provide information and advice on the many issues that this Review has explored. In this regard we would like to record our appreciation to the Secretary of Defence, Ric Smith, the Chief of the Defence Force, General Peter Cosgrove AC MC, and the Under Secretary Defence Materiel, Mick Roche for the access we have been afforded.

We would also like to express our appreciation to the representatives from industry, including industry associations, who made submissions to us. As well, we conducted over 100 meetings with individuals from within Defence, other government agencies, industry and the community, all of whom generously offered us their time and we are grateful for their views and insights.

We would particularly like to express our thanks and appreciation to the Review Secretariat led by Simon Lewis. The high quality of the information briefs and research material prepared by the Secretariat provided a solid basis for the conclusions and recommendations contained within this Report.

## **The Defence Procurement Review**

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## **EXECUTIVE SUMMARY**

### **The need for reform**

An effective system for assessing, acquiring and maintaining defence capability is vital for the effectiveness of the Australian Defence Force (ADF) and ultimately the defence and security of Australia.

It is even more imperative at a time when the emergence of new threats and growing uncertainty in the international security environment has led to increased demands on the resources available for the defence and security of Australia.

However, continuing delays in the delivery of major defence equipment mean that the ADF has failed to receive the capabilities it expects, according to the schedule required by the Government.

Further fundamental reform is needed. But there is no single cause of the problems and failures that have become apparent, and hence there is also no single remedy. As the body responsible for the management of major projects, the Defence Materiel Organisation (DMO) needs to become more business-like and outcome driven. But reform must extend beyond the DMO. It is clear that change is needed at each stage of the cycle of acquisition and whole-of-life management of the equipment that comprises the core of defence capability.

### **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.

### ***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.**

### **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 (VDCF) was intended to bring some focus to the management of developing ADF capabilities. However, given the numerous functions encompassed by the VDCF 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.

### ***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.**

#### *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.

### ***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.**

## **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.

#### ***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.**

### **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 close government oversight of the DMO to help drive the change process.

### ***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.**

#### *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.

### ***Recommendation 6***

***The DMO should become an executive agency.***

#### *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.

#### ***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.**

Military officers would have the choice of joining the DMO as military members being paid at military pay rates, or joining the APS, and negotiating their remuneration level with the head of the DMO. The normal policy of military members having the option of resigning their commission, or transferring to the Reserve Forces, would apply.

#### ***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.

#### ***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.**

### *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.

### **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.**

### *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.

### **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.**

## 1. INTRODUCTION

Successive Australian Governments have produced White Papers that set out the priorities for defending Australia and its national interests and the means by which they would be achieved. The 2000 Defence White Paper: *Defence 2000: Our Future Defence Force* announced and explained the Government's decisions for defence strategy over the next decade, and set out a funded plan to develop the capabilities required by the ADF.

The White Paper set the basis for providing certainty for Defence planning by way of a long-term commitment to significant additional funding, in return for enhanced defence capabilities and a continuation of the reform program begun two years earlier to achieve further gains in efficiency and in financial management. The development of its conclusions had followed extensive community consultation and the close involvement of Defence. Consequently, it is not unreasonable to suggest that, in effect, the White Paper created a 'contract' between Defence and the Government for delivery of proposed capabilities on time and on budget.

However, experience since the White Paper was published, particularly actual performance against proposed outcomes, suggests the 'contract' is not being delivered.

Media reporting too readily promotes a view of Defence administration as being wasteful of resources, inefficient and error prone. In fairness, this can often be quite inaccurate or at least fail to tell the whole story. For example, creation of the DMO has given rise to a number of important reforms in the acquisition process and through-life-support of defence equipment.

Nevertheless, there is sufficient evidence of under-performance to justify a loss of confidence in some aspects of Defence management. The under-estimation of the cost of new equipment specified in the Defence Capability Plan (DCP), and of the costs to maintain existing equipment in operational service is naturally of great concern. Similarly, the qualification of the Department's accounts by the Australian National Audit Office (ANAO) provides evidence of endemic problems with financial and inventory systems that will take some time to correct.

Importantly, continuing delays in the delivery of major defence equipment means that the ADF has failed to receive the capabilities it expects, according to the schedule required by the Government.

Unfortunately, it is not difficult to cite examples. The Collins submarines were delivered into service with the Navy over three years late. Sea Sprite

helicopters for the Anzac ships and stand-off weapons for the F-111 aircraft are still not delivered; and while the Jindalee over-the-horizon radar is now operational, it is some six years later than originally planned.

The management of large, costly, and technically complex defence acquisitions is challenging and Australia is not alone in experiencing problems. The UK National Audit Office in its 2002 Report of Defence Major Projects found that there is continued improvement in project performance (under the Ministry of Defence's Smart Acquisition initiative) but *"Slippage continues to be a problem primarily on Legacy projects."* The United States General Accounting Office (GAO), in its May 2003 Report on Assessments of Major Weapons Programs, reported that *"GAO's reviews over the past 20 years have found consistent problems with weapon investments – cost increases, schedule delays and performance shortfalls – along with underlying causes, such as pressure on managers to promise more than they can deliver."*

However, this does not make failures in the Australian environment any more acceptable, nor does it detract from the urgency for further reform.

The starting point of the Review was the actual management of the acquisition of major capital equipment for Defence. But as the review progressed, it became very apparent that the failures in the purchase of major defence equipment such as cost over-runs, schedule delays and reduced capability of the delivered platforms and systems often resulted from poor analysis and planning before tenders were sought from industry. Consequently, it became clear that acquisition of major capital equipment was but one part of the overarching defence capability management process.

In Defence, the concept of defence capability involves more than fighting platforms such as ships, aircraft, or armoured vehicles. Rather it is the combination of people, organisation, equipment, systems and facilities to achieve a desired operational effect. It also encompasses the ability to prepare and maintain operations within a designated time for a specific period. The importance of considering the entire process of developing and maintaining capability in these terms has shaped our thinking on the changes that need to occur.

In considering the approach to our task, we took the view that examples of failure in the acquisition process, principally in relation to the so called 'legacy projects', have been well documented. Consequently, while we have reviewed these projects to develop our ideas for reform, we do not believe that this history needed restating.

Our judgement was that we would best assist government by presenting a concise and strategically focussed report that provided a series of recommendations to bring about immediate and sustainable change. Our intention was that these recommendations would establish a framework for Defence to achieve the further necessary improvement.

This Report is structured to reflect the defence capability cycle, from strategic assessment through to retirement of capability from service.

Our findings and recommendations can be broadly grouped around the four significant points within that cycle: communication with government, so that capability is linked to strategy; defining and assessing capability; the management of capability; and the procurement and on-going support of defence equipment.

An issue that permeates each of these themes is the need to focus adequate attention on managing and costing defence capabilities on a whole-of-life basis. This issue is dealt with as it arises, throughout the Report.

While the key procurement agency is known as the Defence Materiel Organisation, in this report we have nevertheless chosen to use the term 'equipment' rather than 'materiel' to describe major platforms, combat systems and supplies. This has been done to reflect the common usage of the term and in the interests of simplicity.

The Terms of Reference for the Defence Procurement Review are attached as background information.

## 2. COMMUNICATING WITH GOVERNMENT: MATCHING CAPABILITY TO STRATEGY

***Government must have information in a form that will allow it to assess the consequences of strategic decisions for defence capability.***

The emergence of new threats and growing uncertainty in the international security environment has led to increased demands on the resources available for the defence and security of Australia. At the same time, the community's wish to see additional spending in areas such as health, education and social security continues unabated.

To balance these priorities, and achieve its defence objectives, government must have information in a form that will allow it to assess the consequences of strategic decisions in terms of required defence capability within the context of its overall budget strategy.

Judgements need to be made across numerous issues including: the possible contingencies judged to be most critical; the type, number and mix of equipment required; and the trade-off between building local industry or buying overseas, including procuring off-the-shelf versus adaptation for Australian conditions.

It is for the elected government to make these judgements and determine what mix of capability and what trade offs between new and existing equipment is in the nation's interests. But, for government to remain confident that it is controlling this decision-making process Defence must provide greater clarity in setting out the options available to develop and sustain defence capabilities within a defined budget.

The broad capabilities the Government expects from Defence are addressed in the White Paper, and more recently in Australia's National Security - A Defence Update 2003. In summary, the White Paper concluded:

*"The Army will be structured and resourced to ensure that we will be able to sustain a brigade on operations for extended periods, and at the same time maintain at least a battalion group available for deployment elsewhere. Increased attention will be paid to sustainment of deployed forces....."*

*"We will maintain air-combat forces that are at least comparable qualitatively to any in the region."*

*"The Government's primary goal for our maritime forces is to maintain an assured capability to detect and attack any major surface ships, and to impose substantial constraints on hostile submarine operations, in our*

*extended maritime approaches. We also intend to maintain the ability to support Australian forces deployed offshore.....”*

*”Defence decisions therefore need to balance two of the most powerful imperatives on government – security and fiscal responsibility – and these decisions need to bear in mind competing priorities for government expenditure and the Government’s overall fiscal strategy.”*

These strategic objectives call for enhanced defence capability that will not only require the purchase of new equipment, but also the commitment of substantial resources to maintain, support and crew existing equipment over prolonged periods.

Currently, Defence produces an annual Defence Management and Finance Plan (DMFP), which is intended to provide a mechanism for Ministers to have a clear oversight of Defence planning and financial strategies. The DMFP is the result of a joint Department of Finance and Administration (Finance) and Defence review in 2000 on how Defence should report to the Government. It provides the operational link to the White Paper and subsequent strategic reviews and is produced to assist Ministers to make informed budgetary and strategic decisions on defence issues.

The DMFP format agreed by the Government in 2000 is based on a ten-year time frame. It includes the requirement for Defence to provide advice on the strategic outlook; military options that Defence could offer to support government’s strategic interests; advice on how effectively current defence capabilities could support the range of military responses government may wish to use; and details of future defence capabilities (both those previously agreed by government and new proposals).

The Review Team has been advised that the 2003-13 DMFP is an improvement on past efforts. However, Defence advises that the 2003-13 DMFP still does not address all the key considerations set by the Government. It also does not appear to be in the form that was agreed and seems to only address ADF readiness and not the resources required to sustain the force to meet a set of government endorsed contingencies. In view of these shortcomings, it would appear that the Plan does not address, in a fiscally balanced way, the total capability needs across the competing demands of new equipment purchases, sustaining the existing force, and retiring obsolete capabilities.

The Review Team has also been advised by Defence that while the current framework for reporting to the Government is not yet fully mature, it does include a mid-year review of the strategic environment.

In parallel with this activity, Defence undertakes an internal update of assessments of what it might be able to achieve on current plans, taking

into account overseas defence capability trends, changes in what is affordable given revised costs and emergent equipment supportability and whole-of-life issues. This internal review results in a series of judgements being made within Defence on desirable changes. However, this determination of the appropriate broad capability solution does not always include a robust process for moving from the required defence capability to the best type of equipment to purchase.

Put briefly, although in this process a large amount of material is provided to government, it is dense, not strategically or top-down focussed, and often not sufficiently directed at what government needs to know to ensure that it remains in control of the process.

We are also not confident that government has been receiving adequate advice and information to enable it to make strategic decisions on an informed basis, in terms of the balance of funding between capital and through-life support for existing and proposed capabilities. In particular, there has been inadequate attention given to managing and costing defence capabilities on a whole-of-life basis and this has manifested itself in a large logistic funding shortfall.

Currently, Defence spends approximately as much on maintenance and consumables each year as it spends on purchasing new equipment. Over two thirds of the whole-of-life cost of defence platforms or weapon systems is incurred after the system is introduced into service. Approximately \$3 billion is spent each year on maintenance and consumables, but this amount has proved to be less than adequate to have the desired number of platforms available for operations over the past few years.

What is needed is a communication and reporting structure between Defence and government that directly links the assessment of strategic issues with decisions on current and future capability in terms of people, organisation, equipment and facilities, and the ability to prepare and maintain operations within a designated time for a specific period.

We suggest that the current range of scenarios that Defence has developed might form the basis for focussing discussion with Government to match capability and strategy.

We acknowledge the view within Defence that scenario based forecasting risks narrowing military options. However, the scenarios could provide a starting point for the development of a set of contingences that the ADF might face in carrying out the strategic tasks endorsed by government. The description of these contingences would need to be broad and meaningful. For example, they might include terrorist acts onshore, offshore and against Australians overseas – activities that have clear meaning for

governments. But to be useful the set of contingencies needs to be reasonably finite and simple. The task is not to define every possible contingency but to have a reasonable set of examples across the range of possibilities. As a starting point, Defence needs to be able to provide a short description of how well it could respond to each contingency, the risks involved, reliance on allied support, and what level of effort we can sustain before in-field support becomes problematic.

This is the basis on which Defence should advise government on how Defence proposes to sustain current capabilities, acquire new capabilities and retire obsolete capabilities. Inevitably, these considerations will require trade-off decisions by government. Against such contingencies, it should be feasible for Defence to advise on the consequences, in operational terms, of not funding capital or logistics support programs. Without such a basis, the implications for not funding can only be expressed in terms of reduced flying hours for aircraft or steaming days for ships, but not in terms of reduced operational capability to meet agreed operational objectives.

A concise description of what Defence can do now against each contingency, and the extent to which concurrent operations are feasible, would give government a feel for what military options it might have in various situations. For each new capability proposed in the DCP, Defence could outline briefly what impact there would be for each contingency. This would allow government to evaluate the impact of its decisions, and to reach value for money judgements on the basis of whole-of-life cost estimates for these new capabilities.

We recognise that Defence capability planning does not readily lend itself to a series of annual decisions. It is inherently a long-term process involving long-term commitments by government, that are most unlikely to change significantly as a consequence of the annual review. We would expect that once this process is established future assessments would be relatively straightforward, taking the form of incremental variations on a year-to-year basis.

Strategic engagement with government will include the requirement for Defence to bring forward options to address capability gaps rather than proposals which might prematurely recommend the purchase of specific equipment. For example, a capability need might be to improve surveillance in Australia's northern sea-air gap. Rather than immediately assuming that an aircraft solution might be the optimal approach, capability options to address this deficiency could include space-based surveillance, ground-based radars, or airborne/maritime surveillance. Following consideration by government, those capability options that were approved

would then be more fully explored under the 'two-pass' capability definition and assessment process described in the next chapter.

***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.**

As a consequence of recent Government consideration of Defence reporting arrangements, we understand that a decision was taken requiring that Defence work with Finance to change reporting structures so that there will be greater transparency of defence capability and financial performance at program level. Our recommendation should be taken into consideration as part of this work. Alternatively, if our recommendation is seen as too broad in focus to be accommodated adequately in the above exercise, the separate implementation of our recommendation should be undertaken.

### 3. DEFINING AND ASSESSING CAPABILITY

***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 governments and passed to the DMO to acquire. This has given rise to unrealistic expectations regarding the delivery of defence capabilities.***

The DCP is the agreed statement of government intentions for the acquisition of new defence capability. This represents a significant outcome for Government of the work done within Defence to define and assess capability requirements. It also has a degree of public recognition, particularly by industry, and is often the subject of debate and discussion. A public version of the DCP for 2001-2010 was issued following the publication of the White Paper, with the aim of providing greater certainty and visibility of the planning parameters being adopted by Defence. Given the changing nature of the strategic defence issues that face Australia the DCP is necessarily subject to continuous refinement and development. However, in the opinion of the Review Team a level of confusion exists across stakeholders (Defence and other government departments) in regard to the approval basis for the capabilities contained in the DCP. That is, has the Government formally approved that the proposals can go to tender, or has it only endorsed them in principle, subject to further examination? Additionally, the process used to develop the Plan did not, in some cases, adequately put forward options for the Government's consideration based on meeting identified capability gaps.

Furthermore, in relation to the specific proposals for major acquisitions that have been included in the current DCP, it would appear that some costings are inaccurate and the schedule estimates for some proposals are not well founded.

The flaws in this process have significant implications for the process of acquiring major capital equipment for Defence. Our review has led to the conclusion that poor project definition, analysis and planning, before tenders have been sought from industry, are often one of the causes that contributed to failures, such as cost over-runs, schedule delays, and reduced capability of the delivered platforms and systems. The principal reason is that the current process of capability definition and assessment has generally lacked rigour and discipline. Often there has been an inadequate understanding of technology risks and whole-of-life costs and too great a focus on presenting specific platform solutions to government in

advance of a more complete understanding of a joint approach to overcoming the identified capability gap. In short, the process has not given government a reasoned and fully investigated set of options on which to make informed investment decisions.

In these circumstances, any process that allows the possibility of proceeding to tender without a well-defined project can give government little confidence that new equipment will be purchased on time, within cost and with the required levels of performance. The development of high quality, realistic proposals can be achieved if significant changes are made to how Defence undertakes capability definition and assessment. Change at this stage of the process is essential to ensure that capability proposals are properly defined and costed before being passed to the DMO.

Improvement in capability definition and assessment requires strong and focussed leadership and a single point of accountability for achieving robust outcomes. This needs to be supported by a commitment to spend a larger proportion of funds during the early stage of projects on analysis and verification of options using a robust two-pass system based on a rigorous assessment of technology, cost and schedule risks, all tested by external scrutiny.

We are confident that an investment of this nature will pay future dividends through improved cost, schedule and performance outcomes.

### **A strengthened capability definition and assessment function**

A broad range of responsibilities are currently attached to the position of VCDF including the development of proposals for future Defence capabilities, strategic operations, policy development for ADF Reserves, and the operation of the Cadet Program. The VCDF also performs the role of Chief of the Defence Force (CDF) when required. The position was intended to bring some focus to the management of developing defence capabilities. However, given the numerous functions encompassed by the VCDF role, it is difficult for any incumbent to give close and sustained attention to the vital task of capability definition and assessment.

The involvement of a number of committees in the management of the capability definition and assessment process has served to further diffuse the accountability and authority for capability decisions. The committee framework appears overly complex with a series of committees reporting to committees. These committees include the Defence Committee; the Defence Capability and Investment Committee; the Defence Capability Committee (DCC); and the two DCC associated sub-committees, the Defence Capability Sub Committee and the Defence Infrastructure Sub

Committee. Underneath these senior committees are the three Service capability committees.

To ensure that there is a single point of accountability for managing the process and achieving robust outcomes, we propose that a three star/band three officer should head this function on the basis of a defined minimum tenure. This position would provide the leadership and integration role for the capability definition and assessment process. The head of capability definition and assessment would be responsible for maintaining a joint warfare focus, and managing the DCP. He or she would be accountable to government for all aspects of capability definition and assessment. The minimum tenure should be five years, however this could be achieved by way of a three-year term with the option of a two-year extension.

The complex committee system should also be reviewed to ensure the committees fully complement and support the capability definition and assessment function, rather than sometimes acting as a substitute for it. However, regardless of any change in approach, there is clearly scope to significantly decrease the multiple layers of committees and the staff work and administration that supports them.

### ***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.**

### **A strengthened two-pass system**

Currently, capability definition and assessment notionally follows a two-pass system. However, as it is currently practiced, the system lacks rigour and discipline and it appears that there is, on occasion, disagreement on what constitutes the process at each stage. 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.

The system has not been well communicated to all relevant stakeholders despite being detailed in the Defence Capability Systems Life Cycle Management Manual 2002. Importantly, the major processes described in the Manual are not embodied in the formal Cabinet arrangements as a set of endorsed rules on how Defence should bring forward capability

proposals to government. Consequently, the degree to which proposals have been assessed is not readily apparent, nor are the points in the cycle where government decisions are required made clear.

We have been advised that under the current arrangements there has not been an example of an approval following completion of the first pass stage as this process was effectively overtaken by the development of the DCP in 2001. Since 2001 the small number of new projects included in the DCP have been developed at short notice.

Defence has advised that a number of early definition and risk reduction phases for projects were included in the DCP. However, some of these were poorly defined, which, in those cases, has led to a high degree of cost risk.

Furthermore, no funding was specifically provided for analysing and developing some projects prior to their inclusion in the Plan. Although steps have been taken to address this situation, not enough has been achieved. The result is that the DCP tends to be a collection of platform solutions that have not always been subjected to consistent and robust analysis and scrutiny.

Under the existing system, approval at the completion of the second pass process is often sought on the basis of a broad description of the capability proposed, limited understanding of the inherent risks and an absence of robust cost, schedule and technology analysis. Approval is also often sought before whole-of-life costs are well defined and, for many projects, prior to substantive engagement with industry. Consequently, the result is a high degree of uncertainty of the cost of the acquisition. Also, government has usually been offered a single recommendation for a capability solution, rather than being presented with a range of options.

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

The system should be characterised by a higher proportion of project funds being 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 phase. This would include rigorous analysis of technology, and cost and schedule risks, including external scrutiny and verification.

In our view, complex projects may require that up to 10% to 15% of project funds be spent before approval to proceed to tender. This would usually include the cost of investigations by Finance, the Defence Science and

Technology Organisation (DSTO), DMO and Defence's Chief Finance Officer (CFO). It would also encompass funded industry studies that would aim to ascertain what capability options could be delivered (including whole-of-life requirements) by industry, within what timeframe and at what levels of cost and risk.

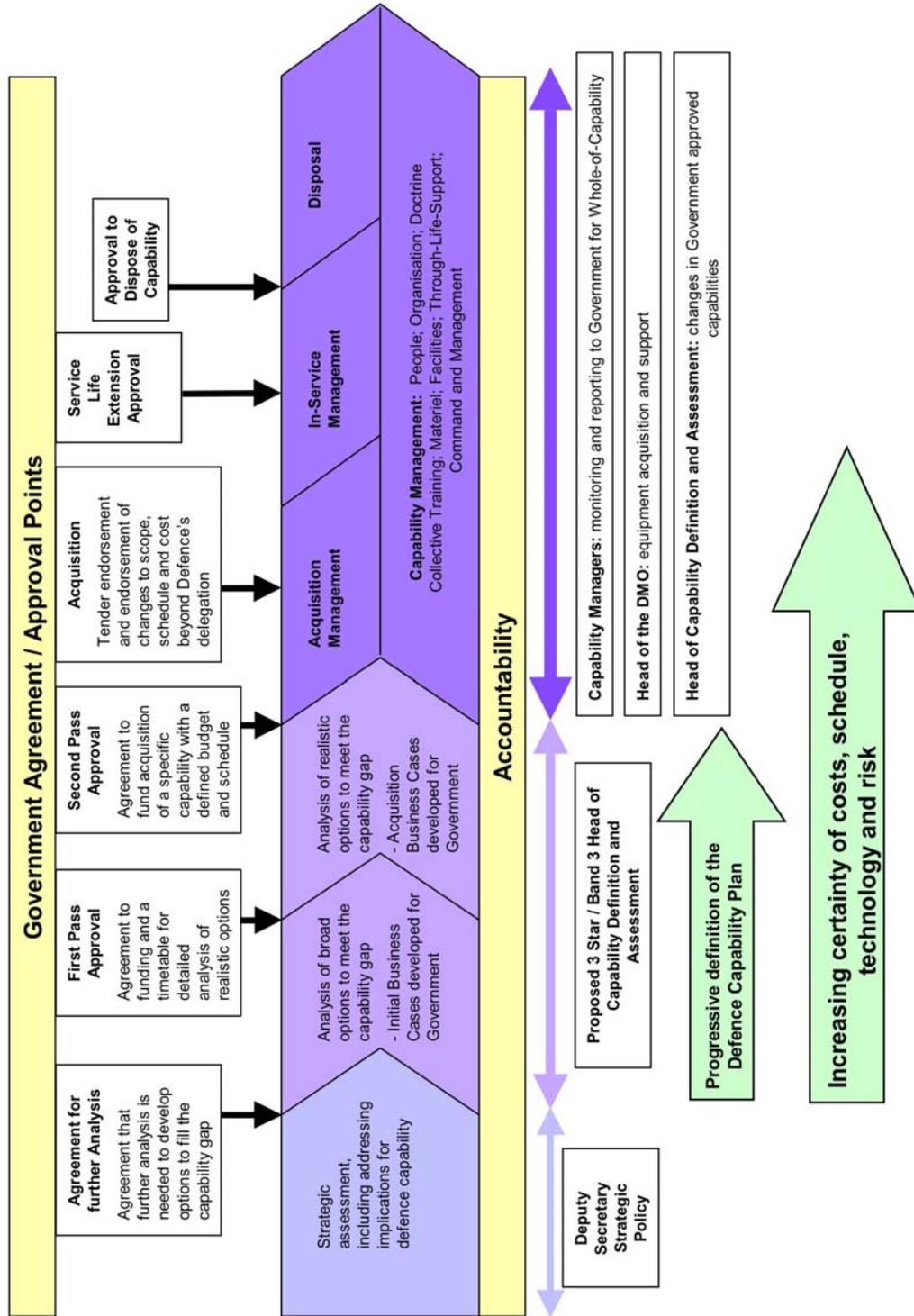
We are confident that an investment of this nature early in the process would return dividends in terms of greater certainty of costs, delivery, and reduced risk.

The two-pass approach should apply for all capability proposals regardless of size, with procedures developed (and agreed by government) to handle the clearance of less complex proposals by the Minister for Defence and larger proposals by government.

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.

The proposed framework is an adaptation of the system outlined in the Defence Capability Systems Life Cycle Management Manual 2002. It is set out diagrammatically on the following page.

# Capability Life Cycle



### ***First pass***

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 outlined in Chapter 2. 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. These options would be presented to government in the form of separate Initial Business Cases.

Each Initial Business Case would identify the option to be explored, the indicative schedule and cost of implementation (both the acquisition and whole-of-life costs) and the methodology for further assessment including the necessary funding to do the work. The methodology should describe any formal industry engagement, the DSTO modelling that might be undertaken, and include operational and through-life-support issues. Together, the Initial Business Cases should provide a variety of realistic capability, cost, schedule, and risk trade-offs for government to consider. At least one off-the-shelf option must be included. Any option that proposed the 'Australianisation' of capability would need to fully outline the rationale and associated costs and risks.

The development of Initial Business Cases would be the responsibility of Defence staff led by the new head of capability definition and assessment proposed by Recommendation 2.

The first pass stage will be completed when government approves a set of options to address the identified capability gap. 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.

### ***Second pass***

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. The second pass process, and subsequent approval by government, would occur for each acquisition phase of a multi-phased project.

Each Acquisition Business Case will include the equipment to be acquired (expressed in functional terms), budget estimates (including whole-of-life costs), delivery schedules, and an analysis of technology, cost and schedule risks. Technology maturity would be analysed and presented to government using the Technology Readiness Level methodology described in detail later in this chapter.

The business cases, and their accompanying recommendations, will have been externally verified before being submitted to government.

For some complex proposals, additional government consideration may be needed to provide further guidance as more information becomes available, or circumstances change.

Approval from government following the second pass process authorises formal industry solicitation and subsequent contracting and expenditure of funds for a specified capability with a defined whole-of-life budget, schedule and level of performance. The subsequent evaluation of tenders should similarly include rigorous assessment of costs on a whole-of-life basis, risks, including the capability of tenderers to supply and support the capability, schedule and performance.

### ***Key features of the new approach***

#### *Strengthening the resources applied to capability definition assessment and investment analysis*

Developing and analysing proposals for major capability options and maintaining a rigorous two-pass system will need more resources. For example, additional resources will probably be required to be applied to this stage to undertake independent investment and technology analysis. Additionally, it may be that some postings into key positions within the existing Capability Systems Division have not been of sufficient duration to acquire the skills and experience necessary to undertake the analysis required to produce robust capability proposals. Employment periods in the capability definition and assessment function may need to be increased so that staff can gain the requisite skills for achieving the desired high quality outcomes. Longer postings would improve accountability and support the development of corporate memory, which would in turn strengthen this critical function within Defence.

#### *Higher proportion of project funds directed to early analysis*

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.

The downstream savings from this approach should be more than sufficient to pay for the additional initial investment.

#### *Mandatory review and external verification*

The external evaluation and verification of all proposals is essential. Importantly, government needs to be assured that adequate scrutiny is undertaken by Finance, the CFO 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.

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.

Under current Cabinet rules Finance must agree to costings included in submissions brought forward for consideration from any Minister. Finance agreement to costings generally involves a detailed understanding of the proposal as well as all elements relating to cost and underlying assumptions. In the context of Defence procurement, however, Finance presently does not conduct, and is not resourced to conduct, detailed analysis of this kind. Finance agreement to Cabinet submission costings is generally sought shortly before lodgement, and does not allow sufficient time for any in-depth analysis of capability, strategic, technical, legal or commercial issues associated with the costs and risks of major capital investments or other procurements. Ideally, Defence should provide well developed business cases for the proposed investments, based on sound costings models, for validation by Finance.

In our view, Finance and DSTO should be involved much earlier, and on a continuous basis, throughout the two-pass approval process so that they can contribute to effective quality assurance in relation to costings and risk, and technology readiness respectively. In the case of Finance, given the scale of large procurement projects it would be appropriate to have individuals with appropriate skills dedicated to those projects. For others, officers may be responsible for a range of upcoming projects. They would work closely and continuously with Defence and the DMO, participate in key meetings, have ready access to the necessary information and data, as well as a detailed understanding of the cost models produced to estimate whole-of-life project costs. Over time, they would develop deeper expertise

and a more comprehensive database, facilitating, for instance, benchmark comparisons with similar or previous capabilities. While not requiring Finance to develop an independent set of costings, it would enable Finance to provide more rigorously based assurance for Defence costings and assumptions. In view of the number of Defence projects and the critical need for such external scrutiny, we expect that the Finance team presently focussed upon Defence issues will need to be expanded considerably.

#### *Whole-of-life costs*

When taking decisions on capability options at first and second pass the whole-of-life costs must be presented to and understood by government. These not only comprise the cost of the prime equipment, but also infrastructure, equipment operating costs, through-life-support, and the resources required to manage acquisition. In our proposed model, these costs would be clearly identified before second pass approval as part of the whole-of-life cost estimate. We envisage that Defence and Finance will need to develop specific skills and methodology to ensure that more accurate whole-of-life costs are produced and analysed.

#### *Technology readiness levels*

Standardised Technology Readiness Levels should be used to assess the technology maturity of equipment, including sub-systems, at various stages of development. Proposals lacking technology risk ratings would not proceed for government consideration. A short version of the system, modelled on the methodology devised in the US, is detailed on the following page. It outlines nine levels that could be used as benchmarks to assess the technology maturity of different capability options. The system enables technology risk for each capability option to be identified early as they progress through the two-pass system. Implementation of such a system enables non-technical readers to better understand the level of technological risk of particular proposals and therefore facilitating a better assessment of their merits. We understand that DSTO would be capable of using this methodology to rate technology risks for new capabilities.

## TECHNOLOGY READINESS LEVELS

Increasing Maturity

<b>1</b>	Basic principles of technology observed and reported
<b>2</b>	Technology Concept and or Application formulated
<b>3</b>	Analytical and Laboratory Studies to validate analytical predictions
<b>4</b>	Component and or basic sub -system technology valid in laboratory environment
<b>5</b>	Component and or basic sub -system technology valid in relevant environment
<b>6</b>	System sub-system technology model or prototype demonstration in relevant environment
<b>7</b>	System technology prototype demonstration in an operational environment
<b>8</b>	System technology qualified through test and demonstration
<b>9</b>	System technology 'qualified' through successful mission operations



### *Off-the-shelf requirements*

Off-the-shelf equipment is often cheaper and can usually be delivered faster. Accordingly, an off-the-shelf alternative 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.

However, Australia's operating environment often requires specialised equipment to handle large distances and our particular geographical circumstances. Equipment designed for the environmental conditions of the Northern Hemisphere may not be suitable for operations within our region. Additionally, Australia's small defence force limits the number of types of platforms it can acquire and operate. This means that ADF platforms often have to perform several military roles that would be assigned to specialised platforms in US or North Atlantic Treaty Organisation forces. These reasons often lead to the requirement for Australian unique specifications. Nevertheless, the case for

'Australianisation' of equipment must be fully established and set against the potential risks and costs that might arise as a result of such adaptation.

#### *Test and evaluation*

Test and evaluation (T&E) is an essential tool in the acquisition of defence equipment to reduce risk, define technical limits and monitor contract performance and compliance. T&E can be applied from the initial feasibility stage through to delivery into service. Employing T&E helps identify technical issues early, allowing timely rectification to avoid significant cost increases. Operational T&E is necessary to demonstrate that the delivered capability fills the government endorsed capability gap.

Greater resources need to be allocated to conduct comprehensive and rigorous T&E programs as part of project funding. Currently T&E is often not conducted in a comprehensive and systematic way for projects, and expertise available in Defence is not fully utilised. Although each of the Services undertakes varying degrees of T&E, these activities need to be integrated with the significant expertise and experience available in DSTO through the development of a T&E concepts document during second pass.

#### **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.**

#### **Implications for the current Defence Capability Plan**

We understand that the current DCP is being reviewed with the Government considering proposed changes later this year. The current DCP contains some specific platform proposals that have not been subjected to sufficient analysis consistent with the above recommendation. As a transition arrangement pending full implementation of our recommendation, we suggest that the Government's consideration of this revised DCP could constitute first pass approval with the DCP proposals then being subjected to the second pass process outlined in this Report. This will require resources to be provided to undertake this analysis.

The DCP would be coordinated and managed by the proposed head of capability definition and assessment.

### *Longer term arrangements*

The DCP could have two sections, the first listing those capability gaps, options for which have achieved first pass approval by government (including broad funding estimates and timing). The second would list capabilities that have achieved second pass approval. This section in the DCP would contain only those approved capability proposals that are not yet in contract. Once proposals receive second pass approval they would be removed from the DCP.

## 4. 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.***

Defence capability managers, or Outcome Executives, are directed by CDF and the Secretary of Defence to deliver assigned Defence outputs as detailed in the Defence Plan and Australia's Military Strategy. For example, the Chief of Navy is expected to deliver Defence Output 2 – Navy Capabilities. That is, the Navy is to provide maritime forces that: contribute to the ADF's capability to ensure the defence of Australia and its direct approaches, contribute to the security of our immediate neighbourhood, and support Australia's wider interests.

The more prominent capability managers, in terms of the acquisition of defence capability, are the Chiefs of Navy, Army and Air Force. Other capability managers are the Deputy Secretary Strategic Policy, the Deputy Secretary Intelligence and Security, and the Commander Australian Theatre. All capability managers depend on other areas within Defence, including the DMO, CSIG and DSTO to manage parts of the Defence budget to provide equipment, infrastructure, services and support.

To fully explain the role that we propose for capability managers, it is important to make a distinction between defence capability and defence equipment. Unfortunately the two terms are often confused.

Defence's Capability Systems Life Cycle Management Manual 2002 defines capability as "the power to achieve a desired operational effect in a nominated environment within a specified time and to sustain that effect for a designated period." The Manual goes on to outline that there are eight fundamental inputs to capability: people; organisation; doctrine; collective training; materiel, including major platforms combat systems and supplies; facilities; through-life-support; and command and management.

A central element of this definition is the need to consider capability as a connected whole and not as a collection of discrete parts. This should not be taken as understating the importance of the acquisition and support of equipment. Although the acquisition of equipment is only one step in the process, in budgetary terms it is often the most significant input.

Currently, responsibility for capability management across all of the phases of the capability life cycle is shared between the relevant capability manager and other senior Defence executives. There is no single authoritative point accountable for reporting to government on the totality of

capability development and associated budgetary issues following approval to acquire equipment after second pass. 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. In the previous Chapter we proposed a significant change, by way of the creation of a new senior position, which we believe will better align authority, responsibility and accountability in relation to the definition and assessment of capability.

Within the equipment lifecycle management process there is no dispute that the head of the DMO has authority, and is responsible and accountable for tendering, contracting, delivering and supporting new equipment.

However, there is a lack of clarity regarding the authority, responsibility and accountability for the provision of advice to government on capability development following second pass approval.

To address this issue we propose that following second pass approval, the capability managers have the authority and responsibility to report, and be accountable for reporting, on the development of defence capability.

This would mean that government would look to the capability manager for advice on the progress of capability development, including providing advice on any expected delays or reduction of capability.

The arrangements we propose are similar to the way in which major infrastructure or facility projects are structured in the private sector. In these cases, representatives of the company or consortium that will own the asset under construction, along with representatives of the company that will operate the asset, monitor the construction phase.

These representatives would have access to all information to ensure that their interests, as either the owner or the operator, are taken fully into account during construction. They would interact with the project manager concerning any proposed changes to design within the context of the contractual arrangements that had been established for the project.

Given different accountability requirements, private sector models cannot be simply translated into the public sector. However, we believe that to the greatest extent possible the underlying principles should be incorporated into the management process.

Set out below is how these principles might apply to equipment lifecycle management in Defence. This would see the proposed head of capability definition and assessment in the role of representing the 'owner' and ensuring that what the owner has approved is acquired. The capability managers represent the operator of the asset and the head of the DMO

acts as the project manager for acquisition and the ongoing maintenance of the asset.

These relationships in the Defence context are explained below and shown diagrammatically at the end of this chapter.

#### *Proposed head of capability definition and assessment*

As outlined in Chapter 3, the head of capability definition and assessment will be the single point of accountability for all aspects of capability analysis, definition and development, and budget up to and including second pass approval. This officer will provide the leadership and integration role for the capability definition and assessment process, with input from the relevant capability manager and other sections of Defence including the DMO.

The capability managers will provide the Service input to ensure that the capability development process and options for government approval are in line with Service needs. The DMO will provide advice on acquisition, and support issues.

Post second pass approval, any changes requested by a capability manager to project scope, cost, or schedule, would have to be agreed by the proposed head of capability assessment and definition. If the changes exceeded an agreed threshold, government approval would be necessary.

#### *The head of the DMO*

Following second pass approval, the equipment requirement, together with the concept of operation, is passed to the DMO for management of the acquisition (and subsequently in-service support and disposal phases).

The head of the DMO is then the single point of accountability for all aspects of the acquisition up to and including contractual acceptance, and is responsible for delivering equipment to the agreed functional specification and within the agreed budget and schedule.

Moreover, the head of the DMO reports to government on all aspects of the acquisition and support of the approved equipment.

#### *Capability managers*

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.

Capability managers provide professional military advice on the operational implications of any changes to schedule or specification. They are also responsible during this phase for the development of all Service-related inputs required for the introduction of the equipment into service.

To properly perform their role, capability managers need full access to all financial, schedule and performance information that is relevant to the acquisition of new capabilities, and to the support of current capabilities.

The role we envisage for the capability managers would not involve them assuming management responsibility or exercising control over budgets or funding in other functional areas in Defence that provide inputs to capability development, such as the DMO or CSIG.

The head of the DMO would report to government on detailed issues including tendering and contractual matters related to acquiring and supporting equipment. However, the capability managers would report any concerns regarding the inability to deliver capabilities agreed to, and funded by government to the CDF, Secretary of Defence, or the Minister as appropriate.

In the past, capability managers have brought forward proposals, which they believed would enhance capability, after the acquisition stage has commenced.

Under the model we propose, any proposals from capability managers that would result in changes to project cost, schedule or scope would be referred to the proposed head of capability definition and assessment. The head of capability definition and assessment would, where necessary, report and provide advice to government to seek supplementary decisions aimed at ensuring that government's expectations are met. He or she would of course draw on advice from DMO and capability managers as appropriate.

This procedure would also include any proposed extension of the in-service life of existing equipment.

This would not preclude capability managers working with enabling agencies such as the DMO and CSIG to resolve other issues that did not materially impact on the cost, schedule, or scope to give better effect to government requirements.

Importantly, in the event that delivery of an approved capability would be achieved inside budget, any proposal by capability managers to use surplus funds to expand the capability would be referred to the proposed head of capability definition and assessment. The proposal would then be considered in conjunction with the funding requirements for other capabilities identified in the DCP.

Similarly, as a result of contractual issues, the head of the DMO may wish to seek changes in the acquisition process that impact on project cost, schedule, or scope. In these circumstances the proposed head of capability definition and assessment would also co-ordinate advice to government.

It is the responsibility of capability managers to ensure government is alerted to any significant prospective change in the cost, timeliness or scope of the capability it expects. In particular, they should ensure that government is fully aware of the implications of the changes.

### **Whole-of-life costs**

Over two thirds of the whole-of-life cost of defence platforms or weapons systems are incurred after introduction into service – it is even higher for major maritime platforms. This demonstrates that understanding the whole-of-life costs associated with particular platforms is a vital component of managing capability and must be considered throughout all phases of the life cycle of capabilities, from project initiation and feasibility through to retirement of equipment.

However, Defence historically has tended to underestimate whole-of-life costs. Traditionally the focus has been on the capital acquisition costs and short-term logistics associated with bringing equipment into service, and there has often been minimal attention to costs over the entire period that the equipment will be in service.

This has been reinforced by a tendency to assess project tenders on the basis of the costs of capital acquisition with less focus on broader costs. It may also be compounded by the system of regular reporting to government by Defence on the progress of major acquisitions, that historically has focussed on immediate capital costs.

A significant consequence has been the growing logistics shortfall within the ADF. It has been difficult to obtain accurate estimates on the size of this shortfall and its impact on operational capabilities. However, it is clear that a significant shortfall in logistic funding has built up over a number of years. The evidence of this shortfall is seen in the extent to which defence

equipment has been cannibalised for parts to ensure that adequate numbers of platforms are operationally available.

This shortfall has resulted from many factors. Increased operational tempo leads to higher operating and maintenance costs. Steadily increasing maintenance costs are incurred as platforms age, and the limited logistic budgets often do not allow for adequate planning in the purchasing of logistic services and spares.

Our recommended two-pass approval system, which includes a greater focus on whole-of-life costs, backed by mandatory clearance on key issues, provides an opportunity to improve the way in which capabilities are managed on a whole-of-life basis.

### **Financial systems, budgets and cost attribution by capability**

The development of reliable whole-of-life costs for defence capabilities is vital for the efficient management and performance of Defence, and underpins its ability to communicate effectively with Government on the costs of maintaining existing capability.

Until Defence financial systems are based on full cost attribution of individual capabilities, Defence and government will not have reasonable visibility of the costs of acquiring and sustaining capabilities. Nor will they be in a sound position to make resourcing decisions on the basis of the capability consequences. To properly monitor and report to government on approved capabilities on a whole-of-life basis, the capability managers will require accurate and reliable financial and budget systems within Defence. Structuring the financial systems of Defence to support a capability-based view of budgets and expenditure is essential for ensuring that capability managers are made responsible and accountable for effective monitoring and reporting to government.

Currently, financial systems are not structured in a way that provides capability managers with a transparent view of the whole-of-life budget as well as up-to-date actual and forecast expenditure for individual capabilities.

In recent years data integrity problems have impacted on the quality of financial reporting. The data integrity issues mainly relate to inventory, asset recording and related accounting issues, but also extend more broadly into other areas of administration.

The data integrity problems reflect a number of fundamental issues including deficiencies in system functions and controls necessary to meet accrual accounting requirements. Poor systems integration, inconsistent

accounting practices, a large decentralised operating environment with high staff turnover and inadequate training, compound these problems.

These problems have culminated in the ANAO qualifying Defence's 2001-02 financial statements. In support of their qualification the ANAO identified eight Category A findings (significant business or financial risk) and a wide range of moderate and procedural audit findings.

These deficiencies have been recognised by Defence as a major issue and a number of reforms are in progress.

Based on discussions held within Defence and with the ANAO, we consider that the financial systems issues are being addressed effectively by Defence through a wide ranging reform program, and that significant progress is being made. Despite the size and complexity of the task we have seen no evidence to dispute the view of Defence that major improvements in financial systems, including removal of the ANAO accounts qualifications, based on the current reform program, should be achievable within two to three years. However, it will be critical to maintain the focus, priority and resourcing so that a satisfactory outcome is achieved.

We note that Defence has also recognised that it needs to incorporate whole-of-life costs into capability decisions and is developing a new corporate capability-costing framework to improve its budgeting process and outcomes. Consequently, it is expected that the whole-of-life costs for current capabilities should be explicitly identified in the DMFP. In particular, these costs should include both readiness and sustainment requirements of capabilities; that is, the costs to prepare for operations within a specified time, and the costs to sustain that operation for a specific period.

We understand that Defence is planning to implement this framework over the same two to three year time scale in which it is addressing the ANAO's concerns. Though we have no basis for concluding that this aim is not achievable, we would stress that its successful implementation is key to effective management of capability. It will be vital that Defence appropriately resource this initiative, with strong sponsorship from the Defence Executive. In the interim, we would propose that Defence, to the extent feasible, consider manual means of presenting budget and cost data attributed by capability, to facilitate monitoring and reporting by capability.

Clearer articulation of the role of capability managers and the development of well-defined customer-supplier arrangements will bring greater clarity to the financial management of defence capability. However, taking into

account the present state of Defence's financial systems, transition to these arrangements will take time; perhaps two to three years.

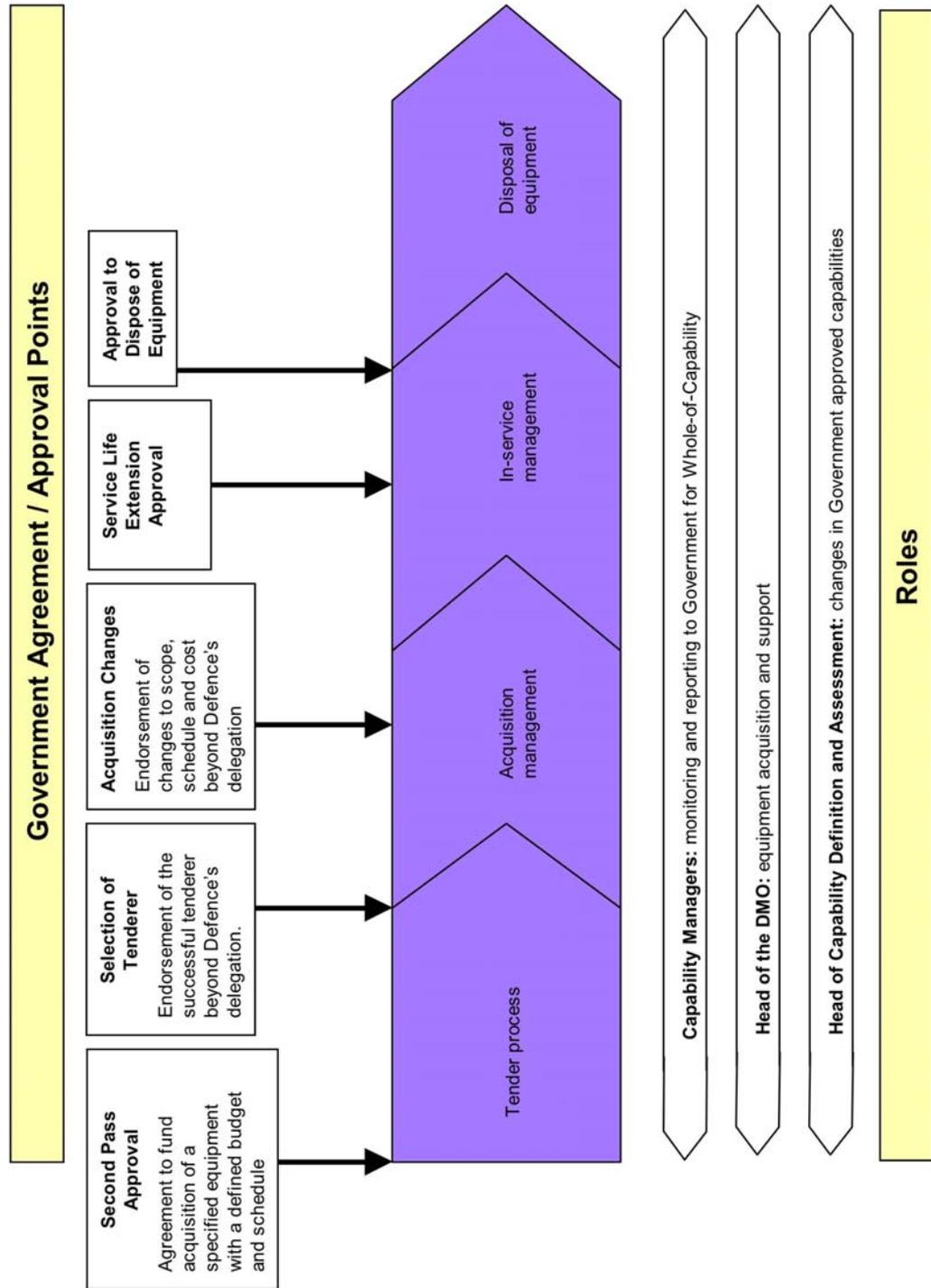
Consequently, addressing these problems in a satisfactory and timely fashion is critical to the proper management of capability within Defence and to the ability of the capability managers to properly fulfil their role.

***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.**

# Equipment Management Life Cycle

## Post Second Pass Approval



## **5. PROCURING AND SUPPORTING DEFENCE EQUIPMENT**

*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.*

In July 2000 the Defence Acquisition Organisation, Support Command Australia and elements of National Support Division were merged to form the DMO. The rationale behind the decision to form a new organisation was to improve the delivery of equipment, systems and related goods and services to the ADF.

Its creation provided a single point of accountability for the acquisition and through-life-support of Defence equipment and has resulted in a number of important reforms in the management of the acquisition process.

Establishing Systems Program Offices as a focus for the management of the acquisition and through-life-support of specific items of major capital equipment has delivered tangible benefits. In particular, whole-of-life costs are being identified and more effectively managed. Also the co-location of a number of the Systems Program Offices with ADF customers has been recognised as bringing significant improvement in the way the DMO manages key relationships.

Project Governance Boards have been set up to assess the overall project health of major acquisitions and to provide independent advice to the head of the DMO. They also provide a means to highlight systemic issues, and identify further reforms and improvements.

These structural changes have been supported by a move towards an integrated and simplified project management system to establish a consistent approach across the organisation.

Despite these significant achievements, the task of transforming the DMO into a performance driven organisation is far from complete.

The role of the DMO within the capability development cycle is to manage the acquisition and support of Defence equipment. This is predominantly a commercial activity. However, as a public service agency, the DMO is also accountable, through the Minister, to Parliament. Given the critical importance of major capital acquisitions, the DMO will be routinely required

to directly interact with Ministers, respond to Parliamentary questions and inquiries, and appear before Parliamentary Committees.

This important role will require resources and management focus beyond that expected from a commercial organisation. In both its acquisition and support roles, the DMO needs to transform its culture and focus on outcomes and performance. At the same time, it needs to maintain its capacity to respond to the Minister and the Parliament.

As a manager of projects, the DMO needs to consistently confront and manage the risks that are inevitable with major acquisitions.

### **Driving change from the top down**

The changes proposed in this Report represent widespread and fundamental change to the DMO, and will lead to change in the wider Defence Department. Change needs to continue to be driven from the top of the organisation by the head of the DMO. Without high-level support and commitment, there is significant risk that traditional attitudes, processes and approaches will remain entrenched.

To assist in the development of a strong commercial focus, the head of the DMO needs to be able to draw upon the advice of people who have acquired business skills and experience in the private sector. Such people could provide guidance and direction to the DMO on the best way to inject the commercial focus and business acumen that it needs.

An effective way to acquire this advice, with minimal disruption to the current DMO structure and accountabilities, is to immediately establish an Advisory Board to the head of the DMO. It would not be appropriate to give this Board executive authority as this would impose another layer of management and reporting requirements with little additional benefit.

The Advisory Board could have two major tasks. Its immediate task would be to advise on the implementation of the recommendations of this Report that have been endorsed by the Government, including those that fall outside the DMO's immediate responsibilities. The Board could report to the National Security Committee of Cabinet on a regular basis on the implementation of these recommendations to ensure the Government is provided with an independent assessment of the reform process.

In the longer term the ongoing role of the Board would be to provide advice and support to the head of the DMO. The Board could advise on strategic issues related to the direction and focus, objectives, planning, management and structure of the DMO, including how best to achieve cultural change.

However it is not expected to advise on day to day management issues or the management of individual projects.

We believe that there would be significant value to the DMO through a blending of private and public sector skills and experience within the Advisory Board. Consequently, in addition to its membership from the private sector (one of whom might be the Chairman), the Advisory Board should have an equal number of public sector representatives, external to the DMO, to ensure close government oversight of the DMO to help drive the change process. The Secretaries of Defence and Finance could make a substantial contribution to such a Board, while strong arguments could be made for including the CDF, the Secretary of the Department of Prime Minister and Cabinet, or the Secretary of the Treasury. Public service members should be appointed in a personal capacity rather than delegating representation to members of their agencies.

The Board would be supported by a small secretariat.

#### ***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.**

#### **A separate identity for the DMO**

A unique identity for an organisation is a prerequisite for it to develop its own individual culture. This applies to organisations whether they are in the public or private sector.

It is essential for the DMO to establish its own identity, separate from Defence, to ensure it is able to rapidly transform its culture and develop the commercial focus it needs. A cultural shift in the DMO can underpin and help drive a new focus on performance and outcomes, and lead to improved procurement and support practices and better results for government.

A key finding of the Review is that there has not been sufficient clarity of the alignment of accountabilities, responsibilities and authority between the DMO and elsewhere in Defence. For example, there have been occasions where the capabilities being acquired in projects managed by the DMO have been altered as a result of decisions made elsewhere in Defence. This has included changes made after contracts have been signed and

without government approval, resulting in rises in the real cost of projects or significant delivery delays, or sometimes both.

A separate identity, and more flexible remuneration arrangements, may help the DMO attract and retain high quality private sector project managers who wish to gain experience managing significant Defence projects, but may not be attracted to a career in the Defence Department.

It is already possible for the Secretary of Defence to introduce greater flexibility in remuneration for DMO civilian staff within the present Defence organisation. However, consideration of the implications of the precedent it would establish for the wider Defence Department appears to have limited the likelihood of this type of flexibility being introduced.

Separation of the DMO from Defence would inevitably lead to a more formal relationship with Defence. For example, the new relationship would need to be underpinned by better defined Customer Supplier Agreements and Service Level Agreements. However, this can help support the framework for a new, clearer and more transparent relationship and provide the basis for clear lines of authority, accountability, and rewards for performance. It can lead to the establishment of clearly identified roles and responsibilities for Defence in capability development, and for the DMO in acquisition and through-life-support, and help establish clearer and more formal budgetary and financial relationships.

It can also provide a clear signal to staff that a new commercially focussed culture is being developed.

#### *Benefits of a separate identity*

Regardless of whatever model is chosen for the future organisational arrangements for the DMO, there are a number of critical objectives that must be met if the organisation is to be able to fully implement the recommendations of this Report.

Primarily the model must be transparent and accountable. While it must allow for flexible project funding and the ability to adjust financial and staffing resources to meet project workload, the DMO should remain accountable under the Commonwealth's financial regulatory framework.

There needs to be clearer and more transparent enunciation of the roles, responsibilities and accountabilities of Defence and the DMO throughout the capability development and procurement process. This will help address the underlying issue of diffused accountability and performance assessment.

The DMO needs greater operational independence to make its own judgements and be accountable for those judgements. At the moment the DMO is subject to department-wide directives relating to 'inputs' such as staff levels and administrative budgets. Such external (to the DMO) constraints do not sit easily with a model in which the DMO is accountable for project delivery, and would not suit an organisation operating in a commercial environment. The discipline on the DMO needs to stem from the assessment of its performance in acquisition and through-life-support, rather than by externally imposed controls.

The head of the DMO needs to have sufficient power to be able to recommend against project proposals that do not have adequate risk analysis or are not fully costed.

The head of the DMO needs delegated power to provide remuneration flexibility to attract highly skilled and experienced staff to undertake the task of managing large important projects.

The head of the DMO needs to concentrate solely on developing and managing the organisation without distractions such as those that arise from the current need to deputise for the Secretary of Defence.

#### *Options for a separate identity*

A number of options to establish a unique DMO identity and performance-based culture were considered. These were: developing a separate identity within the current arrangements; introducing structural change through establishing the DMO as a separate Department; a statutory authority; or an executive agency.

#### *Maintaining current arrangements*

Retaining the DMO within the Defence Department has the advantage that it would be an intrinsic part of the defence function, and many of the necessary changes could be achieved administratively. However, it is likely the development of a new identity and culture would be slower because the principal function of the Department of Defence is fundamentally different to the commercial role that characterises the core task of the DMO. It is also likely that there may be less urgency applied in establishing greater clarity of roles, responsibilities and accountabilities.

#### *A separate government department*

A separate government department for procurement and support would be a significant structural change that could accelerate the development of a unique identity and culture. It would result in a much more formal relationship with Defence based on a greater use of written agreements.

The move to this more contractual relationship might provide scope for increased complexity and blame attribution in the event of problems, which may lead to difficult dispute resolution.

There may also be concern that a separate Department with its own Minister could become less responsive to a rapidly changing policy environment if it is no longer in the Defence portfolio. It may also be inconsistent with the need for the procurement and support function to maintain close ties to Defence so that its mission to deliver equipment to the ADF remains paramount - the DMO is an essential part of the defence function.

Some of these concerns could be largely addressed through the establishment of well defined and flexible agreements between Defence and the new Department and close ongoing interaction. It might also be assisted by the location of capability manager representatives in the new Department to monitor projects.

#### *Statutory authority*

The option of a statutory authority within the Defence portfolio under its own Act of Parliament provides the same benefits as a separate department in relation to more rapid development of a separate identity and culture.

However, the concerns identified under the separate department option are also relevant. In addition, statutory authorities have the potential to exert more independence than may be appropriate. There may also be concerns with the potential difficulties and rigidities associated with legislation and the time it would take to have legislation drawn up and passed by Parliament.

#### *Executive agency*

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 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

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.

### *Summary*

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.

### ***Recommendation 6***

**The DMO should become an executive agency.**

### **Funding the DMO**

In broad terms the DMO currently receives funding in a number of ways. Staff and associated overheads are funded as part of the annual budget allocation to Defence. Logistics and whole-of-life support is also funded through Defence on an annual basis.

Approved projects have been typically funded on the basis of the cost of the capital acquisition, facilities and initial support. However, we understand that for some more recent projects this is being changed so that budget funds will be allocated on a whole-of-life basis.

The separation of funding for the major capital program from staffing and ongoing operations of the DMO has resulted in significant problems in resource allocation. In particular, there has been difficulty in allocating staffing resources to new projects. We propose a new approach of funding the DMO. Under this approach, the DMO's funding should be allocated by approved project. Funding for each project would be zero based; that is, funds would cover all aspects of the DMO's costs related to acquisition and through-life-support, including total contract costs (with contingencies), staffing and training of project teams, liaison with industry, support and maintenance.

The DMO would also receive base level non-project funding for corporate functions including information systems, building and maintenance, procurement and contracting policy, finance, and human resources management.

This approach should provide the basis for a more efficient system of resource allocation in Defence. Funding would better reflect the peaks and troughs of acquisition activity.

It should also lead to better planning and costing over the expected service life of equipment and ensure that the full economic cost of decisions to

defer retirement are more transparent to Defence and government. For example, the additional logistics and maintenance funding requirements that might arise from proposals to defer the retirement of ageing major equipment would require explicit government approval.

For new projects the transition period for the implementation of a budgeting approach along these lines need not be of a long duration. Defence is already developing systems for zero-based funding of defence capabilities, although appropriate benchmarks for resourcing and management systems need to be developed. For existing projects, implementation is likely to be more complex and take longer. This is in part a consequence of the current financial data and systems deficiencies within Defence that are referred to in Chapter 4.

The new funding arrangements could be implemented regardless of whether the Government accepts the recommendation that the DMO become an executive agency.

## **Project management**

Successful project management requires highly skilled and well qualified project managers and reliable project management systems.

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. In the private sector, strong project management skills and experience are usually developed over a career devoted to managing a series of projects of increasing complexity and size. These skills are highly valued and well rewarded.

Often in the DMO, project managers have lacked the skills and experience necessary to manage the technical complexity and financial risk associated with the project for which they are responsible. The DMO needs the best people available to be its project managers, whether from the public or private sector or the military.

The level and structuring of remuneration within the DMO, and the internal career paths for project managers, make it difficult to attract or retain sufficient numbers of good quality staff. In part this has contributed to high staff turnover, which can be detrimental to ongoing project development as well as relations with industry.

The method of appointing project managers, and their tenure, also varies. Most project managers who come to the DMO from within the ADF are

appointed directly by the Services without consultation with the head of the DMO, and are often cycled through the position for no longer than the duration of a military posting.

In addition, the arrangements within the DMO to maintain accountability and assess performance are inadequate. Overall they are inferior to what is demanded and achieved in large civilian projects, a problem that is exacerbated by the long time periods involved in many large and complex acquisitions.

Clearer lines of accountability need to be established, with the head of the DMO responsible for the appointment of all staff. Project managers should commit to an appropriate minimum tenure to underpin accountability, and provide the basis for enhancing experience and skill development across the organisation. The head of the DMO should set remuneration commensurate with the importance and complexity of particular projects, and the need to attract and retain quality staff. There should be a transparent connection between performance and reward, to encourage a greater focus on outcomes and accountability.

We expect that these proposals will bring the additional benefit of higher levels of interchange of professionals between the DMO and the private sector.

To perform effectively project managers must be supported by sound project and financial management systems. It is essential project managers have access on a daily basis to systems that provide reliable and accurate information in terms of project cost, schedule, and performance.

The DMO is applying significant effort in improving its project management systems and processes. From the presentations we received it appears that the work already undertaken is heading in the right direction. However, there remains further work to be done in implementing these systems for use throughout the DMO to ensure that high quality, timely and consistent management information is available.

#### ***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.**

Military officers would have the choice of joining the DMO as military members being paid at military pay rates, or joining the APS, and negotiating their remuneration level with the head of the DMO. The normal policy of military members having the option of resigning their commission, or transferring to the Reserve Forces would apply.

### **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.

Currently about 25 percent or over 2,000 of the DMO's staff come from the military. They are appointed directly by the Services and are employed in a variety of roles including as project managers. This has provided many military staff with a useful career development path. In particular, the DMO can represent a natural stage in the career progression of military personnel, particularly those with an engineering background.

However, the short military posting cycle, often combined with no clear requirement for minimum project management skills, is not consistent with the development of the professional project management culture and the commercial focus essential for enhancing the DMO's performance. This is exacerbated if military staff regard themselves as remaining within their Service reporting chain rather than being accountable to the head of the DMO. It is accepted that Service loyalty is an integral part of military culture. However, it should not be confused with the reporting arrangements of a commercially focussed organisation.

The DMO should be able to utilise ADF staff in a wide variety of roles, but this should be based on requirements that would apply to all DMO staff. They would be selected by their Service career managers who would be required to consult with the head of the DMO (or a delegate), ADF personnel would commit to a minimum tenure for their DMO role, and would be accountable to the DMO for their performance. It would be incumbent on the DMO to seek to manage its demand for ADF personnel for project tasks when they are, or are likely to become, in demand for operational employment.

### ***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.**

### *Military personnel representing capability managers*

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 role would be the conduit through which they, as the DMO's customers, can gain assurance that the agreed project requirements are being met, approved changes are managed in a defined way, and funding is applied appropriately.

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. They would be exclusively Service appointments to represent Service interests. The Services would be responsible for fully funding the costs associated with the particular position.

We recognise that these recommendations have implications for the manner in which the Services manage employment structures and career development across the ADF. Nevertheless, we believe that the costs to the acquisition process of inappropriate military postings are too great to be sustained.

### **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.**

#### **Project governance boards**

Project governance boards were introduced in 2000 as part of the DMO reform program to advise the head of the DMO on issues surrounding capital acquisition projects. There are 10 boards and each is responsible for reporting on a 'family' of similar projects; for example, rotary wing related projects. Board membership consists of both civilian and Defence personnel (both active and retired) with a Chair at the two star or equivalent level, and one star level members, although we understand there are proposals for more senior level membership and for the inclusion of additional members from a non-Defence background.

While the boards have received wide support throughout Defence, their focus is currently limited to governance of acquisition issues.

Expanding their focus to incorporate through-life-support would recognise the importance of ongoing support for the operational availability and effectiveness of defence equipment, and would complement the broader whole-of-life approach to capability adopted in this Report.

***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.**

## **6. FURTHER ISSUES**

The Review considered a number of other issues, which represent significant concerns that also need to be addressed. In general we believe that they fall mainly within the responsibilities of the head of the DMO.

### **Industry policy**

The White Paper sets out the overall objective for Australian defence industry to be sustainable, competitive, and able to support a technologically advanced ADF. The White Paper contains a broad discussion on how this is to be achieved, including that the Government will shape the environment in which industry takes the decision, but will not intervene and shape the market through subsidies and preconceived solutions. In recognition of the small scale of the industry, the White Paper notes that what Australia needs is a well-defined and targeted set of industrial capabilities. The White Paper further notes that complete industrial self-sufficiency is neither possible nor necessary.

Further, in 2001, the Government endorsed a more strategic approach to defence procurement through better demand management and long-term arrangements with industry. This approach, based on key industry suppliers and long-term arrangements with industry, was expected to result in industry rationalisation or restructuring.

These policy statements reflect the Government's broader approach to industry development. The Government's policy for industry in general has a focus on enhancing the business environment, addressing growth impediments and encouraging innovation, investment and exports. For industry sectors with relatively high levels of protection, the Government is systematically exposing them to international pressures to help lift their global competitiveness. The changes in market forces are driving restructuring and improved productivity in those sectors and, in turn, their suppliers.

The subsequent development of industry policy in Defence, particularly through the four specific sector plans, seems to be more ambitious and less in tune with both the White Paper and the Government's general industry policy.

In a submission to this Review, Defence states that where critical capabilities are reliant on Defence as the sole or dominant buyer, Defence will shape the market on which it relies. For example, the shipbuilding and repair plan seems to be predicated on a government-facilitated monopoly outcome. While this might provide certainty in outcomes, the dependency

of the monopoly on Defence and the lack of drivers for innovation and improved competitiveness would appear to be out-of-kilter with the Government's broader approach to industry policy.

It is not clear how the objectives in the sector plans will be achieved or measured. While the principle of demand management (ie bundling strategically linked projects into a common contract) appears sound, it is not clear that Defence has demonstrated an appropriate way to implement it. The ANAO recently noted that the lack of specific guidance as to what industry capabilities are required is a significant omission from Defence industry policy and makes it difficult to determine how well the strategic objectives of the program are being met.

In our view, Defence is more likely to succeed in fostering and sustaining desired industrial capabilities in Australia if it develops and promulgates a list of clearly defined outcomes to industry (as it has in the case of the electronic sector). Industry can then evaluate the requirements and adapt accordingly.

In any event it is difficult to see that a Defence industry policy function is appropriately retained in the DMO, although the DMO would continue to have significant input to the policy process.

## **Logistics**

Part of the establishment of the DMO in 2000 involved the merger of a wide spectrum of military logistics functions in the then Support Command Australia and elements of National Support Division to form Joint Logistics Command (JLC) in the DMO. This change was intended to ensure the DMO provided a single point of contact for all logistics matters (except garrison support).

JLC is responsible for many functions ranging from ADF strategic logistics and operational level logistic support to ADF operations through to equipment management. While JLC is one of the nine divisions that make up the DMO, the head of JLC, Commander Joint Logistics (CJLOG), has a dual reporting requirement, to CDF and the head of the DMO, for the conduct of strategic and operational level logistics functions. At the strategic level, CJLOG acts as the logistics adviser to CDF. In addition, at the operational level, CJLOG, during contingencies, is directly responsible to the CDF for the provision of logistics support to ADF operations.

The functions covering strategic logistics and operational level logistics support, for which CJLOG is responsible directly to 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 functions needs to be revisited by the Secretary and the CDF in conjunction with the head of the DMO.

### **Alternative approaches to contracting**

The DMO has traditionally used fixed price contracts for its major capital equipment projects. While this approach has been suitable for less complex projects and off-the-shelf applications, it has sometimes not proven effective for more complex projects, particularly those with rapidly evolving technology, or those requiring ongoing interaction between Defence and industry for other reasons. Often budgets are nominally adhered to, but in practice capability has been reduced to meet available funding, or schedules have been extended. The result is that the contracted capability has not performed as expected, or has not been ready in time to participate in ADF operations.

Alternative forms of contracting will not be appropriate in all cases. Nevertheless, greater consideration should be given to alternative methodologies in strategic procurements, such as incentive contracts and alliance contracting. For example, it might in some cases, be more suitable to use a cost plus incentive fee contract for the development stage of projects and a fixed price contract arrangement for the production phase.

Alliance contracting may also be more appropriate for some major complex acquisitions. In this regard we note that the DMO already has two alliance contracts and is examining their effectiveness.

## 7. CONCLUSION

Our review of the acquisition process has led us to conclude that there is no single cause of the failures that have become apparent in the development of capability and the acquisition and support of defence equipment. Consequently, there is no single remedy that will ensure that problems do not recur in the future.

The high profile examples of failure in the acquisition process relate to projects that were initiated before the formation of the DMO. We have been advised by the DMO that new major acquisition projects are not experiencing significant problems and are progressing in line with approved costs and schedule.

However, we are aware that within Defence there is a view that costs were understated for some of the elements of White Paper capability proposals. Consequently, it is too early to tell whether problems will arise, but we note that these projects have not been through the rigorous process that we propose.

No major project, whether it is undertaken within the private or the public sector, can be risk free. But this does not mean the Government, or Defence, should accept that failure is inevitable.

Greater certainty of costs and risk is achievable. A more businesslike approach to managing projects can be implemented. A professional team of project managers, backed by credible and effective processes and systems, can be developed.

Reducing the possibility of failure will require a mix of actions that impact on all stages of the capability development cycle. For this reason we have put forward recommendations at each significant point in that cycle.

Our approach has been to propose a number of complementary actions that, together, will bring about reforms that can provide the Government with greater certainty that the capability it has approved for the ADF will be delivered on time and within budget. The recommendations have not been presented in the form of a hierarchy of importance or priority. Our intention is that these recommendations should establish a framework for Defence to achieve the further necessary improvement.

However, underlying the reforms we have proposed are a number of key principles:

Government must remain in control of the process that identifies and then decides which capability gaps must be addressed.

The concept that there must be 'no secrets and no surprises' has to be central to communication between Government and the agencies responsible for capability development. Government must remain confident that it has a current and accurate understanding of the progress of capability development at every stage of the cycle.

Adequately defining and assessing capability is critically important to the success of the procurement process.

There must be detailed analysis of the options to achieve a required military effect before adopting a platform-based solution.

Management and reporting structures need to be clear, well understood, and, to the greatest extent possible, ensure that they align authority, responsibility and accountability.

A higher proportion of project funds spent on early analysis to improve project outcomes represents an investment that can return dividends in terms of greater certainty in regard to costs and a better understanding of project risks.

Rigorous analysis of technology, cost and schedule risks, backed by external verification, is essential before any project is put to tender.

Costs of a defence capability must be assessed on a whole-of-life basis.

The development of a more businesslike culture will support the transformation of the DMO into a professional project management organisation.

Skilled project managers, backed by accurate and reliable systems, are an essential prerequisite for being able to deliver projects on schedule and within budget.

Military personnel must be able to participate appropriately in the acquisition of equipment that their Service will utilise.

The introduction of private sector expertise to support the leadership of the procurement agency will accelerate reform.

### *Transition*

Defence, and the DMO, have been the subject of a series of reviews over the past few years, some of which have made observations and recommendations that support the conclusions contained in this Report. However, too often implementation has not been given the priority necessary to ensure that there is sustainable momentum for change and reform.

The early establishment of the Advisory Board, empowered with a clear mandate to advise on the implementation of the recommendations approved by the Government, should ensure that the process has the priority required to bring about change and reform.

By reporting on a regular basis to the National Security Committee of the Cabinet on the progress of implementation, the Advisory Board will also provide a means to ensure that the Government is kept informed of the changes being made.

As an initial task, Defence should develop, for consideration by the Advisory Board, an implementation schedule to bring about the expeditious implementation of those recommendations approved by the Government.

## List of abbreviations and acronyms

<b>ADF</b>	Australian Defence Force
<b>ANAO</b>	Australian National Audit Office
<b>CDF</b>	Chief of the Defence Force
<b>CFO</b>	Chief Finance Officer
<b>CJLOG</b>	Commander Joint Logistics
<b>CSIG</b>	Corporate Support and Infrastructure Group
<b>DCC</b>	Defence Capability Committee
<b>DCP</b>	Defence Capability Plan
<b>Defence</b>	Australian Defence Organisation
<b>DMFP</b>	Defence Management and Finance Plan
<b>DMO</b>	Defence Materiel Organisation
<b>DSTO</b>	Defence Science and Technology Organisation
<b>Finance</b>	Department of Finance and Administration
<b>GAO</b>	United States General Accounting Office
<b>JLC</b>	Joint Logistics Command
<b>T&amp;E</b>	Test and Evaluation
<b>UK</b>	United Kingdom
<b>US</b>	United States of America
<b>VCDF</b>	Vice Chief of the Defence Force
<b>White Paper</b>	The 2000 Defence White Paper: <i>Defence 2000: Our Future Defence Force</i>

## Terms of Reference

The Secretaries Task Force on Defence Procurement (Task Force) is to investigate and report to the government on problems associated with major Defence acquisition projects. In considering this matter, the Task Force is to review:

1. Progress to date in defence materiel and procurement reform.
2. The quantum of, and main factors underlying cost overruns and schedule delays, having regard to matters such as:
  - (a) contractual arrangements (including those associated with mid-project changes to scope);
  - (b) technical issues and costs associated with acquiring capabilities built to Australian specifications rather than buying 'off-the-shelf' equipment;
  - (c) questions of systems integration; and
  - (d) any other relevant factors.
3. The process of costing, planning and approving projects and managing contracts, in relation to both capital and operational (logistics, support and personnel) budgets, for major approved and unapproved projects in the Defence Management and Finance Plan (incorporating the Defence Capability Plan).
4. The costs associated with the development and adaptation of defence equipment to Australian specifications (rather than buying 'off-the-shelf' equipment) and possible circumstances under which such development and adaptation may be warranted.
5. The structure of the Defence Materiel Organisation (DMO) and the nature and scope of any systemic problems in Defence's management of major acquisitions and operational costs, including in relation to upgrades, maintenance and repairs.
6. The impact of current and proposed industry policy arrangements on value-for-money outcomes and the procurement planning and management functions of Defence.
7. Accountability arrangements within Defence, including:
  - (a) the role of the DMO and Chief Finance Officer in the project approval and management process;
  - (b) the role, membership and outcomes sought from the various committees within Defence principally concerned with capital acquisition, including the Defence Capability Committee and Defence Capability and Investment Committee; and

- (c) processes for managing real cost increases (capital and operational) within the Defence Budget.
- 8. The issues of career planning and pathways for ADF officers undertaking acquisition-related duties and the impact of the current ADF-wide career management processes on DMO project activities.
- 9. Other relevant issues raised by the Senate Foreign Affairs, Defence and Trade References Committee (the Senate Committee) in its inquiry into the materiel acquisition and management framework of the Department of Defence.

The Task Force should provide an interim report to inform a government response to the report of the Senate Committee and, following further deliberations in early 2003, develop a series of options that are open to government to improve the management of its major Defence acquisition projects.