



Chapter 2

The Needs Phase

SECTION 2-1

Introduction

- 2.1 Decisions on capability are made on the basis of value for money. The usual measure of value is the extent to which the proposal contributes to Government's strategic priorities or mitigates strategic risk. The Needs Phase translates the Government's priorities and our understanding of the nature of future warfare into a range of products which capability development staff use to help identify the value their proposal contributes to the development of broad and specific options.
- 2.2 The activities within the Needs Phase articulate capability goals and identify, through an annual assessment of performance, capability gaps against these goals. This provides the context to develop capability proposals consistent with strategic priorities and funding guidance for the consideration and approval by government. Figure 1 is a graphical depiction of the Needs Phase and links to the Requirements Phase.

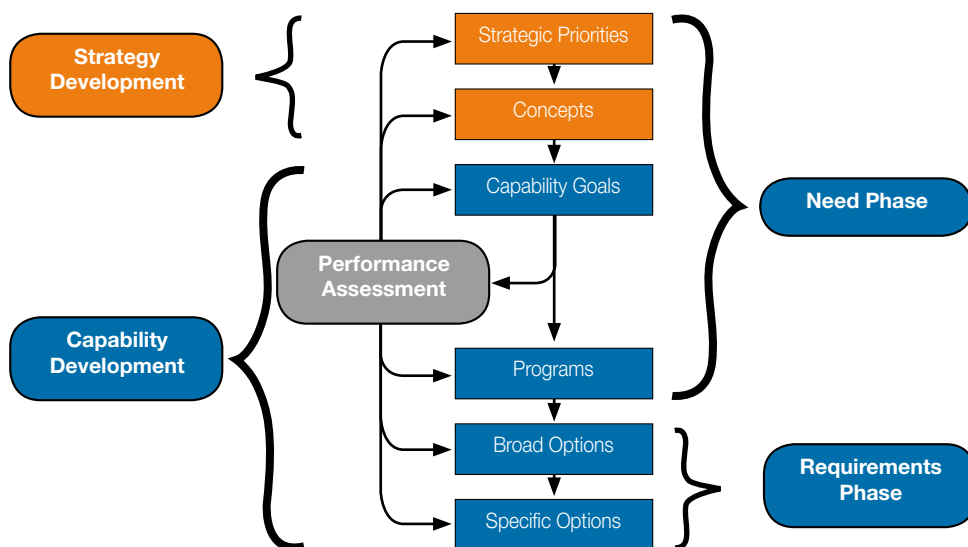


Figure 1: the Needs Phase

- 2.3 The Needs Phase involves five activities:
- identification of strategic priorities;
 - development and evaluation of concepts;
 - articulation of capability goals;
 - assessment of the performance of the current force and that expected of a planned force, including the identification and analysis of capability gaps; and
 - development of programs and plans which direct how defence capability will be developed.

Management of the Needs Phase

- 2.4 The capability development process is managed as a system. For example, a major reduction in funding can lead to a more narrowly defined set of strategic priorities, a less ambitious set of capability goals and therefore the cancellation of one or more projects.
- 2.5 While the process has many participants and stakeholders, responsibility for the Needs Phase lies with:
- a. **Deputy Secretary Strategy.** Deputy Secretary Strategy (DEPSEC S) is responsible for delivering policy advice that enables the Government to continuously assess its strategic direction. Specifically, DEPSEC S has prime responsibility for Strategic Priorities and Defence Concepts.
 - b. **Chief Capability Development Group.** Chief Capability Development Group (CCDG) is responsible for the articulation of capability goals, performance assessment and development of capability programs. This responsibility is delegated to Director General Capability and Plans.

SECTION 2-2

Strategy Development Component

Strategic Priorities

- 2.6 The capability life cycle commences by identifying our future strategic priorities. Strategic guidance is provided through a range of Government and Departmental directions including public policy statements such as the Defence White Paper and Ministerial releases.
- 2.7 The functions of strategic development are explained within the Defence Strategy Planning Handbook sponsored jointly by DEPSEC S and CCDG. This handbook outlines how strategy development, capability development and deliberate planning for operations are conducted as part of a unified and logical framework. Within this framework the capstone strategic planning document is the Defence Planning Guidance (DPG) produced annually by DEPSEC S.
- 2.8 Capability staffs need to seek the authoritative guidance on strategic priorities from the DPG, which is a classified document outlining the strategic priorities that guide the Defence Organisation. It identifies contingencies Australia might face in the 0 to 5 year timeframe for preparedness planning, the 10 to 15 year timeframe for force structure planning and capability development, and the 20+ year timeframe for concept development. The DPG identifies the relative priority for providing a Defence response to each. Contingencies identified in the DPG are represented as scenarios





in the Australian Illustrative Planning Scenarios (AIPS) set. Such scenarios reflect the realistic application of the ADF in future contingencies and are used as part of the experimentation framework to provide context when assessing future capability requirements and nearer term capability options.

- 2.9 Additional guidance might also need to be sought from the Australian Military Strategy (AMS) if the capability proposal falls within the 0-5 year timeframe. Further details on the DPG and AMS are located within the Defence Strategic Planning Framework Handbook which is planned to be released in 2006. In certain circumstances, additional direction is provided by specific Government policy initiatives, eg Defending Australia's northwest shelf.

Concepts

- 2.10 The second step in the strategy development component is the development of concepts which inform our understanding of how the future force might fight. The functions of concept development are also further explained in the Defence Strategic Planning Framework Handbook. These concepts should be validated through experimentation before they are used in the Needs Phase and Requirements Phase.
- 2.11 The capstone concept document from strategy development is the Future Joint Operating Concept (FJOC) which is produced by DEPSEC S. The FJOC serves to inform the longer-term development of the ADF's combat capability and outlines likely future roles, missions and methods and, as such, provides the context in which to consider future capability options. The FJOC is set 20 years into the future and is reviewed at least every three years.

SECTION 2-3

Capability Decision Making Processes

Capability Goals

- 2.12 **Defence Capability Strategy.** The Defence Capability Strategy (DCS) sets the vision for the transformation of Defence capability. It is set 10-15 years hence (out to just beyond the DCP) and sets out the capability goals along with explanations of how they will be met from within available resources. While it refers to the impact across all FIC, it specifically explains how the DCP is linked to strategic guidance. As the capstone capability planning document, it provides the vision of how Defence capability is being developed and identifies the planned capability solutions in response to the capability goals. It meets the Kinnaird requirement for a document that details what capabilities will be acquired, retained or disposed of into the future. The DCS is endorsed by the Defence Capability and Investment Committee (DCIC) and updated annually to reflect the outcomes of the Defence Capability Update (DCU).

- 2.13 **Capability Goals.** The capability goals seek to describe, in specific and measurable terms, the operational effects the ADF would need to generate to meet its highest priority threats.
- 2.14 Capability goals can be derived by developing plans for each of the scenarios identified as strategic priorities, if necessary employing alternative concepts and validating the results by wargaming, extracting the effects sought and combining them to generate an overall capability goal.

Performance Assessment

- 2.15 **Defence Capability Update.** The DCU process will typically look across the totality of capability, the performance of current plans against the capability goals, and identify adjustments to ensure that the DCS and DCP best reflect strategic priorities and financial guidance. The potential outcomes of the DCU include:
- re-scoping, deleting, advancing or deferring projects within the existent DCP;
 - priorities for further analysis or for progression through non capital equipment solutions. Capability studies will generally be managed by DGCP and monitored by DCC;
 - changes to capability goals or strategic priorities; and
 - potential new capability options for further consideration. These options may be developed into an Initial Capability Definition Statement (ICDS) (see Section 2.5).
- 2.16 The DCU consists of the following key activities:
- Force Options Testing.** FOT uses professional judgement to assess the likely performance of the ADF;
 - Key Defence Asset Review.** The Key Defence Assets Review (KDAR) examines the accuracy of current Useful Life and Planned Withdrawal Date records of key Defence assets. Key Defence assets are those assets that contribute to the delivery of combat effect and have a replacement value in excess of \$50 million as well as those assets that have particular strategic, operational or political significance. The KDAR also identifies necessary asset upgrades or replacements for consideration in the development of DCS and the DCP;
 - 1 Star Workshop** - Following the completed analysis of FOT results and incorporating inputs from the KDAR, a workshop is conducted consisting of stakeholders at the 1-star level. The purpose of the workshop is to decide on the priority in which capability studies will be progressed and assign responsibility for these studies. This workshop also filters the remaining recommendations from FOT and refers them to the 2 star workshop; and
 - 2 Star Workshop** - Stakeholders at the 2-star level and chaired by CCDG meet following the 1 star workshop. The purpose of this workshop is to accept or amend the recommendations from the 1 star workshop and to consider any additional ICDS or program changes that have been proposed by other means. Following this workshop, alternate draft DCPs will be considered and, where appropriate, exposed to industry and CDAF. A draft updated DCS will also be produced.
- 2.17 To ensure transparency and enable comparisons of relative value, performance assessment during the DCU relies on a common analysis framework consisting of:





- a. **Capability taxonomy.** The capability taxonomy provides a standard way of categorising capability, which groups systems that relate to particular effects. The taxonomy structure can be obtained from DGCP or from the CDG Process Map;
- b. **Context and scenarios.** Capability needs to be assessed in a context to be relevant. A fighter may make a significant contribution to a mid intensity conflict, but may not necessarily contribute to a low intensity conflict. The AIPS set of contingencies are used to inform context. These are endorsed at COSC level and managed by Strategy Group; and
- c. **Time horizons.** Defence needs to acquire capability from today (the current force or force-in-being) into the distant future. To reduce the number of time horizons studied in detail, preference should be given to those years divisible by five (eg 2005, 2010, 2015, 2020 ...), and the current year.

SECTION 2-4

Defence Capability Plan

2.18 **The Defence Capability Plan.** The DCP provides a ten-year program of major capital equipment projects. It is prepared by Defence for approval by the National Security Committee of Cabinet (NSC) and is published in both classified and unclassified versions and contains details on:

- a. project descriptions and scope information, including the interrelationships with other approved or unapproved phases or projects;
- b. industry opportunities both acquisition or for through life support;
- c. decision timing information such as indicative First and or Second Pass dates;
- d. expected delivery date information such as:
 - (1) the In Service Date (ISD) - The ISD is the year in which the first elements of the capability are planned to enter service, though not necessarily be ready for operational employment. (ISD may, therefore, be earlier than Initial Operational Capability (IOC)); and
 - (2) the IOC is the date when the first elements of capability would be ready for operational use;
- e. Indicative cost estimate and or budgetary data; and
- f. points of contact in CDG and DMO.


2.19 Entry of projects into the DCP is the foundation for subsequent capability development work in Defence and therefore needs to consider the impact across all FIC elements. It is important that the DCP has a solid underpinning; considering capability needs and possible adjustments to each of the FIC elements. The detailed requirements that will be subsequently derived during the capability development process should be traceable back to the DCP. Likewise, the DCP entry should be traceable back to higher strategic guidance.

- 2.20 **Cost Estimation.** Cost estimates are prepared or updated in order to re-baseline the DCP and provide confidence that the cost estimates for the existing projects in the DCP are adequate to allow prioritisation and programming of new and existing projects. New projects will prepare cost estimates in accordance with the Entry to DCP process using the DCP Entry cost template. Existing projects need to provide their most recent updated estimate - for projects nearing First Pass Approval; the more detailed Two-Pass Approval cost template should be used. All cost estimates are to be prepared by sponsors (with support from DCOP), cleared by management, and passed to CIR Div for independent review and clearance before serious DCP programming decisions are made.
- 2.21 Although at this stage full details may not be available for all possible options, the acquisition estimate must be realistic and defensible. That is, the basis of the costs must be documented and appropriate contingency for risks assigned. It follows that the estimate may be an “indicative” cost band and schedule, based on the project sponsor’s best assessment, with a likely high cost risk rating, reflecting the uncertainty as to the scope, possible solutions, timing and cost of the project’s schedule for the later years. The cost band represents the range of costs between the different possible options to solving the capability gap or to delivering the desired effect. That is, there may be a ‘minimal’ option that just meets or almost meets the requirement. The cost for this option would be the bottom end of the cost band. There may be an option that exceeds the requirement as well - this would be the top end of the range. Options in between represent the different solutions or effects that would satisfy the capability gap.
- 2.22 It will become necessary to represent the DCP allocation as a single figure. This is known as a point estimate. The point estimate presented should be representative of the most likely effect/option. Documenting what this is and how it was developed supports an audit trail for the project and provides explanation as to how the original figure was derived. Then, if the scope changes, this documented record can be used to support changes to the cost estimate

Programs

- 2.23 **DCP Programming.** The outcomes from the 2 star workshop are considered in a series of meetings chaired by Head Capability Systems (HCS) and including First Assistant Secretary Capability Investment and Resources (FASCIR), DGCP, ASIA and CSDIV Branch Heads. The purpose of the meeting is to develop a final draft DCP that is affordable and focussed on meeting out strategic priorities. The final draft DCP is then presented to CCDG for consideration.
- 2.24 Further adjustments to the DCP may occur outside the DCU/DCP programming process. These adjustments can result from:
- a. **Non-discretionary adjustments.** A range of non discretionary adjustments may be made to the DCP. These may be driven by Government decisions, project schedule slippage, and changes to cost estimates or financial guidance.
 - b. **Other inclusions.** CCDG may recommend, and seek NSC approval of, the inclusion of a project in the DCP outside the DCU process. Typically, this is only done where there is a clearly defined urgency, or the size of the project is minor and outside the scope of the DCU.



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- 2.25 **DCIC endorsement.** CCDG presents a draft DCS and DCP to the DCIC for endorsement.
- 2.26 **Finalisation of DCP.** Once the DCIC endorses the draft DCP, CIR Div staff will finalise the financial programming and Defence Management and Financial Plan (DMFP) aspects. CIR Div will coordinate the presentation of the DCP to government for approval. Once approved, an unclassified version of the DCP will be published and placed in the public domain. The DCS may accompany the draft DCP to government.
- 2.27 Importantly, entry into the DCP needs to be sufficiently articulated to ensure further development is made in accordance with the proponents' original intent, and ensure that robust and defensible scope, costing schedule and risk estimates can be made. Well defined DCP projects will have positive impacts on the overall plan, by building a general confidence in the robustness and integrity of the DCP.

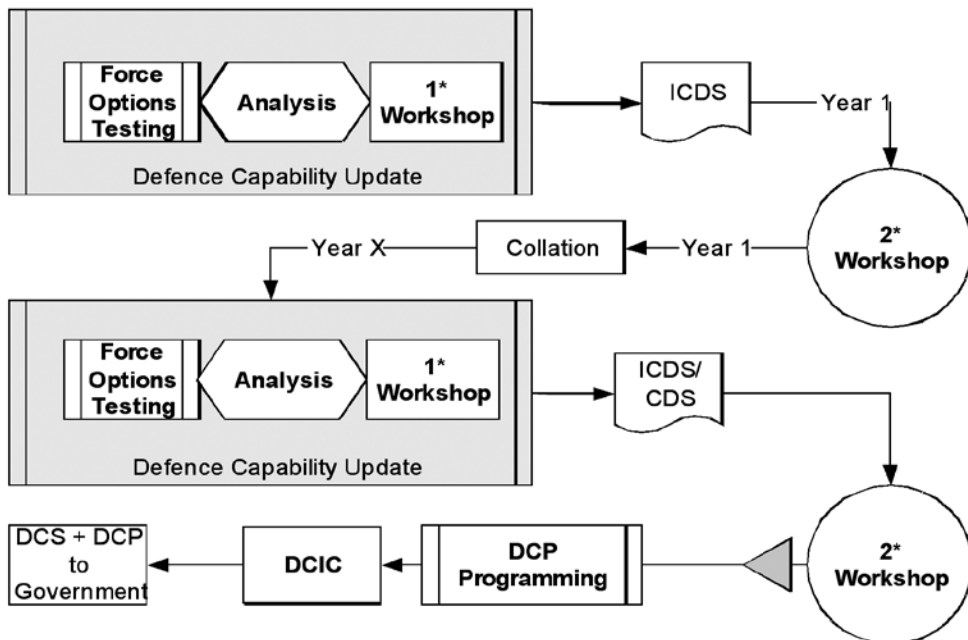
SECTION 2-5

Entry into the Defence Capability Plan

- 2.28 Any organisation or group within Defence may propose a new entry for the DCP. The proponent group or organisation will articulate the proposal using the ICDS and CDS templates as contained in the CDG Process Map - Needs Phase.
- 2.29 **Initial Capability Definition Statement.** The ICDS and the following CDS support development of the Operational Concept Document (OCD). Further explanations of the OCD and its role in the capability development process are contained later in this manual but can also be located at the CDG Process Map and Capability Definition Guide. The ICDS addresses the following key questions:
- nature of the proposal;
 - strategic need, including a value for money statement;
 - the scope and particularly why it should not be part of a broader effects-based project; and
 - estimated resource burden.
- 2.30 **Capability Definition Statement.** The CDS is an expanded version of the ICDS and includes greater detail of the capability need, initial project estimates and resources required. The CDS, due to its more detailed information requirements, is likely to require the formation of a team of stakeholders and possibly an allocation of funds. The proponents of the proposals will remain directly and continuously involved throughout this stage of the process. A preliminary OCD is an optional but useful inclusion to the CDS.

- 2.31 The CDS develops the case for a particular capability need in a way that does not presuppose a particular solution and should retain capability flexibility and a long term view. This is important so as to not prematurely close off options for meeting the identified need. The full CDS consists of:
- capability proposal. Articulation of the capability need;
 - strategic guidance. Details how the capability proposal meets Defence Capability Strategy and our strategic priorities (i.e. value for money);
 - initial identification of capability options;
 - planned capability schedule;
 - summary of FIC change details and costing;
 - estimated capability resource investment to achieve First Pass;
 - plan for further investigations; and
 - the exemplars provided as a basis for the cost estimate. These should be completed using the CCDG and CFO endorsed DCP Entry Cost Template, populated with the life cycle cost of the proposed capability - ie the Acquisition Costs and Net Personnel and Operating Costs (NPOC).
- 2.32 Either an ICDS or a CDS can be used as the basis for entry into the DCP. There are four routes for DCP entry.
- Route One.** Route one is used when a new capability proposal is generated from the DCU. In this case, an ICDS or CDS, after endorsement by the Two-Star workshop are collated and tested at a subsequent DCU. This process is depicted in Figure 2-2.

Entry in to the DCP Route 1-New Idea Generated from DCU



FigFigure 2-2: New Idea Generated from DCU



- b. **Route Two.** Route two is used when an existing proposal has been generated by Services or Groups but is neither sufficiently mature and/or urgent to progress immediately to DCP Programming. In this case the proposal will be tested in the DCU and progressed to the Two - Star workshop. If endorsed, it will proceed to DCP Programming. This route is depicted in Figure 2-3.

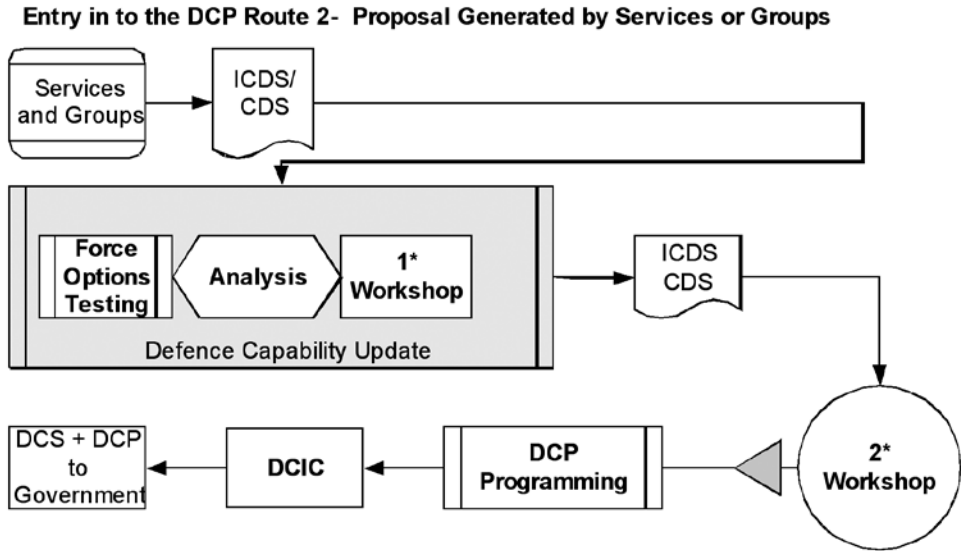


Figure 2-3: Proposals generated by Services or Groups

- c. **Route Three.** Route three is used in exceptional circumstances as described in paragraph 2.22(b). In this case, entry into the DCP does not use the DCU process and is depicted by Figure 2-4.

DCP Entry 3a By Exception

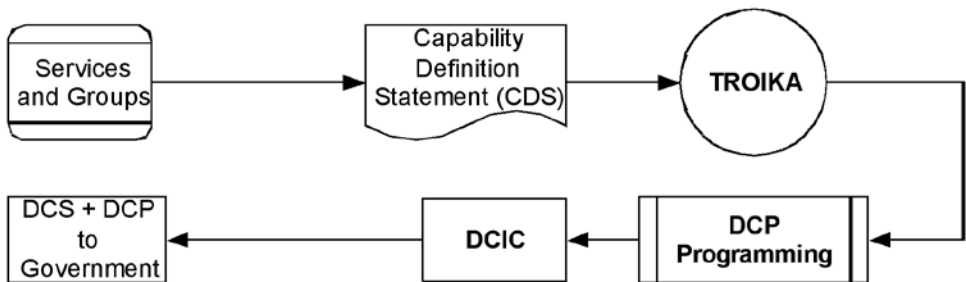


Figure 2-4: Entry into the DCP by Exception

- d. **Route Four.** Route four is similar to route three however; the proposal will join the DCU process at the 2 Star Workshop (see paragraph 2.15(c)) prior to consideration for DCP Programming. This route is depicted below.

DCP Entry 4 By Exception

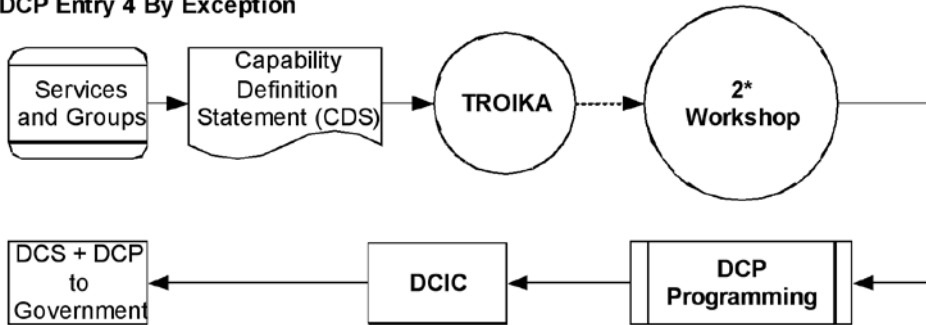


Figure 2-5 Entry into the DCP by Exception

- 2.33 The CDS' already developed and agreed from the DCU process will be analysed along with Budget and NPOC of existing projects and subject to review by the one star and DCP Program workshops. The outcome of the workshop process will be a priority list of projects generated for inclusion into the DCP. The draft DCP developed from DCP programming will be considered by the DCIC and then following approval presented for government approval by CIR Div.

