Australian Government

Department of Defence

DEFENCE INSTRUCTIONS (GENERAL)

New instruction

LOG 4–5–012 *Regulation of technical integrity of Au tralian D fence F ce mater l*

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Review Date: 17 September 2013

Cancellation

DI(G) LOG 8–15 ISSUE NO LOG B/2/2004 of 25 JUN 2004 (AL1) is cancelled. Replaced by DI(G) LOG 4–5–012.

REGULATION OF TECHNICAL INTEGRITY OF AUSTRALIAN DEFENCE FORCE MATERIEL

INTRODUCTION

1. The Service Chiefs are accountable to the Chief of the Defence Force (CDF) for ensuring that Australian Defence Force (ADF) materiel is fit for service, and only poses acceptable risk to personnel, public safety, and the environment.

2. Technical regulation is how Service Chiefs, as capability output managers establish confidence in the processes by which the fitness for service and requisite levels of safety of materiel are achieved.

POLICY STATEMENT

3. The Service Chiefs, through the ADF Regulatory Framework, are accountable to CDF for the technical integrity of all ADF materiel.

SCOPE

4. This Instruction provides the policy under which effective and efficient technical regulation is to be established. It applies to all Defence personnel as defined in annex A.

DEFINITIONS

5. Where not included in the body of this instruction additional defined terms are included in annex A.

POLICY APPLICATION

Regulatory requirements

6. The degree of regulation of technical integrity of ADF materiel must be determined in accordance with sound risk management practice. Regulatory requirements must be justified in terms of risks to fitness for service, safety and the environment. ADF materiel must be designed, manufactured and maintained, to approved standards, by competent and authorised individuals who are acting as members of an authorised organisation, and whose work is certified as correct.

7. The regulatory processes applied to the technical integrity of ADF materiel are to be developed with an awareness and recognition of the civil regulatory regimes applicable to similar technologies.

The degree of regulation to be applied to a type or class of materiel is to be based on formal risk management principles. The level of risk attached to operational equipment in an operational or training environment may warrant a higher degree of regulation. Technical Regulatory Authorities (TRA) must identify and promulgate in instructions differing degrees of regulation applicable to different materiel.

9. Technical regulation is to identify, analyse, assess, treat, monitor and communicate risk in the areas of safety, performance and environmental compliance. The final decision on any trade-off between level of operational constraint and cost on one-hand and reduced risk on the other must not be made by the TRA in isolation. Accordingly, the TRA must ensure that over-regulation does not occur by establishing administrative mechanisms through which stakeholders are consulted and by which disputed requirements can be referred to the Service Chief through appropriate levels of review.

10. In the development of new requirements, TRA must consider adoption or adaptation of existing requirements promulgated by other TRA.

The Australian Defence Force Regulatory Framework

11. The ADF Regulatory Framework establishes the technical integrity environment within which internal and external organisations are to provide ADF materiel and services to Defence. Service Chiefs, as capability output managers, are accountable for the safety, fitness for service and environmental compliance (collectively referred to as 'technical integrity') of materiel introduced into and operated by the Services. The Service Chiefs must implement systems to assure the technical integrity of materiel. Service Chiefs are to delegate appropriate authority to TRA for assuring the technical integrity of maritime, land and air materiel and explosive ordnance (EO). In addition, the Commander Joint Logistics (CJLOG) is to delegate appropriate authority to the Director Ordnance Safety for the regulation of transport and storage of EO.

12. An ADF materiel manager may be directly accountable for technical integrity to more an one TRA. The single-Services are to recognise the authority of the TRA to regulate materi the applicable environment, across Defence. Each TRA is accountable to the appropriate Se vice Chie for establishing a regulatory framework and auditing compliance within that framework.

13. Common materiel under joint materiel management must be subject to th regulato y standards of all applicable TRA. Common standards must be adopted to the m ximu possi nt. Where additional or differing standards are determined to be necessary, the elevant TRA must specify the additional requirements and any associated additional assura ce activit s.

14. Joint materiel organisations (including acquisit on proj ts) m t meet he process requirements of the TRA by operating a single techn al man ement m. For these joint organisations, a lead TRA is to be agreed. For acquisition pro cts, agr ment of the lead TRA must occur prior to project approval. Joint organisations must comply with e regula ry processes of the lead TRA. The lead TRA must ensure any additional regulatory process re uiremen s of the other TRA are identified and complied with. If there are any process requ emen conflic between TRA, the TRA must deliberate on and agree process requirements that can be met y a single management system.

15. Technical regulatory requirements must be p m gated b TRA as:

a. instructions that define polic

b. publications that primarily d fine proces equirements; and

c. ADF materiel stan (marit e/land ir/EO).

16. TRA must promulga e regula y requirements for the technical competencies and management systems require by internal d external organisations providing ADF materiel and services. Suppliers must provide surances of the quality of the materiel and services they provide and, in particular, of conformance with m eriel and process standards approved by the TRA. The credibility of their assurance is to be established rimarily by compliance with the regulatory requirements.

17. All Defence Groups responsible for acquiring or maintaining materiel must comply with the tech cal r gulatory requirements promulgated by the TRA on behalf of the Service Chiefs.

. The ADF philosophy of technical regulation is based on a process of certification, recognition competence, co pliance assurance and reporting.

C tification

19. The A F philosophy of technical regulation is that organisations responsible for delivering supplies or services are required to certify that the materiel for which they are responsible complies with specified standards and is technically fit for service in the intended role. TRA must ensure that required standards are defined and that responsible authorities are competent to discharge their responsibilities, are so authorised and have appropriate management systems in place.

20. Acceptance of the materiel type or class and individual equipment into operational service is outside the scope of technical regulation. However, certificates required under the technical regulatory system will be considered by Service Chiefs in deciding whether to accept materiel into service.

21. **Acquisition of materiel.** For each acquisition, the relevant TRA or delegate must approve a technical certification plan that defines the certification process for each acquisition, including the certificates that are required and the certification authority authorised to raise each certificate. Certificates may be issued only by organisations and individuals authorised by the TRA or delegate. Acquisition project offices, supplying contractors, third party contractors and Defence organisations outside the project may be authorised to provide certificates. Technical regulation of acquisition must encompass:

a. certification of the specification as complying with required standards;

b. certification of supplier competency;

c. certification by the supplier of compliance with the technical regulatory aspe s of the specification; and

d. if appropriate, certification of verification of compliance with the techn cal regulato aspects of the specification.

22. The TRA or delegate must assess and recognise the competency of pliers nd their compliance with regulatory requirements, in a manner and to a level consist nt with t e assessed risk associated with the intended supplies. When appropriate, the Ac uisition P ject is o bu get for, fund and arrange verification of materiel compliance by organisations in penden of t e suppl r.

23. **In-service materiel.** The documents that form the ertificati basis a acquired ADF materiel must be maintained until disposal of the materiel and in cordan with relevant departmental archival policy. In-service logistic managers must ensure that ateriel esign, build states and maintenance programs remain compliant with the certification basis u ess oth wise authorised by the TRA or delegate.

24. **In-service design changes.** The process s for anag ng design changes to in-service materiel must include consideration of relevant tech ica occup ional health and safety, human systems integration, systems safety and enviro ntal uiremen .

Recognition of competence

25. The objective of recognition of the ompetenc of organisations responsible for the design, manufacture or maintenance of A aterie to a hieve a satisfactory level of confidence in the certifications provided by the org nisatio TRA must only recognise organisations as competent where they meet the following criteri :

a. **Systems.** The or nisation must have an established quality system appropriate to the type of work being p rformed, and any other technical management systems that the TRA may require, ch as engineering management plans and configuration management plans.

b **People.** Individuals within the organisation must have the appropriate training, qualifications, experience, demonstrated competence and integrity to undertake the activities required, and must be authorised to perform those activities within the quality sy m.

c. **Pr esses.** The procedures and plans that specify and define technical activities must b controlled and approved by an appropriately qualified individual, nominated within he quality system. The organisation must be able to demonstrate compliance with those procedures and plans.

d. **Data.** The information applied to, and derived from, technical activities must be authoritative, accurate, appropriate and complete. Such data must always be accessible, but need not be retained in-house.

Compliance assurance

26. TRA must conduct compliance assurance, including auditing, of the technical regulatory system for which they are responsible. The lead TRA must agree an audit plan with the other TRA that identifies any additional regulatory process requirements and resources. TRA may also audit ADF materiel to ensure that it is properly certified. TRA must establish audit programs appropriate to the criticality of the ADF materiel involved, adjusting the extent and frequency of audit according to an organisation's auditing history. Where so directed, Defence personnel must provide TRA with any documentation or information that is relevant to the conduct of a particular audit. The audits must:

a. review the evidence recorded in support of the certificates;

b. include a degree of product audit; and

c. check that recognised organisations are employing sound processes with n their qu lity systems.

27. **Reporting.** TRA must report to the Service Chiefs periodically on the state of t regulato y system in their area of responsibility.

28. The Technical Regulatory Authority Council must promote an effic nt and ffecti e approach to technical integrity regulation across the ADF. TRA are accounta to the rvi e Chief or assuring the technical integrity of maritime, land and air materiel and EO. Each T provide appropriate assurance through establishing a regulatory framework and diting c mplianc ith hat framework. TRA have established a council, consisting of a Steering Group a d a Work g Group, to promote a more efficient and effective approach to technical integrity regulation acr s the ADF The terms of reference for the TRA Council are in annex C of this Instruction.

ROLES AND RESPONSIBILIT ES

Commander Joint Logistics

29. CJLOG has overall managemen esponsibilit for the regular comprehensive review of this Instruction.

IM LEMENTATION

30. This policy cancels De ce Instruction (General) LOG 8–15—*Regulation of technical integrity of Australian Defence Force mater l* issued 25 June 2004. Groups and Services must ensure that all processes and procedures require for the effective implementation of this policy are clearly promulgated within six months of this policy being issued.

COMPLIANCE/MONITORING/REPORTING

. **Complia e.** Compliance with the directions laid down in this Instruction is mandatory and forceable. Non-c mpliance may result in disciplinary action for civilian personnel under the *Public S vice Act 1999*, o Defence members for breach of a lawful general order pursuant to section 29 of the *Def ce Force Di ipline Act 1982*.

32. **Monitoring systems in place to ensure compliance of the policy.** The chairman of the TRA Steering Group, as the senior ADF TRA representative, is responsible for monitoring the TRA activity for Defence, in accordance with the responsibilities laid down in annex C, to ensure that Defence personnel comply with this Instruction.

33. **Reporting requirements.** The chairman of the TRA Steering Group, as a full member of the Defence Logistics Committee, will report the results of TRA compliance across Defence, to the Defence Logistics Committee when required.

RELATED INSTRUCTIONS

34. This Instruction is to be read in conjunction with the related policy/instruments/documents shown in annex B.

Annexes:
A. Definitions
B. Related Instructions
C. Technical Regulatory Authority Council—Terms of reference

DEFINITIONS

Certification. The act of issuing a certificate that provides assurance that an entity, including product, service or organisation, complies with a stated specification, standard or other requirement.

Certification basis. The suite of standards against which materiel is to be certified, derived from or judged to be equivalent to a subset of the materiel standards approved by a Technical Regulatory Authority (TRA).

Defence personnel. For the purposes of this Instruction, Defence personnel are defined as:

- members of the Permanent Navy, the Regular Army or the Permanent Air Force, members of the Reserves who are rendering continuous full-time service or are on duty or in uniform;
- persons employed in the Department of Defence under the *Public Service Act 1999*;
- Defence civilians, as defined in section 3 of the *Defence Force Discipline Act 1982*;
- Defence Locally Engaged Employees overseas;
- members of other Defence organisations on exchange; and
- external service providers, specifically contractors, consultants and professional service providers employed by Defence whose terms of service require compliance with this Instruction.

Fitness for service. In the context of this Instruction, fitness for service is the materiel's ability to satisfy operational requirements, and is hence a subset of technical integrity.

Materiel. All items including ships, tanks, self-propelled weapons, aircraft etc and related spares, repair parts and support necessary to equip, maintain and support military activities without distinction as to its application for administrative or combat purposes. (Australian Defence Force Publication 101—*Glossary*.)

Technical integrity. An item's fitness for service, safety and compliance with regulations for environmental protection.

TRA. The appointment or organisation authorised by a single Service Chief to issue instructions for the technical regulation of a nominated type of Australian Defence Force materiel.

RELATED INSTRUCTIONS

Defence Instruction (General) (DI(G)) LOG 2–1—*Defence Quality Assurance*

DI(G) LOG 4–5–007—*Defence Policy on Reliability, Availability and Maintainability*

DI(G) LOG 4–5–009—*Materiel Maintenance Policy*

DI(G) LOG 8–11—*Contingency Maintenance*

DI(G) LOG 8–12—*Defence Policy on Materiel Standardisation*

DI(G) LOG 4–5–015—*Regulation of the Technical Integrity of Land Materiel*

DI(G) LOG 4–5–016—*Management of aircraft and engine structural integrity*

TECHNICAL REGULATORY AUTHORITY COUNCIL—TERMS OF REFERENCE

ACCOUNTABILITY/CHARTER

1. Technical Regulatory Authorities (TRA) are accountable to the Service Chiefs for assuring the technical integrity of maritime, land and air materiel and explosive ordnance (EO). Each TRA provides appropriate assurance through establishing a regulatory framework and auditing compliance with that framework. The TRA Council provides a means for interaction between the TRA and staff t promote an efficient and effective overall approach to technical integrity regulation.

TERMS OF REFERENCE

Membership

2. The TRA Council consists of two components, a Steering Gro p (SG) and a Working Group (WG).

3. **SG.** The SG consists of the three TRA (ie, Chief N val Eng eer, D tor-Gen al Technical Airworthiness and Director Technical Regulation—Army) and ee appl ble sta e ers, one being selected by each TRA and invited members. Standing invited embers ill be the Ordnance Safety Group (EO) and the Defence Materiel Organisation. SG meetings to be h ld at least twice per year with the host to rotate between the respective TRA's in turn The S ior TRA will chair the SG, and secretarial support will be provided by the host.

4. **WG.** The WG consists of applicable staff, se cted b the TRA as having the competence and experience to appropriately progress tasks. WG meetin s a e to be ld when deemed appropriate, but at least twice per year with the venue being ag d by respect e WG members. For each task or group of tasks, a 'primary TRA' is to be agre d by the WG ers. The 'primary TRA' will chair, and provide secretarial support to, the WG.

Responsibilities

5. **SG.** The TRA SG is to

a. provide leader p and advic o promote an efficient and effective overall approach to technical integrity egulation;

b. remain informed of s ificant aspects impacting the technical integrity of Australian Defence Force materiel;

c monitor the development and implementation of the respective regulatory frameworks and guide harmonisation of approaches;

d. ch mpion technical integrity regulation and promote wide acceptance of the role of the TR

e. ov rsee and task the TRA WG;

f. convene at least twice per year;

g. direct investigation and implementation, through the WG, of initiatives aimed at:

(1) harmonising policy, principles, compliance assurance methodologies and terminology;

(2) reducing constraints imposed by respective regulatory frameworks;

(3) improving training, awareness and understanding;

(4) reducing resources devoted to TRA activities; and

h. review and remedy professional concerns raised by individuals or groups from within the Defence Organisation technical community.

6. **WG.** The TRA WG is to assist the TRA SG in meeting its outcomes and respond to actions resulting from these responsibilities. In addition, TRA WG is to:

a. convene as deemed appropriate, but at least twice per year;

b. be responsible for ensuring any issues raised by the workforce are develop d by the issue originators, or appropriate TRA staff, as agendum papers for considerati y the TRA SG and/or WG;

c. action any tasks directed by the TRA SG or self-initiated;

d. provide the SG with progress reports, seeking guidance when n ary; a d

e. promote wide acceptance of the need and roles of the TRA

Meeting process

7. All TRA meetings will be based on a formal agenda omulga d prior to the meeting. Key issues must be sponsored by a member of the TRA SG, and sho d norma be properly researched, contain clear and positive recommendations, and be presented in succinc manner. Outcomes of meetings are to be recorded and distributed appropriatel T SG is be briefed on the progress of issues being addressed by the WG.

POLICY DOCUMENT

DEFENCE PROCUREMENT MANUAL (DPM)

VERSION: 1.8

Approving Authority:

FAS P&C
Racheal Kuczma

Date: 2025 February 20

Approving Authority:
FAS P&C
Racheal Kuczma

Date: 18/03/2025

CONTENTS

DOCUMENT HISTORY

Version	Release Date	Approver	Description of Amendments
1.0	1 July 2021	First Assistant Secretary Procurement and Contracting	Initial Release
1.1	18 October 2021	Director Commercial Policy	Update to content: Identification and Management of Procurement Risk
1.2	25 March 2022	Director Commercial Policy	Update to content: Limited Tenders
1.3	29 June 2022	Director Commercial Policy	Update to content: Commonwealth Procurement Rules
1.4	25 October 2023	Director Commercial Policy	Update to Content: Alignment with AAI 2
1.5	16 February 2024	Director Commercial Policy	Included Additional Content: Conflict

			of Interest
1.6	1 July 2024	Director Commercial Policy	Included Additional Content and Updated for AAI 2
1.7	1 February 2025	Director Commercial Policy	Updated for AAI 2
1.7.1	20 February 2025	Director Commercial Policy	Update to Content: Alignment with AAI 2 and Reverted Content: Conflict of Interest
1.8	18 March 2025	Acting Director Commercial Policy	Update to Content: Conflict of Interest tile overhaul - title and content rebranded under 'Probity Requirements.'

DEFENCE PROCUREMENT MANUAL (DPM) OVERVIEW

Defence officials operate in an environment of legislation and Commonwealth policy. Within that broad context sits the Defence Commercial Framework which consists of the operational instructions, policies, processes and guidance that govern how Defence officials carry out their duties relating to financial management and procurement.

The Commonwealth Procurement Rules (CPRs) are the core of the Commonwealth Procurement Framework and reflect the Australian Government's policies and expectations of procuring officials.

The Defence Procurement Manual (DPM) which includes the Procurement and Contracting Requirements (PCRs), is the primary reference document for all Defence officials involved in conducting a procurement and reflects official's obligations under the Defence Commercial Framework.

The DPM should be read in conjunction with the:

- Commonwealth Procurement Rules (CPRs);
- Accountable Authority Instructions (AAIs);
- Defence Instrument of Delegation; and
- Defence Instruction.

The DPM reflects the lifecycle of a procurement process and is comprised of six phases:

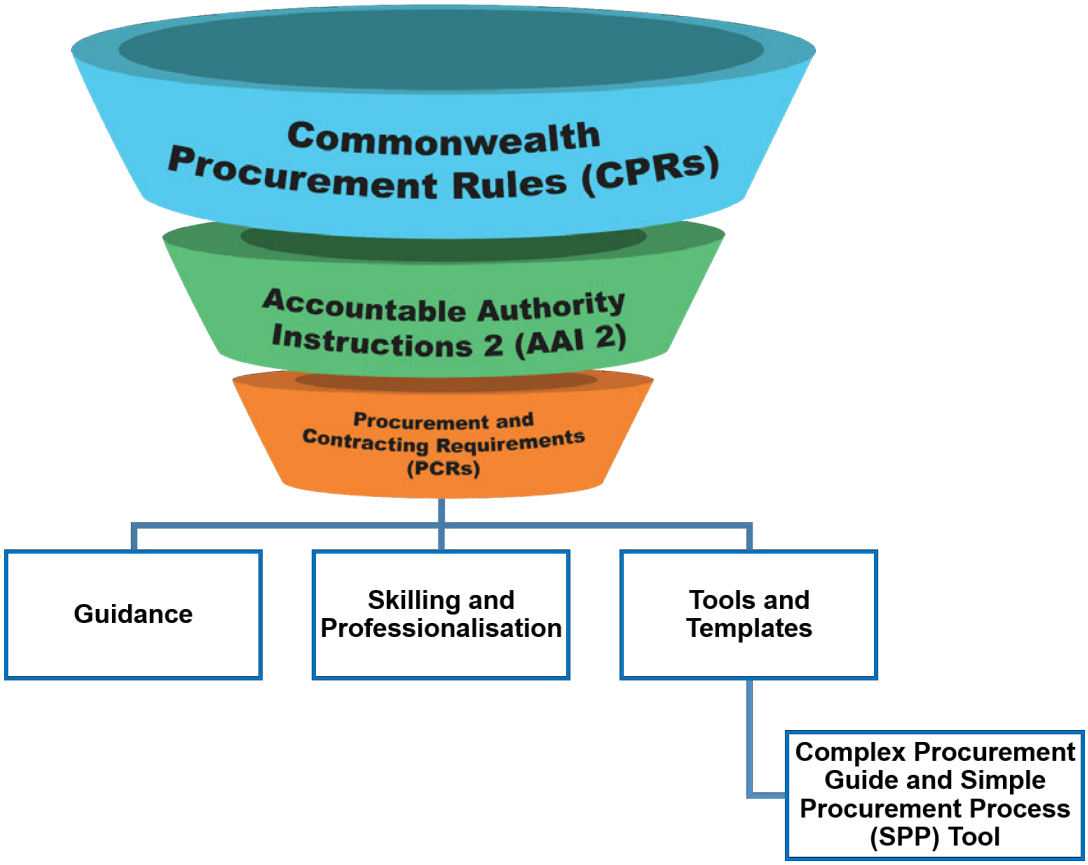
Outlined in each are activities relevant to that phase of the procurement process including links to additional guidance, templates, tools and suggestions for opportunities for further professionalisation and training.

The sixth phase of the lifecycle, Contract Management, is covered by the Contract Management Framework (CMF).

The DPM contains instructions that must be carried out in order to comply with AAI 2 - Spending Defence Money - Procurement and the CPRs, these are denoted by the term 'must'. The term 'should' indicates good practice. Terms in *italics* are defined in the Glossary Terms (DPM) which can be found in the Quick Links bar on each page.

Defence officials are encouraged to seek advice from the relevant support area at the early stages of planning the procurement, particularly in relation to complex or highly specialised procurements.

DEFENCE PROCUREMENT MANUAL (DPM) DIAGRAM



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CHAPTER

1. PROCUREMENT PLANNING

The planning phase (Procurement Planning) of the procurement life cycle is integral as it lays the foundation for a successful *procurement* and *contract*. While Defence *officials* need to comply with applicable policies, each procurement process should be designed in a way that is commensurate with the scope, scale and risk of the *procurement*. Application of sound judgement when applying the procurement ruleset and designing a procurement process that complies with the ruleset is important for all *procurements*.

If the planning is done well, it often leads to better value for money outcomes, including reduced *procurement* related risks for Defence and a more efficient and effective procurement process and reduced likelihood of procurement complaints (see Defence Procurement Complaints Scheme (DPCS)).

Procurement planning is undertaken once a need has been identified and will determine how the *procurement* is to be conducted. The procurement plan details the process that will be undertaken. It differs from a business case in that the business case explains why a *procurement* is being undertaken, while the procurement plan explains how the *procurement* is to be undertaken. However, for convenience, and depending on the scope, scale and risk of the particular *procurement*, the procurement plan may be included as part of, or as an attachment to, the business case.

The factors that will need to be considered by Defence *officials* when planning procurement activities will vary depending on the scope, scale and risk of the particular *procurement*.

The *procurement* plan will normally cover the following:

- a description of the *procurement*;
- consideration of how the procurement will comply with the CPRs including the selection and justification of the *procurement* method to be used (for example, *open tender*, *limited tender*);
- proposed probity arrangements;
- proposed governance arrangements, such as the need for a steering committee;
- the *procurement* risk assessment; and
- indicative time-lines and resources (including budgeting of funds to support the procurement).

In addition, when planning a *procurement*, Defence *officials* must consider the environmental sustainability of the proposed *goods* and/or services as part of the value for money assessment. In considering the procurement of sustainable *goods* and/or services, it is advised to seek specialist contracting advice from Commercial Support.

Note: Defence *officials* undertaking a procurement are required to ensure that the *procurement* does not breach any current Australian Government Trade Sanctions.

ELEMENTS

Procurement and Overarching Legislation

Before identifying applicable Commonwealth or Defence policy requirements, officials must first determine which arrangement is the most appropriate mechanism to deliver the intended outcome. The decision to use a particular financial arrangement should be underpinned by analysis and strong policy rationale, proportionate to the scale, scope and risk of the arrangement

The guidance. within the Defence Procurement Manual is aimed at assisting officials where a procurement has been identified as the most appropriate financial arrangement.

Typically procurements relating to the ordinary activities of Defence, receive their legal authority from section 23 of the Public Governance, Performance and Accountability Act 2013 (PGPA Act). The two financial delegations which exist under the PGPA Act, are section 23(1) 'Enter into, vary or administer an arrangement' and section 23(3) 'Commitment Approval'.

When undertaking procurement and contracting activities , officials should not seek approval using a financial delegation other than the PGPA Act, unless advice to the contrary has been received from the Australian Government Solicitor (AGS) and/or Defence Legal. Where direction to utilise an alternative legislative authority, such as, but not limited to, the Financial Framework (Supplementary Powers) Act 1997 (FFSP Act) or Industry Research and Development Act 1986 (IRD Act), the spending approval will still be required to:

- Ensure the proposed activity meets the definition of a procurement;
- Comply with the requirements within the PGPA Act and its subsequent legislative instruments, such as the Commonwealth Procurement Framework and the Commonwealth Procurement Rules;
- Comply with the Accountable Authority Instructions (AAIs), which promote the proper use and management of public resources in accordance with section 15(1)(a) of the PGPA Act;
- Ensure that appropriate financial delegations exist - that provide the legal authority to exercise certain powers and functions under section 23 of the PGPA Act, section 32B of the FFSP Act or section 34 of the IRD Act; and
- Satisfy any and all relevant Procurement and Contracting Requirements within scope.

When seeking to identify whether their arrangement meets the definition of a procurement, or whether a legal authority besides the PGPA Act is required, they are strongly encouraged to engage a procurement and contracting specialist at Commercial Support.

Defining the Procurement Scope

Defining the procurement need and scoping the requirement is essential to obtaining a clear indication of why a *good* or service is required and is the first step in every procurement process.

New procurement requirements may be initiated by numerous sources across Defence, most typically by:

- new capability requirements;
- a request from users or supported organisations; or
- the need to replace an existing arrangement.

A mandatory step in defining the procurement scope is developing an informed estimate of the value of a *procurement*. Once the value is estimated, procurement *officials* can determine whether the procurement is subject to Division 2 of the Commonwealth Procurement Rules (CPRs), which policy requirements apply, which procurement method is most suitable, and how to best resource the *procurement* to achieve an optimal outcome. For more information regarding which policy requirements apply, see the Procurement Connected Policies (Department of Finance).

The procurement value is the maximum estimated value (including assumptions and risks) of the proposed *contract* (including *GST*). This estimate includes options, extensions, renewals or other mechanisms that may be executed over the life of a contract (this may include any sustainment and disposal considerations – within the scope of the contract).

Where the estimated value of a procurement for construction services[1] is at or above $7.5 million (including GST), officials must check if the procurement is within scope of the Environmentally Sustainable Procurement Policy. Additionally, where the estimated value of a construction or ICT procurement is over $10 million (including GST), officials must check if the procurement is within scope of the Skills Guarantee Procurement Connected Policy. Should officials require further assistance determining whether their procurement is within scope of these policies, they are encouraged to engage Commercial Support.

In accordance with the Complex Procurement Guide (CPG) [Chapter 1: Introduction], it is assumed that the need for *procurement* has already been identified and a Business Case drafted.

In accordance with AAI 2, procurements that require prepayment of $50 million (GST inclusive) or more, written approval from First Assistant Secretary Financial Performance and Management (as the CFOs authorised official) is required prior to entering into an arrangement or making a prepayment. For further information when this policy applies please refer to AAI 2 and the department's Financial Policy - Payments and Reimbursements, Guidance Note - Payment Terms and Prepayments as well as the Prepayments $50 million or more approval form.

If the maximum value of a *procurement* cannot be accurately assessed over its entire duration, it is assumed Division 1 and Division 2 of the Commonwealth Procurement Rules (CPRs) apply.

Note: When planning their procurement, Defence officials must determine whether the scope and security requirements of the *procurement* will require the successful tenderer to hold a Defence Industry Security Policy (DISP) website membership.

Industry Engagement, Market Research & Unsolicited Proposals

A key factor in delivering good *procurement* outcomes is early market engagement and continued open dialogue with *suppliers* throughout the *procurement* process. Understanding *suppliers* and the market is part of the planning necessary to develop the right *approach to market*. Defence *procurement* should be supported by robust *procurement* plans that have a level of detail commensurate with the scope, scale and risk of the *procurement*. This is the first stage of the *procurement* life cycle. Good *procurement* also results from proactively managing *supplier* and other key stakeholder relationships throughout the *procurement* process and for the duration of the *contract*.

The aim of industry engagement is to:

- inform the requirement, drivers and cost-capability trade-offs;
- understand the market and industry's ability to provide support;
- gain knowledge about innovation in the sector which may support improved procurement outcomes;
- enhance economic benefit such as Defence Policy for Industry Participation (DPIP) considerations, Indigenous Suppliers or *Small and Medium-sized Enterprises (SMEs)*;
- assess the risk associated with undertaking the acquisition; and
- refine Rough Order of Magnitude (ROM) estimates for the program.

Regular engagement with industry is an important driver of value for money outcomes and should be given equal priority to the management of probity risks (see: Probity Toolkit).

Defence *officials* should consider activities which promote industry engagement that:

- ensure that probity practices operate as enablers, and not barriers, to collaborative, innovative and commercial *procurement* processes;
- encourage industry participation and competition in *procurement* processes, including designing procurement processes that provide opportunities for *SMEs* to compete (see Procurement Overview - Encouraging Competition);
- assist in ensuring that the *procurement* process and decisions are efficient, effective, economical, ethical, transparent and defensible - but do not operate so as to prevent Defence from being a smart buyer which achieves value for money; and
- consider costs imposed on industry through early engagement activities.

Unsolicited Proposals

An unsolicited proposal is a proposal for the provision of goods and/or services from industry that has not been solicited by Defence. This means that the proposal has not been formally requested by Defence via a procurement approach to market. Defence is under no obligation to review or accept any unsolicited proposals.

If Defence officials receive an unsolicited proposal, Defence officials should ensure there are appropriate probity protocols and mechanisms in place to manage the handling of the proposal and any subsequent procurement process that may be undertaken. This includes ensuring that there is no actual or perceived conflict of interest regarding the proposal receivers and decision makers.

To identify and manage a conflict of interest, Defence officials should refer to the Defence Instruction Administration and governance Provision 5 - conflict of interest and post-separation employment (AG5) which relate to the consideration and documentation of conflicts of interest in the procurement process. Prior to undertaking a review of these proposals, Defence officials should seek specialist contracting or legal advice and establish appropriate probity protocols and arrangements to govern the review of the unsolicited proposal, with reference to the Defence and Private Sector: Working with Integrity document and Probity Toolkit.

Defence officials should also ensure there are processes in place to identify, analyse, allocate and treat risk in relation to the unsolicited proposal (refer to AAI 1 - Managing Risk and Accountability for further instruction). In accepting these proposals Defence officials should note there may be reputational risks and a perception that an open and fair competitive process has not been undertaken. This may result in official complaints being lodged through the Defence Procurement Complaints Scheme (DPCS). In accordance with AAI 2, where a Defence official receives a procurement complaint from a supplier in relation to a Defence procurement process, including a planned procurement, they must direct the complaint to the Procurement Complaints mailbox (procurement.complaints@defence.gov.au) as soon as practical.

Where an unsolicited proposal is effectively an advance proposal for a requirement that Defence has already identified for procurement in the market, Defence officials should not consider the proposal and encourage industry to look out for opportunities on AusTender.

Taking into account the above considerations, a desktop review of the proposal should be undertaken to establish its merit, ensure it aligns with Defence objectives and assess if the unsolicited proposal can achieve a value for money outcome for products or services which contribute to Defence outcomes. In accepting these proposals Defence officials should note there may be reputational risks and a perception that an open and fair competitive process has not been undertaken. This may result in official complaints being lodged through the Defence Procurement Complaints Scheme (DPCS).

Where a decision has been made to progress with an unsolicited proposal, officials must conduct the procurement in accordance with the Commonwealth Procurement Rules (CPRs) and comply with all applicable Defence procurement policies (refer AAI 2 - Spending Defence Money - Procurement and the Defence Procurement Manual for further instruction). Proceeding with an unsolicited proposal must not be undertaken to circumvent Commonwealth and Defence procurement policies and processes.

Unsolicited Innovative Proposals

Where Defence receives an unsolicited proposal from industry that is above the relevant procurement threshold and is considered an unsolicited innovative proposal, a limited tender may be considered in accordance with Conditions for limited tender in Division 2 of the CPRs. To utilise this limited tender condition, the proposal must fulfil all of the requirements of CPR 10.3c. There are three main factors that must be met for this condition to be appropriate that the:

1. opportunity exists only in the short term;

2. goods and/or services are not (and cannot) be routine procurement from regular suppliers; and
3. proposal is unsolicited and innovative.

Australian Industry Capability (AIC)

A strong national Defence industry is important for national security and as a driver for innovation and economic growth in both Defence and broader commercial sectors. Defence industry policy sets and promotes the approach across Defence to develop Australian defence industry. In 2020 the Government announced an investment of approximately $270 billion over the coming decade in new and upgraded Defence capability, with the expectation that international prime companies wishing to work with Defence will invest to develop Australian Defence industry and integrate Australian businesses into their supply chains.

Since its launch in 2008, the Australian Industry Capability (AIC) Program has sought to maximise opportunities for Australian industry participation in the acquisition and sustainment of Defence capability, and promote the development of Australian Industry Capability, including in relation to Sovereign Industrial Capability Priorities. The AIC Program now sits under the broader 2019 Defence Policy for Industry Participation and continues to drive long-term development of the Australian Defence industrial base through Defence procurement. The 2019 Defence Policy for Industry Participation applies to materiel, non-materiel and construction procurements that meet the relevant thresholds.

The 2019 Defence Policy for Industry Participation (DPIP) requires a consistent, unified approach across Defence procurement. Tenderers are required to address specific Defence industry policy requirements for materiel and non-materiel procurements valued between $4 million and $20 million (including GST), and more extensive requirements for procurements valued over $20 million (including GST). Defence industry policy requirements also apply to procurements of construction services valued over $7.5 million (including GST). This approach requires tenderers to demonstrate appropriate formal consideration of Australian industry – locally and nationally – as part of their tender response. Consideration of the Australian Industry within a tender response will depend on the size and nature of the procurement.

Defence's contracting templates (See: AIC Program Requirements) give effect to Defence industry policy requirements. For example, the AIC Program is addressed within the relevant ASDEFCON Suite of Tendering and Contracting Templates, and the requirement for Local Industry Capability Plans is addressed within the Defence Facilities and Infrastructure Suite of Contracts found on Defence Estate Quality Management Systems (DEQMS).

The AIC Program is identified as a specific exemption from the 'non-discrimination' principle (reflected in the CPRs) in the Australia-US Free Trade Agreement (AUSFTA), and other FTAs to which Australia is a party. The AUSFTA (Chapter 15, Annex A) provides that 'the Australian Government reserves the right to maintain the Australian Industry Involvement program and its successor programs and policies.'

Defence industry policy addresses the Procurement Connected Policies (PCPs) requirements of the Australian Industry Participation Plan (AIPP) which is administered by the Department of Industry, Innovation and Science. Defence *officials* do not need to address any requirements specified in the Australian Industry Participation Policy National Framework as Defence has its own Defence industry policy requirements. For example, potential Defence suppliers do not need to prepare a separate Australian Industry Participation Plan as required by the Australian Industry Participation Policy National Framework.

For further information, contact Commercial Support or see the Australian Industry Capability (AIC) Program intranet page.

Government's Commitment to Sustainable Procurement

Sustainable Procurement

In December 2020, the Commonwealth Procurement Rules (CPRs) were updated to reflect the Australian Government's commitment to sustainable procurement practices. As a part of the value for money consideration, entities are required to consider the Australian Government's Sustainable Procurement Guide where there is opportunity for sustainability or use of recycled content.
The Sustainable Procurement Guide is available from the Department of Climate Change, Energy, the Environment and Water's website, and includes information on what *procurements* are appropriate.

Where there is an opportunity for sustainability or the use of recycled material as part of considering relevant financial and non-financial costs of each procurement, the Sustainable Procurement Guide contains general guidance, and example case studies, that may be relevant when making these value for money assessments in accordance with the CPRs. Officials should be aware that the Sustainable Procurement Guide is not a Procurement Connected Policy, does not contain any mandatory policy and specialist contacting or procurement policy advice (see Commercial Support) should be sought when using the guide.

Environmentally Sustainable Procurement Policy

In July 2024,the Environmentally Sustainable Procurement Policy (ESPP) commenced.
The ESPP is a Procurement Connected Policy, and is mandatory for all non-corporate Commonwealth Entities including Defence.

The ESPP applies climate, environment and circularity principles to 4 high-impact procurement categories. This began with construction services at or above $7.5 million on 1 July 2024. The other categories will be introduced from 1 July 2025 for procurements at or above $1 million. These are:

- furniture, fittings and equipment;
- information and communication technology (ICT) goods; and
- textiles.

The ESPP applies to new approaches to market released from the applicable commencement dates.

The ESPP reporting requirements will measure environmental outcomes.

There are three reporting options for Construction Services under the ESPP.

In accordance with the ESPP Reporting Framework and Reporting Template avalable on the Toolkit and resources webpage, Officials must select either Option A, Option B(i) or Option B(ii) for reporting requirements (which corresponds to the selection of the relevant SESP template on the Toolkit and resources webpage).

Due to risks surrounding the security of how information is stored for Option A and Option B (i), Defence Officials should always select the Option B (ii) reporting requirements and utilise the SESP Option B(ii) – Base Metrics template available at the Toolkit and resources webpage.

National Waste Policy

In 2018, the Government introduced the National Waste Policy and National Waste Policy Action Plan. The policy identifies five overarching principles underpinning waste management in a circular economy. These include:

- avoiding waste;
- improving resource recovery;
- increase use of recycled material and build demand and markets for recycled products;
- ensuring better management of material flows to ensure benefits to public health, the environment, the economy; and
- improving information to support innovation, guide investment and enable informed consumer decisions.

The National Waste Policy and National Waste Action Plan are embedded in Defence Policy through the Defence Environmental Strategy, the Environment and Heritage Manual and Smart Infrastructure Handbook. The Environment and Heritage Manual describes the agreed approach towards enabling Australian Defence Force capability through long-term sustainable management of the environment. The Environment and Heritage Manual applies to all Defence personnel including contractor, consultant and outsource service providers as specified in the terms of their contract.

Defence has developed the Waste and Sustainable Procurement Program to support coordinated and active implementation of the program's following objectives, which are derived from the National Waste Action Plan:

- Avoiding the generation of waste;
- Improving resource recovery;
- Increase the use of recycled material and building demand for recycled products, and;
- Supporting industry innovation, evidence-based change and continuous improvements to implement waste and sustainable material management policy objectives.

Defence *officials* should refer to the Environment and Heritage Manual to understand any Defence requirements regarding environmental sustainability where it may have an impact on the types of *goods* and services that can be procured.

Probity Requirements

Defence applies due diligence and probity controls to all stages of the procurement and contracting life cycle. Controls are tailored according to the scope, scale and risk of activities and align to the Commonwealth Procurement Rules, Defence procurement and contracting policies and the Defence Commercial Framework. This is supported by the development of system controls within the My Procurements application to reduce instances of non-compliance, and deter fraud and corruption, through the systemised capture and reporting of procurement decisions and approvals.

Defence personnel must act transparently when making work-related decisions, reflecting the probity and ethical standards of the Commonwealth and Defence, including adherence to Defence Values and Behaviours. Defence requires contractors, consultants and outsourced service providers to demonstrate the same ethical standards by complying with the principles set out in the Defence Fraud and Corruption Control Plan 2025-26 and Defence and the Private Sector: Working with Integrity.

Officials should also refer to the Probity Toolkit, which consists of probity guidance, templates, checklists and registers. Defence officials undertaking procurement should review the Probity in Defence Procurement Better Practice Guide.

Probity

Section 6 of the CPRs sets out the requirement for Defence officials to properly use and manage public resources. ‘Proper’ means efficient, effective, economical and ethical (see: CPRs - Div 1.- 6. Efficient, Effective, Economical and Ethical Procurement).

Attention to probity is integral to ensuring the defensibility, transparency and success of Defence procurements. Defence procurements, particularly those relating to major capital acquisitions, ICT projects and major facilities, are under increasing scrutiny by tenderers, the Australian National Audit Office, Senate Estimates and other Parliamentary Committees, and the media.

Probity is the evidence of ethical behaviour, and can be defined as complete and confirmed integrity, uprightness and honesty in a particular process. The Department of Finance - Procurement lists a number of principles which underpin ethics and probity in Australian Government procurement.

Defence officials need to put in place appropriate and sensible mechanisms to assure the probity of Defence procurement processes in line with the scope, scale, risk and sensitivity of the particular procurement. External legal process or probity advisers can be engaged when necessary. Occasionally, Defence may also wish to appoint an external probity auditor, either at the conclusion of the procurement process or at a key point during the process, to audit whether Defence officials followed the process and probity requirements set out in the documentation governing the procurement.

However, it is very important that Defence officials do not use probity as a reason or excuse not to engage appropriately with the market or tenderers throughout a procurement process. As long as it is done fairly and consistently, there is no reason why a procurement process cannot build in mechanisms (in the request documentation) for ongoing engagement with industry and tenderers throughout a procurement process. This might include engagement before tender release around Defence's requirements or to understand the market's capacity or capability, or engagement during the tender process, such as through tenderer clarification activities or mechanisms to allow tenderers to update and improve their offers (sometimes called 'offer definition and improvement activities').

A key factor in delivering good procurement outcomes is early market engagement and continued open dialogue with suppliers throughout the procurement process. Understanding suppliers and the market is part of the planning necessary to develop the right approach to market. Defence procurement should be supported by robust procurement plans that have a level of detail commensurate with the scope, scale and risk of the procurement. This is the first stage of the procurement life cycle. Good procurement also results from proactively managing supplier and other key stakeholder relationships throughout the procurement process and for the duration of the contract.

Conflicts of Interest and Post Separation Employment

All Defence officials involved in procurement have a responsibility to ensure that procurement processes are conducted ethically and in accordance with probity requirements. When planning a procurement and conducting a procurement, officials need to consider Conflicts of Interest, throughout the procurement lifecycle including contract management and closure. Paragraph 6.6 of the Commonwealth Procurement Rules state that "*officials undertaking procurement must act ethically throughout the procurement.*" Ethical behaviour includes recognising and dealing with actual, potential and perceived conflicts of interest.

Conflicts of interest are based on the three possible scenarios:

- An actual Conflict of Interest - where there is a clear conflict between an individual's official duties and responsibilities, and their private interests.
- A potential Conflict of Interest - where an individual has private interests that may conflict with their official duties now, or in the future.
- A perceived Conflict of Interest - where a third party could reasonably form the view that an individual's private interests may influence the performance of their official duties, now or in the future.

Officials need to be aware that Conflicts of Interest can arise at any stage of the procurement lifecycle. Where at any time during through the procurement lifecycle a Conflict of Interest may exist (either actual, potential or perceived) all officials (including person/s engaged under a contract where compliance with Defence policy is a term in their contract) are to submit an AF220 Conflict of Interest Declaration form.

The Defence Instruction – Administration and Governance Provision – Conflicts of interest and Post Separation Employment (AG5) now mandates that before participating in a Tender Evaluation Panel, Defence personnel must complete an

AF220 Defence Conflict of Interest Declaration Form which either: declares any conflicts of interest (actual, potential and perceived); or declares there are no conflicts of interest (as the case may be) in performing their duties as a member of the panel.

Officials must promptly submit a completed AF220 Defence Conflict of Interest Declaration Form through to the appropriate decision maker for a decision on the management of any conflict of interest declared.

If officials are unsure if their private interests give rise to an actual, potential or perceived Conflict of Interest they should refer to Conflicts of Interest Fact Sheet and complete the declaration form.

The identification, reporting, management and documentation of actual, potential or perceived conflicts of interest must be handled in accordance with the Defence Instruction – Administration and Governance Provision – Conflicts of interest and Post Separation Employment (AG5) requires officials to report Conflicts of Interest as soon as identified using the declaration form.

Confidentiality and NDAs

Defence *officials* may sometimes be approached by *tenderers* or contractors to sign a confidentiality agreement or deed (sometimes called a Non-Disclosure Agreement) either on behalf of the Commonwealth or in their personal capacity prior to receiving information from the *tenderer* or contractor. Defence *officials* are already subject to legal obligations to protect and not misuse information obtained as a result of their employment with Defence (for example, under the *Public Service Act 1999*; see also Public Governance, Performance and Accountability Act 2013, section 28). Therefore, Defence *officials* are under no obligation to sign such agreements and should not do so without first seeking legal advice from Defence Legal. In particular, *officials* should be aware that confidentiality agreements will often contain an indemnity from the *official* (or Commonwealth) in favour of the person disclosing the information.

As part of Defence's probity framework for major *procurement* processes, Defence *officials* may be requested (for example, by the legal process or probity adviser) to sign a statement confirming that they are aware of their legislative and policy obligations to properly protect confidential information. It is appropriate for Defence *officials* to sign such a confirmation in these circumstances, noting that the statement does not constitute a formal agreement.

Probity for Senior Defence Committees

All officials involved in procurement have a responsibility to ensure that procurement processes are conducted ethically and in accordance with probity requirements. When planning a procurement, conducting, reviewing and making decisions on a procurement related to a program/project. Officials need to consider ethical behaviour, throughout the procurement lifecycle including contract management and closure. Paragraph 6.6 states that "officials undertaking procurement must act ethically throughout the procurement."

There are some senior members and relevant support staff from Department of Defence and the three central agencies (Department of the Prime Minister and Cabinet, Department of Finance and Department of Treasury) who will require access to sensitive information pertaining to procurement as part of their duties as Designated Members on Defence Committees. This information includes a reference to any

procurement strategy, tender or evaluation material relating to a Defence procurement, including all or part of a tender (in particular tender pricing information), tender evaluation plan, evaluation report, or evaluation recommendation and subsequent negotiation directives related to Defence procurements, in particular the members of the Defence Committee, Enterprise Business Committee, Investment Committee, Defence Finance Resource Committee and Capability Gate Review. In addition, Defence's Contestability Division may also be required to have access to this information to perform its function. As part of Defence's probity requirements, members of these Committees, including central agencies and the Contestability Division acknowledge under their respective business rules the legislative and policy obligations that apply in relation to confidential information and conflicts of interests. Accordingly, these Defence officials are not required to receive procurement specific probity briefings or sign individual probity statements. These measures do not impose additional probity requirements on these members, except in limited circumstances. The only exception to this requirements is if a Designated Member has a specific role or delegation in relation to the conduct of a specific procurement separate from their role/duties as a Designated Member. In this case, the individual project/procurement probity plan may also apply to the Designated Member (in relation to their separate role) to the extent considered necessary to maintain the sound probity of the procurement.

Where Designated Members including Contestability Division, Force Design Division and Defence Finance Group officials identify that they have a Conflict of Interest in relation to the procurement this must be handled in accordance with policy owned by Defence Integrity Division and the policy for conflicts of interest found in Defence Instruction - Administration and Governance Provision 5 - Conflicts of interest and declarations of interest (AG5) are to submit an AF220 - Defence Conflict of Interest Declaration Form.

- Designated Members are required to ensure that all information which is subject to procurement-specific probity controls is held and stored securely, and used and disclosed only for the purposes of the Committee or Contestability function, as the case requires.

- Each Committee is required to have a standing agenda item where Designated Members are reminded of their confidentiality and declaration of conflicts of interest at the start of each meeting and any conflicts (in relation to particular matters before the Committee) are declared and agreed management actions implemented and minuted.

- When a Committee is considering project information which is the subject of procurement-specific probity measures, the Committee Secretariat will liaise with the relevant project area to seek a list of potential suppliers involved in the matter to enable the Designated Members to assess whether a conflict of interest or affirmation of no conflict of interest exists and processed in accordance with Defence Instruction Administration and Governance Provision AG5 – Conflicts of Interest and Declarations of Interest and the Defence Commercial Framework.

Commercially Sensitive Information
Department of Defence:
Contestability Division:
When Contestability Division Designated Members require access to information which is the subject of program/project-specific probity controls, Contestability Division FAS Contestability (FASC) Chief of Staff (CoS) will liaise with the relevant area, including:

- Seeking from the program/project, where known a list of the commercial entities involved;
- Requiring the relevant Contestability Division Designated Members to review the list to enable them to assess it against their current Declaration;
- Seeking written confirmation from the relevant Contestability Division Designated Member that no conflict of interest exists;
- If a conflict of interest is identified, initiating action in accordance with Defence Instruction Administration and Governance Provision AG5 – Conflicts of Interest and post-separation employment, which will involve consultation with the relevant program/project; and
- Advising the outcomes of this process to the relevant program/project area.

Gifts, Hospitality and Sponsorship
Gifts, Benefits (including Hospitality) and Sponsorship policy addresses the soliciting or acceptance of gifts, benefits (including hospitality) or sponsorship by Defence officials. Where possible, Defence Officials should not accept gifts, benefits (including hospitality) or sponsorship in the course of their official duties.

Should an Official receive a gift, benefit (including hospitality) or sponsorship, they **must** record the acceptance in the Defence Gifts, Benefits and Sponsorship Register, in accordance with the appropriate financial thresholds within 28 calendar days of accepting the gift, benefit or sponsorship. Further guidance for gifts, spending, and sponsorships can be found at Gifts, Benefits (including Hospitality) and Sponsorships, or by contacting defence.integrity@defence.gov.au.

Determining the Procurement Method
Determining the procurement method and delivery models during the Procurement Planning phase is important for making efficient and effective use of competition.

Under the CPRs, there are two *procurement* methods:

- *open tender* - where Defence approaches the open market and invites submissions; and
- *limited tender* - where Defence approaches only one or more potential suppliers to make *submissions*.

In accordance with AAI 2, to maximise competition, officials should commensurate with the scale, scope and risk of the procurement, approach multiple potential suppliers when conducting a limited tender.

Procurements which are not subject to or are exempt from the operation of Division 2 of the CPRs may use a *limited tender* procurement method (see Exemptions from

Division 2 of the CPRs Fact Sheet). Officials must note that in accordance with AAI 2, the use of CPR *Appendix A Exemption 14 – Contracts for labour hire* requires the approval from an official at the SES Band 3/3 Star level or above, **prior to approaching the market**. Officials can find information on when to apply this exemption on the Department of Finance's website. Defence officials are encouraged to seek Commercial Support for further clarification.

The categorisation of a *procurement* as an *open tender* or *limited tender* does not determine what *approach to market* Defence *officials* may wish to use (which could be done through a request for tender, request for proposal, request for quote under a *standing offer* panel, competitive evaluation, some other form of iterative engagement process, or other form of documentation), nor the project delivery model (for example, prime *contract*, managing contractor, design and construct *contract*, alliance *contract* and so on).

Selection of the most appropriate procurement delivery model will depend upon the nature, scope and characteristics of the procurement. Some procurement delivery models are complex and are not suited for lower value procurements whilst others are best suited where certain characteristics (e.g. significant risk) exist. Accordingly, it is important to ensure that the most appropriate procurement delivery model is selected. Otherwise there is a risk that the procurement delivery model may not be optimal for the delivery of the project which could have a detrimental impact on value for money (see Procurement Delivery Models BPG).

In accordance with AAI 2, procurements that require prepayment of $50 million (GST inclusive) or more, written approval from First Assistant Secretary Financial Performance and Management (as the CFOs authorised official) is required prior to entering into an arrangement or making a prepayment.

When a Defence *official* has determined that their procurement will be best delivered through a Public Private Partnership, they are to comply with the National Guidelines for Infrastructure Project Delivery, for further information see Public Private Partnership (PPP).

Note: If, during the planning of a procurement, the need to procure weapons (including ammunition) has been identified, the procurement must be in accordance with DI ADMINPOL Annex C provision AG7.6 and officials must consult Directorate of Operations and International Law to ensure the procurement is consistent with Australia's obligations under international law.

Identifiying and Assessing Procurement and Contracting Risks

The identification and management of procurement risk is conducted to ensure that Defence officials are properly informed about the risks associated with the procurement.

Defence officials should consider the risks relating to the conduct of the procurement process itself, what is being procured, and how these can be addressed through the procurement strategy. The Defence Enterprise Risk Management Framework is available to assist with these considerations.

The Procurement and Contracting Requirements mandate Defence officials to undertake a risk assessment when planning a procurement. Subject to the risk assessment, a risk management plan must be developed, documented and implemented. Defence officials must refer to the Procurement Policy Note - Ethical conduct of tenderers and suppliers and make reasonable enquiries that the procurement is carried out considering relevant regulations and/or regulatory frameworks, including but not limited to tenderers' practices.

Appropriate due diligence activities and the level of effort directed to the assessment and management of risk should be commensurate with the scale, scope and risk of the *procurement*.

Depending on the nature of the *procurement*, risks that may be relevant could include:

- commercial risk;
- technical risk;
- operational risk;
- financial risk;
- contracting risk;
- probity risk;
- security risk (including in relation to cyber security risk);
- environmental risk;
- management risk;
- cartel behaviour risk;
- legal risk;
- supply chain risk;
- work health and safety risk; and
- heritage risk.

The Commonwealth Procurement Rules (CPRs) encourage the principles of risk sharing and states that risks should be borne by the party best placed to manage them. Defence officials should not accept risk which another party is better placed to manage. Where Defence is in a better position to manage the risk it should not inappropriately transfer that risk to the supplier.

In understanding the risks of 'cartel behaviour' that may occur in a tendering process, officials are to refer to the Australian Competition & Consumer Commission's Cartels: deterrence and detection guide. Where officials are unsure if cartel behaviour is present in their procurement, please contact Commercial Support.

To avoid unreasonable costs to tenderers when participating in procurement processes and unnecessary ongoing costs throughout the term of a contract, Defence officials should identify the level of risk under the contract, determine the appropriate allocation of risk under the contract, and identify appropriate insurance types, levels and the period of coverage. Insurance requirements should be fit for purpose and not unreasonably discourage or prohibit participation. For further guidance on insurance requirements is published on the Department of Finance Insurance Requirements Commonwealth Procurement Rules – Procurement Risk.

Risks should be actively managed throughout the procurement lifecycle. Further information on risk management is detailed in the Risk Management Guidance Material section.

Defence officials may wish to determine whether the scope of their *procurement* could require an assessment of Modern Slavery risk. To help with this task, the Australian Border Force has produced a suite of materials (See: Modern Slavery (ABF)) that Defence *officials* are encouraged to use to assist in the identification of Modern Slavery risk in the procurement.

Note: When planning a procurement that relates to 'in scope' Innovation, Science & Technology (IS&T) activities, Defence officials must comply with Defence Security Principles Framework: Principle 31 and apply the Defence Research, Innovations & Collaboration Security (DRICS) Principles and Controls by undertaking a Research & Innovation Security Assessment (RISA) and Security Risk Assessment and Plan (SRAP).

For further guidance refer to: Defence Research, Innovation & Collaboration Security (DRICS) webpage

CCOSP Engagement Governance

Note: This tile supersedes the Factsheet - Engaging Contractors, Consultants and Outsourced Service Providers - Decision Making Governance

When Defence does not have the necessary internal staff resources to fulfil a business need, officials may be required to consider the engagement of Contractors, Consultants and Outsourced Service Providers ("CCOSPs").

The CCOSPs Engagement Governance implements an Enterprise Business Committee directive to strengthen workforce planning governance when considering the engagement of CCOSPs. Officials must comply with all relevant Governance requirements in Accountable Authority Instruction 2 - Spending Defence Money - Procurement (AAI 2). A breach of these requirements may constitute a non-compliance and will need to be reported in the non-compliance register.

This Governance requirements applies to all Defence officials considering the engagement of CCOSPs. The definitions for Contractor, Consultant and Outsourced Service Provider are described in the Defence Financial Delegations Glossary.

My Procurements must be used to document or attach approvals to engage CCOSPs unless exempt in accordance with the My Procurements Business Rules.

There are key requirements officials must comply with when:

- Engaging a Contractor or Consultant;
- Engaging an Outsourced Service Provider;
- Procuring the services of a CCOSP from a panel / standing offer arrangement; and
- Exercising a contract change for CCOSPs.

Are you engaging a Contractor or Consultant?

The relevant AAI 2 requirements when engaging a Contractor or Consultant are below:

- When procuring the services of Contractors and Consultants, you must obtain and document approval from a Defence official at the SES Band 3/3 Star level or above. This approval must be obtained prior to approaching the market.
    a. This requirement does not apply where the total contract value is under $80,000 (GST Inclusive). In this instance you must obtain and document approval from a Defence official at the SES Band 1/1 Star level or above prior to approaching the market.

- When procuring the services of a Contractor or Consultant you must advise me, as soon as you are aware, where the estimated daily rate of an individual is at or above $4,500 (GST inclusive) to ensure that I have oversight of high cost engagements.

- You must obtain approval from an official at the SES Band 3/3 Star level or above prior to exercising an extension or variation option for the services of a Contractor or Consultant. This requirement does not apply where;
    a. The total contract value is under $80,000 (GST Inclusive)

- When approval of a Defence official at the SES Band 3/3 Star level or above, is required for the engagement or renewal of Contractors and Consultants, you must provide copies of that written approval to the Defence Contractor Taskforce (defence.contractortaskforce@resources.defence.gov.au) within 10 days of exercising your section 23(3) delegation.

Officials must refer to the Defence Financial Delegations Glossary to identify which external workforce service is being procured.

Criteria	Contractor	Consultant
What is the nature of the work required?	Performs day to day duties of the entity. Uses skills to perform the services that would normally be maintained in the entity. Involves professional or expert services to implement an existing proposal or strategy. Work is an integral part of the entity's business.	Consultants are individuals, partnerships or corporations engaged to provide professional, independent and expert advice or services. It involves the application of specialist professional knowledge or expertise that may not be maintained in-house. Involves the development of an intellectual output e.g. research, evaluation, advice and recommendations to assist the entity decision making. Involves a one off task, a set of tasks or irregular tasks (making employment of permanent staff impractical or undesirable).

		Work performed is an accessory to the entity's business.
Under what direction or control will the work be performed?	Services are performed under supervision of the entity. The entity specifies how the work is to be undertaken and has control over the final form of any resulting output Professional or expert services provided are generally delivered without a high level of supervision and direction from the entity.	Performance of the services is largely left to discretion and professional expertise of the Consultant. Performance is without the entity's direct supervision.
Who will own the outputs?	The output produced will not necessarily represent the independent views of the service provider i.e. the entity controls the form of the output. The resulting output is produced on behalf of the entity and is generally regarded as an entity product.	The output reflects the independent views or findings of the individual or organisation. The output is being produced for the entity. The output may not belong to the entity.
How will the contracted party be renumerated?	Remuneration is based on agreed milestones or tasks, and use fixed price or outcomes based pricing structures.	Remuneration is usually paid when agreed milestones are reached or when a task or project is completed and use fixed price or outcomes based pricing structures.
Will the contracted party use Defence resources?	The entity provides all the equipment and supplies. The contractor will usually be engaged to work at the entity's premises.	The Consultant may provide their own equipment. The Consultant may work from their own premises for some or all of the assignment*. *Where highly classified work is being undertaken, it is reasonable to expect that a consultant might work at the entity's premises, using the entity's equipment/supplies.

Are you engaging an Outsourced Service Provider?

The relevant AAI 2 requirement when engaging an Outsourced Service Provider is:

- When procuring the services of a CCOSP, from a panel/standing offer arrangement, where the estimated value is at or above $80,000 (including GST), officials must approach at least three potential suppliers unless an official at the SES Band 3/3 Star level or above has approved otherwise, prior to approaching the market.

Criteria	Outsourced Service Provider
What is the nature of the work required?	The entity has made a decision that the function is to be performed by an external service provider on a long term basis. Usually it involves skills or expertise that is generally not required to be maintained by the entity.
Under what direction or control will the work be performed?	Performance of the services as agreed in the contract, is largely left up to the discretion and professional expertise of the Outsourced Service Provider. Typically, service standards or performance indicators are included in contracts and are monitored periodically.
Who will own the outputs?	The resulting output is produced for the entity and is not generally considered an entity's product.
How will the contracted party be renumerated?	Remuneration is paid when milestones are reached or a task is completed, or periodically for the provision of ongoing services.

Are you procuring the services of a CCOSP from a panel / standing offer arrangement

The relevant AAI 2 requirements when procuring a CCOSP from a panel/standing offer arrangement are below:

- When procuring from a panel/standing offer arrangement you must, where consistent with the panel Deed of Standing Offer/guidance, use fixed price or outcomes based pricing structures.

- When procuring the services of a CCOSP from a panel/standing offer arrangement where the estimated value is at or above $80,000 (Including GST), you must approach at least three potential suppliers unless an official at the SES Band 3/3 Star level or above has approved otherwise prior to approaching the market. If seeking approval from an official at the SES Band 3/3 Star level or above for an approach to less than three potential suppliers, you must:
    a. justify the proposal to approach less than three potential suppliers; and
    b. demonstrate that there will be a reasonable undertaking to negotiate, where possible, at least a 25 percent discount off relevant panel rates.

- The above rule does not apply where:
    - there are less than three suppliers on the panel/standing offer arrangements; or
    - there are less than three suppliers within the category of goods and services on the panel/standing offer arrangements; or
    - you are using an Indigenous supplier in accordance with the Indigenous Procurement Policy (IPP).
    - you are using the Whole of Australian Government Legal Services Panel.

- You must obtain approval from an official at the SES Band 3/3 Star level or above prior to exercising an extension option for the services of a Contractor or Consultant. This requirement does not apply where:
    a. the total contract value is under $80,000 (GST inclusive).

Process to engage a CCOSP

Step 1 – Planning

Officials proposing to engage CCOSPs should consider:

- What task/outcome does Defence require?
- How does the task/outcome contribute to delivering Defence's Strategic Reviews, Business Plan, CDF's Preparedness Directive, the Integrated Investment Plan, and/or one of Defence's statutory obligations?
- What is the impact of not achieving this task/outcome or delaying this task/outcome?
- What specialist skills are required to achieve the task/outcome?
- What is the timeframe for completing this task/outcome?

Step 2 – Does the current Australian Defence Force (ADF) and/or Australian Public Service (APS) workforce have the capability or capacity to meet this task/outcome?

The following questions prompt decision-makers to carefully consider their workforce requirements in terms of deliverables, and the skills, experience and profile of the workforce requirement. Defence officials undertaking a procurement for CCOSPs should address the below points in their Senior Executive Service (SES) Band/Star approval submission. Defence People Group can assist decision-makers in designing their workforce or exploring other options.

- What is the current capability and capacity of the ADF/APS workforce within your branch (including allocation and actual headcount)?
- Is the required skills/knowledge already present and available in your Group/Service or Branch?
- Is the skills/knowledge available at the right level for meeting the required task/outcome? If not, can it be sourced from elsewhere in Defence?
- Can other work be reprioritised to temporarily release the necessary APS or ADF personnel?
- Can you deliver this task/outcome by redesigning your current workforce?
- Is the workforce requirement ongoing or just a short term need for additional resources or specialised knowledge and/or skills that will not be required within the ongoing APS or ADF?

Step 3 - Is industry the right solution?

Defence officials should address the following in their approval submission:

- Is industry, or the ADF and APS, the most efficient and effective method of delivering this task/outcome?

- What is the estimated cost of the industry option, and is it affordable within your current budget?

- Will this option ensure that Defence achieves value for money for the Commonwealth?

Step 4 – Decide which to engage: a Contractor or a Consultant or an Outsourced Service Provider
Officials must refer to the definitions contained in the Defence Financial Delegations Glossary to determine whether you are proposing to engage a Contractor, Consultant or Outsourced Service Provider.

Step 5 – Obtain SES Band/Star approval
AAI 2 requires Defence officials to obtain written approval from the relevant SES Band/Star official prior to approaching the market to procure a Contractor or Consultant(CC). Where written approval cannot be progressed through My Procurements, Defence officials must attach Webform AF043, or another form of written approval, to their My Procurements submission.Defence Officials must provide robust and defensible justifications to support their case so that decisions by SES/Star to approve the procurement of CCs are sound. SES/Star ranked decision-makers should carefully consider the workforce justifications for approaching the market to engage a CC. Factors for SES/Star officials to consider in this step include:
• Whether the contribution of a CC is necessary to achieving this task/outcomes;

• The justifications for not using current ADF and/or APS workforce; and

• Why industry is the most efficient and effective resource option.

Step 6 – Advise the Secretary
Defence officials are required to advise the Secretary that the delegate intends to engage a contractor or consultant that the estimated daily rate of an individual is at or above $4,500 (GST inclusive) accordance with their requirements in AAI 2, Officials are required to utilise a Noting Brief within PDMS to advise the Secretary.
The Noting Brief from an official at the SES Band 3/3 Star level or above should include:

- the proposed contractor or consultant to be approached;

- the estimated daily rate;

- the proposed duration of the contract;

- the scope of work; and

- a statement as to the Band 3/3 Star level or above official’s agreement.

The process in which to provide a Noting Brief to the Office of the Secretary is as follows:

- within PDMS, create an Executive Correspondence (EC) PDR, this will be the reference number for the Noting Brief;

- once the EC is created, the Briefing template can be found in the response section of the PDR;

- when the appropriate clearances have been sought, workflow through PDMS to the Office of the Secretary.

Step 7 – Undertake procurement process
Officials undertaking procurement must comply with the relevant requirements in the CPRs, AAIs, PCRs, which are all linked within the DPM.

Step 8 – Obtain Section 23(3) Commitment Approval in My Procurements
In accordance with AAI 2, My Procurements must be used to document procurement approvals unless exempt with the My Procurements Business Rules.

SES Band/Star official approval should be referenced or provided as part of the Section 23(3) commitment approval within My Procurements.

In accordance with AAI 2, when engaging a contractor or consultant, Defence officials must provide a copy of the written approval to Defence Contractor Taskforce defence.contractortaskforce@resources.defence.gov.au) within 10 days of exercising their section 23(3) delegation.

Step 9 – Complete MyFi Portal or AE643 and sign the contract
When completing either through MyFi portal or using AE643 Defence Purchasing Form, the Defence official should enter the SES Band/Star procurement approver's name and position number.

The section 23(1) delegation is exercised when the delegate signs the contract, or a purchase order is issued.

Obligations of Contractors, Consultants and Outsourced Service Providers
This fact sheet provides guidance for Contractors, Consultants and Outsourced Service Providers ("CCOSPs") and the Defence personnel managing them, on their obligations when working in Defence.

Panels

Establishing Panels
Officials procuring commonly used goods or services should consider establishing a panel/standing offer arrangements. These arrangements deliver better and consistent prices, services and quality for Defence. In addition, panels offer increased transparency, standard terms and conditions and improved contract management that benefits both Defence and suppliers.

Prior to setting up a new panel/standing offer arrangement, Defence officials should first ensure an arrangement within scope of their procurement does not already exist.

In accordance with Accountable Authority Instruction 2 - Spending Defence Money - Procurement (AAI) 2, officials must obtain an Endorsement to Proceed prior to approaching the market to establish a new panel/standing offer arrangement.

Officials should refer to the Obtaining Endorsement to Proceed tile for further information.

In order to prevent the proliferation of duplicative panels across Defence, officials must obtain written approval from a CASG Commercial Division official at the SES Band 2/2 Star level or above prior to approaching the market to establish a panel/standing offer arrangement.

Officials should engage with Commercial Support for assistance in obtaining this approval.

Approaching Panels

A panel/standing offer arrangement is a way to procure goods or services regularly acquired by entities. In a panel arrangement, suppliers have been appointed to supply goods or services for a set period of time under agreed terms and conditions, including agreed pricing.

Each purchase from a panel represents a separate procurement process. Procurements from existing panels are not subject to the rules in Division 2 of the CPRs. However, these procurements must still comply with the rules in Division 1.

A contract (often referred to as a work order of an official order) is formed under a Panel each time an entity purchases goods or services under the panel arrangement.

When determining the procurement method, AAI 2 mandates the order by which officials must approach the market.

Officials must first determine whether the goods or services are within scope of a Whole of Government Arrangement (WoGA). Whole of Government Arrangements have been set up for Commonwealth entities to use when procuring certain types of goods or services.

If there aren't any Whole of Government Arrangements within scope of the goods or services being procured, officials must approach a panel/standing offer arrangement established by Defence. In accordance with AAI 2, exceptions to this are if an official is using CPR Appendix A Exemptions 15, 16 or 17, or an official at the SES Band 3/3 Star level or above has approved otherwise.

Where an official decides to approach panels/standing offer arrangements established by Defence, AAI 2 mandates that prioritised panels/standing offer arrangements established by Defence must be approached first.

Prioritised panels/standing offer arrangements established by Defence have been identified as key professional services panels. These panels have been prioritised to maximise value for money and capability outcomes in a financially responsible

manner. In addition, this also mitigates the risk of suppliers offering different prices for similar services across various panels. The five panels that have been identified are:

- Major Service Provider (MSP) Panel;
- Defence Support Services (DSS) Panel;
- ICT Provider Arrangement Panel;
- Defence Infrastructure Panel; and
- Defence Infrastructure Environment, Heritage and Engineering Panel.

If the scope of goods and services being procured isn't within the scope of the prioritised panels, officials must check whether other panels/standing offer arrangements established by Defence can be used. These can be found on AusTender.

Using Panels established by other agencies (optional)
Cooperative procurement describes where more than one entity approaches the market or where an entity accesses another entity's established contract or standing offer arrangement.

If a Defence official intends to join or use an existing contract of another entity, the initial request documentation must have already specified potential use by Defence.

The Department of Finance provides further guidance on Cooperative Agency Procurement.

A list of all cooperative arrangements can be found on AusTender.

Pricing Structure
In accordance with AAI 2, when procuring from a panel/standing offer arrangement, where consistent with the deed of standing offer and panel guidance, officials must apply fixed price or outcomes based pricing structure as the preferred pricing payment method. Where the nature of the services being procured, or the structure of the procurement, would make it impractical for fixed price or outcomes based pricing payment method to be applied, assistance should be sought from Commercial Support.

For further guidance on the requirements when engaging a CCOSP, officials should refer to the CCOSP Engagement Governance tile.

The pricing payment method should be set out in the request for quote documentation.

Below is further guidance on the structures of fixed price and outcomes based pricing that may assist in developing request documentation.

Fixed price structures
Fixed price structures guarantee a fixed amount will be paid regardless of the time and materials expended by the supplier in its delivery. Payment is fixed for the product, service or result defined in the contract and generally only made once the final product or service is delivered to the satisfaction of Defence.

With a fixed price structure the requirements, expectations and criteria for success should be clearly defined in the contract. The way in which the goods or services will be delivered are usually stipulated and informed by the supplier when drafting the contract.

Fixed price structures are most suitable for projects with a clear scope, established delivery methods and a stable set of requirements.

Outcome based pricing structures

Outcomes based pricing (also referred to as results based pricing) is centred on the achievement of specified business goals. This pricing model is used by tying payment to the delivery of agreed outcomes. For example, payment might be subject to targets being met for critical indicators of service performance or key performance indicators.

In an outcomes based pricing structure officials must be able to ascertain the outcome and link the successfulness of that outcome back to the supplier. Key performance indicators and service level agreements should therefore align with the intended outcome of the service not just the delivery of the service alone.
Projects that have clearly defined outcomes and those where the supplier has control over the end to end delivery of the project are most suitable for this type of pricing structure.

Quotes

In accordance with AAI 2, when procuring the services of a Contractor, Consultant or Outsourced Service Provider (CCOSP) from a panel/standing offer arrangement where the estimated value is at or above $80,000 (including GST), officials must approach at least three potential suppliers unless an official at the SES Band 3/3 Star level or above has approved otherwise, prior to approaching the market. If seeking approval from an official at the SES Band 3/3 Star level or above, officials must justify the proposal to approach less than three potential suppliers, and must demonstrate that there will be a reasonable undertaking to negotiate, where possible, at least a 25 percent discount off relevant panel rates.

The AAI 2 requirement to seek three quotes when engaging a CCOSP from a panel/standing offer arrangement, does not apply where:

a. there are less than three suppliers on the panel; or
b. there are less than three suppliers within the category of goods and services on the panel; or
c. officials are using an Indigenous supplier in accordance with the Indigenous Procurement Policy (IPP); or
d. officials are using the Whole of Australian Government Legal Services Panel.

Where officials are using a panel/standing offer to procure the services of a CCOSP and there are less than three suppliers on the panel, officials are still required to demonstrate how the procurement represents value for money.

If there are two suppliers on the panel within the category of goods/services being procured, officials should approach the two suppliers and demonstrate how the procurement represents value for money.

For further guidance on the requirements when engaging a CCOSPs, officials should refer to the CCOSP Engagement Governance tile.

Extensions
Officials must obtain approval from an official at the SES Band 3/3 Star level or above prior to exercising an extension option, for the services of a Contractor or Consultant, unless the value of the procurement is under $80,000 (including GST).

This requirement does not apply to Whole of Australian Government Arrangements, including where Defence has established Defence specific arrangements.

OVERVIEW CPRS, AAIS, PCRS - PROCUREMENT PLANNING

Overview of Key Applicable Policies for Procurement Planning

Commonwealth Procurement Rules (CPRs)
This is a summary of the identified key applicable Commonwealth Procurement Rules (CPRs).

• Procurement Framework	**2.6 ; 2.9 ; 2.10**
• CPRs - Introduction 3. How Use CPRs	**3.2 ; 3.4 ; 3.5 ; 3.9**
• CPRs Div 1.- 4.Value for Money	**(4.1 - 4.4) ; 4.7 ; 4.9 ; (4.10 - 4.15) ; 4.17 ; 4.18**
• CPRs - Div 1.- 5. Encouraging Competition	**(5.1 - 5.7)**
• CPRs - Div 1.- 6. Efficient, Effective, Economical and Ethical Procurement	**(6.1 - 6.7) ; 6.10**
• CPRs Div 1.- 7. Accountability and Transparency	**(7.1 - 7.3) ; (7.5 - 7.9)**
• CPRs Div 1.- 8. Procurement Risk	**(8.1 - 8.4)**
• CPRs - Div 1.- 9. Procurement Method	**(9.1 - 9.7) ; (9.8 - 9.10) ; 9.12**
• CPRs - Div 2.- 10. Additional Rules	**(10.1-10.5) ; 10.8 ; 10.13 ; 10.19**

Accountable Authority Instructions 2 (AAIs): Spending Defence Money - Procurement
This is a summary of the identified key applicable Accountable Authority Instruction (AAI) 2 - Spending Defence Money - Procurement

- AAI 2 - Commonwealth Procurement Rules and Policies
- AAI 2 - General Defence Procurement Requirements
- AAI 2 - Specific Defence Procurement Requirements by Procurement Category
- AAI 2 - Managing Arrangements and Payment Consideration
- AAI 2 - Indemnities, Guarantees and Warranties (Contingent Liabilities)

Related Materials and Tools

Related Materials

- Procurement Planning- BMS
- Project Execution Strategy
- Early Industry Engagement Better Practice Guide
- Procurement Delivery Models BPG
- Offer Definition and Improvement Activities (ODIA) Better Practice Guide
- ASDEFCON Liability Handbook (Exposure Draft)
- Fact Sheet - Checklist for Materiel Complex Procurement Activities
- Materiel Acquisition and Support Complex Procurement Process
- Product Life Cycle Guidance
- Smart Buyer Guidance
- Support Procurement Strategy
- Consideration of Broader Economic Benefit
- Defence Contract Management Framework
- Department of Finance list of Mandatory Whole-of-Government Arrangements
- Commonwealth Grants and Procurement Connected Policies (RMG 415)
- Due Diligence in Procurement
- Engaging CCOSP – Decision Making Governance Fact Sheet
- Contractor Engagement Governance Framework
- Exemptions from Division 2 of the CPRs Fact Sheet
- Endorsement to Proceed Fact Sheet
- 5. Procurement methods
- Payment Times Procurement Connected Policy (PT PCP)
- Limited tenders
- Overseas Procurement
- 3. Valuing a procurement – relevant procurement thresholds
- Value for Money
- Contract Tailoring and Template Selection Guide
- Defence Security Principles Framework – Principle 82 – Procurement
- Establishing and Using Standing Offers

Tools

- Procurement Plan
- Probity Toolkit
- Support Procurement Strategy (SPS) Tool

Fact Sheet

- Defence Industry Security Program (DISP) – Principle 16
- Defence Industry Security Program (DISP) – Control 16.1
- Defence Industry Security Program (DISP) – Annex A to Control 16.1
- Defence Industry Security Program (DISP) – Annex B to Control 16.1
- DEQMS - Defence Environmental Management System (EMS)
- Complex Procurement Guide (CPG)
    - Chapter 1: Introduction
    - Chapter 2: Procurement Planning
    - Chapter 3: Request Documentation
        - 3.3: Simple procurement
        - 3.4.7: Draft Conditions of Contract
    - Chapter 4: Approach the Market
    - Chapter 5: Evaluation
        - 5.3: Initial screening
        - 5.7.2: Tenderer initiated options
    - Chapter 6: Negotiation and Contract Signature
        - 6.4: Negotiation Team
        - 6.6.3: Conducting the parallel negotiations
    - Chapter 8: Disposal
        - 8.2: Disposals Policy

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CHAPTER

2. REQUEST DOCUMENTATION

This phase of the procurement life cycle looks at how Defence develops *request documentation* to release to potential suppliers.

This enables them to understand;

- the requirements and scope of work under a proposed *procurement*;
- how Defence will evaluate responses and select its preferred supplier; and
- how suppliers should prepare *submissions* that give them the best chance of being successful in the procurement process.

This phase covers:

- obtaining an endorsement to proceed;
- the selection and tailoring of contracting templates;
- the population and finalisation of *request documentation*; and
- the development of a tender evaluation plan.

Engagement with the relevant Commercial Support representative is recommended to ensure all aspects of the *procurement* are considered at an early stage.

ELEMENTS

Obtaining Endorsement to Proceed

In accordance with Accountable Authority Instruction 2 - Spending Defence Money - Procurement (AAI 2), officials must obtain an Endorsement to Proceed (ETP) prior to approaching the market for any:

a. procurement where the estimated value is at or above $200,000 (GST inclusive); or
b. the establishment of a panel/standing offer arrangement.

This is an important control which ensures the proper use of Government resources by providing internal scrutiny which certifies that the intended *procurement* would be efficient, effective, economical and ethical.

Please note that officials must submit an ETP through My Procurements.

Note: Although the ETP process does not require Commercial Division endorsement, the Commercial Division remains available to provide commercial advice to the business if the ETP requester or Delegate requires it.

In addition to the ETP, AAI 2 mandates that Senior Executive Service (SES) Band/Star approval is required if engaging a Contractor, Consultant or Service Provider (CCOSP).

For further guidance on the requirements when engaging a CCOSP, officials should refer to the CCOSP Engagement Governance tile.

Populating Request Documentation

The *request documentation* sets out the rules for the *procurement*. The correct population of *request documentation* is essential to ensure that *potential suppliers* understand what is being sought and can decide whether to make a *submission*.

The *request documentation* will usually be the primary information source used by *potential suppliers* when developing a *submission*. After reviewing the *request documentation*, the *potential suppliers* should be able to understand Defence's requirements and specifications. This is why the Commonwealth Procurement Rules (CPRs), in effect, require that *request documentation* include all information necessary to permit suppliers to prepare and lodge responsive *submissions*.

Defence officials must also ensure that where an applicable policy requires tenderers to address and report against any relevant plans and templates (such as a Supplier Environmental Sustainability Plan and reporting template) that this requirement and any relevant plans and documents are included in the request documentation. This can include, but is not limited to the Environmentally Sustainable Procurement Policy or the Commonwealth Supplier Code of Conduct.

Request documentation will normally include:

- a description of the requirement (for example, the statement of work), including any essential requirements;
- any conditions for participation or minimum content and format requirements;
- evaluation criteria and methodology;
- the other rules of the process; and
- the draft contract.

Care should be taken when deciding whether to include any conditions for participation as any *submission* that does not meet the conditions for participation must be excluded from consideration by Defence.

The *evaluation criteria* will set the foundation for a fair and equitable assessment of *submissions*. What the appropriate criteria are depends on the nature of the particular *procurement* and should flow from the planning stage.

Where applicable policies specify requirements for evaluation, it is essential that the request documentation is consistent with these requirements. This can include, but is not limited to the Environmentally Sustainable Procurement Policy.

The statement of work should set out clearly and concisely what the required *goods* or services are that are to be delivered or performed by the successful supplier.

Depending on the nature of the goods and services being procured, Defence officials may need to ensure that request documentation contains clauses that indicate where a potential supplier will be required to comply with legislation and policies (including but not limited to Australian Skills Guarantee, Environmentally Sustainable Procurement Policy or Defence Policy for Industry Participation (DPIP)). In addition, you may need to indicate what, if any, facilities or resources will be provided by Defence to the supplier in order for them to deliver. For example, procurements that

involve Construction or Government Furnished Facilities will need to include this level of detail in both the approach to market and contractual arrangement.

As a part of populating the request documentation, Senior Executive Service (SES) Band/Star approval is required if engaging a Contractor, Consultant or Service Provider (CCOSP). Refer to the CCOSP Engagement Governance tile for further information.

Developing a Tender Evaluation Plan

The Tender Evaluation Plan (TEP) is an internal Defence document that sets out the methodology and processes to be followed by Defence when evaluating *submissions*. To reduce the risks of a perceived or actual bias in the procurement process, Defence *officials* should preferably develop and finalise the plan before an approach is made to the market, however, it must be completed before *submissions* are opened.

The TEP should provide a clear and defensible basis for how tenders will be determined as suitable and achieve value for money in alignment with the scope of the *request documentation*.

The TEP should be consistent with the *request documentation*, in particular it should have the same *evaluation criteria*. If there is inconsistency between the TEP and the *request documentation*, the *request documentation* must be followed.

Where applicable policies mandate the inclusion of information in the request documentation or specify requirements for evaluation, it is essential that the TEP is consistent with these requirements.

Note: For all competitive procurement processes, Defence officials should prepare a tender evaluation plan that is commensurate with the scale, scope and risk of the *procurement*.

Selecting Tendering and Contracting Templates

The type of the *goods* or services to be acquired and the value and risk of the *procurement* will generally inform the selection of tendering and contracting templates.

If a *procurement* is to be undertaken using an existing panel arrangement, the approved panel templates should be used.

For all procurements valued less than $200,000 (GST inclusive) the use of the *Commonwealth Contracting Suite (CCS)* is mandated, unless an exception is listed in the Department of Finance RMG No. 420 – *Mandatory use of the Commonwealth Contracting Suite for procurement under $200,000*.
The CCS should also be considered for procurements between $200,000 and up to $1 million (GST inclusive).

For all other procurements, Defence has developed two main suites of tendering and contracting templates which cover a large proportion of Defence's specific procurement requirements. These are:

- the ASDEFCON Suite of Tendering and Contracting Templates, managed by the ASDEFCON Contracting Initiatives team within Capability Acquisition and Sustainment Group (CASG);
- the Defence Facilities and Infrastructure suite of contracts (DEQMS - Templates), managed by Infrastructure Division, Security and Estate Group (SEG); and

An important aspect of these templates is that they are regularly updated to ensure that they comply with all applicable legislation and policy requirements. If used for the purposes for which they intended, these templates can assist Defence *officials* with compliance with these requirements.

The templates are also flexible enough for review, assisted by the Contract Tailoring and Template Selection Guide or Suite of Facilities Contracts User Guide, ensuring that the final *contract* is appropriate for each individual *procurement*.

Note: To assist with the Commonwealth's implementation of the Modern Slavery Act 2018, model contract clauses have been developed and can be found on ClauseBank (see Modern Slavery (Dept of Finance)). These clauses may be incorporated into Defence contracts if a Modern Slavery risk assessment (see Modern Slavery Tool Kit) has found a Medium or High level of modern slavery risk for the procurement.

Note: In accordance with Defence Security Principles Framework: Principle 31, 'in scope' Innovation, Science & Technology (IS&T) procurement activities **must** ensure that both tender and contract documentation include conflicts of interest and security provisions in accordance with their Defence Research, Innovation & Collaboration Security (DRICS) assessment. These provisions must also be flowed down to any subcontracted arrangements in which part of the subcontracted work involves IS&T activities.

The Defence Science Partnering Deed (DSP) arrangement is the appropriate mechanism for engaging with Australian universities for research-based activities.

For further information see: Defence Research, Innovation & Collaboration Security (DRICS) webpage

OVERVIEW CPRS, AAIS, PCRS - REQUEST DOCUMENTATION

Overview of Key Applicable Policies for Request Documentation

Commonwealth Procurement Rules (CPRs)
This is a summary of the identified key applicable Commonwealth Procurement Rules (CPRs).

• CPRs - Introduction 3. How Use CPRs	**3.4 ; 3.5 ; 3.9**
• CPRs Div 1.- 4.Value for Money	**4.4 ; 4.7 ; 4.8 ; (4.16 - 4.18)**
• CPRs - Div 1.- 5. Encouraging Competition	**5.1 ; 5.2 ; 5.4 ;5.5 ; 5.8**
• CPRs - Div 1.- 6. Efficient, Effective, Economical and Ethical Procurement	**6.6 ; 6.7 ; 6.9 ; 6.10**

• CPRs Div 1.- 7. Accountability and Transparency	**7.2 ; 7.5 ; 7.12 ; (7.15 - 7.17) ; 7.21 ; 7.24**
• CPRs Div 1.- 8. Procurement Risk	**8.2 ; 8.4**
• CPRs - Div 1.- 9. Procurement Method	**(9.8 - 9.11)**
• CPRs - Div 2.- 10. Additional Rules	**10.6 ; 10.7 ; (10.9 - 10.13) ; 10.15 ; 10.16 ; (10.20 - 10.26)**

Accountable Authority Instructions 2 (AAIs): Spending Defence Money - Procurement

This is a summary of the identified key applicable Accountable Authority Instruction (AAI) 2 - Spending Defence Money - Procurement

- AAI 2 - Commonwealth Procurement Rules and Policies
- AAI 2 - General Defence Procurement Requirements
- AAI 2 - Specific Defence Procurement Requirements by Procurement Category

Related Materials and Tools

Related Materials

- Offer Definition and Improvement Activities (ODIA) Better Practice Guide
- ASDEFCON Liability Handbook (Exposure Draft)
- Support Procurement Strategy
- Consideration of Broader Economic Benefit
- Tender Evaluation
- Defence Contract Management Framework
- Department of Finance list of Mandatory Whole-of-Government Arrangements
- Commonwealth Grants and Procurement Connected Policies (RMG 415)
- Due Diligence in Procurement
- Engaging CCOSP – Decision Making Governance Fact Sheet
- Exemptions from Division 2 of the CPRs Fact Sheet
- Endorsement to Proceed Fact Sheet
- ETP Guidance for NMP Customers
- Overseas Procurement
- Payment Times Procurement Connected Policy (PT PCP)

Tools

- Commonwealth Contracting Suite (CASG)
- ASDEFCON Suite of Tendering and Contracting Templates
- Defence Suite of Facilities Contracts
- Legal Sign Off template - Release of Request Documentation
- Probity Sign Off template - Release of Request Documentation
- Tender Evaluation Plan Template (for Simple Procurement)
- Tender Evaluation Plan Template (for Complex Procurement)
- Intellectual Property Needs Analysis
- Tender Deliverables Table (Annex D to Materiel Tender Evaluation Plans)
- WebForm AF043 -SES or Star Approval to Engage a CCOSP

- Value for Money
- 3. Valuing a procurement – relevant procurement thresholds
- Contract Tailoring and Template Selection Guide
- Defence Security Principles Framework – Principle 82 – Procurement
- Establishing and Using Standing Offers Fact Sheet
- Defence Industry Security Program (DISP) – Principle 16
- Defence Industry Security Program (DISP) – Control 16.1
- Defence Industry Security Program (DISP) – Annex A to Control 16.1
- Defence Industry Security Program (DISP) – Annex B to Control 16.1
- Complex Procurement Guide (CPG)
    - Chapter 1: Introduction
    - Chapter 2: Procurement Planning
    - Chapter 3: Request Documentation
        - 3.3: Simple procurement
        - 3.4.7: Draft Conditions of Contract
    - Chapter 5: Evaluation

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CHAPTER

3. APPROACH THE MARKET

An approach to market is a notification to the market, inviting *potential suppliers* to participate in a *procurement*. The Approach to Market guides *potential suppliers* on how and when they should submit their response, this may take the form of a request for tender, request for quote, request for expression of interest, request for information or request for proposal.

This phase of the procurement covers many aspects, including:

- the releasing of the *approach to market* documentation;
- providing further information; and
- receiving and managing of tenders.

Note: Defence officials should ensure any potential tenderers have no judicial decision against them (not including decisions under appeal) relating to employee entitlements and who have not satisfied any resulting order. Defence officials must not enter into contracts with these tenderers. Defence officials should seek declarations within the tender response confirming that the tenderer has no such unsettled orders against them. For further information see Procurement Policy Note - Ethical conduct of tenderers and suppliers.

Note: The tender closing time and lodgement place (or mechanism) should be clearly mentioned in the ATM and any media advertisement. After consultation with Defence industry, Defence has agreed that tenders should not close on a weekend or a public holiday, or two weeks before or two weeks after, the standard Defence Christmas stand-down period. If a tender is released during the Christmas stand-down period, the stand-down period should not be included as part of the time available to tenderers when Defence officials are calculating the minimum period during which a tender is open to the market. In other words, if Defence officials considered that eight weeks was a suitable tender response period for the procurement, the stand-down period would not count as part of this eight week period.

ELEMENTS

Releasing Request Documentation

An *approach to market* is undertaken through the release of *request documentation*. *Request documentation* may be a request for tender, request for quote, request for expression of interest, request for information or request for proposal.
Request documentation may be issued as an open tender to all *potential suppliers* or as a *limited tender* to one or more identified *potential suppliers*.

The Commonwealth Procurement Rules (CPRs), mandate the use of AusTender for open tenders. Defence *officials* are strongly encouraged to use electronic tendering for their *procurements* – even for a *limited tender* - particularly to reduce the cost of tendering both for industry and Defence.

Procurements using a panel arrangement can be undertaken via email or utilising Dynamic Sourcing for Panels (DS4P). The panel arrangement will have its own business rules regarding how the *panel* should be approach for quotes.

Providing Further Information

During the tender open period, to assist in providing a response, a *potential supplier* may seek clarification or further information on Defence's *request documentation*. Defence *officials* may respond to tenderer clarification questions, and meet with *potential suppliers* if this forms a part of an industry engagement plan.

It is important to ensure that *potential suppliers* and tenderers are dealt with fairly and in a non-discriminatory manner when providing information and responding to clarification questions. Clarification questions should be directed through one nominated point of contact in accordance with the process set out in the *request documentation*. To avoid one *potential supplier* gaining an unfair advantage, information provided to one *potential supplier* should generally be provided to all *potential suppliers* without revealing the source of the request.

Due to the potential of a probity issue, record keeping is good practice and critical to avoiding complaints.

Receipt and Manage Tender Responses

Receipt and management of tenders is the final element of the approach to market phase. Tender responses should be managed with care to ensure the procurement is not compromised.
Tenders are to be submitted as stated in the request documentation. This may include:

- electronic lodgement on AusTender or Dynamic Sourcing for Panels (DS4P);
- in accordance with panel instructions; or
- via other means (such as email or delivery of physical copies).

The receipt and management of tenders requires a high level of probity, risk, and security awareness. This ensures the tender is managed appropriately. Tender responses received after the closing time outlined in the *request documentation* must be appropriately managed in accordance with the Commonwealth Procurement Rules (CPRs).

Note: For *procurements* not covered by Division 2 of the CPRs or those conducted through Limited Tender in accordance with CPR 10.3, Defence officials may accept a late *submission* if this is acceptable from a probity perspective and allowable in accordance with the requirements of the approach to market documentation. Prior to accepting a late submission, Defence *officials* should seek specialist contracting, legal process and probity or legal advice. If accepting a late *submission*,
Defence *officials* must decide whether to accept a late *submission* before the relevant *submission* is opened. Please see Chapter 4.12 Late Submissions in the Complex Procurement Guide for further guidance.

OVERVIEW CPRS, AAIS, PCRS - APPROACH THE MARKET

Overview of Key Applicable Policies for Approach the Market

Commonwealth Procurement Rules (CPRs)

This is a summary of the identified key applicable Commonwealth Procurement Rules (CPRs).

• CPRs - Div 1.- 5. Encouraging Competition	**5.4 ; 5.5**
• CPRs Div 1.- 7. Accountability and Transparency	**7.2 ; (7.5 - 7.8) ; (7.10 - 7.16)**
• CPRs - Div 1.- 9. Procurement Method	**(9.7 - 9.10)**
• CPRs - Div 2.- 10. Additional Rules	**10.8 ; 10.14 ; (10.28-10.31) ; (10.32- 10.34)**

Accountable Authority Instructions 2 (AAIs): Spending Defence Money - Procurement

This is a summary of the identified key applicable Accountable Authority Instruction (AAI) 2 - Spending Defence Money - Procurement

- AAI 2 - Context
- AAI 2 - General Defence Procurement Requirements
- AAI 2 - Specific Defence Procurement Requirements by Procurement Category

Related Materials and Tools

Related Materials

- Engaging CCOSP – Decision Making Governance Fact Sheet
- Valuing a procurement – relevant procurement thresholds
- Defence Contract Management Framework
- Overseas Procurement
- Value for Money
- Due Diligence in Procurement
- Probity in Defence Procurement Better Practice Guide
- Tender Evaluation
- Complex Procurement Guide (CPG)
  - Chapter 1: Introduction
  - Chapter 2: Procurement Planning
  - Chapter 3: Request Documentation
    - 3.3: Simple procurement
    - 3.4.7: Draft Conditions of Contract

Tools

- Probity Toolkit
- Approach to Market Addendum Template
- Approach to Market Data Entry – AE109-1
- Standing Offer Notification Data Entry – AE109-2
- SPP Tool Tender Evaluation Plan (including Source Evaluation Report as Attachment A)
- Tender Evaluation Plan Template (for Simple Procurement)
- Tender Evaluation Plan Template (for Complex Procurement)
- SPP Tool Record Keeping

- Chapter 4: Approach the Market

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CHAPTER

4. EVALUATION

This Phase of the procurement looks at the evaluation of submissions received in response to an 3. Approach the Market, and the importance of a sound and robust evaluation of responses to achieving value for money outcomes for Defence. The main objective of the evaluation stage is to assess the responses received and to select the offer that best meets the requirements set out in the *request documentation*.

Evaluation should be conducted in accordance with the endorsed Tender Evaluation Plan (TEP), which may include whole of life costs, enhancing the Australian economy, and sustainability considerations. It is important to allow sufficient time to evaluate tenders in order to conduct a proper and thorough evaluation. The TEP will set out the methodology and processes to be followed by Defence when evaluating responses.

The Evaluation Phase includes:

- an initial screening and shortlisting of responses that meet the criteria outlined in the request documentation;
- the evaluation of all compliant responses; and
- developing the evaluation report and recommending the preferred supplier.

ELEMENTS

Initial Screening and Shortlisting

Evaluation of tender responses usually begins with initial screening to determine whether *submissions* are complete as well as to establish compliance with minimum content, format requirements and conditions for participation (as specified in the 2. Request Documentation phase and evaluation plan).

Financial and technical components of evaluation should be separated from this element to ensure the integrity of the process.

In accordance with the CPRs, Defence officials may exclude a tenderer on grounds such as bankruptcy, insolvency, false declarations, or significant deficiencies in performance of any substantive requirement or obligation under a prior contract. For further information see Procurement Policy Note - Ethical conduct of tenderers and suppliers.

After initial screening, those responses that meet all the requirements will progress to evaluation. Evaluators need to be able to document and defensibly explain their decision to exclude tenderers and should consistently refer to the tender evaluation plan during the process.

Tenderers who are excluded should be advised as soon as possible that their tenders have been declined after the decision to exclude has been approved.

Evaluate Responses

The evaluation of submissions is the most important aspect of determining Value for Money in a *procurement*. Defence officials **must** consider a potential supplier's relevant experience and performance history when assessing value for money. This could include consideration of any unethical behaviour and/or deficiencies in performance under prior contracts (including failure of the tenderer to abide by substantive requirements such as confidentiality provisions). For further information see Procurement Policy Note - Ethical conduct of tenderers and suppliers.

In instances where applicable policies mandate the inclusion of information in the request documentation, it is important the data be evaluated in a manner consistent with the requirements of the policy. This can include but is not limited to policies such as the Australian Skills Guarantee and Environmentally Sustainable Procurement Policy.

When evaluating *submissions*, the evaluation criteria, methodology and procedures that have been set out in the *request documentation* and the evaluation plan need to be faithfully applied. If not then this could compromise the evaluation outcome and give rise to a complaint or legal action by an affected tenderer, and require Defence to set aside the evaluation and possibly the whole procurement process, as well as incurring additional costs in dealing with a complaint.

In accordance with AAI 2, where a Defence official receives a procurement complaint from a supplier in relation to a Defence procurement process, including a planned procurement, they must direct the complaint to the Procurement Complaints mailbox (procurement.complaints@defence.gov.au) as soon as practical

The evaluation should determine the best value for money supplier based on an assessment of the tendered information against the evaluation criteria. This should include an assessment of the risk that the tenderer can deliver against what it has offered in its tender. To differentiate tenders and assist with value for money assessments, compliance and risk assessments should be undertaken for each of the *evaluation criteria* in a fair, confidential, ethical and transparent manner.

Develop Evaluation Report

A properly developed evaluation report contains the key findings of the tender evaluation process, referable back to the *evaluation criteria* and the recommendation of a preferred tenderer (or shortlist of tenderers).

The level of detail contained in the evaluation report should be commensurate with the scope, scale and risk to the *procurement* and the nature of the evaluation undertaken. All findings and recommendations contained in the report should be supported by sufficiently detailed reasons, referable to the *evaluation criteria*. The report needs to contain sufficient detail to reflect the outcomes of the evaluation, and the key facts which differentiated tenderers. The report should also address the key risks of each *submission*.

The evaluation report will normally contain:

- a summary of the evaluation process;
- a summary of the assessment of each *submission*;
- reasons for the exclusion of a *submission* from further consideration;
- recommendations concerning the preferred tenderer(s) based on value for money; and
- details of any issues which need resolution during subsequent contract negotiations.

The evaluation committee members will normally sign the report and submit for endorsement to the relevant delegate.

Selecting a Preferred Supplier(s)
The Evaluation phase ends with the Selection of a Preferred Supplier(s), which is determined by which tenderer represents best Value for Money as outlined in the Evaluation Report.

This is the culmination of a rigorous assessment of risk where the decided upon supplier(s) has been deemed to be efficient, effective, economical and ethical in their *submission*.

One or more suppliers may be chosen as preferred, if they equally meet these thresholds, for the purposes of contract negotiation.

As a part of this element it is important to prepare the notification for unsuccessful tenders in accordance with the Commonwealth Procurement Rules (CPRs). This happens once the *Contract* has been entered into with a selected supplier.

OVERVIEW CPRS, AAIS, PCRS - EVALUATION

Overview of Key Applicable Policies for Evaluation

Commonwealth Procurement Rules (CPRs)
This is a summary of the identified key applicable Commonwealth Procurement Rules (CPRs).

• CPRs - Introduction 3. How Use CPRs	**3.2**
• CPRs Div 1.- 4.Value for Money	**4.1 ; (4.4 - 4.7)**
• CPRs - Div 1.- 5. Encouraging Competition	**5.4 ; 5.5**
• CPRs - Div 1.- 6. Efficient, Effective, Economical and Ethical Procurement	**6.3 ; (6.6 - 6.8)**
• CPRs Div 1.- 7. Accountability and Transparency	**(7.2 - 7.5) ; 7.17 ; 7.21 ; (7.23 - 7.26)**
• CPRs Div 1.- 8. Procurement Risk	**8.2 ; 8.4**
• CPRs - Div 2.- 10. Additional Rules	**10.8 ; 10.11 ; (10.15 - 10.19) ; (10.28 - 10.34)**

Accountable Authority Instructions 2 (AAIs): Spending Defence Money - Procurement

This is a summary of the identified key applicable Accountable Authority Instruction (AAI) 2 - Spending Defence Money - Procurement

- AAI 2 - Commonwealth Procurement Rules and Policies
- AAI 2 - General Defence Procurement Requirements
- AAI 2- Indemnities, Guarantees and Warranties (Contingent Liabilities)

Related Materials and Tools

Related Materials

- Tender Evaluation
- Tender Debriefing
- Due Diligence in Procurement
- Overseas Procurement
- Value for Money
- Defence Contract Management Framework
- Probity in Defence Procurement Better Practice Guide
- Complex Procurement Guide (CPG)
    - Chapter 3: Request Documentation
    - Chapter 5: Evaluation
        - 5.3: Initial screening
        - 5.7.2: Tenderer initiated options

Tools

- Comparative Table for Evaluating Simple Procurements
- Initial Screening and Shortlisting Report for Complex Procurement (Annex F to Tender Evaluation Plan)
- Tender Evaluation Working Group Report for Complex Procurement (Annex G to Tender Evaluation Plan)
- Source Evaluation Report for Complex Procurement (Annex H to Tender Evaluation Plan)
- Source Evaluation Report for Simple Procurement (Annex H to Tender Evaluation Plan)
- Conflict of Interest Declaration form
- Probity Toolkit
- Support Procurement Strategy (SPS) Tool

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CHAPTER

5. NEGOTIATION AND CONTRACT SIGNATURE

This phase involves Defence negotiating contract terms and conditions with the preferred tenderer(s) and the execution of the contract. The negotiation phase is important because Defence has the potential to improve the *procurement* outcome by reducing uncertainties, risks and costs with the preferred solution. Negotiations may be conducted with a single preferred tenderer or more than one tenderer.

Defence should seek to negotiate through a structured, documented and ethical process that is consistent with probity practice and principles.

Once contract negotiations are complete, the *contract* is signed (executed) by both parties.

This phase will cover:

- pre-start up activities;
- seeking approvals prior to the contract execution; and
- entering into the *contract* and facilitating the tender debriefings and post award reporting.

The time spent preparing for and undertaking negotiations should be proportionate to the complexity, scale, scope and risk of the *procurement*.

ELEMENTS

Conducting Contract Negotiation

Conducting contract negotiations involves Defence negotiating with the preferred tenderer, or tenderers (parallel negotiations). Negotiations with tenderers will vary depending on the complexity, scope, scale and risk of the *procurement* Defence is undertaking. For some less complex procurements, contract negotiations may not be required and it may be possible to proceed directly to contract signature.

The tender evaluation should have identified key issues and risks to be addressed during contract negotiations with individual tenderers.

Defence *request documentation* usually includes a draft conditions of contract that will ensure the negotiations can commence on a sound foundation, meaning negotiations will normally be focused on contract finalisation. Defence's negotiations are guided by ensuring a value for money outcome, managing compliance, exploring options or alternative proposals, settling upon prices that are not unreasonable and mitigating key issues or risks that were identified in the evaluation phase.

For major ICT projects, within scope of the Skills Guarantee Procurement Connected Policy, Defence officials are required to negotiate targets with suppliers. Where officials require more guidance on determining or negotiating targets, they are

encouraged to engage commercial support or refer to guidance available on the Department of Employment and Workplace Relations website.

Prior to entering into contract negotiations, a Contract Negotiation Directive (CND) must be prepared that is commensurate with the scale, scope and risk of the procurement to which the contract relates. The directive would normally be approved prior to Defence officials entering into negotiations. A contract negotiation directive is in effect the negotiation team's plan for undertaking the negotiations to achieve the best value for money contractual outcome for the Commonwealth.

All conversations during negotiations should be documented. A negotiation report should be developed summarising the key outcomes of the negotiation. The report should also provide traceability to the contract negotiation directive.

The Evaluation and Negotiation team provides direct evaluation and negotiation support to Defence business units and projects requiring assistance with complex procurements (see Evaluation and Negotiation intranet site).

Note: If contract negotiations result in a significant change to a tenderer's offer (including its technical solution, pricing, or commercial terms), Defence *officials* must consider whether the amended offer continues to represent best value for money.

Seeking Approvals Prior to Contract Execution

Prior to the execution (signing) of a *contract*, approval must be gained.

Defence officials are also held to accountability requirements that relate to commitment of relevant monies and contingent liability. These requirements are crucial to Defence adhering to legislative requirements.

Approvals required prior to entering into the contract include:

- the Commitment Approval Delegation under Section 23(3) of the Public Governance, Performance and Accountability Act (PGPA) 2013, which must be completed in My Procurements in accordance with AAI 2;
- if the contract contains a contingent liability (for instance, an indemnity, warranty or guarantee) and a liability risk assessment has been undertaken, the 'Contingent Liabilities (PGPA Act s60)' delegate (see Section 60 Contingent Liability Approval Submission template);
- written approval from First Assistant Secretary Financial Performance and Management (as the CFOs authorised official) before making a prepayment or entering into an arrangement that includes an individual prepayment with a value of $50 million (GST inclusive) or more; and Prepayments must not be split to avoid this approval requirement. For further guidance please refer to the department's 'Prepayments $50 million or more Approval form' and the *Financial Policy – Payments and Reimbursements* located on the Financial Policies page.'

In accordance with the CPRs, officials must be aware that, unless required by law, the Government maintains that ministers will not be involved in the conduct of

procurement processes or possess the power to direct officials about the conduct of procurement processes.

In circumstances where ministers are required to have a role in a procurement process, the CPRs mandate that officials must comply with Division 1 and Division 2 of the CPRs, when conducting a covered procurement, as defined in the Government Procurement Judicial Review Act 2018. Additionally, officials should appropriately document the role of the Minister in the procurement process and any decisions that arise from that role. If a minister has a role, where the procurement is not a covered procurement, officials must apply the CPRs to the maximum extent practicable.

Entering into Contract

This element is usually performed by two parties – the Commonwealth and the *Contractor*. The parties enter into the contract by signing or 'executing' the *contract*. Prior to signing, it is good practice for relevant *officials* to ensure that the preferred tenderer's representative is both nominated and authorised to sign the *contract*. If in doubt during this process, Defence officials may wish to seek legal advice (see Defence Legal Division).

To sign a *contract* on behalf of Defence, the Defence *official* needs to have the relevant delegation for entering into a *contract*, the Contract Approval Delegation under Section 23(1) of the Public Governance, Performance and Accountability Act (PGPA) 2013. The *official* exercises the delegation by signing the *contract*.

Note: Before entering into or varying a *contract*, Defence *officials* must ensure that that the selected tenderer holds the appropriate level of Defence Industry Security Policy (DISP) website membership for the *procurement*.

Note: Prior to entering into a *contract* to procuring weapons (including ammunition), Defence *officials* must ensure the *procurement* has been conducted in accordance with DI ADMINPOL Annex C provision AG7.6 and that Directorate of Operations and International Law has been consulted to ensure the *procurement* consistent with Australia's obligations under international law.

These relevant approvals for entering into a *contract* include the Contract Approval Delegation under Section 23(1) of the Public Governance, Performance and Accountability Act (PGPA) 2013, also important is the *AusTender* Reporting Requirements as outlined in the CPRs.

Note: Early preparation for contract start-up will help ensure that all necessary tools, templates and processes are in place, the respective contract teams are fully aware of their respective roles and responsibilities, and minimise disruption to contract performance. Accordingly, initial start-up activities should commence pre-contract signature, if practicable, with supplier engagement happening straight after contract signature.

Note: If the contract being entered into contains Defence Research, Innovations & Collaboration Security (DRICS) Principles and Controls requirements, a copy of the Research & Innovation - Conflicts of Interest, Defence Research, Innovation & Collaboration Security (DRICS) assessment and contractual documentation must be

provided to the DRICS assessment team once the contract has been executed. The documentation will contribute to a consolidated list of Defence collaborations with universities, which is available from the DRICS assessment team.

For further information, see: Defence Research, Innovation & Collaboration Security (DRICS) webpage

Facilitate Tender Debriefings and Post-award Reporting

Note: Department of Finance have updated Publishing and Reporting Obligations (RMG 423) to accompany the new requirements in the CPRs in regards to reporting. Whilst the Commercial Framework is being updated to reflect the new requirements, officials should refer to the new RMG 423 to ensure they comply with the CPRs. For further information regarding the updates to the CPRs and the RMG 423 please contact Procurement Policy at the linked address.

The Commonwealth Procurement Rules (CPRs) require Defence *officials* to promptly inform tenderers about the outcomes of a tender process and to offer debriefings (to both successful and unsuccessful tenderers).

Debriefing is an opportunity to provide feedback to both successful and unsuccessful tenderers. This is to support the further development of relationships and maintains tenderer confidence in the conduct of Defence's procurement process.

A debrief should include, as appropriate:

- an explanation of why the submission was unsuccessful (or successful);
- areas of weakness or non-compliance in the offer;
- suggestions as to how future submissions can be improved; and
- in the case of unsuccessful tenderers, if the contract has already been successfully negotiated, the name of the successful supplier and total contract price (noting that this needs to be reported on AusTender in any event, if valued at or above $10,000).

Defence *officials* should keep a written record of the debriefing.

Defence *officials* are required to report resultant contracts to *AusTender* within 42 days of awarding the contract and, depending on the value, to the Central Contracts Register. The financial management information system will automatically report contracts to *AusTender* based on the information entered into that system.

OVERVIEW CPRS, AAIS, PCRS - NEGOTIATION AND CONTRACT

Overview of Key Applicable Policies for Negotiation and Contract Signature

Commonwealth Procurement Rules (CPRs)

This is a summary of the identified key applicable Commonwealth Procurement Rules (CPRs).

- CPRs Div 1.- 4.Value for Money **4.4 - 4.6 ; (4.14 - 4.16)**
- CPRs - Div 1.- 5. Encouraging Competition **5.8**
- CPRs - Div 1.- 6. Efficient, Effective, **(6.6 - 6.8)**

Economical and Ethical Procurement

- CPRs Div 1.- 7. Accountability and Transparency — **(7.2 - 7.6) ; (7.17 - 7.24) ; 7.26**
- CPRs Div 1.- 8. Procurement Risk — **8.2 ; 8.4**
- CPRs - Div 1.- 9. Procurement Method — **9.11 ; 9.13**
- CPRs - Div 2.- 10. Additional Rules — **10.5 ; 10.11 ; 10.27 ; 10.35; 10.36**

Accountable Authority Instructions 2 (AAIs): Spending Defence Money - Procurement

This is a summary of the identified key applicable Accountable Authority Instruction (AAI) 2 - Spending Defence Money - Procurement

- AAI 2 - Commonwealth Procurement Rules and Policies
- AAI 2 - General Defence Procurement Requirements
- AAI 2 - Specific Defence Procurement Requirements by Procurement Category
- AAI 2- Approving commitments of Defence money
- AAI 2- Entering Into and Varying Arrangements
- AAI 2- Managing Arrangements and Payment Considerations
- AAI 2- Indemnities, Guarantees and Warranties (Contingent Liabilities)

Related Materials and Tools

Related Materials

- Tender Debriefing
- Tender Evaluation
- Probity in Defence Procurement Better Practice Guide
- Defence Contract Management Handbook
- Defence Financial Delegations
- Payment Times Procurement Connected Policy (PT PCP)
- Due Diligence in Procurement
- Overseas Procurement
- Complex Procurement Guide (CPG)
  - Chapter 6: Negotiation and Contract Signature
    - 6.4: Negotiation Team
    - 6.6.3: Conducting the parallel negotiations

Tools

- Probity Toolkit
- Contract Negotiation Report Template
- Contract Negotiation Directive (CND)
- Negotiation Matrix Template
- SPP Tool Contract Negotiation Strategy
- Section 23 Commitment Approval Template
- Legal Sign Off - Supporting Section 23
- Probity Sign Off - Supporting Section 23
- SPP Tool Section 23 Commitment Approval

6. CONTRACT MANAGEMENT

The Contract Management Framework (CMF) has been developed to provide best practice guidance for the management of procurement contracts and to support Contract Managers to effectively manage their contract(s).

The Contract Management Framework (CMF) is on the DPM contained within Phase 6.

The CMF does not form Commonwealth or Defence policy. It is therefore to be read in conjunction with the DPM, Accountable Authority Instructions (AAIs), Defence Financial Delegations, Procurement and Contracting Requirements (PCRs) and Defence Instruction. The CMF is also not a substitute for commercial or legal advice; if advice is required, contact Commercial Support or Defence Legal for further assistance.

The CMF incorporates a variety of templates and checklists assisting Contract Managers in undertaking key contract activities. Generic templates for a Contract Management Plan (CMP), Contract Assignment Schedule (CAS) and Division of Responsibility (DoR) (see Contract Management Toolkit) have been developed and can be tailored for individual requirements. The existing ASDEFCON RACI and DOR have not been updated, however are available for use if appropriate, with more templates to follow in the upcoming months.

Australian Government
Department of Defence
Defence Materiel Organisation

DEFENCE MATERIEL INSTRUCTION (ACQUISITION AND SUSTAINMENT)

DMI (A&S) 14-0-003

GATE REVIEWS FOR DMO PROJECTS

This Instruction remains in force unless rescinded by the General Manager Systems

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s47E(d)

General Manager Systems
Defence Materiel Organisation

27 April 2012

DMI (A&S) are issued under the System of Defence Materiel Instructions

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Revised Instruction:
DMI (A&S) 14-0-003 Version 2.0 updates and replaces DMI (A&S) 14-0-003 Version 1.0

Changes include:

Policy Principles replaced with revised Policy Directives and implementation narrative
Responsibilities clarified
Revised Gate Review types and objectives
Updated references

GATE REVIEWS FOR DMO PROJECTS

References:

A. DMI (PROJ) 11-0-003 Acquisition Categorisation (ACAT) Framework

B. Going to the Next Level (Mortimer Report)

C. The Defence Capability Development Handbook

INTRODUCTION

1. Gate Reviews are an assurance process intended to improve project outcomes and ensure DMO is able to provide high quality and reliable advice to Defence and Government regarding the health and outlook of Major Capital Projects. Senior DMO executives chair Gate Review Boards to provide a collegial assessment of project readiness for approval, in the pre approval stages, or project performance against the Government approved business case. Reviews are normally conducted in the lead up to key project decision points. Based on the findings of the Board, the Chair will provide guidance to the project and make a recommendation, to the relevant Senior Executive, regarding the readiness of the project for progression to the next stage in the project life cycle.

2. This Instruction describes the policy directives that apply within the DMO for the conduct of Gate Reviews.

SCOPE

3. This Instruction applies to all DMO managed Major Capital Projects included in the Defence Capability Plan (DCP). It may also be applied to Rapid Acquisitions, Concept Technology Demonstrators, Minor Projects and sustainment activities.

DEFINITIONS

4. For the purpose of this Instruction:

ACAT means the Acquisition Category that is applied to a DMO acquisition project in accordance with DMI (PROJ) 11-0-003 Acquisition Categorisation (ACAT) Framework (Reference A).

Early Indicator and Warning (EI&W) means the set of mandatory triggers that would require a project to be reported to Government, if schedule, cost, capability, industry or risk thresholds are breached.

External Board Member means a non-DMO member of a Board chosen from a panel appointed by CEO DMO.

Gate Review means an assessment of a project conducted in accordance with this Instruction.

Gate Review Board means a board convened for the conduct of a Gate Review.

Project Analyst means a person conducting preliminary analysis of a project as part of a Gate Review.

Project of Concern means a project or sustainment activity identified as having very significant risk or issues relating to schedule slippage, cost over-run, commercial aspects or the delivery of capability to Defence. Entry to and exit from the list of Projects of Concern is determined by the Minister for Defence and/or the Minister for Defence Materiel, on advice from DMO.

Project Manager means the person who is accountable for the delivery of a DMO project, as identified in the Project Charter or as nominated by the responsible line manager.

Senior Executive means the person to whom the Chair makes a formal recommendation following a Gate Review. This executive would normally be in the line management of the subject project.

BACKGROUND

5. Gate Reviews are about planning for success. They provide CEO DMO assurance that projects will deliver Government approved objectives and focus on the preparedness of a project to progress to the next stage in the project life cycle. The Reviews present an opportunity for senior management to provide strategic guidance and for Project Managers to seek support with the resolution of issues that are beyond their span of influence.

6. Gate Reviews of projects that have not yet achieved Government approval assess project feasibility, acquisition strategy, cost estimates, schedules and risks. Reviews of approved projects focus on delivery of the capability and the continued validity of the project business case.

7. Reviews are undertaken by DMO appointed Gate Review Boards. Board membership normally consists of DMO staff in management roles, DMO staff in independent advisory roles and non DMO External Board Members.

8. The success of a Review is dependent on:

   a. **Helpful** and constructive conduct;

   b. Thorough preliminary analysis and **preparation**;

   c. Full and frank **disclosure** of issues;

   d. The **domain expertise** of the Board;

   e. The **independence** provided by DMO and External Board Members;

   f. The **accountability** of the Chair for the conduct of a robust review and the provision of sound recommendations;

   g. The **authority** of the Senior Executive to direct implementation of the recommendations;

   h. The **presence of key stakeholders** to contribute to the resolution of issues; and

   i. **Line management follow through** to implement and close Gate Review actions.

POLICY DIRECTIVES

1. **Robust, independent Gate Reviews of each DMO Major Capital Project will be conducted to evaluate performance against the Government approved business case. Projects will normally be reviewed on an annual basis from First Pass to Final Materiel Release (FMR).**
2. **Gate Reviews will be conducted in a collegial manner, with the objective of improving project outcomes, through the provision of senior management guidance and support.**
3. **Gate Reviews will be performed in advance of key decision points in the project lifecycle.**
4. **Gate Reviews will be conducted by an independent Gate Review Board consisting of senior DMO management, External Board Members and others as required.**
5. **Gate Review Board considerations will be informed by independent preliminary analysis.**
6. **Accountability for the conduct and findings of a Gate Review rests with the Board Chair.**
7. **Line management must implement the agreed Gate Review outcomes.**
8. **Project Managers must provide full and frank disclosure of risks and issues and identify matters that require assistance or guidance from the Gate Review Board.**

RESPONSIBILITIES

9. DCEO is responsible for the independence of the Gate Review process and its implementation.

10. General Managers, Division Heads and Branch Heads are responsible for chairing Gate Review Boards. The Chair is accountable for the conduct and outcomes of the Review.

11. Members of a Board are responsible for professionally and objectively assessing the preparedness of a project to proceed through the gate, identifying risks and providing advice to the Chair on the resolution of issues.

12. Project Managers are responsible for meeting the information requirements of the Review and disclosing all relevant project information.

13. The Senior Executive is responsible for considering the Chair's recommendations and actions and accepting or rejecting them with argument.

14. Line managers are responsible for ensuring the completion of the Chair's recommendations and actions as directed by the Senior Executive.

15. Director General Independent Project Performance (DGIPP) is responsible for the overall management of the Gate Review program, including the development of associated policy and procedures, program planning and coordination, and independent secretariat support to the Boards.

16. DGIPP is responsible for conducting, at least annually, a senior management assessment of the Gate Review program effectiveness. The assessment will include a review of DMO 'best of breed' practices and lessons learned, identified through the conduct of Gate Reviews. Identified practice examples and lessons will be passed to the appropriate DMO business process owners, for analysis and consideration of improvement actions.

IMPLEMENTATION

Policy Directive 1

Robust, independent Gate Reviews of each DMO Major Capital Project will be conducted to evaluate performance against the Government approved business case. Projects will normally be reviewed on an annual basis from First Pass to Final Materiel Release (FMR).

17. Over the life of a project there is a need for an appropriately balanced assurance approach with a mix of management and stakeholder review. Gate Reviews are an internal DMO assurance process conducted by senior management and reduce the need for other internal reviews. However, Gate Reviews do not usurp the requirement for stakeholder engagement meetings, whose purpose is fundamentally different. Nor do they replace other forms of assurance sponsored by Capability Development Group as specified in the Defence Capability Development Handbook (Reference C).

18. A Gate Review provides the opportunity for senior management to confirm that a project is ready to proceed to the next stage, before any significant commitment of resources or any formal undertakings are made. It will confirm that all critical objectives for the associated milestone have been met, the project business case remains valid and the project is on track to deliver the capability that Government approved.

19. Gate Reviews will normally be associated with a key project decision point or milestone. A review may also be conducted in response to Government or DMO management concerns, or where a project breaches Early Indicator and Warning thresholds. A Project Manager may request a Gate Review to enlist senior management assistance to resolve significant issues.

20. The need for objectivity and clarity in the review process dictates a high level of independence throughout each review. This independence is to be realised through:

a. Corporate programming of reviews;

b. IPPO appointment of Boards, including External Board Members;

c. Non advocate preliminary analysis; and

d. Objective reporting of Board outcomes.

21. The Gate Review process has six elements:

a. Determination of the timing and purpose of a review;

b. Independent preliminary analysis of the project;

c. Board appointment and preparation;

d. A formal Gate Review Board meeting;

e. Documenting recommendations and actions from the Chair;

f. Senior Executive consideration of the recommendations and actions; and

g. Completion and status reporting of actions.

22. The Chair of the Gate Review Board will be appointed in accordance with the guidelines identified in Table 1:

Table 1 – Gate Review Board Chair Guidelines

ACAT	Pre Second Pass	Post Second Pass	Project of Concern	EI&W or Special Request
I	General Manager	General Manager	General Manager	General Manager
II	General Manager	Division Head	General Manager / Division Head	Division Head
III	Division / Branch Head	Branch Head	General Manager / Division Head	Division Head
IV	Division / Branch Head	Branch Head	General Manager / Division Head	Division Head

23. The goal of a Gate Review is to consider the project in sufficient detail to provide adequate assurance, and if necessary support, without overly disrupting the project office. To the greatest extent possible, pre-existing information will be used as the basis for each review.

24. The project ACAT level will be re-assessed at each Gate Review and, where necessary, a recommendation to change the ACAT level will be included in the review outcomes.

25. Every Gate Review Board will consider any DMO 'best of breed' practices and lessons learned, identified through the conduct of the Review.

Policy Directive 2

Gate Reviews will be conducted in a collegial manner, with the objective of improving project outcomes, through the provision of senior management guidance and support.

26. Gate Reviews are an assurance process intended to improve project outcomes. They must be conducted in a respectful and collegial manner, without precluding the robust discussion and questioning necessary to fully resolve issues.

27. Gate Reviews present an opportunity for senior management to provide strategic guidance and for Project Managers to seek support with the resolution of issues that are beyond their span of influence. Project Analysts and Board members must recognise the challenges associated with managing large, complex Defence projects and conduct reviews in a constructive manner. The objective is to resolve issues without blame.

28. The Board should ensure that, to the extent possible, resources and expertise needed to minimise project risk have been accessed. This may include confirming senior stakeholder commitment to the provision of resources.

29. Gate Reviews must be conducted with the degree of formality and confidentiality that reflects the significant project budgets and the sensitivity of the commercial, industry, Departmental and national issues being considered. The personal pressures on the Project Managers should also be recognised as Gate Reviews involve robust external scrutiny of their work.

Policy Directive 3

Gate Reviews will be performed in advance of key decision points in the project lifecycle.

30. The project decision points at which a Gate Review may be conducted are listed in Table 2. Annex A identifies the detailed objectives, and recommended timing, of each type of review. Every project has a unique acquisition strategy, schedule and set of issues. Consequently, not all of the decision points listed are necessarily applicable to each project. However, within the constraints of mandatory gates and the intention to review each project on an annual basis, the Reviews should be scheduled based on the risks associated with each decision point. In certain circumstances DGIPP may approve that a mandatory gate not be applied.

Table 2 – Gate Review Decision Points

Id	Decision Point / Milestone	Mandatory
Capability Development		
PI	Project Initiation	
OD	Options Definition	
1ST	First Pass consideration	Yes
2ND	Second Pass consideration	Yes
Contracting / Procurement		
SOL	Solicitation	Yes
NEG	Negotiation	Yes
SIG	Contract Signature	
Performance		
PER	Performance Review, aligned to project or contract milestones (eg design review, training readiness review ,or commencement of production)	
Acceptance Into Operational Service		
IMR	Initial Materiel Release (IMR)	
FMR	Final Materiel Release (FMR)	
MAA	Materiel Acquisition Agreement (MAA) Closure	
Exception		
EXC	Exception Review, conducted as required – at project, line management or stakeholder request	

31. The focus of Reviews early in the project life cycle will be business case and acquisition strategy issues, so early decision points align with Capability Development or procurement related milestones. Once a project is approved, Review decision points will be more project performance focused and may be conducted before or after events such as major engineering reviews, trials, commencement of production, major financial milestones or major deliveries.

32. The aim of a Review is to consider project status when sufficient time remains for any corrective action to be implemented, rather than to endorse final project documentation. Consequently, reviews will usually be performed six to eight weeks prior to the associated milestone.

33. Exception Reviews may be required, at any time, in response to factors such as poor contractor performance, organisational relationship failures, collapse of the project business case, Government concerns or where a project breaches Early Indicator and Warning thresholds.

Policy Directive 4

Gate Reviews will be conducted by an independent Gate Review Board consisting of senior DMO management, External Board Members and others as required.

34. The centrepiece of each Gate Review is a meeting of the Gate Review Board held in formal session with the Project Manager and line management. Boards bring a strategic dimension, pick up on unfounded optimism, engage senior stakeholders, resolve problems, identify systemic issues and facilitate a common understanding of project status and issues.

35. The Board membership should be structured to match the project issues and decision point. Ideally, the number of Board members should be between five and nine to ensure that the membership provides the right blend of authority, expertise and independence.

36. To allow objective assessment of the project, unless otherwise agreed by DCEO, the Chair must not be in the line management of the project under review. Exceptions may be agreed, for example, in situations where a person with suitable domain expertise is not available to Chair a review. However, senior line management with accountability for the project under review may be invited to sit on the Board, provided they are at least two levels of management removed from the Project Manager and have not significantly shaped the project's current direction.

37. Each Board will include at least one, and normally two, External Board Members who have extensive Defence or commercial experience. The External Board Members will be chosen from a panel appointed by CEO DMO. External Board Members have right of access to CEO DMO on matters of concern.

38. The remaining members of the Board will be selected based on the decision point, the issues under consideration and the expertise required. Internal members may be DMO functional managers, who control relevant resources, or may be independent members from other areas within the DMO. This facilitates a two way transfer of knowledge, capture of best practice and capture of lessons learned across the DMO by bringing expertise from other technology domains or Divisions.

39. Board members may not delegate their attendance without the express consent of the Chair.

40. To assist the resolution of issues, the Chair may invite senior stakeholders to attend Gate Review Board meetings to contribute to discussion based on their expertise, knowledge of issues or their organisational role. Sponsors and capability managers will normally be invited. Industry stakeholders may be invited to present their perspective to a Gate Review Board, if required.

41. A Board may meet several times during the conduct of a Gate Review including in-camera sessions and industry meetings.

Policy Directive 5

Gate Review Board considerations will be informed by independent preliminary analysis.

42. The Independent Project Performance Office (IPPO) will assist to focus Board considerations by appointing a team of Project Analysts, External Board Members or subject matter experts, to conduct a non-advocate preliminary analysis of project preparedness, prior to the Gate Review Board meeting. The analysis is designed to identify key issues of all stakeholders and bring them to the attention of the Board. In the process, project team, Defence stakeholder and where applicable, industry views will be canvassed. The findings of the analysis will normally be presented in the form of an agendum paper which outlines the issues. A Gate Review Cost Report will be produced for all First Pass and Second Pass Gate Reviews and normally those that are considering a real cost increase or change of scope.

43. As dictated by resource availability, the preliminary analysis may be abbreviated for projects assessed by IPPO as lower risk. The abbreviated analysis will be based on a desktop documentation review and interviews with a small set of stakeholders.

44. Preliminary analysis of a project will usually occur two to three weeks before the Board meeting. To minimise impact on the project team the preliminary analysis should be conducted using existing project documentation. No additional documentation or presentation material should be prepared by the project for the Gate Review unless specifically requested.

Policy Directive 6

Accountability for the conduct and findings of a Gate Review rests with the Chair.

45. The Chair of a Gate Review Board must ensure that:

a. Board members are adequately prepared;

b. The skills of the Board members are fully leveraged;

c. All key issues are considered;

d. The project team is provided the opportunity to present its issues; and

e. All possible assistance has been provided to the project.

46. The Board must establish that the project has a plan for success:

a. There is a sound strategy underpinning the project;

b. Risks are defined and manageable;

c. The cost and schedule estimates are robust;

d. The required scope will be delivered;

e. The acquisition strategy delivers the best value for money outcome and is commercially sound; and

f. Any issues that need to be resolved to improve project outcomes are identified and addressed.

47. The Board must also establish that the plan will deliver the expected outcomes:

a. The customer and other stakeholders have bought into the plan;

b. We have the right leadership and project team to deliver the plan;

c. Line managers understand and accept accountability for their contributions to the plan;

d. The project team is appropriately resourced; and

e. To the extent possible, all resources and expertise available have been accessed to minimise project risk and ensure success.

48. On completion of the review, the Chair, on advice from the Board, will make a formal recommendation to the relevant DMO executive as to the readiness of the project to proceed to the next stage in the project lifecycle. The recommendation may be conditional on the completion of a number of actions (for DMO attendees) or matters for further consideration (for non DMO attendees) that were noted during the Board meeting. Where there are dissenting views within the Board they are to be advised along with the Chair's recommendation.

Policy Directive 7

Line management must implement the agreed Gate Review outcomes.

49. The team representing a project at a Gate Review is the Project Manager and their immediate line management.

50. A Gate Review Board does not usurp line management responsibility and the recommendations and actions must be considered and accepted, or rejected with argument, by the Senior Executive. Once accepted, the responsible line manager is to ensure recommendations and actions are implemented and advise completion to the Senior Executive, and the IPPO.

51. Director General Governance and Assurance (DGGA) is to audit Divisional action closure processes.

Policy Directive 8

Project Managers must provide full and frank disclosure of risks and issues and identify matters that require assistance or guidance from the Gate Review Board.

52. Gate Reviews are designed to help the project achieve the best possible outcomes. However, considered advice cannot be given unless there is full and frank disclosure of project information and issues.

53. The Project Manager should be conversant with the business case approved by Government, or proposed by Defence in the case of unapproved projects, and be able to articulate the progress and plans of the project in the context of that business case. They should ensure all significant issues and risks are brought to the attention of the Board, and seek guidance. They must therefore provide accurate and complete answers to any questions that might be asked by the Board and be prepared to provide candid opinions, judgements and worst case assessments.

54. Project Managers must ensure that any documentation required by the Gate Review Board is delivered within the secretariat's requested timeframe. As far as possible, these information requirements will be restricted to documents that should be readily available. A formal presentation from the Project Manager is not normally required at a Gate Review Board meeting; however, the Project Manager will be given the opportunity to provide the project's perspective of the issues. Project Managers must also assist any preliminary analysis by facilitating access to project and stakeholder staff.

ANNEXES

A. Gate Review Objectives

B. Acronyms / Abbreviations

ANNEX A

GATE REVIEW OBJECTIVES

ID	Decision Point	Objectives - Overview	Review Timing
		Capability Development	
PI	Project Initiation	Confirm the project scope and dependencies are adequately defined and assumptions documented. Confirm the appropriateness of the acquisition and support concepts and the achievability of the First Pass and YOD timeframes. Confirm the adequacy of the cost estimate and that the spend spread is appropriate. Confirm the feasibility of delivering the proposed solution in the IOC and FOC timeframes. Agree the initial ACAT level. Assign the project to a Group/Division for execution.	At the commitment of DMO resources to prepare for First Pass.
OD	Options Definition	Confirm that capability options, the capability development strategies and any constraints imposed, are clearly understood. Confirm the engagement and support of the relevant stakeholders. Confirm that initial cost estimates are realistic. Confirm that the acquisition strategy for each option minimises risk, achieves optimal commercial leverage and can deliver value for money. Confirm that the project planning will ensure the project is ready for approval when it reaches First Pass.	4-8 weeks after the Capability Options have stabilised and been agreed by the relevant CDG delegate.
1ST	First Pass (Mandatory)	Confirm that the scope of each capability option is unambiguously described and the maturity of the technology and the associated technical risks are well understood. Confirm that the Capability Definition Documents (CDD) are sufficiently mature to meet the proposed solicitation schedule. Confirm that the acquisition strategy is comprehensive, minimises risk and achieves optimal commercial leverage to deliver value for money. Confirm that the project planning will ensure the project is ready for approval when it reaches Second Pass. Confirm that the schedule is soundly based and achievable. Confirm that cost estimates are soundly based and sufficiently accurate. Confirm the engagement and support of the relevant stakeholders. Confirm whether there are any issues to be brought forward in the Cabinet submission.	6-8 weeks prior to the CGRB meeting.
2ND	Second Pass (Mandatory)	Confirm that the project scope and technical risks associated with the candidate solution are fully understood and the acquisition concept remains valid. Confirm that the CDD adequately defines the requirements for the capability. Confirm that the project planning will ensure the project achieves IMR on schedule. Confirm that the schedule is soundly based and achievable. Confirm that cost estimates are soundly based and sufficiently accurate. Confirm the engagement and support of the relevant stakeholders and that related FIC elements will be in place for Acceptance Into Operational Service (AIOS). Confirm whether there are any issues to be brought forward in the Cabinet submission.	6-8 weeks prior to the CGRB meeting.

ID	Decision Point	Objectives - Overview	Review Timing
		Contracting / Procurement	
SOL	Solicitation (Mandatory)	Confirm the procurement approach is consistent with the acquisition strategy and reflects the options approved by Government. Confirm that the approach to market will optimise the commercial outcome for the Commonwealth and provide a reasonable basis upon which to engage industry. Confirm that the OCD and FPS are pitched at an appropriate level for the acquisition strategy and are fit for purpose as solicitation documents. Confirm that the solicitation evaluation criteria and methodology ensure a fair and equitable evaluation of all offerings and that the solicitation package seeks the necessary information. Confirm that any proposed government to government acquisition maps to the requirement, assess the risks associated with the foreign government program and confirm whether additional commercial contracts are required to provide a complete support environment. Confirm that the project planning and resourcing will ensure the solicitation and evaluation targets are met. Confirm the engagement and support of the relevant stakeholders. *Note: This review applies to the key procurements for the project involving complex solicitation.*	In the early stages of preparation of the solicitation package or Letter of Request (LOR).
NEG	Negotiation (Mandatory)	Provide assurance that the negotiation strategy has goals consistent with Government approval and will deliver an optimal commercial outcome with an acceptable level of risk. Confirm that preparation takes into account risks and issues identified in the Solicitation Evaluation Report, analysis of commercial intelligence and negotiation boundaries are set. Confirm that the proposed schedule, negotiation team membership, approval delegations and administrative planning ensure the negotiation targets will be met. *Note: This review applies to the key procurements for the project involving complex negotiations.*	Prior to approval of the Negotiation Directive.
SIG	Contract Signature	Confirm the project business case remains valid and the procurement is in accordance with the project approval. Confirm that the goals of the Negotiation Directive have been met and the project is ready to enter into contract. Confirm that the project is ready to commence administration of the contract and has the resources in place to meet its commitments, including any initial Government Furnished Material (GFM) deliveries. Confirm that other Defence stakeholders are aware of, and will provide, any resources required to meet Commonwealth contractual commitments. Where applicable, confirm that any systems offered for government to government acquisition align with the original request. *Note: This review applies to the key procurements for the project involving complex negotiations.*	Prior to approval of the Negotiation Report or Letter of Acceptance (LOA).

ID	Decision Point	Objectives - Overview	Review Timing
Performance Reviews			
PER	Performance Review	Ensure the project is on track to deliver as planned, review major risks and assist in the resolution of project issues. Review ongoing stakeholder engagement, product development and production or procurement performance. Ensure that integrated logistics support and verification and validation planning and development activities are progressing. Where a contract is applicable, provide an assurance that the contractor and DMO have committed the necessary resources and confirm that the contractor is conducting their side of the contract in accordance with their approved plans. Confirm that the Commonwealth is effectively monitoring the contractor's performance and meeting contractual commitments.	Usually conducted annually, aligned with a project milestone.
Acceptance Into Operational Service			
IMR	Initial Materiel Release (IMR)	Confirm that the products and services identified as deliverables for the IMR milestone in the MAA are ready for transition and that the Capability Manager is ready to accept them. *Note: This review may also be applied to intermediate Materiel Releases between IMR and FMR.*	In the lead up to IMR, prior to approval of the IMR Report.
FMR	Final Materiel Release (FMR)	Confirm that all of the products and services within the MAA have been delivered and that appropriate plans and resources are in place to conduct an orderly closure of the project.	In the lead up to FMR, prior to approval of the FMR Report.
MAA	MAA Closure (only if disputes exist regarding closure)	Confirm the status of Technical and Financial Completion as perceived by all parties to the MAA. Determine actions and matters for consideration that will resolve disputes. *Note. Any party to the MAA can seek to put a case for closure to a Gate Review Board for decision and/or guidance.*	When determined that Technical or Financial Completion is in dispute.
Exception			
EXC	Exception Review	May be triggered by Government or senior management direction, identification as a potential Project of Concern or where a project breaches Early Indicator and Warning thresholds. May also be triggered by a line management / Project Manager request based on issues such as poor contractor or Commonwealth performance, a contractual dispute or other major issue.	As required.

ANNEX B

ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Meaning
ACAT	Acquisition Categorisation
AIOS	Acceptance Into Operational Service
BPA	Business Process Authority
BPO	Business Process Owner
CDD	Capability Definition Documents
CEO	Chief Executive Officer
CGRB	Capability Gate Review Board
DCEO	Deputy Chief Executive Officer
DCIC	Defence Capability Investment Committee
DCP	Defence Capability Plan
DGGA	Director General Governance and Assurance
DGIPP	Director General Independent Project Performance
DMI	Defence Materiel Instruction
DMO	Defence Materiel Organisation
EI&W	Early Indicator and Warning
FIC	Fundamental Inputs to Capability
FMR	Final Materiel Release
FMS	Foreign Military Sales
FOC	Final Operational Capability
GFM	Government Furnished Material
GMP	General Manager Programs
GMS	General Manager Systems
ID	Identifier
IMR	Initial Materiel Release
IOC	Initial Operational Capability
IOR	Initial Operational Release
IPPO	Independent Project Performance Office
LOA	Letter of Acceptance
LOR	Letter of Request
MAA	Materiel Acquisition Agreement
MSA	Materiel Sustainment Agreement
ORC	Options Review Committee
US	United States

DOCUMENT ADMINISTRATION SHEET

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SIGNED: s22	Date: 24 April 2012
Reviewed By: Mr Edward Louis A/DG Independent Project Performance s47E(d)	
SIGNED: s22	Date: 24 April 2012

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COMMONWEALTH OF AUSTRALIA

AUSTRALIAN DEFENCE STANDARD

DEF(AUST)5664 Issue A
Dated April 2005

REPLACING/SUPERSEDING
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Dated Aug 1995

WORK BREAKDOWN STRUCTURES FOR DEFENCE MATERIEL PROJECTS

DEFENCE STANDARD

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DOCUMENT MANAGEMENT INFORMATION

This page lists the ownership and areas responsible for providing technical approval for this Standard. It also lists applicable documents that should be read in conjunction with this Standard. The information below needs to be reviewed for currency and applicability as per the 5-year review cycle detailed in the Defence Standardisation Manual (STANMAN).

Sponsor:	Directorate of Policy and Process Improvement, Deputy Chief Executive Officer Division, Defence Materiel Organisation
Approving Authority:	Director-General Standardisation, Defence Materiel Organisation
Applicable Documents:	AS 4817-2003, Project performance measurement using Earned Value
	DRB 48, Accounting Manual, Third Edition, 2003

AMENDMENT LIST

Amendment		Effected	
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This document supersedes DEF(AUST) 5664, original issue, dated August 1995.

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AUSTRALIAN DEFENCE STANDARD

DEF(AUST)5664

WORK BREAKDOWN STRUCTURES FOR DEFENCE MATERIEL PROJECTS

APRIL 2004

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1. DEF(AUST) 5664 (this Standard) presents Requirements, Recommended Practices and guidance for the development of Work Breakdown Structures (WBS) for Defence Materiel projects.

2. The application of this Standard is intended to achieve a consistent approach to WBSs throughout the Australian Defence Organisation (ADO) and Defence Industry.

3. This Standard details the requirement for a WBS for a specified body of work on materiel, including new development and modifications to existing equipment.

4. This Standard details the requirement for a WBS for use by the ADO and by an ADO contractor or subcontractor.

5. This Standard is mandatory for ADO staff conducting Strategic and Complex Materiel acquisitions, and must be specified in all contracts where Earned Value Management (EVM) or design and development (or both) are requirements under a contract. This Standard is not applicable for (and, therefore, not mandatory for) contracts for off-the-shelf items (although it is mandatory where integration of off-the-shelf items is required).

6. This Standard has been developed to be recursive, in that ADO contractors must specify this Standard in their subcontracts where Earned Value Management (EVM) or design and development (or both) are requirements under those subcontracts.

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CONTENTS

Description **Page**

Annexes:

A. List of Requirements (Normative)
B. Definitions of Standard Work Breakdown Structure Elements (Informative)
C. Relationships between the Work Breakdown Structure and Disciplines/Functions (Informative)
D. Checklist for Developing and Reviewing Work Breakdown Structures (Informative)

LIST OF FIGURES

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1. INTRODUCTION

1.1 PURPOSE

1.1.1 The purpose of this Standard is to define Requirements, Recommended Practices and guidance for the development of Work Breakdown Structures (WBS) for both Acquirer and Supplier organisations. The application of these Requirements, Recommended Practices and guidance should assist both the Australian Defence Organisation (ADO) and Defence Industry to prepare their WBSs in a consistent manner and to achieve integrated technical, cost and schedule control. This Standard provides a reference against which the ADO can:

a. develop and evaluate its internal project WBSs; and

b. evaluate a contractor's WBS for risk and effectiveness.

1.1.2 WBSs, which have been developed in accordance with this Standard, provide the basis for communication and shared understanding throughout the development and acquisition processes. The WBS is the common link that unifies the planning, scheduling, cost-estimating, budgeting, contracting, technical, configuration-management, and performance-reporting disciplines. Through consistent communications, it permits the ADO and industry managers to evaluate progress in terms of contract performance.

1.1.3 If the WBS process described is rigorously applied, then there should be:

a. a clean structure for the organisation and management of the project;

b. clear accountabilities for project outcomes; and

c. little chance of work elements being missed.

1.2 OVERVIEW AND BACKGROUND

1.2.1 The WBS is the cornerstone of a project and provides the basis for technical, cost and schedule control. As stated in the Project Management Institute (PMI) Practice Standard for Work Breakdown Structures, "[the WBS] provides the foundation for defining work as it relates to project objectives and establishes the structure for managing the work to its completion"[1]. The purpose of the WBS is to divide a project into manageable pieces of work to facilitate planning and control of cost, schedule and technical content. ADO major and minor capital acquisition activities are considered to be projects; hence, the PMI concepts are equally applicable to the ADO and its contractors. Nevertheless, the PMI standard is not sufficient for defining a WBS for use by the ADO because it has been developed as a generic Project Management (PM) standard. In the ADO, the Systems Engineering (SE) principles and practices place an additional set of requirements for WBSs over the standard PM practices because of the complexity of ADO systems and because of the design-and-development requirements typically associated with the acquisition of these systems. These additional requirements relate to technical control, and the need to integrate technical control with cost and schedule control.

1.2.2 The requirement to establish and maintain tight technical control is the main reason for the development of this revision of the Standard. The need to address technical control arises from the recognition that the WBS for Materiel Systems requiring design and development is fundamentally driven by the SE process. Technical control addresses both the requirements and the solution for the system-of-interest to ensure that sound practices are applied throughout the design-and-development process. Technical control is defined as "maintaining control over the requirements and the developing solution, so that the delivered system meets customer requirements". The concepts underpinning technical control, as defined in this Standard, have applicability irrespective of which acquisition approach (e.g. once-through, incremental or evolutionary) or which developmental approach (e.g. waterfall, incremental, evolutionary, spiral or object-oriented) is employed.

1.2.3 The emphasis on technical control has resulted in this Standard being developed to be consistent with the main SE and related commercial standards. Where applicable, linkages to the following standards are identified:

a. ANSI/EIA-632-1998, "Processes for Engineering a System";

b. AS/NZS 15288:2003 (ISO/IEC 15288:2002), "Systems engineering–system life cycle processes"; and

c. ISO/IEC 12207:1995/Amd.1:2002(E), "Information technology–software life cycle processes".

[1] Project Management Institute Practice Standard for Work Breakdown Structures, Project Management Institute, Newtown Square, Pennsylvania, USA, 2001, page 1.

1.2.4 This Standard also provides the Requirements, Recommended Practices and guidance for integrating cost and schedule control with technical control. In particular, the related requirements in AS 4817–2003, "Project performance measurement using Earned Value", including the "DMO Supplement to AS 4817–2003" are referenced and the applicable linkages are identified.

1.2.5 This Standard has been developed to be consistent with the following Australian Defence Contracting (ASDEFCON) Request For Tender (RFT) templates:

a. ASDEFCON (Strategic Materiel); and

b. ASDEFCON (Complex Materiel) Volume 2.

This Standard is not applicable to ASDEFCON (Complex Materiel) Volume 1 because that template is only used for off-the-shelf acquisitions. This Standard is also not applicable to ASDEFCON (Support), except where design-and-development work is likely to be conducted under an in-service support contract developed from that template.

1.2.6 In the main, this Standard is based on US DoD MIL-HDBK-881, 'Work Breakdown Structure', dated 2 January 1998, and uses the definitions and material from that handbook where possible. This approach reflects an agreement between the ADO and Defence Industry reached during the development of ASDEFCON (Strategic Materiel) to employ a common lexicon and, therefore, to provide a common basis for communications.

1.2.7 MIL-HDBK-881 is based on the US DoD acquisition, approval and funding processes, which are different from those of the ADO. This fact will inevitably lead to differences between this Standard and the US handbook; however, the fundamental principles are essentially the same. The major area of difference is in the various WBS templates (e.g. the ADO acquisition processes call for both a 'Mission System' and a 'Support System', and clearly treats Integrated Logistic Support (ILS) differently from the US DoD). Other areas of difference are identified throughout this Standard.

1.2.8 This introduction has identified a number of the interactions between the WBS and other elements and functional areas of an acquisition-based project. Annex C provides a more definitive overview of these interactions.

1.3 INTERPRETATION

1.3.1 This Standard defines Requirements, Recommended Practices and guidance for the development of WBSs. Requirements include the word '*shall*' and are mandatory provisions. Recommended Practices include the word '*should*', which indicates that there is discretion in their application. Nevertheless, Acquirers and Suppliers must be able to demonstrate that their WBSs accord with these Recommended Practices to the extent practicable and, therefore, the Recommended Practices are considered to be 'best endeavour' provisions. The word '*may*' identifies permissive provisions.

2. DEFINITIONS AND ACRONYMS (NORMATIVE)

2.1 DEFINITIONS

2.1.1 Defined terms are capitalised throughout this Standard to highlight that a particular meaning is intended. Lower-case use of the same terms means that the normal dictionary definition applies. For the purposes of this Standard, the following definitions are applicable:

Term	Definition
Acquirer	The stakeholder that acquires or procures a Product from a Supplier. *Note: Other terms commonly used for an acquirer are buyer, customer, and purchaser. The acquirer may at the same time be the owner, user or operating organisation.* *Note: The definition of Product includes Deliverable Services.* *Note: Internally within the ADO, Capability Development Group is the Acquirer, while the Defence Materiel Organisation is the Supplier.* [Reference: AS/NZS 15288:2003 (ISO/IEC 15288:2002).]
Component Product	An element in the structured decomposition of a system (e.g. Mission System or Support System) that forms a part of the system. Excluded are Enabling Products and Enabling Services. A Component Product is a subcategory of Product. *Note: Examples include the system, subsystems, configuration items, components, units and software items.* *Note: At the top level of the Product Breakdown Structure (PBS), the Mission System is a Component Product; however, the same is not true of the Support System.* *Note: A Component Product is the equivalent of a 'building block' internal to the 'end product' under ANSI/EIA-632-1998.*
Configuration Item	An aggregation of hardware or software that satisfies an end-use function and is designated for separate configuration management.
Contract Work Breakdown Structure	The complete WBS for a contract, which includes the ADO-approved WBS for reporting contract performance and the discretionary extension to the lower levels by the contractor, in accordance with this Standard and the contract Statement of Work (SOW). It also includes all the elements for the Products that are the responsibility of the contractor.
Contract Summary Work Breakdown Structure	A structure that encompasses an entire contract at summary level. It typically comprises 2 or 3 levels.
Deliverable Service	Any service that is, or will be, delivered to the Acquirer by the Supplier. *Note: Examples include advice, training, maintenance, engineering and supply.*
Enabling Product	Any artefact of an Enabling Service that does not form a part of the end Products that must be delivered to achieve project success, such as the Mission System and the Support System. An Enabling Product is a subcategory of Product. *Note: Examples include a software development environment, test jigs, and data such as plans, reports, specifications, and drawings.* *Note: An Enabling Product generated as part of the design and development of the Mission System could subsequently become a Component Product of the Support System (e.g. technical data, such as engineering drawings and specifications for Component Products).*

Term	Definition
Enabling Service	Functional activities and processes required to produce and, if applicable, deliver Products, as authorised by the agreement between the Acquirer and the Supplier, but are themselves not directly delivered to the Acquirer. *Note: Examples include functional domains, such as SE, PM, and ILS, as well as processes within these functional domains, such as planning, performance measurement, requirements validation, design engineering, integration and test, configuration audits, logistic support analysis and spares optimisation.* *Note: Internally within the ADO, Capability Development Group is the Acquirer, while the Defence Materiel Organisation is the Supplier.*
Materiel System	The Materiel System is the combination of the Mission System and the Support System.
Mission System	The element of the Materiel System that directly performs the operational functions. *Note: Examples include platforms (eg ship, tank, or aircraft), distributed systems (eg communications network), and discrete systems that integrate into other Mission Systems (eg a radar upgrade for a platform).* *Note: Major components of the Support System (such as simulators, Automatic Test Equipment (ATE) and Logistic Information Management Systems (LIMS)) could also be classified as Mission Systems if the level of management attention to be applied to these components warranted this classification.* *Note: The Mission System is the equivalent of the 'system-of-interest' under AS/NZS 15288:2003 (ISO/IEC 15288:2002), the 'end product' under ANSI/EIA-632-1998, and the 'Prime Mission Product (PMP)' under MIL-HDBK-881.*
Product	Any measurable, tangible, verifiable outcome, result, item or Deliverable Service, which must be produced or delivered (or both) to complete a project or part of a project. Products include Component Products. Products are expressed as nouns. *Note: Examples include Component Products of the Mission System and Support System; Enabling Products such as plans, reports and process artefacts; and Deliverable Services such as training and maintenance.* [Reference: Adapted from PMBOK® Guide – 2000 Edition and AS/NZS ISO 9000:2000]
Product Breakdown Structure	The hierarchical breakdown of a system (e.g. Mission System or Support System) into its Component Products.
Project WBS	A structure that defines the WBS for an entire project down to the lowest level necessary for effective definition and management of the project.
Supplier	An organisation or an individual that enters into an agreement with the Acquirer for the supply of a Product. *Note: A Supplier can be either external or internal to an organisation.* *Note: The definition of Product includes Deliverable Services.* [Reference: AS/NZS 15288:2003 (ISO/IEC 15288:2002).]

Term	Definition
Support System	The organisation of hardware, software, materiel, facilities, personnel, data, processes, and services required to enable the Mission System to be effectively operated and supported so that the Mission System can meet its operational requirements. The Support System includes the support required for the Component Products of the Support System. The Support System embraces the support responsibilities undertaken by the ADO, in-service support contractors and in-service support subcontractors. *Note: The Support System is the equivalent of one of the enabling systems called the 'Support System' under AS/NZS 15288:2003 (ISO/IEC 15288:2002) and is the system construct required to define the 'enabling products' for support under ANSI/EIA-632-1998.*
Validation	Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled. [Reference: AS/NZS ISO 9000:2000]
Verification	Confirmation, through the provision of objective evidence, that specified requirements have been met. [Reference: AS/NZS ISO 9000:2000]
Work Breakdown Structure or WBS	A Product-oriented family tree, which is used to plan the development and production of a Materiel System. A WBS defines and structures all of the Product(s) to be developed, produced and, if applicable, delivered, and relates the elements of work to be accomplished to each other and to the overall project objectives.
WBS Dictionary	The collection of supporting information that defines each WBS Element, including scope, activities, Products, specifications, entry and exit criteria, etc. *Note: The WBS Dictionary definition is effectively the SOW for each WBS Element – refer Section 3.2.* [Reference: Adapted from PMI Practice Standard for Work Breakdown Structures]
WBS Element	A discrete portion of a WBS at any level of the WBS. It may be an identifiable item of hardware, software, services, data or facilities. *Note: Products and Enabling Services are the two major categories of WBS Elements.*

2.2 ACRONYMS

2.2.1 For the purposes of this Standard, the following acronyms apply:

Acronym	Description
ADO	Australian Defence Organisation
ASDEFCON	Australian Defence Contracting
CDRL	Contract Data Requirements List
CAM	Control Account Manager
CDG	Capability Development Group
CI	Configuration Item
CM	Configuration Management
CMP	Configuration Management Plan
CSWBS	Contract Summary Work Breakdown Structure
CWBS	Contract Work Breakdown Structure

Acronym	Description
DID	Data Item Description
DMO	Defence Materiel Organisation
DoD	Department of Defense
EA	Evolutionary Acquisition
EVM	Earned Value Management
EVMS	Earned Value Management System
GFE	Government Furnished Equipment
GFM	Government Furnished Material
IBR	Integrated Baseline Review
ILS	Integrated Logistic Support
IPT	Integrated Product Team
LOE	Level Of Effort
LSA	Logistic Support Analysis
NRE	Non-Recurring Engineering
PBS	Product Breakdown Structure
PM	Project Management
PMI	Project Management Institute
PMP	Project Management Plan
PSI	Prime System Integrator
PWBS	Project Work Breakdown Structure
QMS	Quality Management System
RFT	Request For Tender
SBS	System Breakdown Structure
SE	Systems Engineering
SEMP	Systems Engineering Management Plan
SOW	Statement of Work
US	United States
WBS	Work Breakdown Structure

2.3 A NOTE ON TERMINOLOGY

2.3.1 This Standard has adopted slightly different terminology from MIL-HDBK-881 to better align with current process-based standards. MIL-HDBK-881 uses the terms 'products' and 'services', which are only defined through example. Current process-based standards (such as the AS/NZS ISO 9000:2000 suite of standards) include delivered services (e.g. training) as a type of product[2], while MIL-HDBK-881 amalgamates delivered services with enabling services (where enabling services can be defined as those services, such as PM, SE, and ILS, required to develop products and to manage the development of the products). Note that the Capability Maturity Model Integrated (CMMI)® adopts a similar approach to AS/NZS ISO 9000:2000. To maximise alignment with both MIL-HDBK-881 and the current process-based standards, this Standard uses the terms 'Deliverable Service' (as a type of 'Product') and 'Enabling Service' (refer to the Definitions for all three terms). The combination of Deliverable Service and Enabling Service is equivalent to the term 'service' as used in MIL-HDBK-881; however, this combination is not used in this Standard. This approach is not considered to detract significantly from alignment with MIL-HDBK-881, while providing the benefit of alignment with current standards.

[2] Refer to the definition of 'product' in AS/NZS ISO 9000:2000, pp 10-11.

2.3.2 The PMI Practice Standard for Work Breakdown Structures uses the term ‘deliverable’ instead of ‘product’ (e.g. the definition of WBS in that standard is “a deliverable-oriented grouping of project elements […]”). Once again, for alignment with MIL-HDBK-881, this Standard has adopted the term ‘product’. The terms ‘deliverable’ and ‘product’ are considered to be identical for all intents and purposes; hence, alignment has also been achieved between this Standard and the PMI Practice Standard. Note, however, that for reasons such as technical control, this Standard is more definitive than the PMI Practice Standard.

2.3.3 This Standard does not use the term ‘System Breakdown Structure or SBS’ from IEEE Std 1220-1998, “IEEE Standard for Application and Management of the Systems Engineering Process”, due to difficulties with possible multiple meanings. The term ‘SBS’, as used in the IEEE standard, is understood to be equivalent to the term ‘WBS’, as used in this DEF(AUST); however, ‘SBS’ is sometimes interpreted to mean the system breakdown of the system-of-interest. In this Standard, the term ‘Product Breakdown Structure or PBS’ is used to provide the latter meaning.

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3. GENERAL REQUIREMENTS

3.1 STRUCTURE

Requirement 1: The WBS **shall** satisfy the following conditions:	
Integrated –	A single top WBS Element covers the total body of work.
Distinct –	Every WBS Element is a distinct Product or Enabling Service, which is mutually exclusive from other Products and Enabling Services.
Children –	Every WBS Element has either no children, or multiple children.
Descendant –	Every child WBS Element has only one parent and is a descendant of the top WBS Element.
Necessary –	Every child WBS Element is needed to deliver the parent.
Sufficient –	If all child WBS Elements are complete, their parent is complete.
Complete –	The complete scope of work is captured in the WBS.

3.1.1 Requirement 1 defines the nature of the WBS, particularly the conditions underpinning the hierarchical structure and the decomposition of the WBS into lower-level WBS Elements. Essentially, WBS Elements need to be decomposed to the level of detail necessary to plan and manage the work to satisfy the project objectives, which can be restated as a Recommended Practice, as follows:

Recommended Practice 1: The WBS **should** be decomposed to the level necessary to plan and manage the work to satisfy the project objectives.

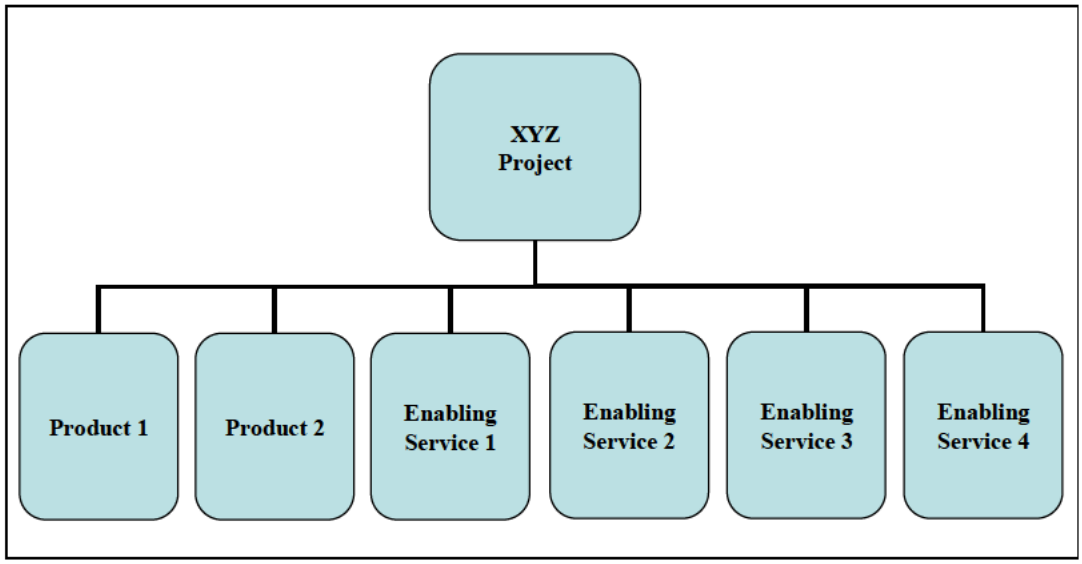

Figure 1 - Example Work Breakdown Structure

3.1.2 Figure 1 provides an example of a WBS, highlighting the decomposition of the highest-level WBS Element (i.e. the project, contract or Materiel System) into lower-level Products (e.g. Mission System and Support System) and Enabling Services (e.g. V&V, PM, SE and ILS). Note the convention of having the Products on

the left-hand side of the WBS and the Enabling Services following the Products[3]. At each subsequent level of the WBS, the Products will decompose into lower-level Products and Enabling Services, as will the Enabling Services (e.g. a Product under PM could be the Project Management Plan). Note that, in accordance with the definitions used in this Standard, a lower-level Product of an Enabling Service is termed an Enabling Product. The rationale for this approach to decomposition is explained later in this Standard.

3.1.3 The application of the different terminology used throughout this Standard is illustrated in Figure 2.

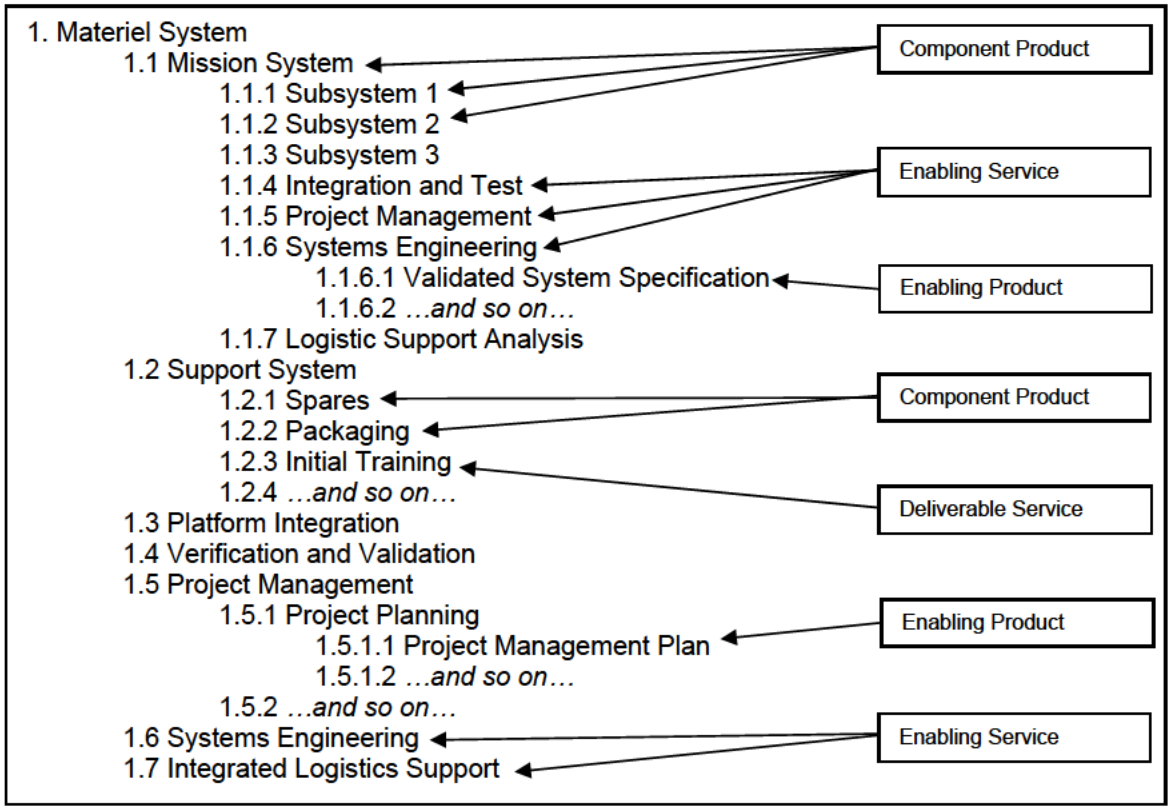

Figure 2 - Application of Terminology

3.1.4 The conditions stated in Requirement 1 are consistent with the Earned Value Management (EVM) requirements and guidance defined under Step 1 (Decompose the Project Scope) in AS 4817–2003, "Project performance measurement using Earned Value".

3.2 WORK BREAKDOWN STRUCTURE DICTIONARY

Requirement 2: Each WBS Element **shall** have a corresponding WBS Dictionary definition that clearly describes the WBS Element down to a level of detail sufficient to support the management and ultimate acceptance of the WBS Element. The following information **shall** be included in the WBS Dictionary for each WBS Element:

a. project title;

b. WBS Element identifier, which may be numeric or alphanumeric;

c. WBS Element title;

d. a description of the scope of the Product or Enabling Service, including a Statement of Work (SOW) and, if a Product, a reference to the applicable specification (e.g. title and number);

[3] A further convention is to differentiate recurring Enabling Services (such as integration and test) from non-recurring Enabling Services, with the recurring Enabling Services positioned to the left of the non-recurring Enabling Services. This approach facilitates common WBS Element numbering in projects having multiple ship-sets of major Component Products, such as ships.

e. additional information required by the EVM System (EVMS) if an EVMS is required; and

f. any other information to ensure that the work effort, responsibilities and accountabilities associated with the WBS Element are clear, complete, and understood by all parties.

3.2.1 Requirement 2 ensures that the scope of work for each WBS Element is clear and understood by all parties. For contracts, the requirements for the WBS Dictionary may be defined as part of the contract. Alternatively, it may be defined as part of the project-management system employed within an organisation (e.g. the EVMS).

Recommended Practice 2: The WBS Dictionary **should** also include the following information for each WBS Element, where the information is applicable:

a. reference to lower-level WBS Elements;

b. Contract reference;

c. entry and exit criteria, including acceptance requirements; and

d. performance measures.

3.2.2 In addition to the information defined under Requirement 2 and Recommended Practice 2, the WBS Dictionary may also include the basis of estimate for such aspects as resource requirements, schedule activity timeframes, and staff/skills profiles.

3.2.3 The initial WBS Dictionary will be based on the definitions provided in the project-management system or in a contract. The baseline definitions from ASDEFCON (Strategic Materiel) for each of the Level 2 WBS Elements used in a contract are provided at Annex B. For consistency, the same definitions for these WBS Elements are also used in this Standard. The WBS Dictionary definition is effectively the SOW for the applicable WBS Element and will be used initially for estimating purposes and ultimately for Verification that the work associated with that element is complete. The WBS Dictionary definition may refer to various contract SOW clauses rather than repeating information.

3.2.4 Note the inclusion of exit criteria and acceptance requirements in the WBS Dictionary. These aspects of the definition help to ensure that the completion requirements for a WBS Element are understood and that completion of a WBS Element is both measurable and verifiable by persons, such as management, the Acquirer, or quality assurance representatives, who are independent of those responsible for the WBS Element. The ability to Verify the completion of a WBS Element is one of the factors underpinning technical control, which is addressed under Section 6 of this Standard.

3.2.5 Generally, exit criteria for a WBS Element will form entry criteria for successor WBS Elements. For example, approval of a document, release of preliminary drawings, or satisfactory completion of a testing program could all be both exit criteria and entry criteria. These criteria, therefore, help with understanding the interrelationships between WBS Elements and provide valuable input to the subsequent development of the schedule.

3.2.6 The inclusion of performance measures in the WBS Dictionary addresses those information needs that are required to assess achievement and to identify problems and risks. Performance measures include such things as earned value techniques, practical systems and software measurement, and technical performance measures.

3.3 WORK BREAKDOWN STRUCTURE IDENTIFICATION SYSTEM

Requirement 3: The WBS **shall** employ an identification system that clearly defines the hierarchical relationships between WBS Elements.

3.3.1 Requirement 3 ensures that each WBS Element is coded with a unique WBS Element identifier, which may be numeric or alphanumeric, in such a way that the identifier allocated to a child WBS Element defines its relationship to its parent. Simple WBS identification schemes are preferred, and extraneous information needs to be avoided. An example WBS identification system is shown in Figure 3:

The Level 1 WBS Element has the WBS ID	1
The first WBS Element at Level 2 has the WBS ID	1.01
The first child WBS Element at Level 3 has the WBS ID	1.01.01
The second child WBS Element at Level 3 has the WBS ID	1.01.02
The second WBS Element at Level 2 has the WBS ID	1.02
The first child WBS Element at Level 3 has the WBS ID	1.02.01
The second child WBS Element at Level 3 has the WBS ID	1.02.02

Figure 3 - Example Work Breakdown Structure Identification System

3.3.2 It is good practice to leave unused identification 'numbers' between the different classes of WBS Elements (i.e. Products and Enabling Services) to allow the addition of further Products or Enabling Services as scope is varied, the design changes, or risk treatments need to be incorporated into the WBS.

3.4 Work Breakdown Structure Tools

Recommended Practice 3: The WBS **should** be prepared in a tool that enables the WBS to be contracted and expanded by WBS Element to facilitate review and to ascertain completeness.

3.4.1 ASDEFCON (Strategic Materiel), for example, requires a contractor to submit its WBS in a tool having an outline viewing mode, as it is extremely difficult to review a large WBS without the ability to contract and expand the levels of detail. Figure 4 shows a nine-page WBS contracted to level two, with the Mission System expanded to level three using Microsoft Word® Outline View:

1. Radio Frequency Surveillance System
    - 1.01 RF Surveillance Mission System
        - 1.01.01 Downconverter Subsystem
        - 1.01.02 Data Logger
        - 1.01.03 Operator Workstation
        - 1.01.04 RFS Mission System Integration and Test
        - 1.01.05 RFS Mission System Project Management
        - 1.01.06 RFS Mission System Systems Engineering
        - 1.01.07 RFS Mission System Logistic Support Analysis
    - 1.02 RF Surveillance Support System
    - 1.03 Platform Integration
    - 1.04 Verification and Validation
    - 1.05 Project Management
    - 1.06 Systems Engineering
    - 1.07 Integrated Logistics Support

Figure 4 - Facilitating the Evaluation of the Work Breakdown Structure

3.5 Maintenance of the Work Breakdown Structure

3.5.1 The WBS and WBS Dictionary need to be updated on a routine basis over the life of the project to ensure that they remain current and to preserve the integrity of reporting and management.

Requirement 4: The WBS and WBS Dictionary **shall** be revised to incorporate changes and to reflect the current status of the project in accordance with the defined control mechanisms.

3.5.2 Any changes to the WBS would need to be subject to the defined control mechanisms to ensure that only valid and agreed changes are incorporated. These control mechanisms, including the timeframes and triggers for updating the WBS, would be defined in the Quality Management System (QMS), the contract, project plans, or some combination of these elements.

3.6 PRODUCT ORIENTATION

Requirement 5: The WBS shall be Product-oriented.

3.6.1 Requirement 5 may appear to be superfluous, given the definition of WBS provided in Section 2 and the generic illustration of a WBS in Figure 1. Nevertheless, there is sufficient evidence[4] to suggest that this Requirement requires further explanation and clarification to ensure that its meaning is understood in the context of this Standard. Additionally, the requirement to be Product-oriented underpins technical control, which is addressed in Section 6 of this Standard.

3.6.2 Requirement 5 stems from the understanding that the overall scope of a project or activity is defined by the Products that have to be delivered, either by the Supplier or the Acquirer. Delivery in this context also includes internal delivery between groups within either the Supplier's or Acquirer's organisations, generally in accordance with QMS requirements.

3.6.3 The situation where the Supplier is delivering Products to the Acquirer is reasonably straightforward because, in general, this will be the purpose of the agreement between the Acquirer and the Supplier (e.g. the Supplier may be delivering the Mission System, components of the Mission System, and/or components of the Support System). The reverse situation, however, where the Acquirer is delivering Products to Suppliers, requires some clarification. These Products include requirements to deliver Acquirer-provided material or to respond to Supplier-provided material. Examples of these Products from an ADO perspective include Government Furnished Material (GFM) and responses and formal comments to Supplier-provided data items. Note that, to properly capture the full scope of work, each Supplier's WBS needs to include those Products that arise when the Supplier is acting as an Acquirer.

3.6.4 Clearly, those Products that need to be delivered externally, either from the Supplier to the Acquirer or from the Acquirer to the Supplier, are fundamental in defining the work that needs to be performed (i.e. in determining the scope), which leads to the following additional Requirements:

Requirement 6: All Products that must be delivered to the Acquirer by the Supplier shall be identified in the Supplier's WBS.

Requirement 7: All Products that must be delivered to the Supplier by the Acquirer shall be identified in the Acquirer's WBS.

3.6.5 These two Requirements include those Products that are elements of higher-level Products that will ultimately be delivered (e.g. Component Products). These Requirements are further refined in Section 5 of the Standard to address traceability and other issues in the situation where the relationship between the Acquirer and the Supplier is defined through a contract. Note that the term 'identified' in these two Requirements does not mean that the Products must be incorporated into the WBS as standalone WBS Elements; instead, the Products could be identified using the WBS Dictionary.

3.6.6 The Products that need to be developed and delivered internally within either the Acquirer's or Supplier's organisations also need to be addressed in their respective WBSs to ensure that the full scope of work is identified and managed. This need leads to Recommended Practice 4:

Recommended Practice 4: All internal Products should be identified in the WBS.

3.6.7 Recommended Practice 4 is not a Requirement because some internal Products are not sufficiently significant to warrant inclusion in the WBS. Nevertheless, in keeping with Recommended Practice 1, internal Products will need to be included in the WBS if their inclusion is necessary to ensure that the plan is sound and that the work can be managed effectively to satisfy the required objectives.

[4] For example, see "Work Breakdown Structure Practice Standard Project–WBS vs. Activities", Berg, Cindy and Colenso, Kim, PM Network, April 2000, which may be downloaded from the PMI website.

3.6.8 Requirement 5 states that the WBS is required to be "Product-oriented", which does not mean that the WBS must only contain Products. There is no requirement under this Standard to artificially create Products so that the resultant WBS is a Product hierarchy only. EVM standards, for example, have long recognised that certain work within a project is Level Of Effort (LOE) based (e.g. PM is a typical area where LOE work abounds), and this Standard aligns with this perspective. A WBS needs to be sufficiently flexible to include LOE work, particularly given that the WBS must, under Requirement 1, capture the full scope of work. Nevertheless, the WBS hierarchy needs to be structured around the Products to be developed and delivered (either internally or externally) for reasons of scope management, as discussed in this Section, and technical control (refer Section 6).

3.6.9 As stated earlier, Enabling Services are decomposed into lower-level Enabling Products and Enabling Services. Requirement 5 suggests that the decomposition of Enabling Services also be Product-oriented. Nevertheless, the decomposition of the Enabling Service need not explicitly include the Enabling Products as lower-level WBS Elements (although they would be identified in the WBS Dictionary), particularly where there are no significant Enabling Products or the products are not central to the objectives of the Enabling Service. For example, the risk log (or risk register) is an Enabling Product associated with the risk-management process; however, it is not core to that process and, therefore, need not be included as a lower-level WBS Element within the decomposition of that Enabling Service. Furthermore, if the Acquirer has mandated a particular set of process steps in the agreement between the Acquirer and the Supplier (e.g. through mandating a particular process standard), then it makes sense to decompose the Enabling Service into the process steps defined in the agreement to ensure that all of the work effort is captured. Figure 5 builds on the earlier example provided in Figure 4 to illustrate the decomposition of the RFS Mission System SE element (i.e. WBS Element 1.01.06) into lower-level Enabling Products and Enabling Services.

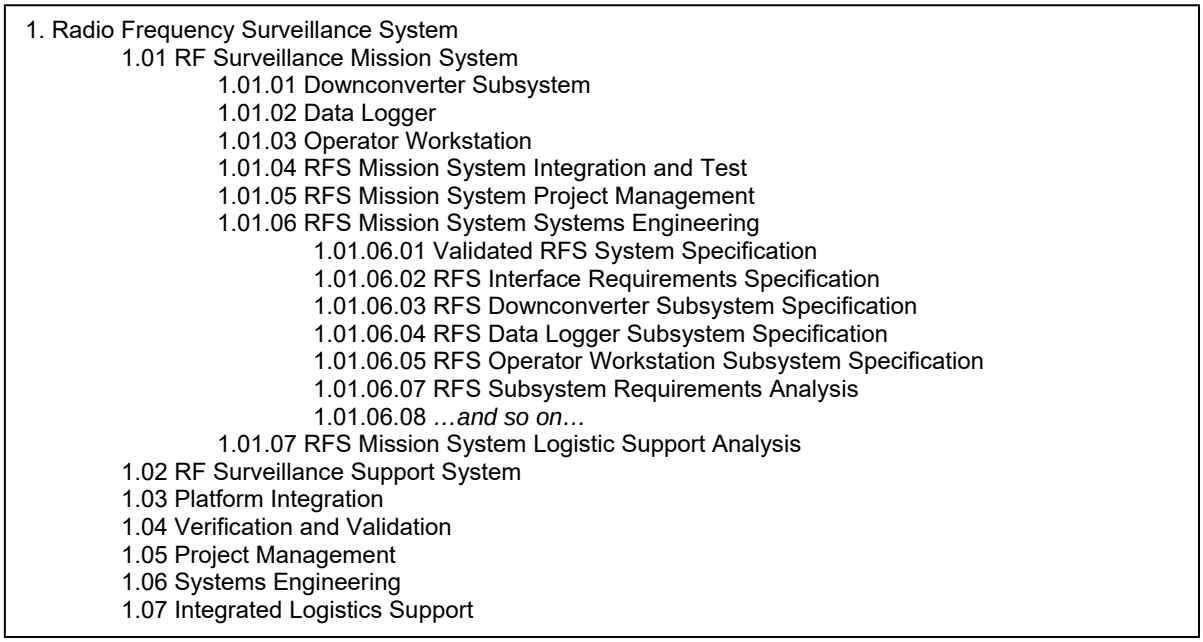

Figure 5 - Example Decomposition of Enabling Services

3.6.10 As will be explained under Section 6, the requirements for technical control place a different emphasis on Requirement 5. Under technical control, 'Product-orientation' includes the requirement for:

a. the WBS to be structured around the major end Products (e.g. Mission System and Support System), and

b. the Mission System to be 'Product-structured', such that the decomposition of the Mission System in the WBS needs to accord with the expected build structure for that system.

To highlight these differences, this Standard uses the term 'Product Breakdown Structure (PBS)' when discussing the breakdown of the Mission System and the term 'Component Product' when discussing the components of the Mission System. Similar terminology is also used for the Support System; however, this approach has been adopted simply to provide consistency across these two systems. The requirements for technical control are not applicable to the Support System, although they would be applicable to any Component Product of the Support System that needed to be designed and developed.

3.7 RESPONSIBILITY AND ACCOUNTABILITY

Requirement 8: The WBS **shall** be structured so that each WBS Element can be assigned to an individual or entity (which could be a Supplier), who is responsible for ensuring that the requirements of the WBS Element are achieved within allocated cost and schedule.

3.7.1 Requirement 8 is related to the EVM requirements and guidance defined under Step 2 (Assign Responsibility) in AS 4817–2003, "Project performance measurement using Earned Value". The EVM standard addresses the mapping of responsibilities to the required work, as defined by the WBS. Requirement 8, on the other hand, addresses the structure of the WBS to enable this mapping to occur. As such, the EVM requirement and Requirement 8 can be considered to be complementary requirements.

3.7.2 Requirement 8 is a corollary requirement to Requirement 1, and is related to Recommended Practice 1. At the top level of a WBS, either an individual or an organisation would have responsibility for the total scope of work embraced by the WBS (e.g. a project manager could have total responsibility for the scope of work within a project WBS, while a contractor would have total responsibility for the scope of work within a contract WBS).

3.7.3 At the second level of the WBS, Figure 1 highlights that the focal points (i.e. the elements against which the success of a project or contract will be judged) are the Products that need to be developed, which are either:

a. standalone internal end Products (e.g. a signed contract is an internal end Product for the solicitation stage of the Materiel Life Cycle);

b. Products that need to be delivered to the Acquirer (e.g. a Mission System);

c. Products that are Component Products or component elements of, or required steps along the path to delivering, the Products that will ultimately be delivered to the Acquirer (including deliverable Enabling Products); or

d. internal Enabling Products.

The Products represent the set of outcomes for the project or activity (i.e. the things that must be done), and responsibility and accountability for meeting these outcomes must be able to be assigned.

3.7.4 If it is not possible to assign responsibility to an individual or entity that can effectively manage the span of work, then the WBS Element may need to be further decomposed until it is possible. Note that an individual or entity can be responsible for a number of WBS Elements or a hierarchy of WBS Elements. Alternatively, if clear accountability for the delivery of the required outcomes cannot be assigned, the WBS is likely to need to be restructured.

3.7.5 Requirement 8 is not suggesting that the WBS needs to be structured around organisational arrangements. On the contrary, in accordance with Requirement 5, the WBS is required to be oriented around the required Products. After the Products (and Enabling Services) have been identified and logically structured to produce the WBS, the organisational arrangements are then mapped to the WBS. This can be achieved using an Organisational Breakdown Structure (OBS) to produce a Responsibility Assignment Matrix (RAM). This approach is illustrated in Figure 6, which has been adapted from MIL-HDBK-881[5].

[5] See Figure 3-3 of MIL-HDBK-881, dated 2 January 1998, p 26.

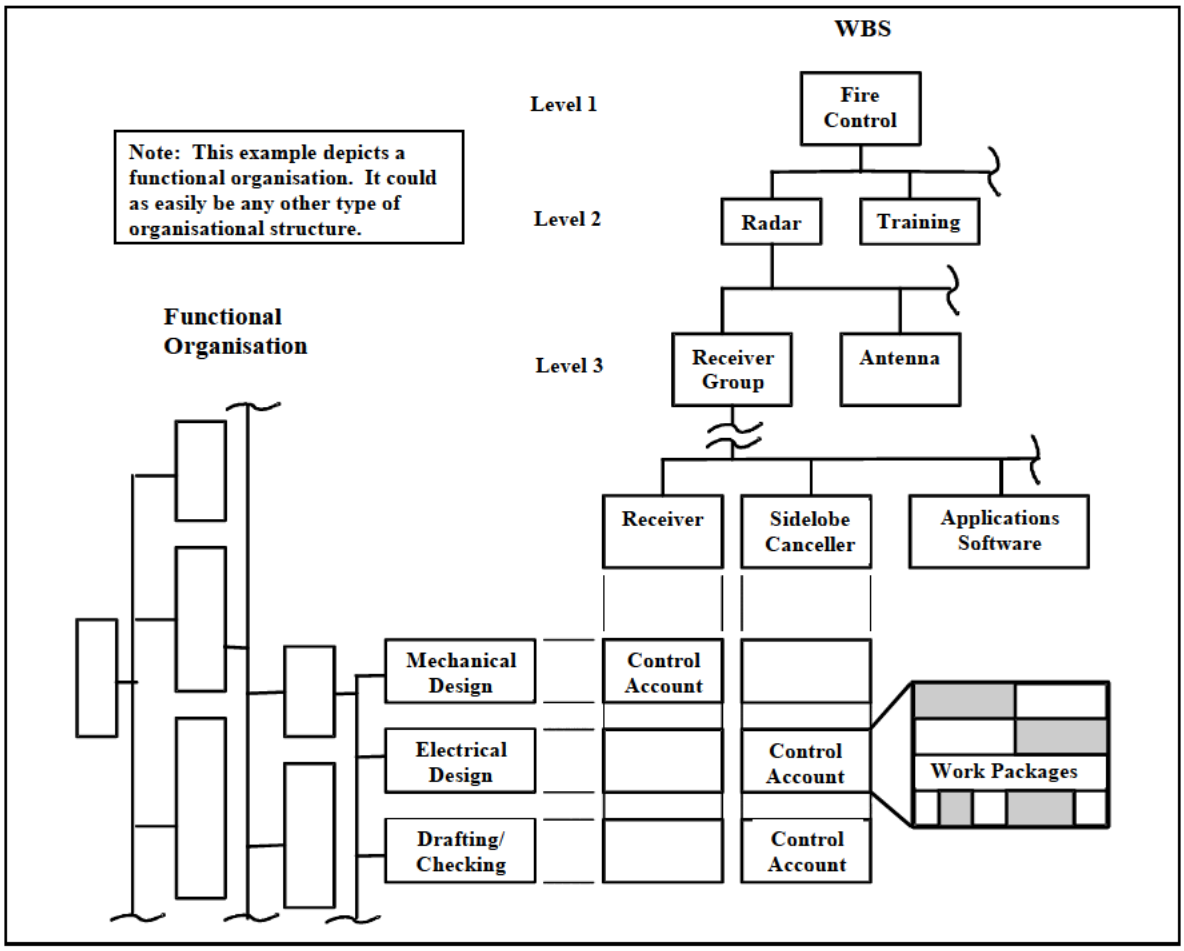

Figure 6 - Organisational Mapping to the Work Breakdown Structure

3.7.6 The approach illustrated in Figure 6 is required to ensure that, among other things, technical control can be achieved. As discussed in Section 6, technical control requires each Mission System to be structured around its expected build structure (i.e. its PBS). To ensure that the PBS is not compromised, therefore, responsibilities must be overlaid onto the PBS.

3.7.7 The following additional Recommended Practice can be derived from the relationship between the WBS and organisational arrangements, as follows:

> Recommended Practice 5: The WBS **should** not be determined by organisational arrangements.

3.7.8 Although Recommended Practice 5 is directed at not letting the existing organisational structure determine the WBS, the use of Integrated Product Teams (IPTs) deliberately creates an organisational structure that maps onto the products in the WBS (i.e. the PBS determines the organisational structure, but not the other way around). IPTs are discussed further in Section 6.10.

4. WORK BREAKDOWN STRUCTURE HIERARCHY

4.1 RELATIONSHIPS

4.1.1 In general terms, the set of WBSs for a project is likely to include:

a. the Acquirer's WBS;

b. one or more Supplier WBSs; and

c. one or more lower-level Supplier WBSs at each recursion of Acquirer and Supplier.

4.1.2 This recursion is illustrated in Figure 7. Note that the diagram is not intended to suggest that there is only a single Supplier for each Acquirer.

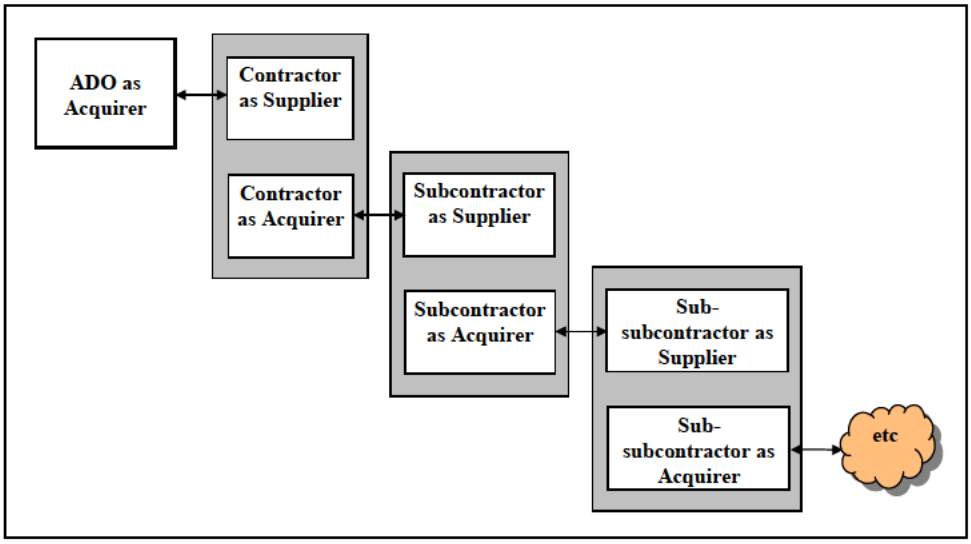

Figure 7 - Recursive Acquirer/Supplier Relationships

4.1.3 In accordance with Requirement 1, a WBS needs to capture the complete scope of work. Notwithstanding, the WBS also needs to be relevant to the organisation using the WBS. Recommended Practice 1 makes it clear that there is no requirement to produce a giant WBS that includes all of the detail contained in every WBS in the project (noting that a Contract WBS (CWBS) may contain hundreds or even thousands of elements, all of which must be maintained by the contractor)[6].

4.1.4 The WBS for each organisation in the recursive hierarchy illustrated in Figure 7 only needs to contain the Products and Enabling Services that are relevant at that level in the hierarchy, noting that, at each level below the ultimate Acquirer, each organisation's WBS will contain Products and Enabling Services that arise from its obligations as both Acquirer and Supplier[7]. With respect to Supplier-provided data items, for example, an Acquirer's WBS need only include the Products and Enabling Services associated with reviewing and responding to the data items.

4.1.5 As a general rule, the level of definition in the Acquirer's WBS associated with each successively lower-level Supplier diminishes commensurate with the level of the Supplier in the hierarchy.

4.1.6 Having established that there is not a one-to-one relationship between the WBSs at the successive levels in the organisational hierarchy illustrated in Figure 7, three specific types of WBS and their relationships need to be addressed, which are the:

a. Project WBS (PWBS), which encompasses the entire scope of work for a project;

b. Project Office Services WBS, which encompasses the entire scope of work undertaken by the Project Office during the In-Contract stage of the Materiel Life Cycle; and

c. Contract WBS (CWBS), which encompasses the entire scope of work for a contract.

[6] Certain diagrams in MIL-HDBK-881 appear to suggest this approach (e.g. see Figures 3-1 and 3-2 on pp 24&25, respectively).
[7] Internally within the ADO, this dual set of requirements also exists for organisations such as the Defence Materiel Organisation (DMO), where the DMO is a Supplier to external groups within the ADO and an Acquirer from a variety of entities, such as contractors, overseas governments (e.g. through Foreign Military Sales arrangements) and other external groups within the ADO (e.g. for facilities).

4.2 PROJECT WORK BREAKDOWN STRUCTURE

4.2.1 Figure 8 illustrates the PWBS, which highlights that, for the Defence Materiel Organisation (DMO), the PWBS can be considered to be a series of sub-projects based around the Materiel Life Cycle. Each of these sub-projects has its own objectives and end Products. For example, two of the major end Products for the First Pass stage are the First Pass Business Case and the Operational Concept Document (OCD), while the major end Product for the Solicitation stage is the signed contract. The major end Products for the In-Contract stage are the Mission System and Support System. As highlighted in Figure 8, only one of the second level WBS Elements will be active at any one time.

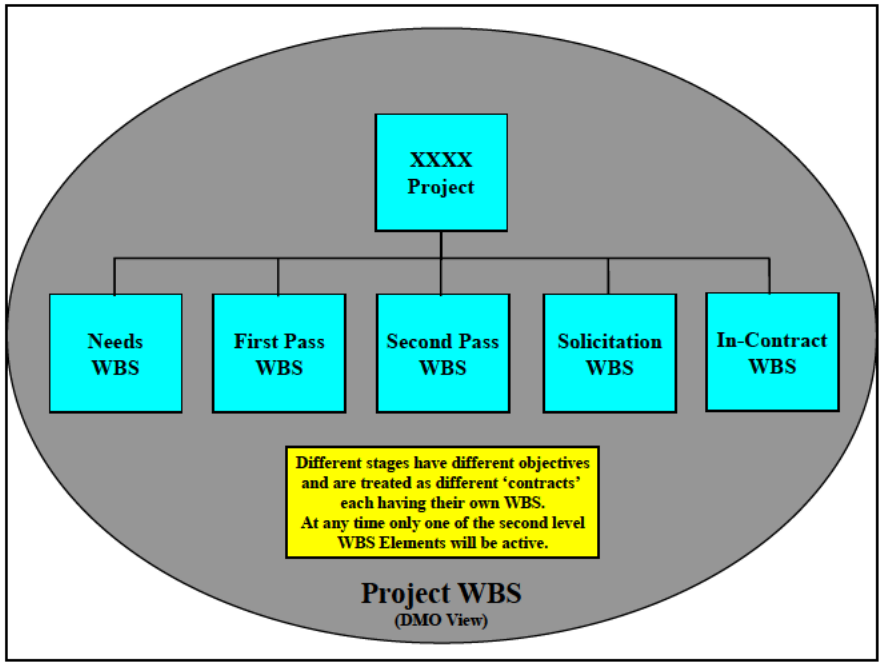

Figure 8 - Project Work Breakdown Structure

4.2.2 Figure 9 illustrates the decomposition of the Second Pass stage from a DMO perspective. Note that the major end Products for this stage are not the responsibility of the DMO; hence, WBS Element 1.03.01 only shows the DMO support to Capability Development Group (CDG) for the development of these end Products. Additionally, this decomposition highlights that, from a DMO perspective, the acquisition planning documents under WBS Element 1.03.02 can be considered to be end Products of this stage.

1. XXXX Project
    - 1.01 Needs
    - 1.02 First Pass
    - 1.03 Second Pass
        - 1.03.01 DMO Support to CDG
        - 1.03.02 DMO Acquisition Planning Documents
        - 1.03.03 DMO Contract Acceptance Review
        - 1.03.04 Second Pass Contracts/Studies
        - 1.03.05 Second Pass PO Project Management
        - 1.03.06 Second Pass PO Systems Engineering Management
        - 1.03.07 Second Pass PO Integrated Logistic Support Management
    - 1.04 Solicitation
    - 1.05 In-Contract

Figure 9 - Example Decomposition of the Second Pass Stage

4.2.3 Figure 10 provides a second example of the decomposition of the project scope; however, this figure illustrates the breakdown for the In-Contract stage. In this example, the prime contractor is providing two different Mission Systems (e.g. aircraft and simulator), while a separate contract has been established for the procurement of Government Furnished Equipment (GFE). This example also illustrates the typical approach where the facilities elements are assigned to another ADO organisation for development. Note that, in this example, the CWBS for each of the In-Service Support (ISS) contracts is separated from the associated prime-equipment contract to reflect the differing nature and scope of the contractual obligations under each of these separate contracts. The Project Office Services element includes all of the work to be undertaken by the project office, including the work required to manage the contracts, plan project office work, and interface with external stakeholders.

1.05 In-Contract
- 1.05.01 Prime Equipment
  - 1.05.01.01 Mission System #1
  - 1.05.01.02 Mission System #2
  - 1.05.01.03 Support System
  - 1.05.01.04 Verification & Validation
  - 1.05.01.05 Project Management
  - 1.05.01.06 Systems Engineering
  - 1.05.01.07 Integrated Logistic Support
- 1.05.02 GFE
- 1.05.03 Support System
  - 1.05.03.01 Facilities
  - 1.05.03.02 In-Service Support Contract #1
  - 1.05.03.03 In-Service Support Contract #2
- 1.05.04 Project Office Services
  - 1.05.04.01 Project Management
  - 1.05.04.02 Systems Engineering
  - 1.05.04.03 Integrated Logistic Support
  - 1.05.04.04 Verification & Validation
  - 1.05.04.05 Independent Verification & Validation

Figure 10 - Example Decomposition of the In-Contract Stage

4.2.4 Figure 11 provides a second example of the decomposition of the In-Contract stage, illustrating the breakdown of the project scope into a number of differing sub-elements to those shown in Figure 10, which reflects a different acquisition strategy for this example. Figure 11 illustrates the inclusion of Prime System Integrator (PSI) services into the WBS, where the PSI has responsibility for the overall performance of the delivered Materiel System, including the Mission System and Support System and the integration of these systems with any external systems. In this figure, the PSI services are shown separately; however, these services could be provided by the project office, a separate PSI contractor, or the Materiel System contractor. Figure 11 illustrates the case where a separate PSI contractor is employed. In the other two cases, the PSI services would be either integrated into the Project Office Services WBS or into the Materiel System CWBS[8], as applicable. In Figure 11, the PSI contractor is responsible for the development of the Mission System and Support System specifications, as well as the next level of specifications. The ADO is actually acquiring two equipment subsystems and a facilities component, using the specifications for these Products that have been developed by the PSI contractor. The inclusion of the Mission System and Support System in this diagram show how the Requirements and Recommended Practices for technical control are not compromised even when a separate PSI arrangement is used.

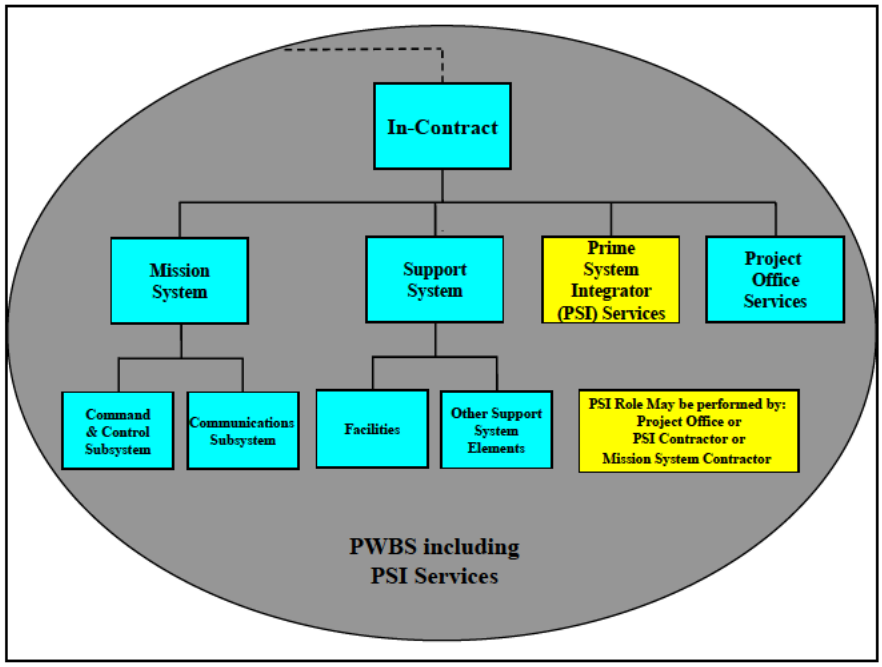

Figure 11 - Decomposition of Project Scope (In-Contract Stage)

[8] Note that the Materiel System CWBS is not shown in this figure, and its inclusion would result in the Mission System and Support System being located one level lower in the WBS.

4.2.5 Figure 10 and Figure 11 help to clarify why Recommended Practice 5 is not a Requirement, noting that, in these particular examples, the In-Contract WBSs are essentially structured around organisations. The development of these WBSs would have been undertaken by the project office as part of the analytical activity to define the most effective balance between costs, benefits and risks as part of developing the acquisition strategy. The inclusion of the Project Office Services WBS in the In-Contract element of the PWBS represents a compromise to:

a. ensure that there is no requirement to integrate the Project Office Services WBS into the respective CWBSs;

b. capture the scope of work for the project office as a single entity; and

c. ensure that the requirements for technical control for the Mission System are not affected (i.e. the PBS for the Mission System is not compromised).

4.2.6 The approach to the PWBS outlined in this Section enables the accounting requirements defined in DRB 48, "Accounting Manual", Third Edition, 2003, to be met. In particular, this approach enables the elements that must be capitalised (e.g. assets under construction) and the elements that may be expensed to be readily differentiated.

4.3 Project Office Services Work Breakdown Structure

4.3.1 Although an ADO project office does not have an explicit Statement Of Work (SOW) (such as exists under a contract), the use of the C2 process framework, 'Acquire Materiel (Systems and Equipment)' within the DMO Quality and Environmental Management System (QEMS) provides an implicit SOW that applies across the entire Materiel Life Cycle. During the In-Contract stage, however, the project office not only has obligations arising out of QEMS, but also has obligations arising out of its agreements with its Suppliers in accordance with Requirement 7. Figure 12 illustrates these inputs to the Project Office Services WBS.

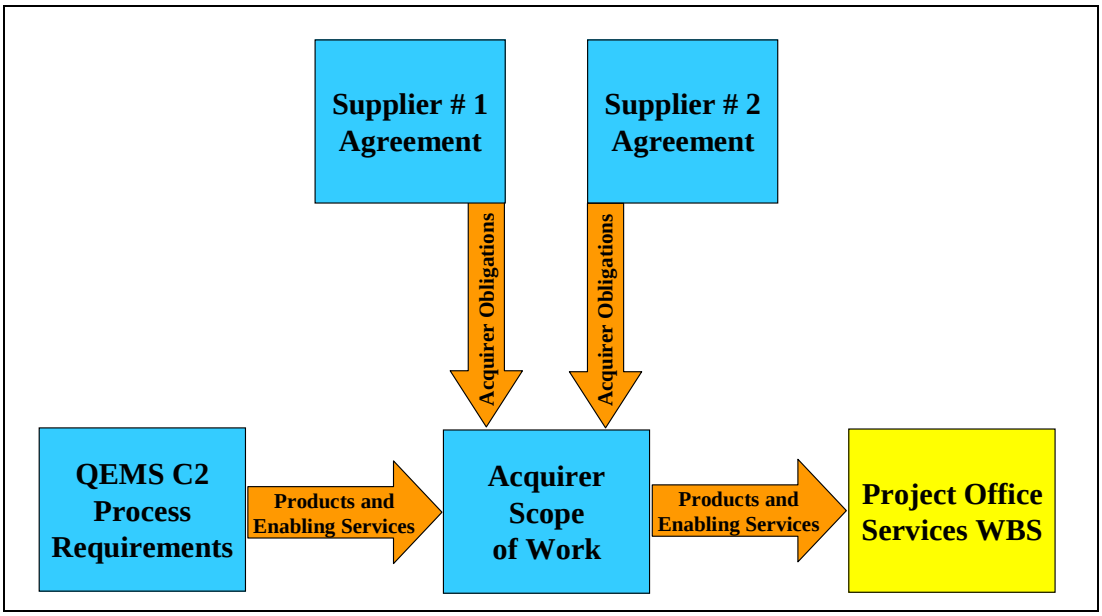

Figure 12 - Inputs to the Project Office Services Work Breakdown Structure

4.3.2 Figure 10 provided an example of the high-level decomposition of the Project Office Services WBS into lower-level Enabling Services, such as PM, SE, ILS and V&V. Note that the second level of decomposition in Figure 10 accords with the general decomposition of a WBS into Products and Enabling Services, as illustrated in Figure 1. In Figure 10, however, the Enabling Services at the highest level are all grouped under the Project Office Services WBS, which enables the complete scope of work for a project office to be captured as a single entity. Figure 13 illustrates the further breakdown of the Project Office Services WBS.

1.05.04 Project Office Services
- 1.05.04.01 Project Management
  - 1.05.04.01.01 In-Contract Project Office Setup
  - 1.05.04.01.02 Project Management Planning
  - 1.05.04.01.03 Contract #1 Contract Management
  - 1.05.04.01.04 Contract #2 Contract Management
  - 1.05.04.01.05 *… and so on for all contracts*
  - 1.05.04.01.06 GFE Management
  - 1.05.04.01.07 Transition into Operational Service Management
  - 1.05.04.01.08 Intellectual Property Management
  - 1.05.04.01.09 Quality Management
  - 1.05.04.01.10 Australian Industry Involvement Management
  - 1.05.04.01.11 Risk Management
  - 1.05.04.01.12 Communications Management
  - 1.05.04.01.13 *…other PM Enabling Services, as required…*
- 1.05.04.02 Systems Engineering
  - 1.05.04.02.01 Systems Engineering Planning
  - 1.05.04.02.02 Systems Engineering Controls
  - 1.05.04.02.03 Systems Engineering Analysis
  - 1.05.04.02.04 Materiel System PO Systems Engineering
  - 1.05.04.02.05 Mission System #1 PO Systems Engineering
  - 1.05.04.02.06 Mission System #2 PO Systems Engineering
  - 1.05.04.02.07 *… and so on for all Mission Systems*
  - 1.05.04.02.08 Support System PO Systems Engineering
  - 1.05.04.02.09 *…other SE Enabling Services, as required…*
- 1.05.04.03 Integrated Logistics Support
  - 1.05.04.03.01 ILS Planning
  - 1.05.04.03.02 ILS Controls
  - 1.05.04.03.03 Logistic Support Analysis
  - 1.05.04.03.04 Materiel System PO ILS
  - 1.05.04.03.05 Mission System #1 PO ILS
  - 1.05.04.03.06 Mission System #2 PO ILS
  - 1.05.04.03.07 *… and so on for all Mission Systems*
  - 1.05.04.03.08 Support System PO ILS
  - 1.05.04.03.09 *…other ILS Enabling Services, as required…*
- 1.05.04.04 Verification and Validation
  - 1.05.04.03.01 V&V Planning
  - 1.05.04.03.02 V&V Controls
  - 1.05.04.03.03 *…other V&V Enabling Services, as required…*
- 1.05.04.05 Independent Verification and Validation

Figure 13 - Sample Segment of the Project Office Services Work Breakdown Structure

4.3.3 Figure 13 highlights that the end Products (e.g. Mission Systems) will appear in the Project Office Services WBS, as well as in the respective contractor's CWBSs. The scope of work for the project office in relation to these end Products, however, relates to, among other things, implementing and managing the respective contracts, participating in reviews and meetings, and reviewing data items.

4.3.4 If a project is using an incremental or evolutionary acquisition strategy, the Project Office Services WBS needs to include each of the respective end Product deliveries, even though, under evolutionary acquisition, the number and scope of these deliveries are unlikely to be known. There are corollary project office responsibilities associated with each of the deliveries (e.g. witnessing testing and implementing support), which need to be captured in the Project Office Services WBS.

4.3.5 Using similar logic to the preceding paragraph, the Project Office Services WBS also needs to include each of the deliveries of end Products under a phased delivery schedule to ensure that the obligations associated with each of these deliveries are recognised, captured and managed.

4.3.6 If the Project Office has taken on the role of PSI for the Mission System, then the Project Office Services WBS will need to address the Requirements, Recommended Practices and guidance relating to technical control. The Enabling Services elements of the WBS would also need to include all of the technical processes associated with being a PSI in the domains of SE, V&V, ILS, etc. If these Enabling Services are not well-defined, then the overall scope of work for the project office will not be sufficiently identified, and resourcing requirements will not be adequately defined and understood.

4.3.7 If a particular contract includes a number of major end Products (e.g. aircraft, aircraft simulator, automatic test equipment and software support facility), then each of these Products need to be identified under each of the Enabling Services within the Project Office Services WBS to ensure that the full scope of work is identified.

This approach also enhances manageability across the Project Office Services WBS, particularly when the WBS is mapped into the project schedule.

4.4 CONTRACT WORK BREAKDOWN STRUCTURE

4.4.1 A similar perspective to the one illustrated in Figure 12 can also be derived for any Acquirer in the recursive hierarchy of Acquirer/Supplier illustrated in Figure 7. In these circumstances, however, the scope of work is defined by the organisation's obligations as both Acquirer and Supplier, as illustrated in Figure 14.

4.4.2 Figure 14 also illustrates that the only work that appears in the CWBS is the authorised work that derives from its contract with the Acquirer (either explicitly or implicitly). In the main, this work will be defined in the SOW (including annexes), although there could be work arising out of the conditions of contract (e.g. through provisions such as compliance with legislation and warranty).

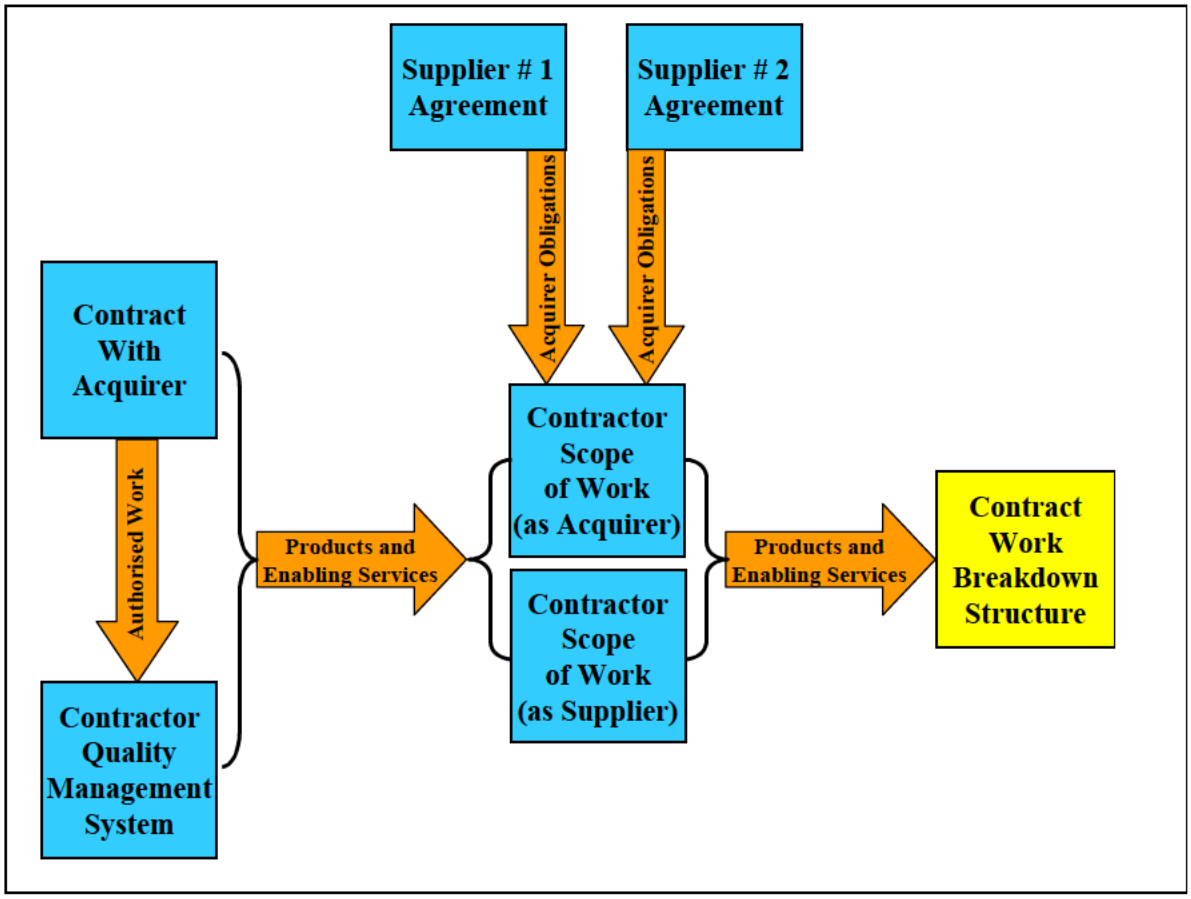

Figure 14 - Inputs to the Contract Work Breakdown Structure

4.4.3 The role of the contractor's Quality Management System (QMS) with respect to the contract is also illustrated in Figure 14. This QMS will define the processes to be employed by the contractor across the full scope of possible contractor work. The CWBS will only include the Products and Enabling Services from the QMS that are authorised through the contract, and will not include unrelated work that is not authorised through the contract. Note that Figure 14 and this discussion are not suggesting that the contract has to define all of the required work (e.g. if the contract is silent on a particular subject, but work is necessary to meet the overall requirements, then this work is still considered to be authorised work in accordance with the contract).

4.4.4 Similarly to the Project Office Services WBS, the CWBS would need to include any incremental deliveries of major Products, such as might occur under an incremental development strategy[9]. The CWBS could also differentiate between the development and production phases, where these phases are included under the same contract. Nevertheless, the key issue underpinning the CWBS is technical control, which is the subject of Section 6 of this Standard. Before technical control can be addressed, however, it is necessary to discuss the relationships between the contract and the CWBS in more detail.

[9] The Human Machine Interface (HMI) elements of a system are often developed using this type of strategy, which involves producing builds of the HMI and then delivering them to the ADO for review and feedback. This feedback is then incorporated into subsequent builds of the HMI.

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5. RELATIONSHIP OF WORK BREAKDOWN STRUCTURE TO CONTRACTS

5.1 GENERAL

5.1.1 As highlighted in Sections 3 and 4, the agreement between the Acquirer and Supplier places obligations on both the Supplier and the Acquirer. From a WBS perspective, there needs to be assurance that these obligations have been captured in the WBS, which results in two additional Recommended Practices, as follows:

> Recommended Practice 6: Traceability **should** be provided between the Supplier's WBS and the Products and Enabling Services arising out of the agreement between the Acquirer and Supplier.

> Recommended Practice 7: Traceability **should** be provided between the Acquirer's WBS and the Products and Enabling Services arising out of the agreement between the Acquirer and Supplier.

5.1.2 Recommended Practices 6 and 7 are additional refinements of Requirements 6 and 7 to include traceability, which is needed so that it is clear to reviewers of a WBS that all of the Products and Enabling Services arising out of the respective agreements have been captured in the WBS. Traceability also helps to ensure that estimates of cost and schedule are accurate. Traceability information can be captured in the WBS Dictionary, although bi-directional traceability is preferable. Note that, while the relationships between the WBS Elements in the CWBS to the Contract provisions need to be clearly traceable, there may not be one-to-one relationships, nor is it required. The Integrated Baseline Review (IBR) under EVM would be an appropriate event at which the traceability for a CWBS could be assessed.

5.2 STATEMENT OF WORK

5.2.1 By far the majority of work arising out of a contract is defined in the SOW (including annexes). While acknowledging that work could arise out of other elements of the contract, the subsequent discussion in this Section will focus solely on the SOW for reasons of clarity.

5.2.2 The WBS provides a framework for defining the technical objectives of the project. Together with the SOW, the WBS aids in establishing an indentured data listing (specification tree), defining Configuration Items, and planning supporting tasks. The SOW is the document that describes in clear and understandable terms what Products are to be delivered or what Enabling Services are to be performed. Preparation of an effective SOW requires a thorough understanding of the Products and Enabling Services needed to satisfy a particular requirement.

5.2.3 For a Supplier, there usually will not be a direct mapping of the SOW to the CWBS, and the CWBS will usually contain more detail than the SOW to identify all of the subordinate Products and Enabling Services needed to complete the work identified in the SOW. As an example, the SOW in ASDEFCON (Strategic Materiel) requires the contractor to produce a Measurement Plan and then to conduct measurement and analysis in accordance with the approved plan. The CWBS would identify the subordinate Enabling Products and Enabling Services associated with this work requirement and would need to contain sufficient detail to permit the estimation of costs and schedules associated with those tasks.

5.2.4 Organisations may have a different mapping of Products and Enabling Services to that identified in the SOW (e.g. an item appearing under Project Management in the SOW may appear under Systems Engineering in the CWBS). Such a situation can occur as a result of organisation's standard procedures or policy (e.g. one company may consider Configuration Management as a subset of Systems Engineering, whereas another company may consider it as a subset of ILS or even Project Management).

5.2.5 Figure 15 illustrates the structure of the SOW for the ASDEFCON (Strategic Materiel) RFT template[10]. The SOW body identifies the scope of work under the Contract and, although it identifies the major systems (i.e. Mission System(s) and Support System), the details of these systems are contained in Annex A – 'Specifications' and Annex B – 'Operational Concept Document'. The majority of the SOW body is concerned with the Enabling Services, such as Project Management and Systems Engineering, which are

[10] ASDEFCON (Complex Materiel) Volume 2 has a similar structure.

associated with the development of the Materiel System as well as the artefacts of those Enabling Services, such as plans (i.e. Enabling Products). Note that Figure 15 highlights that approximately 90% of the budget for a contract relates to the products covered by the specifications (i.e. the Mission System(s) and components of the Support System).

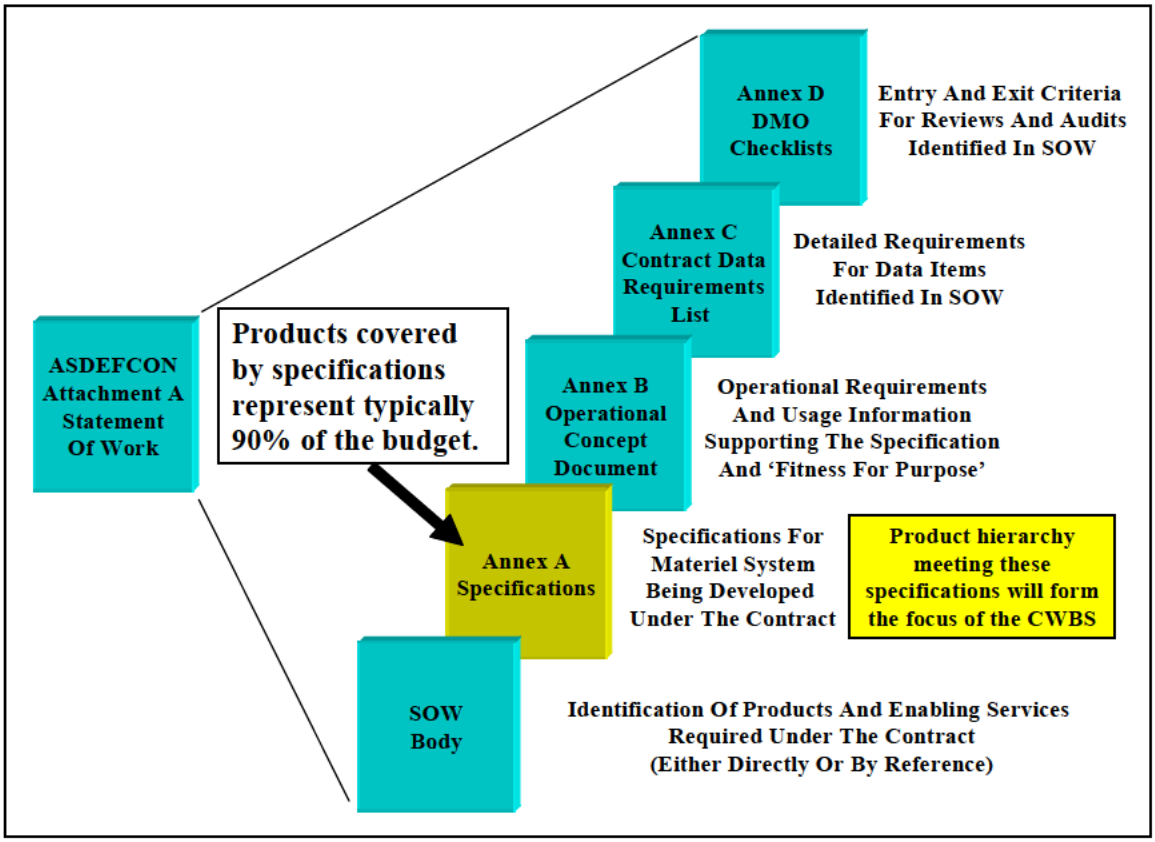

Figure 15 - ASDEFCON (Strategic Materiel) Statement of Work Structure

5.2.6 Annex A of ASDEFCON (Strategic Materiel), 'Specifications', will initially contain the Function and Performance Specification (FPS) that focuses on the capability that the Materiel System has to deliver in terms of what it has to do and how well it has to do it. In the solicitation phase of the acquisition process, different respondents will propose different solutions to meet the FPS. In this process, functions and associated performance will be further decomposed and allocated to Component Products, with the result that the specifications will become more detailed and will map to the PBS of the proposed solution. The specifications mapped to the PBS constitute the specification tree. Further information on this decomposition and its relationship to technical control is provided in Section 6.

5.2.7 Figure 16 expands the SOW body[11] to the next level of detail where the focus on Enabling Services becomes apparent.

5.2.8 The Enabling Services defined in the SOW for each of the ASDEFCON templates represent the minimum set of Enabling Services (and associated Enabling Products) that the ADO requires a contractor to undertake to satisfy corporate governance and risk-management requirements. The CWBS would be expected to elaborate on the Enabling Services and Enabling Products defined in the SOW to define a more detailed set of Enabling Services and Enabling Products that are required to satisfy the overall contract requirements.

5.2.9 The contract SOW also places obligations on the ADO to prepare for and attend reviews, supply GFE, and so on. In accordance with Requirement 7, these obligations are required to appear in the Project Office Services WBS.

5.2.10 The Contract Data Requirements List (CDRL) in any of the ASDEFCON RFT templates requires the contractor to provide data items in accordance with the management requirements defined in the CDRL (e.g. schedule) and the Data Item Description (DID). The DID identifies the format and content of the data item and is effectively a specification for that data Product. In accordance with Requirement 6, all data items specified in the CDRL are required to appear in the CWBS.

[11] Note that the structure of ASDEFCON (Complex Materiel) Volume 2 is identical.

5.2.11 The CDRL also places obligations on the ADO to review, approve, accept, or consider a contract change proposal for, data items within a certain timeframe. Once again, in accordance with Requirement 7, the scope of work associated with these obligations is required to appear in the Project Office Services WBS.

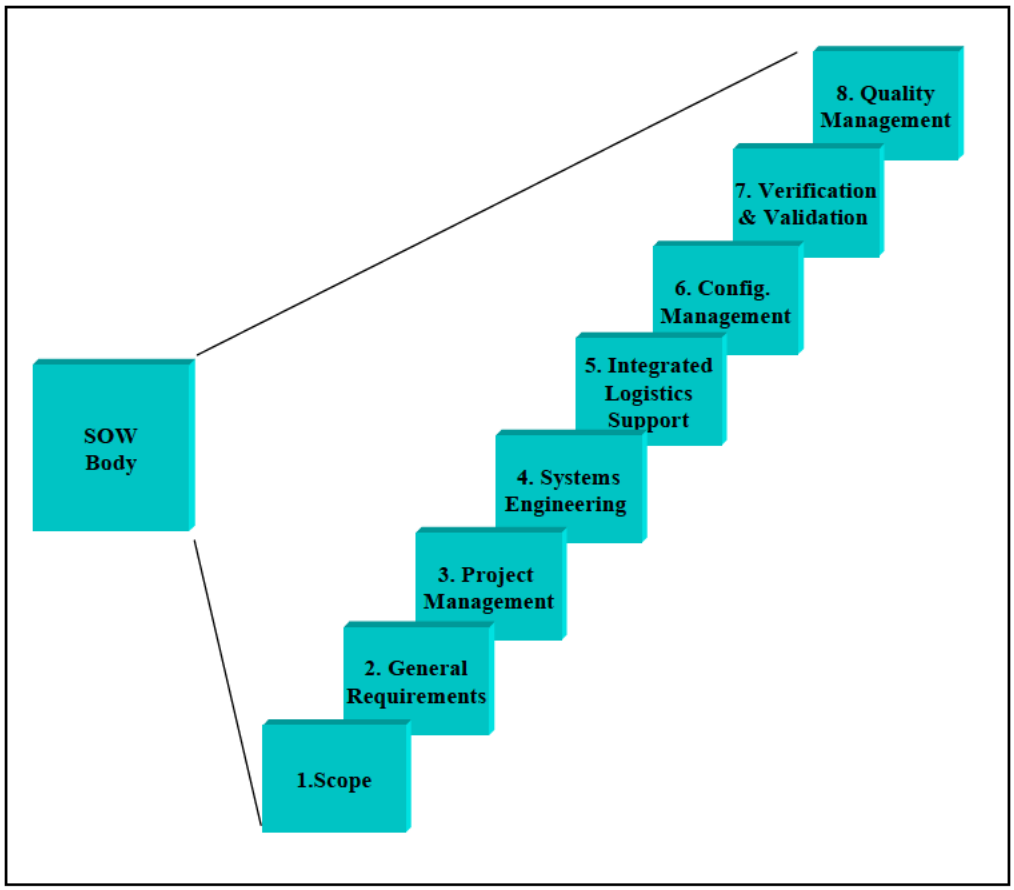

Figure 16 - Detail of ASDEFCON (Strategic Materiel) Statement of Work Body

5.3 CONTRACT SUMMARY WORK BREAKDOWN STRUCTURE

5.3.1 Figure 17 provides the Contract Summary WBS (CSWBS) that appears in the ASDEFCON (Strategic Materiel) conditions of tender (Annex E to Attachment A) to provide guidance to respondents in preparing a tendered CWBS.

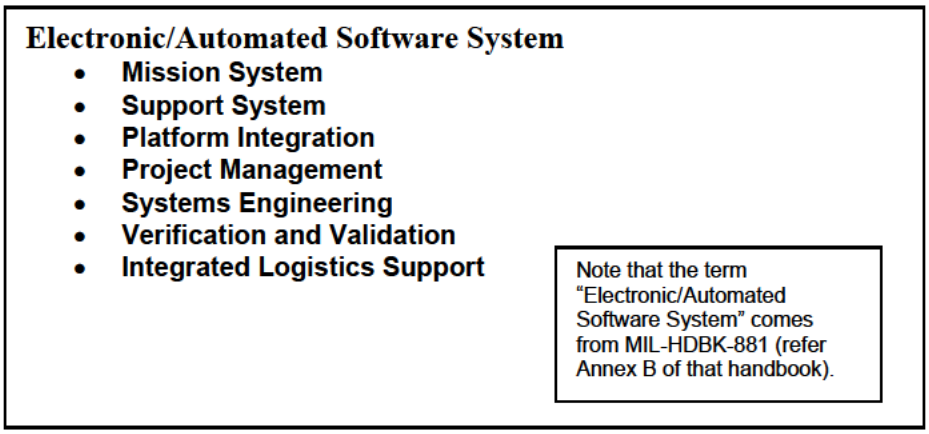

Figure 17 - Contract Summary Work Breakdown Structure

5.3.2 The definitions from ASDEFCON (Strategic Materiel) for each of the elements are provided at Annex B.

5.3.3 While the standard CSWBS included with ASDEFCON (Strategic Materiel) is titled 'Electronic/ Automated Software System', at the level of abstraction provided, there are few changes that would need to be made for the standard CSWBS to have wide applicability across ADO acquisition projects. In particular, the WBS Element 'Platform Integration' may not be relevant and, if not, the element does not need to be included.

5.3.4 Note that neither the Mission System nor the Support System is decomposed at this stage, although the Support System could reasonably be decomposed to the next level without having any impact. The guidance accompanying ASDEFCON (Strategic Materiel) recommends that drafters avoid specifying the CSWBS below Level 2 because going below this level starts to define a particular solution or implementation and, therefore, encroaches upon the Contractor's design domain. Inappropriate levels of detail in a CSWBS can:

a. artificially constrain the tenderer's design and, therefore, its tendered offer by implying a particular solution or approach is preferred; and

b. cause inappropriate subcontractual arrangements to be implemented because the CSWBS defines particular subsystems or elements of systems.

5.3.5 Notwithstanding the guidance in the ASDEFCON (Strategic Materiel) handbook, which is valid for all other WBS Elements in the CSWBS, the Support System could reasonably be decomposed as illustrated in Figure 18. Note the inclusion of 'Initial Training', which is a type of Component Product known as a Deliverable Service.

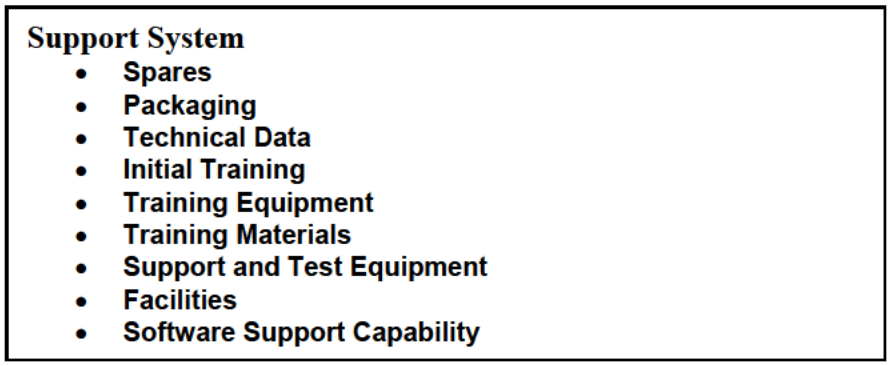

Figure 18 - Support System Breakdown

5.3.6 The guidance to avoid specifying a CSWBS below Level 2 is related to technical control (refer Section 6) because of the relationship between the PBS elements of the CSWBS and the SE processes. Nevertheless, the following Recommended Practice can be derived from this relationship.

Recommended Practice 8: The Acquirer **should** not define a PBS in its solicitation documentations in such detail that it eliminates viable solutions having a different PBS.

6. TECHNICAL CONTROL

6.1 GENERAL

6.1.1 Throughout the life-cycle of the Mission System, the SE function takes the lead in system development, which includes the development of the hierarchy of specifications for the system from the top level down to the lowest level of Configuration Item. The purpose of these efforts is to define and develop system product and process solutions that satisfy the logical architecture, and then to integrate these solutions to produce the required system.

6.1.2 The concept of technical control recognises that the development of the PBS for the Mission System is an SE function because the PBS represents the physical build structure of the system[12]. The contractor's proposed solution will identify a Product hierarchy (i.e. a PBS) for both the Mission System and Support System from which the pricing, risk and schedule will have been determined. Integrated with this PBS will be the specific Enabling Services identified in the contract SOW and in the contractor's QMS. The Mission System represents the key element to be provided under a project and the source of most of the cost and risk. In this light, the focus of the CWBS must be the Product hierarchy for the Mission System, which leads to the following Requirement:

Requirement 9: The decomposition of the Mission System in the WBS **shall** be Product-structured.

6.1.3 Technical control is achieved by the SE process of decomposing the Acquirer's system-level specifications into successively lower-level Component Product specifications, resulting in a specification tree in which the specifications for all Component Products are ultimately traceable to the Acquirer's specification. For this reason, projects that have a major Product deliverable (i.e. a Mission System) must have a Product-structured WBS. Product-structured means that all of the Component Products of the major Product are WBS Elements and that the hierarchical position of the Component Product in the WBS matches the hierarchical position in the build structure of the major Product. The relationship between the specification tree and the PBS is illustrated in Figure 19.

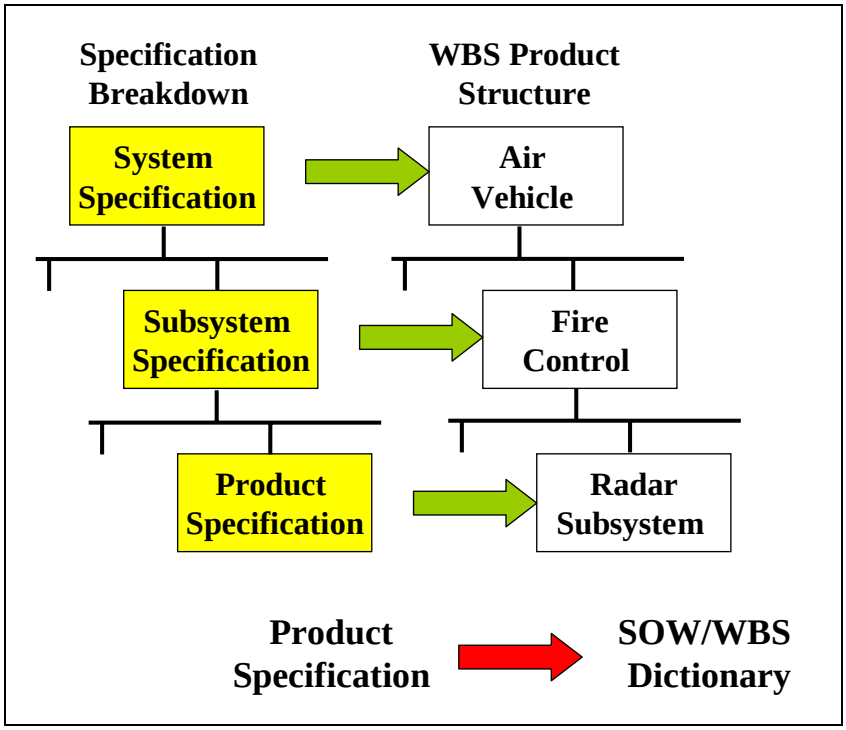

Figure 19 - Relationship between the Specification Tree and the Product Breakdown Structure

[12] There may not be a one-to-one alignment between the PBS and the physical build structure of the system due to such aspects as incremental builds (refer Figure 27).

6.2 Integration Of Technical Control With Cost And Schedule Control

6.2.1 Integration of technical control with cost and schedule control is achieved by ensuring that the Mission System Component Products identified in the specification tree are WBS Elements and that the cost and schedule needed to produce the Component Products are allocated to the Component Products. This integration is illustrated in Figure 20.

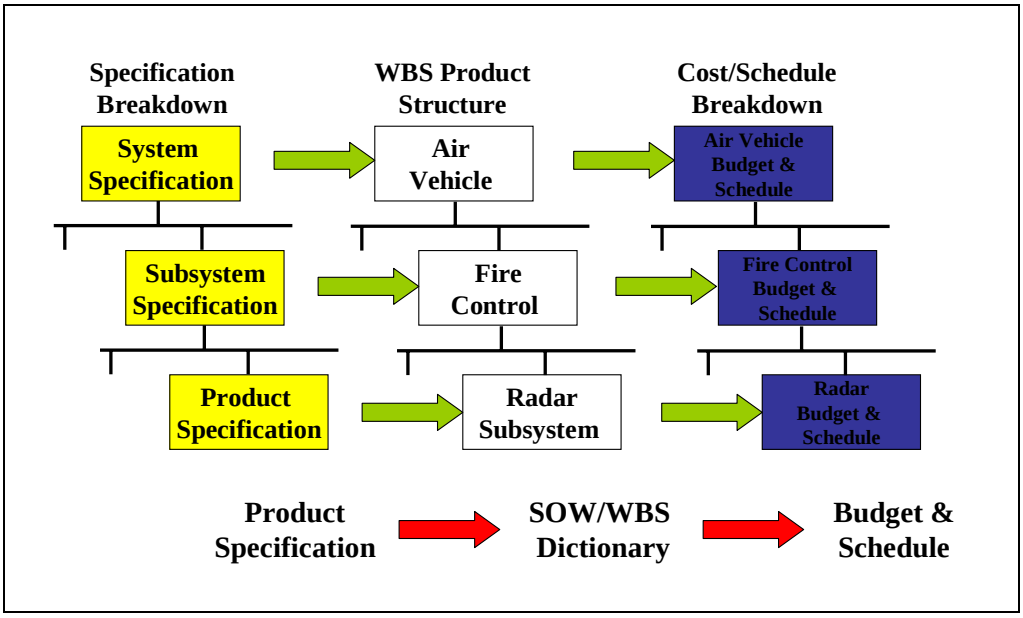

Figure 20 - Relationship between the Product Breakdown Structure and Cost & Schedule

6.2.2 In Figure 20, the System Specification maps to the physical Air Vehicle System that, in turn, maps to the Summary Level budget and schedule for the system. The Product Specification maps to the Radar Subsystem that, in turn, maps to the budget and schedule identified for this subsystem and so on. Recall that each WBS Element has a corresponding WBS Dictionary definition that is effectively the SOW for that WBS Element, as described in Section 3.2.

6.3 Work Breakdown Structure Elements as Subcontracts

6.3.1 In Figure 20, each Component Product in the WBS Component Product hierarchy (i.e. the PBS) has an associated specification, an associated budget, an associated schedule and an associated WBS Dictionary definition (or SOW); thus, each WBS Element has the key attributes of a subcontract and, for management purposes, can be treated as such. These WBS Element 'subcontracts' can be viewed as being internal to the organisation or external to the organisation.

6.3.2 The only difference between an external subcontract and an internal subcontract is that the external subcontract would contain commercial/legal terms and conditions, whereas the internal subcontract would not.

6.3.3 This discussion is not suggesting that subcontract arrangements need to be aligned with Component Products (refer to the discussion under Section 3.7); rather, that the WBS Elements have all of the attributes of a subcontract and, therefore, can be treated as such for management purposes. This perspective is another way of viewing the responsibility and accountability requirements associated with WBS Elements, as described in Section 3.7.

6.4 Cost and Schedule Estimation

Requirement 10: All costs incurred in producing a Component Product **shall** be attributed to that WBS Element, so that the cost of a Component Product is the sum of the costs of the lower-level Component Products and the costs of the Enabling Services required to produce the Component Product.

6.4.1 Both EVM and activity-based costing principles require that all costs incurred in providing a Product or Enabling Service need to be attributed to that Product or Enabling Service[13]. The application of these principles to a Component Product WBS Element is illustrated in Figure 21.

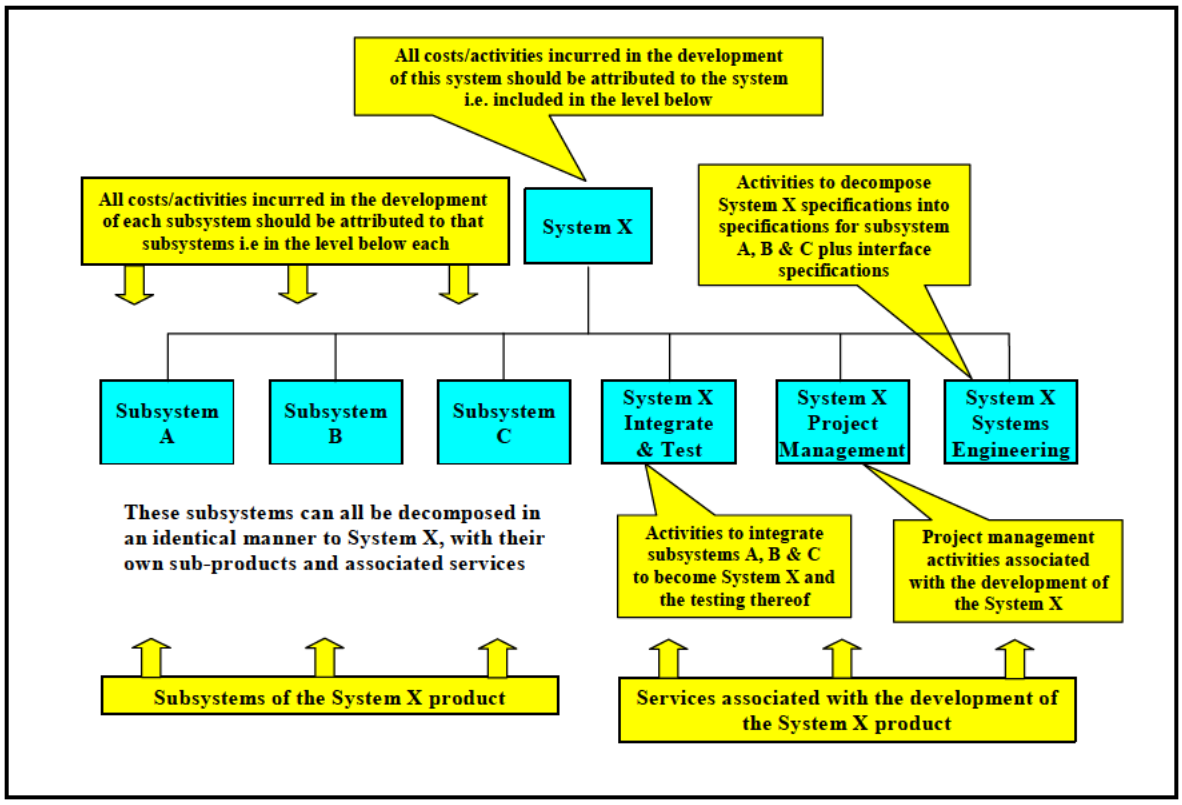

Figure 21 - Activities and Costs Attributed to the Development of a Work Breakdown Structure Product

6.4.2 In this Standard, the SE associated with any Component Product at any level of the PBS includes:

a. ensuring the specification for the Component Product and its interfaces are valid;

b. developing the specifications for the lower-level Component Products of that Component Product;

c. developing the interface specifications for those lower-level Component Products; and

d. certifying that, when lower-level Component Products that meet their specification are integrated in accordance with the interface specifications, the higher-level Component Product will meet its specification.

6.4.3 At the top level only, SE includes the definition of standard processes and tools across the project, as reflected in the Systems Engineering Management Plan (SEMP), and the development of specifications for the Mission System and the Support System, as well as for Platform Integration Products and associated Enabling Services.

6.4.4 The use of the WBS as a structure for cost-estimation facilitates project and contract management. The WBS aids the project office in planning, coordinating, controlling, and estimating the various types of project work. It provides a common framework for tracking the estimated and actual costs during the performance of each contract. The data from the various contracts supports the ADO project manager in evaluating contractor performance, preparing budgets, and preparing project life-cycle costs.

6.4.5 In adopting the concept of treating each WBS Element as a subcontract, as illustrated in Figure 22:

a. the cost associated with any WBS Element would be the sum of the costs at the next lower level;

b. the schedule to complete any WBS Element would be equal to the schedule to complete all of the tasks at the next lower level; and

c. the specification for any Component Product in the PBS would be met by the integration of all Component Products at the next lower level.

[13] Note that MIL-HDBK-881 appears to deviate from the activity-based costing principle, in that it does not explicitly include, for example, a design or SE element at the same level as the subsystems to identify the decomposition of the system level specification into the subsystem level specifications.

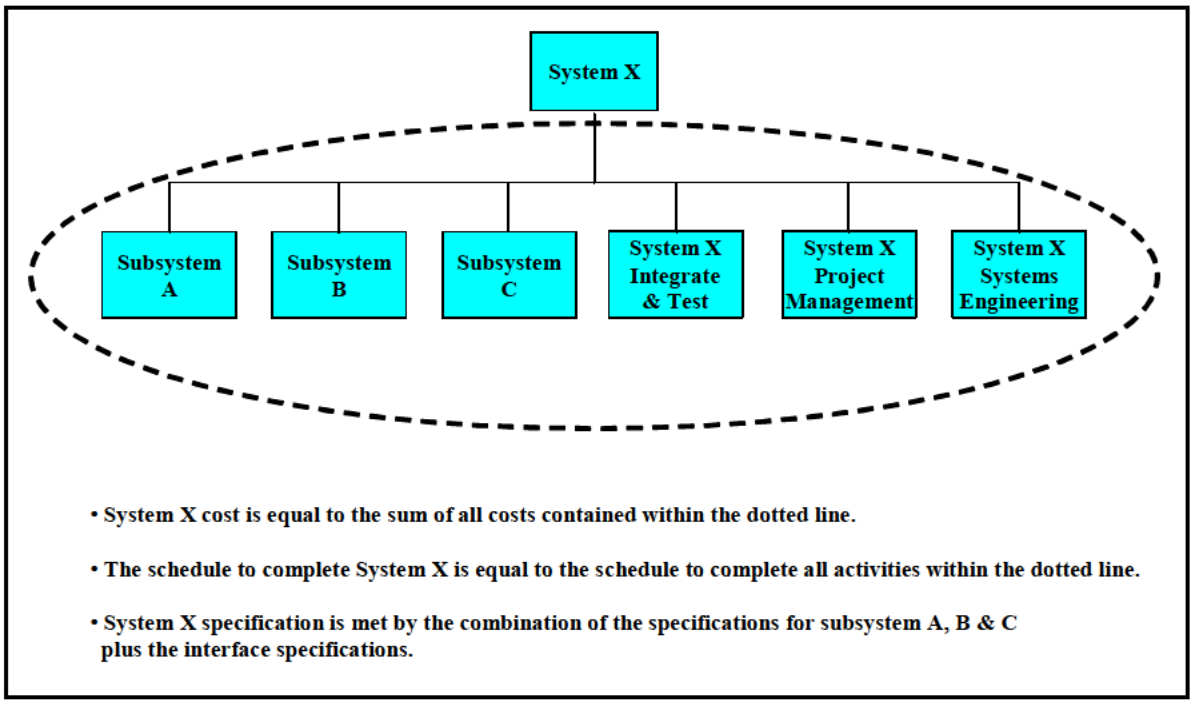

Figure 22 - Integration of Technical, Cost and Schedule Control

6.5 DESIGN ACCOUNTABILITY

Requirement 11: For each Component Product within the PBS, the WBS **shall** facilitate clear and visible accountability for ensuring that the delivered Component Product meets its specification.

6.5.1 Requirement 11 is a refinement of Requirement 8 to address the specific requirements associated with technical control.

6.5.2 Using the WBS subcontract principle makes it possible to hold a single individual or team responsible for the delivery of a 'working product' meeting specification within budget and schedule. The subcontract principle ensures that the individual or team has a SOW, a specification, a budget and schedule. The Enabling Service elements of the WBS have all of the above except for a specification.

6.5.3 To ensure clear accountability for the delivery of effective Component Products, each Component Product within the Mission System PBS needs to have a nominated design manager, who has the responsibility for delivering a compliant Product. Note that this corresponds to part of the WBS Dictionary definition of SE at all levels of the WBS. The responsibility of the design manager is identified in Figure 23.

6.5.4 Recursively applying the design manager responsibility from top to bottom of the PBS makes it clear which person or entity is responsible for delivering each Component Product and, since each Component Product in the PBS is a complete entity in some sense, it can be clearly Verified against its specification.

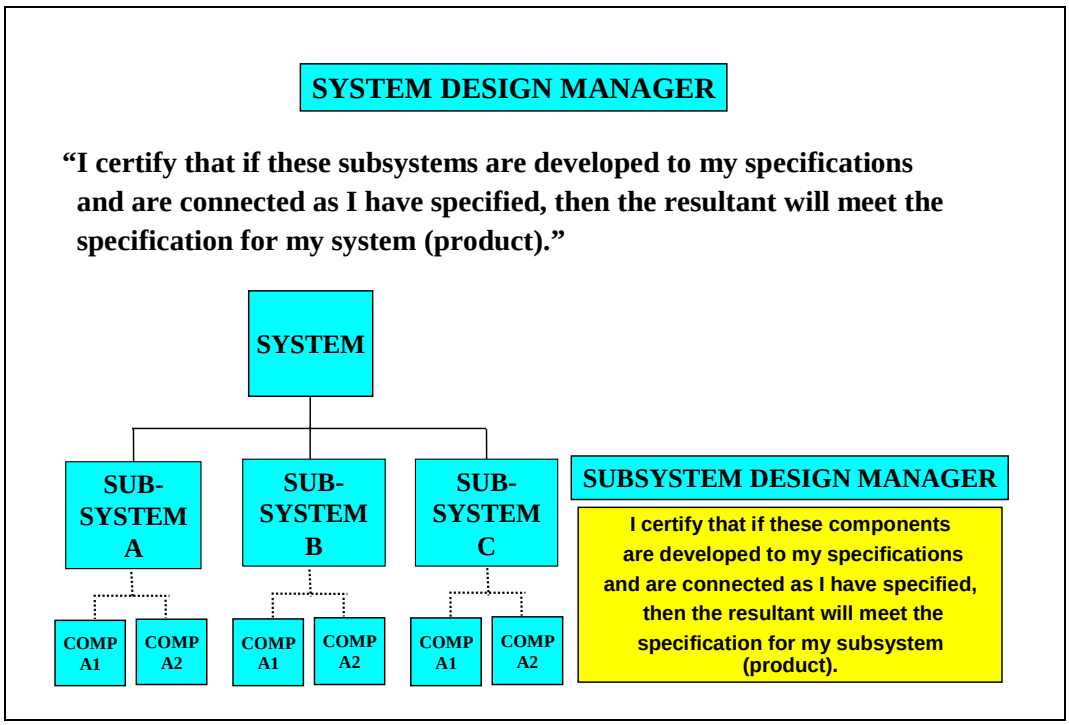

Figure 23 - Responsibility of the Design Manager

6.6 Relationship of Design Manager to Cost and Schedule Managers

6.6.1 Complex developmental projects almost always have a Project Manager, who is responsible for the cost, schedule and programmatic aspects of the project and a Technical Manager (e.g. Systems Engineering Manager or some equivalent competent technical authority). The Technical Manager (or equivalent) reports to the Project Manager and is responsible for the technical aspects of the project, such as ensuring that the system delivered meets specification. The Technical Manager is effectively responsible for the design at the system level.

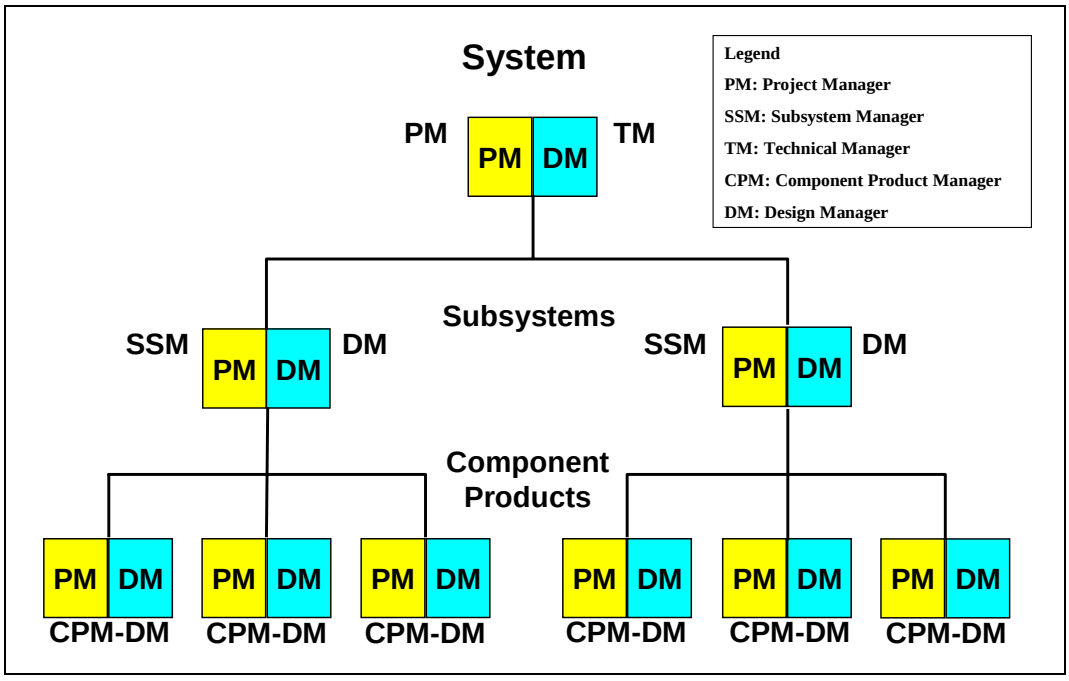

Figure 24 - Relationship between Design Manager and Cost & Schedule Manager Roles

6.6.2 Applying the design manager responsibility recursively from the top to the bottom of the PBS ensures tight technical control; however, it is also necessary to hold someone accountable for the cost, schedule and programmatic aspects of each Component Product development. Ideally, the same person could be held responsible for both technical and programmatic aspects. In practice, however, the two sets of skills are not

always coincident and, therefore, it may be necessary to have separate Component Product managers and design managers. Figure 24 is meant to depict these separate roles, noting that the Component Product manager role and design manager role may or may not be performed by the same person.[14] In projects operating under an EVMS, Control Account Managers (CAMs) are held responsible for the work packages within that control account and, therefore, if the Control Account was formed at the subsystem level, then all PM roles below that level would be work packages for which the CAM would be responsible. Note that CAMs can take on the responsibility of the design manager if they are appropriately skilled and experienced (and vice versa).

6.7 Software Work Breakdown Structure Elements

6.7.1 It is generally incorrect to consolidate all software on a project or contract into one sub-tree of a WBS. Separating the software elements from the system, subsystem or hardware on which they are deployed, makes performance measurement and management control difficult to maintain. Furthermore, the true cost of each Component Product is not readily available for decisions concerning that Product. Rather than separately summarising software, it is important to identify software together with its supporting system, subsystem or hardware as a consolidated element that achieves some Verifiable function. If it is necessary to produce summaries for software-management purposes, then modern management systems can group and filter base data using a relevant attribute to identify software elements. By combining the software with its physical elements, software developers are able to understand the limitations of the system, subsystem or hardware (such as memory limitations, processing load, and network bandwidth). When these limitations are understood, the probability of successfully integrating the software with the system, subsystem or hardware is significantly improved. Recommended Practice 9 summarises these perspectives.

> Recommended Practice 9: The WBS **should** not artificially separate the software from the system, subsystem or hardware the software supports; the focus should be on the delivery of a working Component Product, with the software integrated with the system, subsystem or hardware.

6.7.2 Software may be associated with functionality that spans multiple hardware elements (e.g. client-server applications, cellular radio network software, and handset software). This situation may also arise with other system-wide functionality, such as middleware, communications, and encryption, each of which contributes to system performance. In order to capture the associations and the complexity associated with the work of designing and integrating such functionality, Recommended Practice 9 highlights that the software element associated with this functionality needs to be included at the lowest appropriate level in the PBS that captures the full span of the software, typically at the subsystem or system level.

6.7.3 Projects will often require the development of a software architecture that captures and lays common constraints onto lower-level software-based Component Products within a system or subsystem. The scope of activities associated with defining and promulgating such constraints needs to be assigned to a WBS Element for software architecting, usually under the lowest-level SE WBS Element[15] that covers the full span of applicable Component Products.

> Recommended Practice 10: Where the development of a software architecture is required, the Supplier **should** include a WBS Element that captures the scope of work for the development, promulgation and maintenance of the architecture.

[14] The design manager role may also be constrained by the technical regulatory requirements.
[15] The "lowest level" element may be the highest SE WBS Element in the WBS for a predominately software-based system.

6.7.4 In Figure 25, which provides a Level 3 breakdown of the Mission System, there is no software visible; the focus is on subsystems with integrated hardware and software.

1. Radio Frequency Surveillance System
    - 1.1 RF Surveillance Mission System
        - 1.1.1 Downconverter Subsystem
        - 1.1.2 Data Logger
        - 1.1.3 Operator Workstation
        - 1.1.4 RFS Mission System Integration and Test
        - 1.1.5 RFS Mission System Project Management
        - 1.1.6 RFS Mission System Systems Engineering
        - 1.1.7 RFS Mission System Logistic Support Analysis
    - 1.2 RF Surveillance Support System
    - 1.3 Platform Integration
    - 1.4 Verification and Validation
    - 1.5 Project Management
    - 1.6 Systems Engineering
    - 1.7 Integrated Logistics Support

Figure 25 - Level 3 Breakdown of the Radio Frequency Surveillance Mission System

6.7.5 In Figure 26, there is a further expansion of the Operator Workstation from Figure 25. Note that the software does not become visible until the Component Product it supports is decomposed.

1.1.3. Operator Workstation
- **1.1.3.1. Computer Platform**
    - 1.1.3.1.1. 17inch Flat Panel Display
    - 1.1.3.1.2. Keyboard
    - 1.1.3.1.3. Mouse
    - 1.1.3.1.4. 3.5 in Floppy Drive
    - 1.1.3.1.5. CD R/W
    - 1.1.3.1.6. IEEE 488 Controller Card
    - 1.1.3.1.7. High Speed Graphics Card
- **1.1.3.2. Operator Workstation Applications Computer Software Configuration Item**
    - 1.1.3.2.1. Signal Processor Control Computer Software Component
    - 1.1.3.2.2. Data Logger Control Computer Software Component
    - 1.1.3.2.3. Display Computer Software Component
    - 1.1.3.2.4. Operator Workstation Integration & Test
    - 1.1.3.2.5. Operator Workstation PM
    - 1.1.3.2.6. *… Other Enabling Services as required…*
- **1.1.3.3. Operator Workstation System Software**
    - 1.1.3.3.1. NT Operating System
    - 1.1.3.3.2. IEEE 488 Driver
- **1.1.3.4. Signal Processor**
    - 1.1.3.4.1. Signal Processing Card
    - 1.1.3.4.2. Signal Processing Computer Software Configuration Item
        - 1.1.3.4.2.1. Hilbert Transform Computer Software Component
        - 1.1.3.4.2.2. Modulation Recognition Computer Software Component
        - 1.1.3.4.2.3. Time-Stamp Module Computer Software Component
        - 1.1.3.4.2.4. SP Controller Computer Software Component
        - 1.1.3.4.2.5. *… Enabling Services as required…*
    - 1.1.3.4.3. Signal Processor Integration & Test
    - 1.1.3.4.4. Signal Processor PM
    - 1.1.3.4.5. *… Other Enabling Services as required…*
- **1.1.3.5. Operator Workstation Integration Kit**
- **1.1.3.6. Operator Workstation Integrate & Test**
- **1.1.3.7. Operator Workstation PM**
- **1.1.3.8. Operator Workstation SE**
- **1.1.3.9. Operator Workstation LSA**

Figure 26 - Lower-level Breakdown of the Radio Frequency Surveillance Operator Workstation

6.7.6 A separately contracted or stand-alone software system will include the software, data, services, and facilities required to develop and produce a software Component Product for inclusion in a higher-level system, such as a command-and-control system, radar system, or information system. Where software is considered stand-alone (e.g. it does not reside or support a specific equipment or it is considered a pure software upgrade), the

same Product-structured approach to the WBS needs to be used. Figure 27, which has been adapted from MIL-HDBK-881[16], provides an example of a WBS for a stand-alone software system.

SOFTWARE-INTENSIVE SYSTEM WBS
1. SOFTWARE-INTENSIVE SYSTEM
1.1 MISSION SYSTEM
1.1.1 APPLICATIONS S/W
1.1.1.1 BUILD 1
1.1.1.1.1…n CSCI 1...n
1.1.1.1.n+1 CSCI TO CSCI INTEG. AND CHKOUT
1.1.1.2…n BUILD 2...n
1.1.1.?.? CSCI 1...n
1.1.1.?.? CSCI TO CSCI INTEG. AND CHKOUT
1.1.1.n+1 APPLICATIONS S/W INTEG., ASSEMBLY, TEST, & CHKOUT
1.1.2 SYSTEM S/W
1.1.2.1 BUILD 1
1.1.2.1.1…n CSCI 1...n
1.1.2.1.n+1 CSCI TO CSCI INTEG. AND CHKOUT
1.1.2.2…n BUILD 2...n
1.1.2.?.? CSCI 1...n
1.1.2.?.? CSCI TO CSCI INTEG. AND CHKOUT
1.1.2.n+1 SYSTEM S/W INTEG. ASSEMBLY, TEST AND CHECKOUT
1.1.3 INTEG., ASSEMBLY, TEST AND CHECKOUT
1.1.4 HW/SW INTEGRATION
1.2 SUPPORT SYSTEM
1.3 VERIFICATION AND VALIDATION
1.4 PROJECT MANAGEMENT
1.5 SYSTEMS ENGINEERING
1.6 INTEGRATED LOGISTIC SUPPORT

Figure 27 - Sample Work Breakdown Structure for a Software-intensive System

6.7.7 The discussion in this Section leads to the following software-specific Requirement:

> Requirement 12: In projects that can be considered as software-only projects, the software Component Product structure **shall** form the PBS for the Mission System within the WBS.

6.8 Acquirer-provided Component Products

6.8.1 The most common instance of Acquirer-provided Component Products relates to the use of GFE; however, the principles are applicable at each recursive level of the Acquirer/Supplier boundary. The discussion in this Section is a refinement of the discussion in Section 3.6 to address the specific requirements associated with technical control.

6.8.2 For Acquirer-provided Component Products, the Supplier needs to treat the Acquirer in the same way as they would any other Supplier of Component Products. The Acquirer-provided Component Products need to be shown in the PBS in the same way as any other Component Product, and have function, performance and interface specifications the same as any other Component Product. This discussion leads to the following Requirement:

[16] See Figure 3-6 of MIL-HDBK-881, dated 2 January 1998, p 30.

Requirement 13: Acquirer-provided Component Products **shall** be shown in the PBS elements of the Supplier WBS in the same way as the Supplier-provided Component Products.

6.8.3 The Acquirer needs to include the Component Products that it will be providing to the Supplier in its WBS and needs to attribute the cost of the Component Products to the higher-level Component Product in which it is installed, in keeping with the concepts underpinning Requirement 10.

6.9 Suppliers to Multiple Work Breakdown Structure Elements for a Contract Work Breakdown Structure

6.9.1 In many projects, a Supplier may supply Products to many different WBS Elements across the project. For example in a large communications project, one Supplier may supply a common radio type to multiple Component Products.

6.9.2 On one hand, it is desirable to have one commercially 'clean' contract with the equipment Supplier and, on the other hand, the WBS must identify the equipment where it belongs in the PBS and the cost of the equipment must be attributed to the Component Products of which they form a part.

6.9.3 All of these requirements may be satisfied by the following approach:

a. Appoint a subcontract manager to manage the equipment Supplier subcontract. This will become a WBS Element under Project Management, where the only costs attributed to this WBS Element will be the costs of managing the subcontract (i.e. none of the equipment costs would be attributed to this WBS Element).

b. Each instance of equipment across the overall WBS will be assigned a different line item within the contract with the Supplier, with an appropriate associated delivery date and location. Each line item is then associated with the WBS Element where it belongs in the PBS.

c. The WBS then identifies the equipment in its correct place within the PBS, with the usual technical responsibilities for ensuring correct Component Product specifications and interface specifications being assigned to the design manager.

d. Each Component Product manager then treats the subcontract manager as the Supplier of the equipment, but can make payments directly to the actual Supplier against the particular line items.

6.9.4 The above approach satisfies commercial requirements for a clean subcontract with the Supplier, yet maintains responsibility and authority of design managers and Component Product managers. The WBS structure associated with the Supplier subcontract managers is shown in Figure 28.

1.5 Project Management
1.5.1 Project Planning
1.5.2 Project Control
…….
–1.5.6 Common Radio Supplier Subcontract
–1.5.7 Workstation Supplier Subcontract

Figure 28 - Multiple Supplier Work Breakdown Structure Arrangements

6.9.5 The approach outlined herein leads to the following Requirement:

Requirement 14: Where a Supplier is providing Products to multiple WBS Elements in the Acquirer's WBS, the Acquirer **shall** ensure that the WBS facilitates the correct allocation of costs to those WBS Elements.

6.10 Integrated Product Teams and the Work Breakdown Structure

6.10.1 A Supplier may indicate that it will be using Integrated Product Teams (IPT) to realise the requirements of the agreement between the Acquirer and the Supplier. In this situation, the IPTs need to be mapped to the Component Products of the Mission System or Support System (or both), as defined by the Supplier, and need to contain all of the necessary skill sets to be able to deliver the Component Product, including engineers,

manufacturing experts, ILS experts, customer representatives, and so on. Note that, in large projects, there will be a hierarchy of IPTs that map to the PBS of the system being delivered, as illustrated in Figure 29.

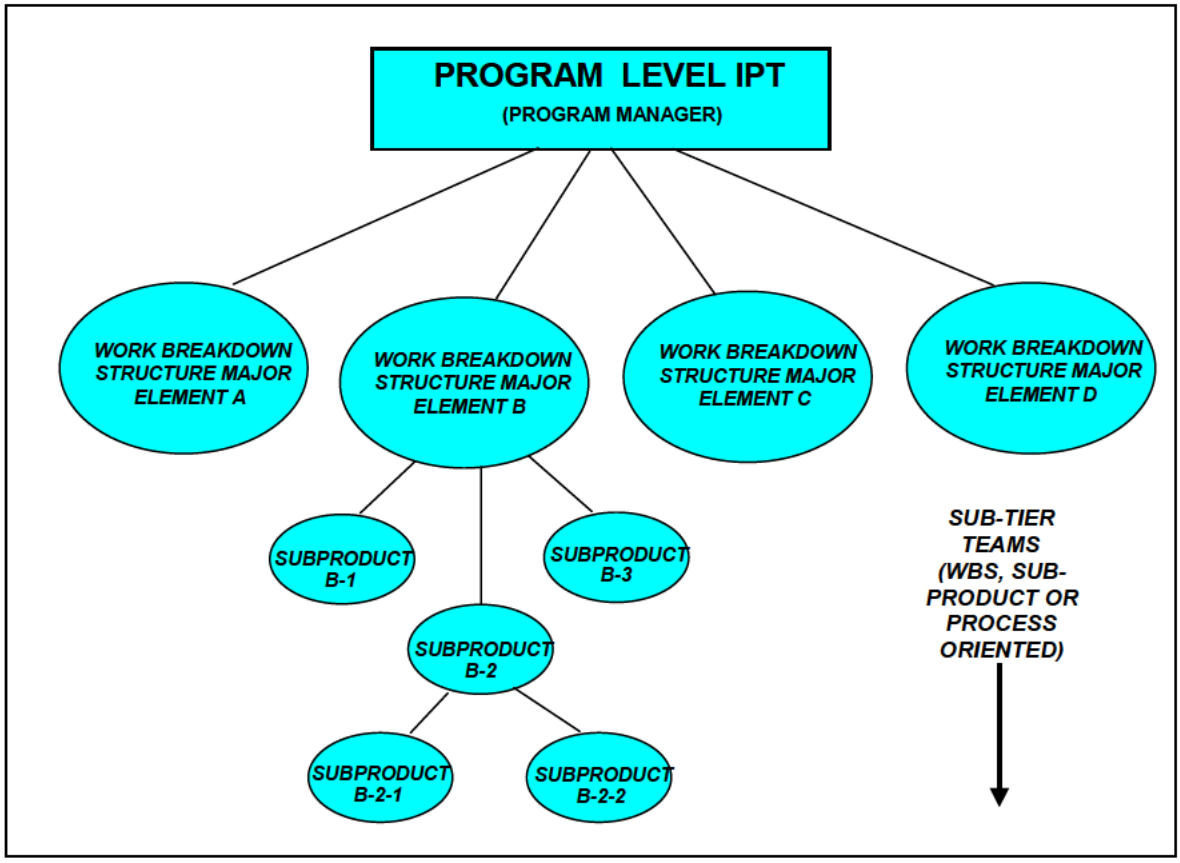

Figure 29 - Mapping of Integrated Product Teams to Component Products

6.11 Horizontal Threads of Functionality

6.11.1 In almost any complex system, there exist threads of functionality that span many Component Products, appearing to cut horizontally across the PBS – for the purposes of this discussion, these are called 'horizontal threads of functionality' or just 'horizontal threads'. System-wide control, fault isolation and fault diagnostics are examples of such horizontal threads. Achieving technical control over these horizontal threads can be difficult because of the number of interfacing subsystems and components and associated design managers. To overcome this difficulty, a design manager can be appointed to take responsibility for the horizontal threads, with the associated work scope reflected in a standalone WBS Element that is designated accordingly.

> Recommended Practice 11: Where horizontal threads of functionality are present in the Mission System PBS, the Supplier **should** include a WBS Element to ensure that these horizontal threads are appropriately managed so that the Mission System will meet its requirements.

6.12 Development Versus Production

6.12.1 Section 6.4 highlighted that both EVM and activity-based costing principles require that all costs incurred in providing a Product or Enabling Service need to be attributed to that Product or Enabling Service. These principles mean that the developmental costs (or Non-Recurring Engineering (NRE) costs), as defined through a WBS, cannot be amortised across the production articles. Typically, the developmental effort for a system or item of equipment is identified under one (or more) WBS Elements, which are separated from the production effort in accordance with the WBS subcontract principle. There are two distinct cases for incorporating the production effort into the WBS, which represent the two extremes of the spectrum, namely:

a. production of a large number of 'small' Mission Systems (e.g. radios); and

b. production of a small number of 'large' Mission Systems (e.g. ships).

6.12.2 In the first case, the outcome of the initial developmental effort would typically be a prototype, which would not be used further in the development process. This prototype would be identified as a standalone Product in

the WBS, as illustrated in Figure 30. Subsequently, the developmental effort for the first article would occur, which would also be identified as a standalone Product in the WBS, separate from, and at the same level as, the prototype. The first article WBS Element would include the effort associated with the V&V and initial configuration audits, etc that would be required to demonstrate that the first article met the specified requirements, as well as the effort to verify that the production processes, if applicable, were suitable.

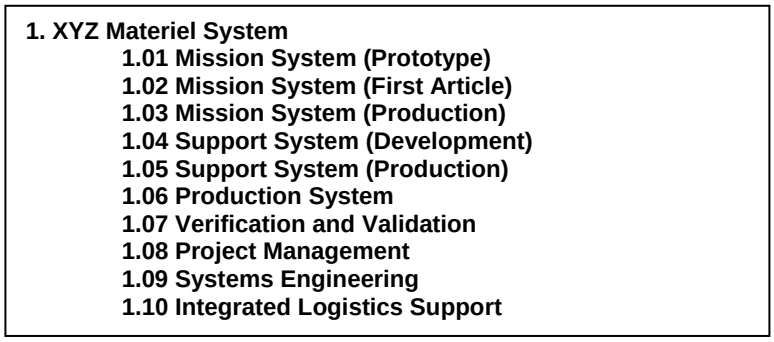

Figure 30 - Incorporating Development and Production

6.12.3 In this first case, when there is a large production run of identical units, the production articles would be typically grouped under a standalone WBS Element at the same level as the first article WBS Element, as illustrated in Figure 30.

6.12.4 In the second case, it would be unusual in the ADO for a prototype to be developed, and the initial developmental effort would be an integral part of the effort to produce the first article. For the production effort for the large Mission Systems, which could change configuration throughout the production period, each ship would typically be identified as a separate WBS Element at the same level in the WBS.

6.12.5 In between these two extremes, production effort could be batched. For example, aircraft are sometimes produced in 'lots', where a production run of a given configuration is undertaken. Subsequently, a configuration update is undertaken, which is followed by a second production run, and so on. In these instances, it would be expected that the production effort for each batch (including the accompanying design effort) would be identified as a separate WBS Element at the same level in the WBS.

6.12.6 If a production system is a significant element of a project, then the separate identification of this system as a standalone WBS Element could also be appropriate. Figure 30 illustrates the inclusion of the production system.

6.13 EVOLUTIONARY ACQUISITION

6.13.1 Where the selected Acquisition Strategy involves Evolutionary Acquisition (EA), the Materiel System functionality is delivered incrementally to the end-user. Each increment should be treated as a separate WBS Element in accordance with the WBS subcontract principle, as illustrated in Figure 31.

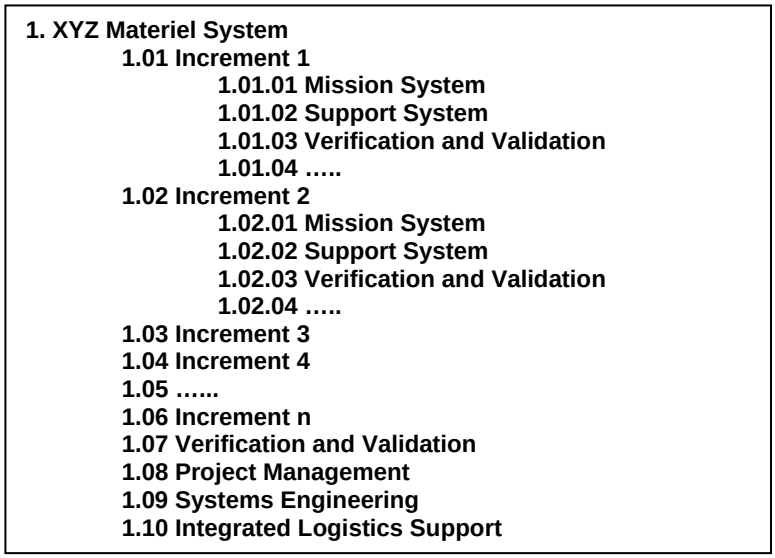

Figure 31 - Addressing Evolutionary Analysis Requirements in the Work Breakdown Structure

6.13.2 Figure 31 represents the case where the increments are defined by the Acquirer and issued to the Supplier as a series of contracts or contract amendments. In this case, the Supplier is acting as the PSI. Figure 31 should not be confused with the situation where the Supplier is defining a series of builds (i.e. developmental increments), as described in Section 6.7.

6.13.3 If the ADO project office were to be acting as the PSI during the In-Contract stage, Figure 31 would change such that each increment would most likely be represented as a separate contract (and, therefore, a separate CWBS), while WBS Elements 1.07-1.10 would be grouped under the Project Office Services WBS Element, as described in Section 4.3.

7. CONFIGURATION MANAGEMENT

7.1 GENERAL

7.1.1 Configuration management is a set of processes for establishing and managing the technical configuration of items, which addresses the evolving design and the envisaged or defined support needs. Items are identified as Configuration Items (CIs) to ensure that the requirements and the evolving design configuration is managed cost-effectively and to ensure that support requirements can be met. To this end, CIs must always be Component Products of either the Mission System or Support System and, therefore, must be designated in the WBS.

Requirement 15: The components of the Mission System and Support System that are designated as Configuration Items **shall** be Component Products in the PBS for those systems.

7.2 DESIGN CHANGES

7.2.1 If the system design for either the Mission System or Support System changes as the project progresses, then the WBS must be changed to reflect the changed design. In treating each WBS Element as a subcontract, a change to the design is a change to the Component Product specification for that subcontract; hence, if the WBS Dictionary were not to be amended, the specifications would lose their association with cost and schedule and the WBS Elements would no longer be effective as 'subcontracts'. In the normal development process, Component Products may be added, deleted or modified, and so the subcontracts must be changed to reflect these changes, including any cost and schedule changes associated with the design changes. Note also that a change to the design of a particular Component Product may have implications for other Component Products, which would need to be addressed by the appropriate design manager(s).

Requirement 16: Changes in the system design **shall** be reflected in the WBS, as such changes are effectively variations to the subcontract for the Component Product.

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8. SUPPORTABILITY REQUIREMENTS

8.1 GENERAL

> Recommended Practice 12: Where either military or commercial support-related standards specify a standardised approach to the PBS, the CWBS **should** accord with these standards for supportability reasons.

8.1.1 There are a number of military and commercial standards that provide either a standard PBS or a standardised approach to the PBS for different types of systems (e.g. aircraft, surface ships, submarines, surface vehicles and ordnance systems). These standards include (not a definitive list):

a. AECMA S1000 series;

b. DEF-STAN 00-60 Part 10, "Electronic Documentation"; and

c. any of the standards relating to the Logistic Support Analysis Record (LSAR) (e.g. DEF(AUST) 5692, MIL-STD-1388-2B, and DEF-STAN 00-60 Parts 1-3).

8.1.2 These standardised breakdowns have been developed to enhance supportability and, therefore, need to be adopted where cost-effective. Note that Recommended Practice 12 is not a Requirement because the provisions relating to technical control have precedence.

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LIST OF REQUIREMENTS (NORMATIVE)

REQUIREMENTS

Requirement 1: The WBS **shall** satisfy the following conditions:

Integrated –	A single top WBS Element covers the total body of work.
Distinct –	Every WBS Element is a distinct Product or Enabling Service, which is mutually exclusive from other Products and Enabling Services.
Children –	Every WBS Element has either no children, or multiple children.
Descendant –	Every child WBS Element has only one parent and is a descendant of the top WBS Element.
Necessary –	Every child WBS Element is needed to deliver the parent.
Sufficient –	If all child WBS Elements are complete, their parent is complete.
Complete –	The complete scope of work is captured in the WBS.

Requirement 2: Each WBS Element **shall** have a corresponding WBS Dictionary definition that clearly describes the WBS Element down to a level of detail sufficient to support the management and ultimate acceptance of the WBS Element. The following information **shall** be included in the WBS Dictionary for each WBS Element:

a. project title;

b. WBS Element identifier, which may be numeric or alphanumeric;

c. WBS Element title;

d. a description of the scope of the Product or Enabling Service, including a Statement of Work (SOW) and, if a Product, a reference to the applicable specification (e.g. title and number);

e. additional information required by the EVM System (EVMS) if an EVMS is required; and

f. any other information to ensure that the work effort, responsibilities and accountabilities associated with the WBS Element are clear, complete, and understood by all parties.

Requirement 3: The WBS **shall** employ an identification system that clearly defines the hierarchical relationships between WBS Elements.

Requirement 4: The WBS and WBS Dictionary **shall** be revised to incorporate changes and to reflect the current status of the project in accordance with the defined control mechanisms.

Requirement 5: The WBS **shall** be Product-oriented.

Requirement 6: All Products that must be delivered to the Acquirer by the Supplier **shall** be identified in the Supplier's WBS.

Requirement 7: All Products that must be delivered to the Supplier by the Acquirer **shall** be identified in the Acquirer's WBS.

Requirement 8: The WBS **shall** be structured so that each WBS Element can be assigned to an individual or entity (which could be a Supplier), who is responsible for ensuring that the requirements of the WBS Element are achieved within allocated cost and schedule.

Requirement 9: The decomposition of the Mission System in the WBS **shall** be Product-structured.

Requirement 10: All costs incurred in producing a Component Product **shall** be attributed to that WBS Element, so that the cost of a Component Product is the sum of the costs of the lower-level Component Products and the costs of the Enabling Services required to produce the Component Product.

Requirement 11: For each Component Product within the PBS, the WBS **shall** facilitate clear and visible accountability for ensuring that the delivered Component Product meets its specification.

Requirement 12: In projects that can be considered as software-only projects, the software Component Product structure **shall** form the PBS for the Mission System within the WBS.

Requirement 13: Acquirer-provided Component Products **shall** be shown in the PBS elements of the Supplier WBS in the same way as the Supplier-provided Component Products.

Requirement 14: Where a Supplier is providing Products to multiple WBS Elements in the Acquirer's WBS, the Acquirer **shall** ensure that the WBS facilitates the correct allocation of costs to those WBS Elements.

Requirement 15: The components of the Mission System and Support System that are designated as Configuration Items **shall** be Component Products in the PBS for those systems.

Requirement 16: Changes in the system design **shall** be reflected in the WBS, as such changes are effectively variations to the subcontract for the Component Product.

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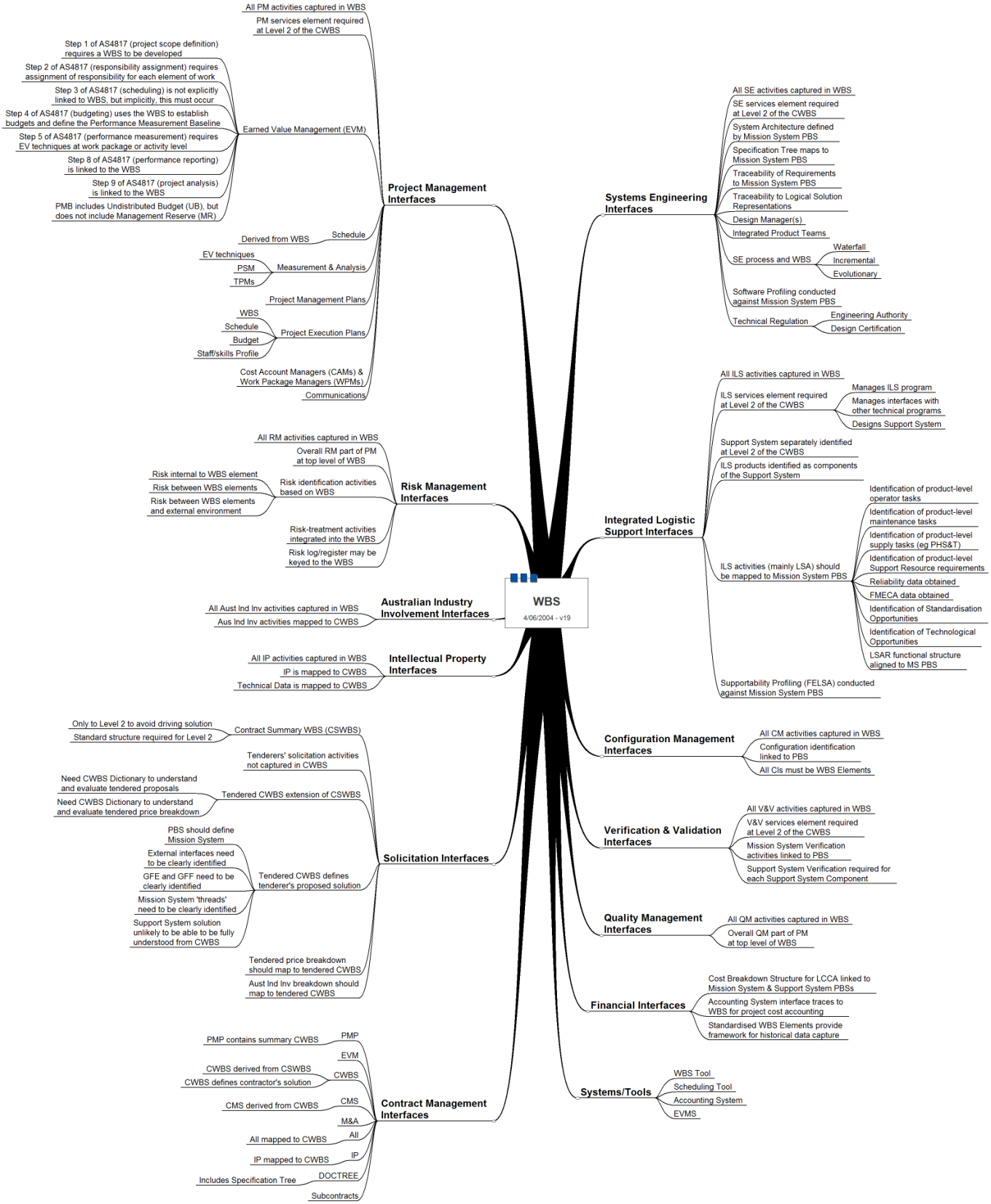
DEFINITIONS OF STANDARD WORK BREAKDOWN STRUCTURE ELEMENTS (INFORMATIVE)[17]

WBS Element	Definition
Mission System	This element includes the hardware and software used to accomplish the primary mission of the Defence materiel item. This element includes all integration, assembly, test and checkout, as well as all technical and management activities associated with individual hardware/software elements This element also includes the integration, assembly, test and checkout associated with the overall Mission System.
Support System	This element includes all of the physical support deliverables being generated under the Contract, including any effort associated with the acquisition of, and/or the design, development and production of those physical deliverables. Includes any effort associated with delivery, installation, integration, and check out. Includes the acquisition, design, development and production of any logistics resources associated with those physical deliverables (i.e., the logistics resources required for the support of Support System elements such as Facilities, S&TE, etc).
Integrated Logistics Support	This element includes the overall planning, directing, and controlling of the ILS function. This element includes the effort associated with the logistics-analysis processes, the outcome of which result in the identification of the logistics resources (both range and scale) required to support both the Mission System and the Support System. Excludes the acquisition of, and/or the design, development and production of specific Support System Components (e.g., S&TE, Facilities, Software Support Environment, Training Equipment and Materials, etc). These activities are covered under the individual Support System elements themselves. Excludes the acquisition, design, development and production of the logistics resources required for the support of the individual Support System elements themselves.
Platform Integration	This element includes the effort involved in providing technical and engineering services to the platform manufacturer or integrator during the installation and integration of the Mission System into the host vehicle.
Project Management	This element includes the business and administrative planning, organising, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives which are not associated with specific hardware elements and are not included in systems engineering. This element includes cost, schedule, performance measurement management, warranty administration, contract management, data management, vendor liaison, subcontract management, risk, IV&V activities, lifecycle cost, transition to operational service, Australian Industry Involvement, and intellectual property.
Systems Engineering	This element includes the technical and management efforts of directing and controlling a totally integrated engineering effort of a system or program. This element includes the effort to define the system and the integrated planning and control of the technical program efforts of design engineering, specialty engineering, production engineering, and integrated test planning This element also includes the effort to transform an operational need or statement of deficiency into a description of system requirements and a preferred system configuration.

[17] The actual definitions for these (and other) WBS Elements will be defined in the contract.

WBS Element	Definition
Verification and Validation	This element includes V&V management and infrastructure for both the Mission System and the Support System as well as the actual V&V for all phases of the project. This element includes processes that demonstrate that the engineering design and development process is complete, demonstrate that the design risks have been minimised, demonstrate that the system will meet specifications and determine whether the engineering design is supportable (practical, maintainable, safe, etc.) for operational use. This element includes such tests as system demonstration, flight tests, sea trials, mobility demonstrations, stability tests, qualification operational test and evaluation, etc, and support thereto, required to prove the operational capability of the deliverable system This element also includes logistics testing efforts to evaluate the achievement of supportability goals and the adequacy of the support for the system (e.g., deliverable maintenance tools, test equipment, technical publications, maintenance instructions, personnel skills and training requirements, and software support facility/environment elements).

RELATIONSHIPS BETWEEN THE WORK BREAKDOWN STRUCTURE AND DISCIPLINES/FUNCTIONS (INFORMATIVE)



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CHECKLIST FOR DEVELOPING AND REVIEWING

WORK BREAKDOWN STRUCTURES (INFORMATIVE)

PROJECT WORK BREAKDOWN STRUCTURE AND PROJECT OFFICE SERVICES WORK BREAKDOWN STRUCTURE

1. Has an analysis been conducted of key project documents (e.g. committee papers, acquisition strategy, and Capability Definition Documents) to identify all of the obligations of the project office?
2. Have all of the Products to be developed been identified and included in the WBS?
3. Have the Enabling Services required to develop the Products been identified and included in the WBS? Do the Project WBS and Project Office Services WBS include all of the relevant Enabling Services from the C2 process framework, 'Acquire Materiel (Systems and Equipment)'?
4. Has the Prime System Integrator (PSI) been identified? If the project office is to be the PSI, does the Project Office Services WBS include the Products and Enabling Services required to undertake this role?
5. Are the Project WBS and Project Office Services WBS Product-oriented?
6. Are the WBS Elements in the Project WBS and in the Project Office Services mutually exclusive?
7. Does each WBS Element represent an aggregation of the Products and Enabling Services listed immediately below it?
8. Are the lower-level WBS Elements necessary and sufficient to deliver the parent WBS Element? Are there any WBS Elements with a single child element?
9. Does a WBS Dictionary definition exist for each Product and Enabling Service in the Project WBS and, during the In-Contract stage, in the Project Office Services WBS?
10. Are the WBS Dictionary definitions sufficient to ensure that the scope of each WBS Element is clear to all members of the project office?
11. Have the Project WBS and, for the In-Contract stage, the Project Office Services WBS been decomposed to a level where accurate estimation of resources and schedules can be made?
12. If the project office is to be the PSI, does the Project Office Services WBS accord with the Requirements and Recommended Practices associated with technical control?
13. Is each item of GFM required to be provided to each contractor identified in the Project Office Services WBS?
14. Are all of the CDRL items listed in each of the contracts identified in the Project Office Services WBS?
15. If any Government Furnished Services are required to be provided to each contractor, are these services identified in the Project Office Services WBS?
16. Are all of the Enabling Services arising out of each of the contracts (e.g. attendance at Mandated System Reviews and Progress Meetings, optional attendance at Internal Reviews, witnessing of Acceptance Verification, coordination of Acceptance Validation, and management of Independent Verification and Validation (IV&V)) identified in the Project Office Services WBS?

CONTRACT WORK BREAKDOWN STRUCTURE

1. Does the CWBS accord with the Requirements and Recommended Practices contained in this DEF(AUST)?
2. Does the CWBS include all of the Products and Enabling Services identified in the contract SOW? Are all of the CDRL items explicitly identified in the CWBS?
3. Are the high-level Enabling Service elements in the CWBS, such as Project Management and Systems Engineering, decomposed into lower-level Enabling Products and Enabling Services, as defined by the contract SOW?
4. Does the Project Authority have the skills necessary to review any proposed CWBS to ensure that it satisfies all of the ADO's technical, as well as cost and schedule, control objectives?
5. Is the specification tree traceable to the customer's originating requirements?
6. Does the PBS for each Mission System within the CWBS consist of the hierarchy of the Component Products defined by the specification tree for that Mission System?
7. Are the Enabling Services needed to develop each Component Product, such as Systems Engineering, Integration and Test, and Project Management, associated with the respective Component Products?
8. Are all costs associated with the development of a Product, including Component Products, associated with that Product?
9. Are costs and schedules associated with the Component Products in the PBS such that each Component Product in the hierarchy has an associated specification, budget and schedule?
10. Does each Component Product CWBS Element appear as a subcontract that can be considered as either an internal subcontract or an external subcontract to the organisation?
11. Does each CWBS Element have a corresponding CWBS Dictionary definition that describes the total scope of work associated with that WBS Element?
12. Is the CWBS structured such that a single person or organisation can be held responsible for the delivery of any Component Product, as defined by the specification tree?
13. Is all of the material required to be provided to each subcontractor by the contractor identified in the CWBS?
14. Are all of the subcontract CDRL items listed in each of the subcontracts identified in the CWBS?

OBTAINING AUSTRALIAN DEFENCE STANDARDS

Australian Defence Standards and other listed Applicable Documents may be obtained from the following Defence Technical Standards Document Centres listed below:

DEPARTMENT OF DEFENCE (Maritime)
Director Naval Platform Systems
Department of Defence (Navy Office)
Campbell Park Offices (CP1-4-16)
CANBERRA ACT 2600
Attention: NMR Standards Centre
Telephone: s47E(d)
Facsimile: (02) 6266 4994

DEPARTMENT OF DEFENCE (Land)
Land Engineering Agency
Attention: Equipment Information Officer
Raleigh Road
MARIBYRNONG VIC 3032
Postal Address: Private Bag 12
PO ASCOT VALE VIC 3032
Attention: Equipment Information Officer
Telephone: s47E(d)
Facsimile: (03) 9319 5382
Army Standardisation:
http://www.leaweb.lsd.defence.gov.au/SPECS/Triservice/Directory.htm

DEPARTMENT OF DEFENCE (Aerospace)
Specifications and Standards
Defence Air Publications Agency (DAPA)
RAAF Williams
LAVERTON VIC 3027
Telephone: s47E(d)
Facsimile: (03) 9256 4178
Defence Air Publications Agency (DAPA)
http://wil_rpums1.raaf.defence.gov.au/specstds/htmlfiles/specstd.htm

DOCUMENT IMPROVEMENT PROPOSAL

DEF(AUST) 5664 ISSUE A

WORK BREAKDOWN STRUCTURES FOR DEFENCE MATERIEL PROJECTS

The purpose of this form is to solicit comments to assist in maintaining the above document as both practical and realistic. When completed, the form and any additional papers should be forwarded to the sponsoring organisation identified in the front matter pages.

Note Comments submitted do not constitute or imply authorisation to waive any requirement of the document or to amend contractual requirements**.**

1. **Has any part of this document created problems or required interpretation in use? Please state paragraph no(s) and any rewording suggested.**

2. **Has any new technology rendered any process obsolete? Suggestions supported by examples are welcome where the new process/hardware has proved satisfactory**.

3. **Comments on any requirements considered to be too rigid**.

4. **Remarks (attach any relevant data that may be of use in improving this document)**.

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