



# Better Practice Guide on the Strategic and Operational Management of Assets by Public Sector Entities

Delivering agreed outcomes through an efficient and optimal asset base



Better Practice Guide

September 2010

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## Foreword

Asset management is an essential component of good governance in both the public and private sectors, and should be aligned to, and integrated with, an entity's strategic, corporate and financial planning.

For entities which manage large asset holdings, a well-structured, practical asset management framework can assist in providing clarity for stakeholders as to the linkages between asset levels and the outcomes expected of the entity, and thus aid decisions on asset management. Entities with smaller asset holdings will also benefit from understanding how they can better align these resources with expected outcomes. The main message is to ensure entities have a disciplined approach to match their investment in assets to program requirements, and to plan for asset replacement in a strategic way which accords with the Government's capital budgeting framework where applicable.

Since the previous version of this Guide was published in 1996, there has been an increasing focus on balance sheet management in the public sector, and in particular on how entities deliver strategic goals and agreed outcomes from their allocated financial resources. An efficient and optimal asset base is, for most entities, an integral component of their accrual-based financial framework. The use of assets can have a considerable cost attached, and it is important therefore, that they are managed both efficiently and effectively.

While the practices described in this publication provide general guidance to entities, it is important that each entity assesses the extent to which the information provided is relevant, appropriate and cost effective in light of its individual circumstances and resource availability. The ANAO would welcome any feedback on this Guide to inform future revisions.

Ian McPhee



Auditor-General

September 2010

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## Part 1

# Introduction and Context

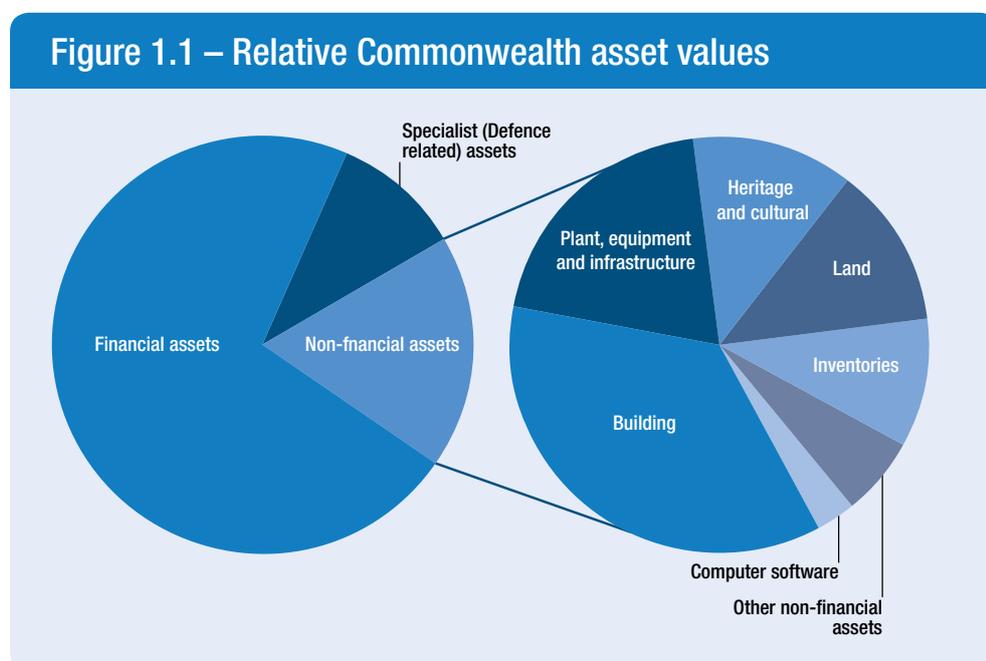
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# Part 1 Introduction and context

## 1.1 Background

Assets can take a variety of forms: financial, physical or intangible. Whatever form assets take, there are generally two guiding features which determine what constitutes an asset—it will have a value, and it will provide benefits from its use over the period of its useful life.

The balance sheet of the Commonwealth consists of assets valued at approximately \$367.2 billion as at 30 June 2009, of which some \$66.5 billion is non-financial assets held by general government entities. Figure 1.1 below reflects the relative proportions which make up the Commonwealth's total asset base.



This Guide focuses on the holdings of non-financial assets including: land and buildings; infrastructure; plant and equipment; heritage and cultural assets; intangibles (including IT systems and intellectual property); inventories; and other assets held by general government entities<sup>1</sup>. It does not cover: financial assets, specialist assets (including specialist military equipment), or assets related to sales of government businesses.

<sup>1</sup> For the purposes of this Guide, the term entity is used to collectively refer to an agency, Commonwealth authority and subsidiary, and Commonwealth company and subsidiary, as defined in the *Auditor-General Act 1997*.

## 1.2 Aim of the Guide

The aim of this Guide is to provide an update to the previous publication *Better Practice Guide on Asset Management June 1996* and to provide a practical asset management framework that can be adopted by Australian Government entities to assist in the effective management, maintenance, and use of assets to achieve their goals and agreed program delivery outcomes.

In particular, the Guide draws together and illustrates the practical application and essential inter-dependencies of a strategic asset management framework—being asset management, planning and the strategic goals of an entity.

The concept of asset performance indicators is introduced to guide entities on how to establish the condition of major assets, and the necessary level and frequency of maintenance. These indicators represent the parameters required for optimum efficiency and management of an entity's asset portfolio.

For entities whose asset base is critical to program delivery, a Capital Management Plan is a key component of their strategic outlook that provides a snapshot of asset health and documents how to achieve better practice asset management. Such a document provides a clear blueprint, approved by the executive leadership group, to drive strategic asset management throughout the organisation.

## 1.3 Who will benefit from the Guide

The Guide is primarily intended for Chief Finance Officers, and accounting and asset management staff in Australian Government entities. It aims to consolidate existing guidance and to provide further practical guidance on the strategic asset management framework processes associated with asset management and accounting.

For executive and senior management, the Guide provides advice on how entities may incorporate, where appropriate, asset management into their strategic and operational business plans as well as providing advice on the capital investment decision.

For financial accounting staff, the Guide also discusses the life-cycle costs and accounting treatment associated with the planning, acquisition, operations, maintenance and disposal of assets.

## 1.4 'Fit for purpose' coverage

This Guide is designed to cover both the strategic integration and day-to-day management of an entity's non-financial asset base in an operational context.

Within the Commonwealth public sector, program delivery for most entities will usually involve providing policy advice, delivering services to clients and/or administering regulatory frameworks. For the majority of entities in the general government sector, their asset base will consist primarily of computing hardware and software, building fit-out, and furniture and fittings, which facilitate their program delivery responsibilities. As such, the majority of entities will have asset portfolios which are relatively small in comparison to their operating budget, and are likely to be broadly commensurate with their staffing levels.

The principles outlined in this Guide have relevance for all entities, irrespective of the size of their asset base. However, the value and characteristics of an entity's assets will largely dictate the degree to which documentation of individual components recommended by the Guide is appropriate. Entities will, however, need to align the extent of application with the broad requirements of the Government's financial and capital budgeting framework. For example, desktop computers or terminals are now relatively low-value items used by most staff members, but are an essential component of most asset bases, and a component whose contribution to the entity's program

delivery should be recognised. By their nature, however, they are typically low-maintenance items and become obsolete within a few years. Consequently, it may suffice to visually monitor their condition and upgrade them as required, in lieu of developing a comprehensive and detailed acquisition plan. However, if an entity's operations require its staff to have state-of-the-art computers which require updating annually to keep abreast of emerging technology, their inclusion in a capital management plan, as part of the entity's strategic asset management framework covering regular acquisitions and replacement planning, assumes much greater importance.

In summary, the extent to which this Guide is adopted by an entity should be based on an assessment as to its 'fit for purpose' applicability. That is, while the principles of asset management apply to all assets, the degree to which the components of strategic and practical asset management are applied within individual entities may differ. Adoption should be commensurate with the particular circumstances of each entity, in terms of the relative size, value, complexity and role of its asset portfolio, and the necessity to comply with the Government's financial and capital budgeting framework requirements.

## 1.5 Principles of asset management

Assets usually only exist within entities in order to either directly or indirectly support program delivery, and this underpins the five broad 'principles' of asset management used in this Better Practice Guide. These principles are that:

- asset acquisition, disposal and life-cycle management decisions are **integrated** into an entity's strategic and organisational planning;
- asset planning decisions are based on an **evaluation** of alternatives, which assesses risks and benefits, and applies the Government's core procurement principle of value for money across the **asset's life-cycle**;
- an effective **control structure** is established for asset management;
- **accountability** is established for asset condition, use and performance; and
- disposal decisions are based on **analysis** of the methods which achieve the best available net return.

The principles of asset management derive from practical experience and reasoning, and inform both strategic asset management and its practical application to the asset life-cycle.

Asset management decisions should not be made in isolation from the broader decision-making and financial management of an entity. Asset management in better practice entities is part of the overall framework of decision-making in the organisation, integrating its asset portfolio within the entity's strategic goals. Asset management is most effective when it is aligned to delivery of an entity's outcomes and programs. The six phases of the asset life-cycle, which are described in Table 1.1 below, provide a structure to incorporate the entity's asset requirements into its broader strategic and corporate planning documentation.

**Table 1.1 – Phases of the asset life cycle**

Activity	Supporting documentation
Planning	An asset management strategy is an integral element of an entity's corporate planning and is based upon life-cycle methodologies. Assets usually exist only to support the entity's program delivery.
Capital Budgeting	A capital management plan consolidates the initiatives, objectives and strategies underlying the current and future management of an entity's asset base. It sets out a projected long-term outlook and details the asset budget funding strategies for asset acquisitions as well as projected financial impacts on the entity's financial reports.
Acquisition	As an element of an asset management strategy, the acquisition plan sets out a rationale for the acquisition or replacement of assets and feeds into the capital management plan.
Accounting	A comprehensive asset management policies and procedures guide is important in identifying requirements for compliance with relevant legislation and accounting standards. An effective risk-based internal control structure will ensure that assets are safeguarded against loss, damage or misappropriation.
Management	Asset management is integrated into the organisational planning and strategic outlook. Asset performance indicators are applied to the non-financial asset base to establish the condition of an asset and the necessary level and frequency of maintenance. Required standards reflect the quality levels required for optimum asset efficiency and management.
Disposal	A disposal plan establishes the rationale for, and timing of, asset disposals, and considers the optimal strategy for disposal.

## 1.6 Legislative and regulatory framework

Most public sector entities will be subject to either the *Financial Management and Accountability Act 1997* (FMA Act) or the *Commonwealth Authorities and Companies Act 1997* (CAC Act), as well as other entity-specific enabling legislation.

Entities that operate under the FMA Act are financially part of the Australian Government, holding public money that can only be spent under the authority of an appropriation from the Australian Parliament. The FMA Act applies primarily to budget-funded bodies, regulators and bodies that raise public money under a Commonwealth law.

The FMA Act principally focuses on the obligations and responsibilities of chief executives and the way officials handle public money, public property and other resources of the Australian Government.

Certain entities operate under a governing board and are governed by the CAC Act. These bodies are both legally and financially separate from the Commonwealth. The extent of government control over a Commonwealth authority depends on its enabling legislation, but in general terms the CAC Act sets out the financial management, accountability and audit obligations of these Commonwealth statutory authorities and company entities. Commonwealth companies are also subject to the provisions of the Corporations Act 2001.

The CAC Act requires directors and officers to exercise their powers and duties in the best interests of the body and for a proper purpose. Directors' duties apply to help ensure that prudent decisions are made on the resources that, as a matter of law, the body holds in its own right.<sup>2</sup>

<sup>2</sup> *Governance Arrangements for Australian Government Bodies August 2005*, Department of Finance and Deregulation.

This Guide is primarily aimed at providing guidance for budget-funded FMA Act entities, however many of the principles and better practice examples are equally relevant for Commonwealth entities operating under the CAC Act. A more detailed outline of the legislative and regulatory framework governing public sector entities is provided in Section 4.1.

## 1.7 Structure of the Guide

The remainder of the Guide is divided into three parts as indicated in Table 1.2 below.

**Table 1.2: Structure of the Guide**

Part	Explanation
Part 2 – Integrating strategic asset management with organisational planning and the strategic outlook	Provides guidance on how a strategic asset management framework allows the entity's strategic goals to be integrated with its asset portfolio. This includes the development of asset performance indicators and the funding of asset acquisitions through the capital investment decision. Guidance is also given on risk management and how life-cycle costs can be captured.
Part 3 – The practical application of a strategic asset management framework	Provides guidance on how a strategic asset management framework consolidates processes associated with asset management and accounting to ensure the efficient acquisition and effective management, maintenance and use of those assets to deliver an entity's strategic goals and agreed outcomes. The capital management plan records how scarce resources will be allocated, and is the mechanism by which the entity's strategic asset goals are implemented.
Part 4 – Operational tools, checklists and further guidance	Practical tools, checklists and further guidance are provided for use by entities.

Each part of the Guide includes a discussion of key issues and considerations relevant to the individual components of an asset management framework. Where relevant these are complemented by case studies or examples illustrating key points, drawn from Australian public sector experiences. A number of asset management checklists and similar aids are also included in Part 4, and these can be customised to the particular circumstances of each entity to ensure they are 'fit for purpose' in terms of their practicality and relevance to the entity.

A separate Quick Reference Guide is available to assist users in navigating the strategic asset management framework as set out in this Guide.

## 1.8 Acknowledgement of contributions

The ANAO would like to express its appreciation to the various agencies that assisted with the Guide's development, either by commenting on drafts or contributing examples and ideas. These include the Australian Broadcasting Corporation, Australian Customs and Border Protection Service, Australian Maritime Safety Authority, the Australian Taxation Office, Centrelink, Civil Aviation Safety Authority, Geoscience Australia, National Capital Authority and National Museum of Australia.

Key stakeholder input was also received from the Department of Finance and Deregulation. Appreciation is also expressed for the assistance provided by Moore Stephens.

## Part 2

# Integrating strategic asset management with organisational planning and the strategic outlook

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## Part 2 Integrating strategic asset management with organisational planning and the strategic outlook

### Strategic asset management framework

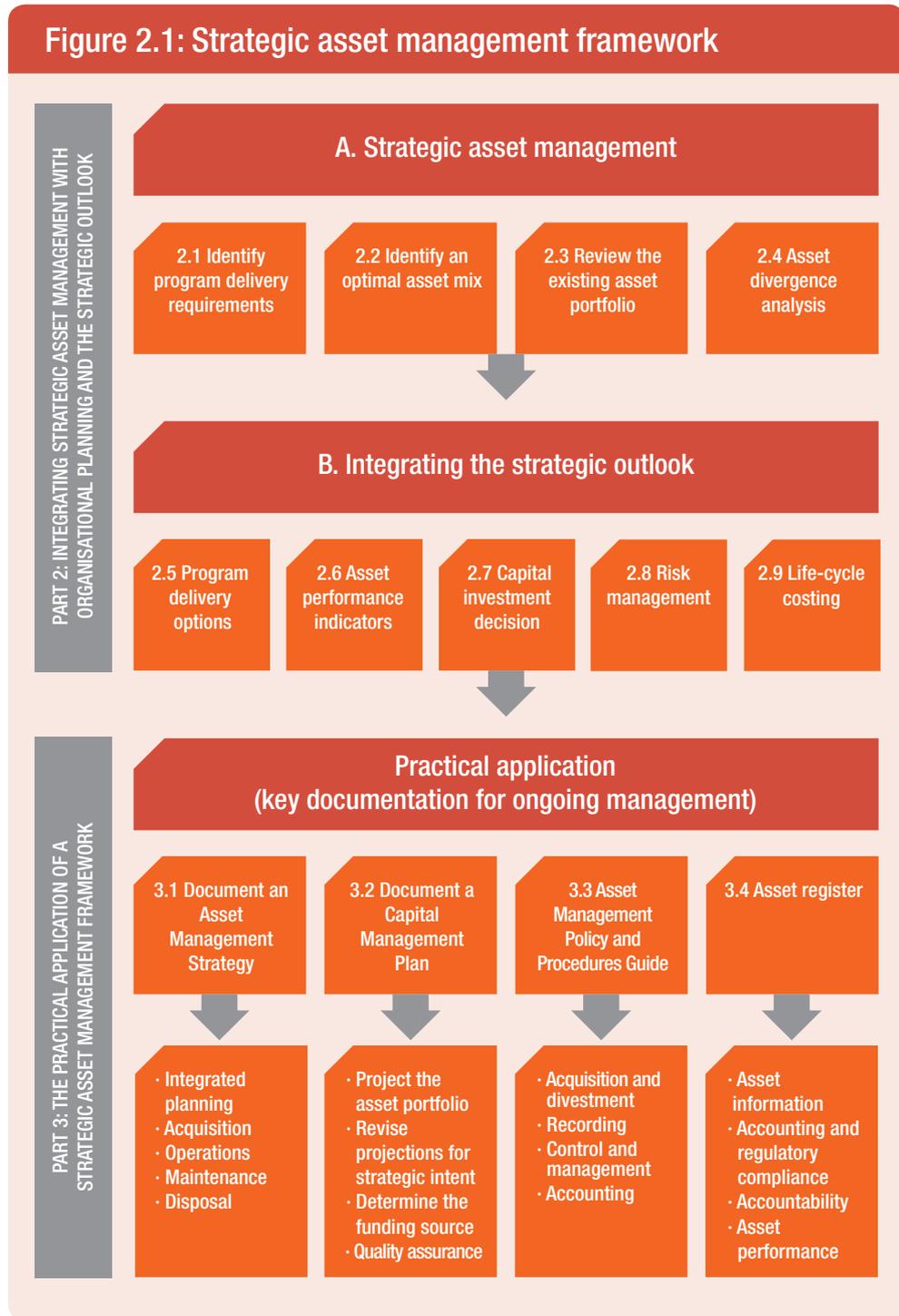


*A strategic asset management framework allows the entity's strategic goals to be integrated with the asset portfolio*

A strategic asset management framework brings together the inter-relationships between key corporate planning activities and asset management, allowing the entity's strategic goals to be integrated with the asset portfolio to meet the organisation's program delivery requirements. It is important for the Chief Financial Officer of an organisation to understand the intent of a strategic asset management framework before embarking on an asset management improvement program.

The framework that underpins asset management decision-making processes within an entity is detailed in Figure 2.1 below.

Figure 2.1: Strategic asset management framework



Determining and integrating strategic asset goals involves correlating asset management decisions with program delivery requirements, which results in an asset portfolio that will efficiently support the entity's overall strategic goals. This can be achieved by:

- ascertaining the program delivery options (this may include non-asset solutions);
- using asset performance indicators to identify, review and manage the asset portfolio;
- undertaking capital investment analysis when acquiring new assets;
- integrating risk management into all asset management decisions; and
- ensuring that the full life-cycle costs are understood and recorded so the true overall cost of owning and maintaining an asset is known.

A strategic asset management framework can be practically applied so that the:

- asset management strategy describes how the entity's strategic intent will be implemented to meet the service delivery needs as it relates to the asset portfolio;
- capital management plan details how the asset management strategy will be put in place;
- asset management policy and procedure guides provide a basis for an entity's internal control environment; and
- asset register can be used for both the financial and non-financial information in respect of performance and accountability measures.

This Guide is a resource document primarily aimed at providing practical advice to entities on how to strategically manage their assets. The extent to which this Guide is adopted by an entity should be based on a 'fit for purpose' assessment. Consequently not all elements of this Guide may need to be taken up by an entity, depending on its circumstances—for example if an entity has non-material asset holdings that are of low operational importance.

## A. Strategic asset management

“*Strategic asset management is integrated into the strategic and business planning of better practice entities.*”

The primary objective of strategic asset management is to create and maintain an asset portfolio that contains an optimal mix of assets to efficiently meet program delivery requirements. The program delivery requirements of an entity are outlined in its strategic and business plans, which will reflect the organisation's strategic goals.

Strategic asset management involves consideration of the entity's strategic and business plans in light of the program delivery requirements, to identify an optimal asset mix and compare it to the existing asset portfolio. This identification and review then culminates in an asset divergence analysis. The results are then incorporated into an asset management strategy, which sets out how the asset portfolio will assist the entity to meet its strategic objectives.

Strategic asset management covers all phases of the asset life-cycle, including management of the related risks, and considers:

- program delivery requirements;
- the scope, standard and level of service to be provided (defines the optimal mix of assets or if a non-asset solution is required);
- capital funding available for new asset acquisitions;
- value-for-money considerations when considering asset acquisition;
- the regulatory environment; and
- standards and codes of practice.

In order to achieve the primary objective of strategic asset management, better practice entities have a sound understanding of their asset portfolio and how these assets are used in producing and sustaining program delivery at an optimal level, as represented below in Figure 2.2.



## Strategic and business plans

Management of the asset portfolio is a key strategic activity that can be integrated with the entity's strategic and business planning processes. Strategic and business plans have an important influence on asset management by identifying how an entity plans to achieve the program delivery outcomes.

An entity will ideally undertake strategic and business planning annually. This planning requires the organisation to match its program delivery requirements to its available resources, which can be financial, human, information and physical. The following discussion of strategic asset management details how the physical assets held by the organisation can be matched to the entity's program delivery requirements.

### 2.1 Identify program delivery requirements

For those entities with specialist or high-value asset portfolios, asset management is usually a key aspect in meeting the entity's program delivery requirements. However, irrespective of asset values, all entities should consider the nature of their existing asset portfolio to ensure it will meet their program delivery requirements and consider if additional capital investment is necessary or if assets should be disposed of. The existing asset portfolio may be evaluated as part of an entity's strategic and business planning process.

It should be possible for an entity to separate its key business operations into a series of program deliverables that directly relate to the outcomes set for that entity by the Australian Government. This approach allows key asset groups, or in some cases individual assets, in the asset portfolio to be evaluated in terms of their contribution to the program delivery requirements. For those entities with small or more 'standard' asset portfolios, it is possible that the entire asset base could be attributed to a single program outcome.

### 2.2 Identify an optimal asset mix

An entity may achieve an optimal asset mix by aligning its asset portfolio to its program delivery requirements. Activities that may assist an entity to identify the optimal asset mix for the portfolio include:

- separating the strategic and business planning process into discrete value-generating activities that allow the program delivery requirements to be directly tied to key assets groups, or possibly even to individual assets;
- confirming that the asset portfolio reflects what is necessary to deliver the program outcomes set by the Australian Government and the entity's service-level priorities;
- identifying possible program delivery solutions, including both asset solutions and other options such as outsourced arrangements;
- ensuring any asset solution represents value for money;
- the capital investment decision;
- undertaking an asset risk assessment; and
- taking a life-cycle approach to asset management that evaluates the complete cost of acquisition, operation, maintenance and disposal.

### 2.3 Review the existing asset portfolio

Undertaking periodic evaluations of its asset portfolio, based on size and complexity, as part of its strategic asset management helps an entity to confirm that its assets continue to be appropriate to meet its program delivery requirements. As part of the evaluation of the existing asset portfolio the entity may consider:

- using asset performance indicators to identify if existing assets are being appropriately used, maintained, and are fit-for-purpose;
- monitoring the performance of the asset portfolio in terms of laws, codes and benchmarks, and financial performance; and
- maintaining a detailed asset register, and accounting for the assets in accordance with Australian Accounting Standards.

A framework such as that outlined in Table 2.1 is useful for an entity undertaking a review of its asset portfolio in terms of its program delivery requirements.

**Table 2.1: Asset portfolio evaluation framework**

Asset portfolio evaluation framework		
Criteria	Requirement	Evaluation Activity
Strategic significance	Program delivery requirements	<ul style="list-style-type: none"> <li>• What contribution will an asset or group of assets make to the program delivery requirements?</li> <li>• How does this contribution relate back to the strategic and business plans?</li> </ul>
	Functionality of the asset	<ul style="list-style-type: none"> <li>• How well is an asset or group of assets matched to the activities that they support?</li> </ul>
Asset performance indicators	Operational importance of the asset	<ul style="list-style-type: none"> <li>• What dependence does the entity place on the asset or group of assets to meet its program delivery requirements?</li> </ul>
	Use of the asset	<ul style="list-style-type: none"> <li>• What use is expected of the asset?</li> </ul>
Asset risk assessment	Risk profile	<ul style="list-style-type: none"> <li>• Are there changing circumstances that require risk management strategies to be revised?</li> </ul>
Compliance	Legal and policy framework	<ul style="list-style-type: none"> <li>• Does the asset or group of assets meet statutory requirements and any policy directives set by the Australian Government?</li> </ul>
Financial metrics	Cost-benefit analysis	<ul style="list-style-type: none"> <li>• Does the cost-benefit analysis demonstrate that asset ownership is preferable to other options, such as outsourcing arrangements or non-asset solutions?</li> </ul>

### Value chain analysis

Value chain analysis is a management technique which can be used to measure the value that individual activities, or assets, contribute to an entity achieving its program outcomes.

The Australian Broadcasting Corporation (ABC) uses value chain analysis to help it establish the links between its asset portfolio and its program delivery requirements. Case Study 2.1 illustrates how the ABC has practically implemented a value chain analysis to identify asset contributions.

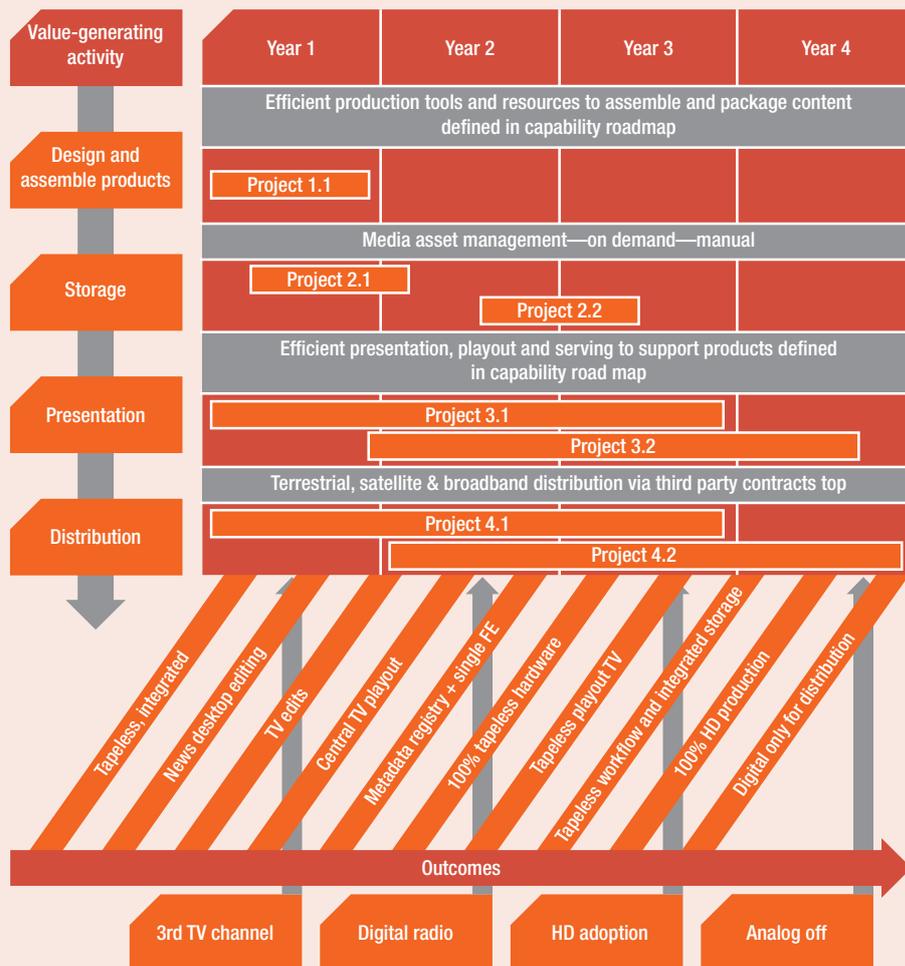
## Case Study 2.1: Australian Broadcasting Corporation's value chain analysis

The ABC is using value chain analysis to strategically manage its asset portfolio. This has been achieved by separating its business operations into a series of value-generating activities (primary activities) that are directly concerned with creating and delivering a product. These are represented in the diagram below as:

- **Design and assemble products** (relates to the scheduling, production [or acquisition] of content, including news gathering);
- **Storage** (relates to the storage of content ready for presentation and playout or for further product design and assembly);
- **Presentation** (relates to the compilation and playout of ready-to-broadcast content); and
- **Distribution** (is the physical transmission of content to the ABC's audiences).

By separating its business operations into discrete value-generating activities the ABC can then directly tie its program delivery requirements to discrete key asset groups or individual assets.

Figure 2.3: Capability roadmap



## Case Study 2.1 (cont'd): Australian Broadcasting Corporation's value chain analysis

Projects need to demonstrate that they are both a value-generating activity and that they will deliver future capability (referred to as the capability roadmap). Each project requires a business case that outlines the asset acquisitions required for that project and allows key assets or groups of assets to be directly linked to both the capability they are delivering and the value-generating activity.

The ABC strategically manages its asset portfolio through the capability roadmap, by:

- Identifying priority capabilities—with the long investment cycle required, the ABC finds it imperative to identify the high level capabilities it wishes to maintain and acquire, to enable it to respond to the rapidly changing media and technology environment. The capability roadmap enables the ABC to prioritise capabilities by graphically representing them on a timescale against the ABC's core activities and anticipated outcomes.
- Providing context to capital spending by connecting projects to these capabilities—the capability roadmap helps to identify and coordinate the investments in individual projects required to deliver the capabilities identified. Rather than traditional like-for-like asset replacement, the roadmap helps contextualise how the ABC allocates available capital funds, minimising duplication, optimising synergies, identifying interdependencies and thus contemplating the consequential impacts of introducing new capabilities. The process enables the maintenance of existing capability while considering the organisation's aspirational needs. It also provides the ability to analyse capital requirements in dollar terms, by location, class of asset and business output area.
- Creating outcome accountability—by adopting the capability roadmap, specific outcomes can be directly attributable to the specific capabilities identified and the associated investment in projects.
- Facilitating potential between deliverers and users—the capability roadmap represents a move to a highly visible, iterative and sophisticated method of asset management and long-range capital planning that facilitates greater connection between the implementers of projects and the end-users, further strengthening the capital planning process.

By employing the value chain analysis methodology the ABC's asset portfolio (each key asset or groups of assets in their asset register) is able to be identified by its value-generating activity and the capability it is delivering.

## 2.4 Asset divergence analysis

An asset divergence analysis can be undertaken to determine if the existing asset portfolio is meeting program delivery requirements. In undertaking an asset divergence analysis, entities determine whether the existing asset portfolio is suitable for optimal delivery of the program delivery requirements that the assets are intended to support. The activities that would usually be undertaken in the analysis are:

- **asset performance indicators**—determine if the existing asset portfolio meets program delivery requirements;
- **asset risk assessment**—monitor risk exposure to ensure changing circumstances do not alter risk strategies and priorities;
- **current level of services**—identify the current level of service being delivered by the existing asset portfolio; and
- **optimal level of services**—ascertain the required level of service to meet the program delivery requirements.

An asset divergence analysis would be supported by documentation which identifies the following:

- **current level of services**—what current level of service is being delivered by the entity's existing asset portfolio;
- **capital investment and funding**—what capital investment is required to optimise the asset portfolio, and how this expenditure is to be funded; and
- **asset disposals**—what underperforming or surplus assets were highlighted through the asset performance indicators?

The results of the asset divergence analysis are then able to be used to inform preparation of an asset management strategy to reflect the asset mix necessary for the entity's program delivery requirements.

### Documentation of an asset management strategy

An entity can use the outcomes of its asset divergence analysis and incorporate them into an asset management strategy to reflect the strategic goals of its asset portfolio. The strategic goals may comprise a number of plans that detail how the entity will use its assets in an efficient and effective manner over the life-cycle of the assets to support its program delivery. Part 3 of this Guide provides details on how to document an asset management strategy.

## B. Integrating an entity's strategic outlook with its asset portfolio

### 2.5 Program delivery options

A broad objective for most entities is to optimise the use of available resources in order to meet program delivery requirements. From an asset management perspective, optimising available resources is achieved through strategic planning that establishes which programs need to be delivered and the optimal mix of assets to deliver them. When an entity determines its program delivery requirements, it will consider the core principles of efficiency, effectiveness and value-for-money in achieving them. In deciding the optimal mix of assets to achieve its program delivery requirements, an entity has a range of alternatives which it can consider, as illustrated in Figure 2.4 below.



The range of alternatives as shown above, may include non-asset solutions.

#### **Asset acquisition**

The program delivery requirements may be best met by the outright acquisition of new assets that will also meet the efficient, effective and value-for-money considerations.

#### **Demand management**

An assessment will determine whether an entity is able to make its program delivery less asset-dependent by redesigning how it is able to deliver some services. For example, and subject to other operational or policy considerations, it may be possible for recipients to apply for the entity's services online, negating the need for it to maintain regional shopfronts.

## Outsource arrangements

It may be beneficial to outsource aspects of program delivery, thus eliminating the need to acquire assets. Some advantages of outsourcing may include:

- lower service delivery costs;
- demonstration that the service delivery option is competitive and contestable;
- access to skills, experience and the latest technology;
- rationalisation and standardisation of services, possibly leading to better quality and more efficient service delivery; and
- a release of internal resources to focus on core service delivery objectives.

In deciding whether to outsource a service delivery, an entity would usually consider a number of matters including:

- the ongoing viability of the outsource provider;
- the costs and benefits of outsourcing;
- existing in-house skills, resources and expertise and whether the outsource provider can replicate these;
- the risks associated with outsourcing, including the loss of corporate knowledge and the impacts on business continuity; and
- the extent to which highly sensitive and protected information may need to be divulged to the outsource provider.

## Leasing

Finance leases result in the recognition of an asset at the time the transaction (contract) is entered into, which gives rise to treatments similar to those if the asset was purchased outright. Alternatively, some of the advantages and disadvantages of entering into an operating lease for assets as opposed to outright purchase are listed below.

- Advantages:
  - costs are spread over the term of the lease as opposed to an upfront major capital outlay;
  - reduced disposal costs at the end of the useful life;
  - risks of ownership may remain with the lessor;
  - assets may be replaced more frequently over the lease term, allowing access to the latest technology; and
  - the entity may be able to access economies of scale from the lessor's purchasing power, leading to lower lease costs.
- Disadvantages:
  - the assets are not owned;
  - assets may not be able to be modified to suit changing business requirements without lessor approval and attracting fees;
  - lease terms are generally fixed so asset replacements and early terminations at the request of the entity may attract penalties and fees; and
  - there may be a capital outlay required if purchasing the asset at the end of the lease term.

Refer to Section 4.3 of this Guide for a summary of the key advantages and disadvantages of both leasing and outright purchase, and a lease-versus-buy calculator based upon net present value (NPV) analysis.

## Reconfigure the existing asset base

As part of its strategic planning, an entity can use an asset divergence analysis to identify an optimal asset mix, and what is required to address any identified gaps. Asset performance indicators are also a key tool in accessing the functionality, operational importance and use of the existing asset base. This is discussed further in the following section on asset performance indicators. Asset condition audits are another useful tool to help determine the 'shelf life' remaining on existing assets that are identified as serving an ongoing purpose.

The outcomes from the asset divergence analysis and asset condition audits may include reconfiguring the asset base to:

- not replace existing assets at the end of their useful life as program delivery objectives can be achieved without them;
- replace assets at the end of their useful life with new lower capacity assets at a lower replacement cost;
- increase existing asset use;
- increase existing asset capacity;
- change the ability of an asset to meet its designated purpose in achieving program delivery outcomes;
- extend the useful life, thus deferring the need to replace an existing asset with a new asset; and
- relocate assets to achieve better use of them.

## 2.6 Asset performance indicators

Asset performance indicators provide an entity with a tool for managing its asset portfolio to assist it in meeting its program delivery requirements. Performance indicators typically take a multi-dimensional view of the asset's contribution to meeting program delivery requirements. This multi-dimensional view would include consideration of the functionality, operational importance and usage of the asset. These are described below in Table 2.2.

Monitoring asset performance can also assist in managing and building the performance of key individual assets or groups of assets, which contributes to the accountability, decision-making and governance arrangements of program delivery.

Entities will need to make an assessment of whether the costs of collecting asset performance information are justified by the benefits gained from the data. In most cases, asset performance indicators would be useful only for entities which maintain significant individual assets or groups of assets.

**Table 2.2: Performance indicators**

<b>Functionality</b>	'Fitness for purpose' describes how well a current asset matches the activities it supports.
<b>Operational importance</b>	Operational importance reflects how heavily the asset user depends upon the asset to meet service delivery needs. In determining an operational importance rating, consideration needs to be given to the immediate availability of alternatives, and the consequences of failure.
<b>Use</b>	An important part of determining the asset's relevance to business requirements is how intensively the asset is used.

*Asset performance indicators allow for the asset portfolio to be reviewed in light of program delivery requirements.*

## Performance indicators rating scale

Individual assets play different roles, including direct or indirect contributions, to supporting program delivery requirements. One approach to ascertaining the level at which assets are performing, and hence assessing their relative degree of importance to an entity, is to assign each asset or asset class a rating. A typical rating scale that could be used is outlined in Table 2.3 below.

**Table 2.3: Performance indicators rating scale**

Functionality		
1	<b>Ideal</b>	Ideal indicates that the asset is ideally suited to the operation and is likely to continue to be so in the foreseeable future.
2	<b>Satisfactory</b>	This grading applies when the asset, while it may not be ideal, meets the core operational demands placed on it.
3	<b>Not suitable</b>	An asset that does not meet operational requirements, for example assets awaiting disposal.
Operational importance		
1	<b>Critical</b>	The asset's function is absolutely essential if the operations are to be continued as intended, for example a financial management information system.
2	<b>Operational need</b>	A high level of operational importance to operational needs without being critical, for example fit-out.
3	<b>Non-essential</b>	The asset is not considered as an integral part of the operations, for example a kitchen refrigerator.
4	<b>Not required</b>	The asset provides no contribution to the entity's objectives, for example redundant assets or assets awaiting disposal.
Use		
1	<b>Standard</b>	Considered to be the standard level of usage for which the area or asset has been designed, for example leasehold improvements.
2	<b>Excessive</b>	This grading describes an asset that is in constant or continuous use that is excessive, for example an asset running above its design specification limits.
3	<b>Under-utilised</b>	This asset meets service delivery needs but is not being used to its full extent possible, for example where service capacity of the assets exceeds demand.

The performance of physical assets changes over their life-cycles and ongoing monitoring of key assets is an important aspect of asset performance. Asset performance information is usually completed with other qualitative and quantitative information relevant to service delivery needs. In doing this, entities are able to develop asset performance benchmarks to assist in optimal service delivery outcomes. Asset performance benchmarks should consider the nature of the asset, its program delivery role and its relative importance.

Applying performance indicators to each key asset or asset class provides entities with a tool to assess the role of those assets on an ongoing basis. However, entities may also have valid reasons for currently maintaining assets with low ratings because of their importance to the future delivery of program outcomes.

The ratings for assigned performance indicators are then combined to determine a relative asset performance benchmark for each key asset or group of assets. An example of how asset performance benchmarks are assigned to each key asset or group of assets is provided in Table 2.4 below. The lower the total rating assessment the more critical the performance of the asset is likely to be to the entity.

**Table 2.4: High-level summary of performance indicator benchmarks**

	Benchmarks	Example	Functionality rating	Operational importance rating	Use rating
A	High	Precious artworks/artefacts, critical systems	1-2	1	1
B	Normal	Office equipment, IT equipment, accommodation	1-2	2	1
C	Low	Items with some functional use but of little operational importance	2	3	1
D	Concern	A course of action is required to address an issue	1-3*	1-4*	1-3*

\* A range of ratings is provided as different combinations across functionality, operational importance and use can provide an overall concern rating.

Performance indicators can also be collected by way of a capital management planning survey. An example of this approach is shown in Section 4.4.

Case Study 2.2 highlights how additional costs may be incurred if an entity does not regularly monitor its asset performance indicators for key assets or asset groups.

## Case Study 2.2: Maintenance planning at the National Capital Authority

Through recent assessment of asset performance indicators, the National Capital Authority identified that, as a result of previous asset management practices, the condition of some elements of lighting infrastructure in the Capital Circle Tunnel, Canberra, was suboptimal. The previous management practice had involved only replacing faulty lamps once a threshold point had been reached and some components of a lower quality were used. This approach was not part of a comprehensive maintenance plan.

Due to the extended period that faulty lamps were left un-repaired, as well as the use of some lower quality components, excessive heat built up within the light fittings causing early deterioration and failure. The extra cost incurred replacing the additional components more than offset the initial savings gained from the use of lower quality components.

The National Capital Authority identified that preparation of a detailed maintenance plan, focused on asset performance indicators, could have identified the need to undertake regular, relatively low-cost, maintenance to avoid having to incur periodic high-cost repairs. This would also improve long term asset performance.

“  
Program delivery requirements drive capital investment decisions.”

## 2.7 Capital investment decision

An entity can use the capital budgeting process to evaluate potential asset solutions and to establish priorities in light of its program delivery requirements and its available funds. Capital funds can then be applied to asset acquisitions to obtain the best value for money that is also consistent with the strategic goals for the asset portfolio (which is described in the asset management strategy).

### Capital investment framework

Development of a structured framework can assist entities in assessing their capital investment decisions. This framework could involve undertaking a business case that is assessed by the executive leadership team, to determine the extent to which an asset satisfies the strategic goals for the asset portfolio. This structured approach allows greater control over the asset acquisition process and facilitates the allocation of capital funds which is likely to be consistent with the entity's strategic business plans.

Incorporating an asset business case into a structured capital budgeting process can also provide the following benefits:

- formally documents the contribution to program delivery requirements;
- provides more accurate forward-year budgeting with all significant acquisitions signed off by the executive leadership team;
- identifies full life-cycle costs;
- is more likely to consider all aspects of capital acquisition, with respect to financial, human, information and physical resources; and
- formally assesses and manages of the associated risk.

Management may also apply investment logic mapping to develop a longer term investment focus. Case Study 2.3 provides an example of how investment logic mapping can be applied to a structured capital budgeting process.

## Case Study 2.3: Investment logic mapping

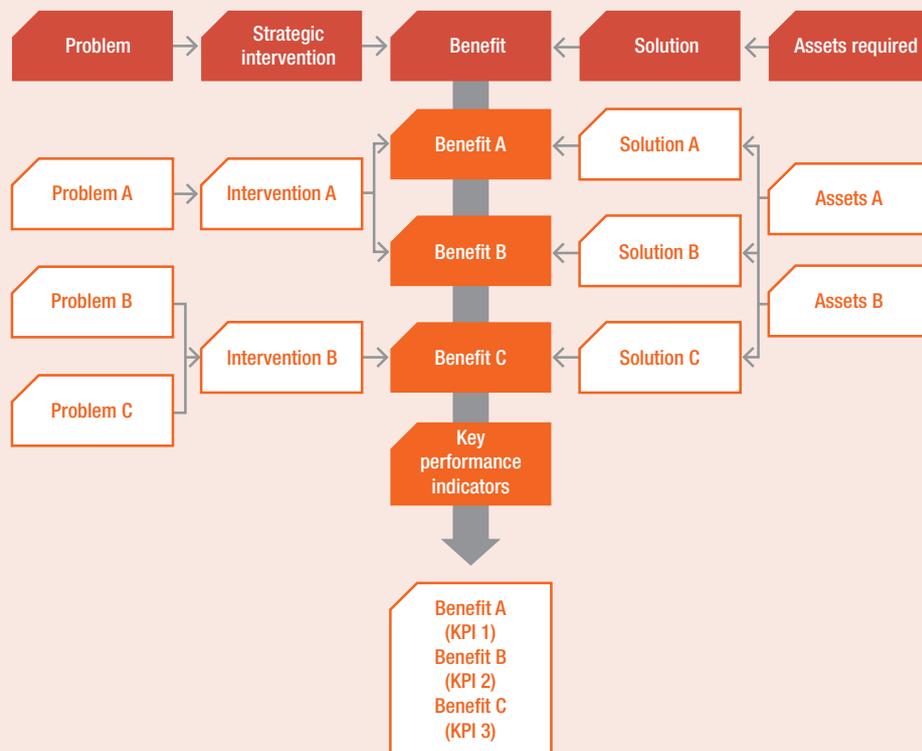
The methodology for investment logic mapping was developed by the Department of Treasury, Victoria, to promote activities through a longer term investment management focus rather than running a series of projects. Investments require the identification of a business need, finding a solution and then implementing the solution to ensure the desired benefits are delivered. A project is an activity undertaken to deliver a solution.

An investment framework clearly identifies and validates the business need and the benefits the solution is expected to deliver. Investment life-cycle phases are set out as:

- Concept and feasibility: Is the logic for the planned investment clear?
  - investment logic mapping (the problem, benefit and solution).
- Validation and planning: Is there a sound business case to proceed?
  - business case.
- Implementation: Does the logic for the investment remain valid?
  - investment reviews.
- Operation: Were the expected benefits achieved?
  - benefits reporting.

An investment logic map is illustrated in the diagram below.

**Figure 2.5: Investment logic map**



## Case Study 2.3 (cont'd): Investment logic mapping

Through investment logic mapping a series of problems are identified and then, to address these problems, high-level strategic interventions are developed.

Key performance indicators are designed to monitor the extent to which the expected benefits are delivered from the strategic interventions.

Solutions are then developed, with associated asset requirements, to meet the intent of the strategic intervention and generate the benefits.

This analysis is typically set out in an investment concept brief containing the key elements required to deliver the solutions. The investment concept brief forms a high level summary that feeds into a capital investment business case.

### Capital funding sources

Section 4.1 provides guidance on how the Australian Government's regulatory environment applies to major capital investments. Capital funding for FMA entities' asset acquisitions (as quantified by the Department of Finance and Deregulation) can only be provided from a New Policy Proposal, the Departmental Capital Budget or cash reserves. Part 3 provides guidance on how to determine the appropriate funding source.

### Business case for capital investment

A well-structured business case for major capital investments will usually address a number of key elements including: strategic alignment with the operations of the entity; net present value (NPV) analysis; projected accrual impact on the entity's financial statements; and a cost-benefit analysis.

A key element of the business case that assists in ensuring value for money and in allowing a comparison of different asset solutions is a net present value analysis. Some of the assumptions that underpin the net present value analysis performed as part of the business case include:

- incremental cash flows;
- nominal terms; and
- comparability.

More information on the elements of a business case for capital investments and the assumptions underpinning the net present value analysis can be found in Section 4.5.

### Accrual financial statement projections

Financial statements for all Australian Government entities are required to be prepared on an accrual basis. Under accrual accounting, income and expenditure transactions are recognised and recorded when incurred, regardless of whether the underlying cash amount or its equivalent is received or paid, resulting in transactions being recorded in the accounting records and reported in financial reports during the period to which they relate. A more detailed definition of accrual accounting is included in the Glossary at Section 4.10.

This creates challenges for entities who use an NPV analysis as part of the business case for a major asset acquisition. The challenge arises because the NPV analysis is undertaken on a cash basis and ignores any

non-cash accrual impacts. The implementation of a preferred capital investment option will have a number of non-cash accrual impacts that will affect the operating results and the balance sheet of the entity.

For example, the following are not usually included in the calculation of an NPV analysis:

- Depreciation—depreciation is an accrual expense and does not result in an actual cash flow;
- Financing costs—the procurement decision is fundamentally different to the financing decision (interest, repayment of principal, grants from governments); and
- Sunk costs—costs which have been incurred and are not recoverable in the event that the project does not proceed.

Given that the implementation of the preferred capital investment option will affect the entity's operating result and balance sheet, it is important that a business case includes a quantitative analysis of the impact on the projected results of the capital investment procurement. If adjusted forecast financial statements are prepared, entities should consider the potential accrual impacts on procurement cash inflows and outflows. A listing of more of the adjustments that may be required in such circumstances can be found in Section 4.6.

Risks associated with cash flows included in the NPV analysis can be addressed in part through a technique known as probabilistic estimation. Case Study 2.4 deals with an example of probabilistic estimation in the assessment of an asset development project.

### Case Study 2.4: Probabilistic estimation technique

Probabilistic estimation technique is one approach to project costing methodology used by the Department of Finance and Deregulation. Probabilistic estimation provides greater certainty of cash flows as part of the project's financial management and assists in mitigating the risk of project cost over-runs.

Project cost estimates have an inherent level of uncertainty attached, and this level will reduce as the project advances towards completion. The overall estimate is maintained under a costing framework given that even though the base estimate may increase, the allowance for risk is likely to decrease.

There are two key components to project cost estimates:

- base estimate (construction and owner costs); and
- contingency allowance to cover a specified level of risk (the inherent risk, plus contingent risk, plus escalation).

Probabilistic estimation is used to calculate the value of a specific risk in that the outcomes are multiplied by a probability factor.

#### *Example*

Through a two-stage capital approval process as an example, at the First Pass, there is say a 50% chance that the total of the base estimate amount and contingency amount will not be exceeded. At the Second Pass, assume a more accurate 80-90% probability that the total estimated cost will not be exceeded could be used. The calculation of this probability is based upon professional experience and judgment at the time of the Second Pass assessment.

## Case Study 2.4 (cont'd): Probabilistic estimation technique

Using these underlying assumptions, and in preparing cost estimates for a capital works project, a base estimate has been calculated by a qualified expert at \$10m. The base estimate was calculated with reference to recently completed projects of a similar nature and size.

A risk is identified that there may be project delays due to finalising initial design issues.

As seen in the table below, a contingency of \$8 million for these potential delays has been calculated based upon probabilistic estimation of predicted costs.

**Table 2.5: Estimating the cost of the risk of delays due to finalising initial design issues**

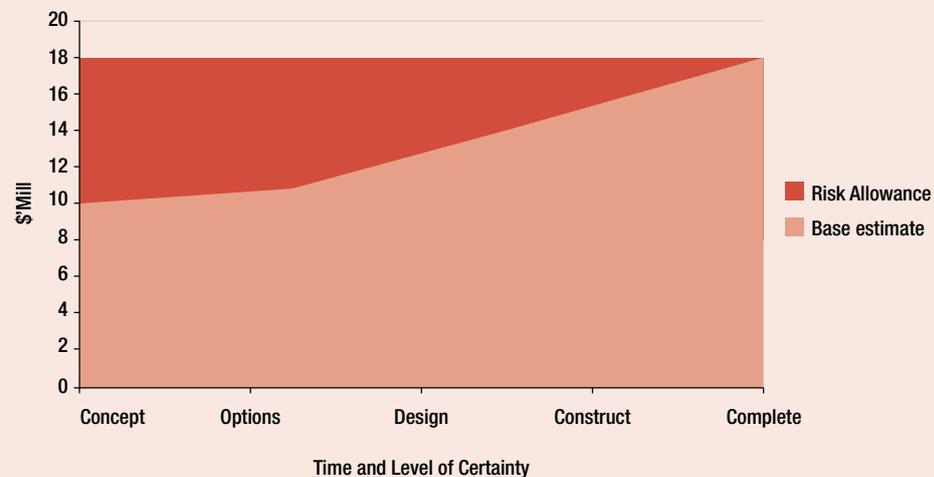
Impact	Consequence (\$'mill)	Probability (%)	Risk Weighted Outcome (\$'mill)
Lowest	0	5	0
Likely	1.6	60	1
Worst	2.0	35	7
<b>Risk based outcome</b>			<b>8</b>

The total cost of the project is therefore estimated at \$18m, being the contingency of \$8m added to the base estimate of \$10m.

Where the project is managed through proper planning the overall cost of the project should remain static. This is as a result of decreasing levels of risk and cost uncertainty as the project advances towards completion. As the cost consequences of risks eventuate and become part of the base estimate the residual level of risk will usually decrease.

The following graph illustrates the maintenance of the cost and contingency estimate:

**Figure 2.6: Maintenance of the cost and contingency estimate**



*Risk management is a part of everyday operations that for some entities is best integrated into aspects of asset management decisions.*

## 2.8 Risk management

Risk identification and mitigation are key aspects of the day-to-day management of most entities. Entities that have significant asset portfolios or whose assets are integral to their ability to deliver program outcomes, are more likely to also integrate risk management into aspects of the decision-making processes associated with asset management. Risk arises out of uncertainties about future events and their associated consequences, and is the chance of something happening that will impact on the asset portfolio's ability to meet the program delivery requirements of the entity. Table 2.6 details how an organisation could identify the key risks relating to asset acquisitions.

**Table 2.6: Identification of asset acquisition risk**

Factor	Description
<b>Risk identification</b>	Identify risk associated with the asset purchase or asset holding. What risk does the asset pose to the entity and what would cause this to occur?
<b>Risk assessment</b>	Assess the likelihood and consequence of the risk occurring.
<b>Risk mitigation</b>	Develop strategies for predicting and treating the risk.
<b>Risk allocation</b>	Allocate responsibility for implementing the risk treatment strategy.
<b>Monitoring and control</b>	Identify emerging risks and the consequent changes to existing risks that require changes to the risk treatment strategy.

Once the exposures for each risk have been identified they can be prioritised to determine if the exposure requires treatment, what risk mitigation strategies are required, and how the risks can be quantified. This can be achieved by looking at the likelihood of the risk occurring and the consequence if it does occur. The Commonwealth Procurement Guidelines advise that risks should be borne by the party which is best placed to manage them. The Comcover branch within the Department of Finance and Deregulation provides risk management advice, information and other services to assist entities in identifying and treating risk.

Having identified its asset management related risks an entity has several options available to treat exposures to risks that include acceptance, risk mitigation, avoidance and risk sharing. Table 2.7 details these options.

**Table 2.7: Treatment of risk exposures for assets**

Option	Outcome	Option rationale
<b>Acceptance</b>	Accept and retain the exposure to risk.	An entity may choose to make an informed decision to accept a risk associated with asset ownership, for example because of its specialised function.
<b>Risk mitigation</b>	Manage the effect of exposures to risk and losses.	This involves developing asset solutions that prevent or reduce the likelihood of a risk occurring or limit the consequence should it occur.
<b>Avoidance</b>	Avoid or reject the exposure to risk.	An entity may make a decision to not expose the organisation to the potential risk resulting from asset ownership, by, for example, leasing it.

Option	Outcome	Option rationale
<b>Risk sharing</b>	Share the risk exposure with another party.	It is mandatory for all general government sector entities to insure their property assets and the Commonwealth's Comcover fund is designed as the primary insurance cover for all government assets. An entity may also share the effects of exposure to risks if it is unable to manage them, through partnering arrangements (joint ventures, etc) and contracts (outsourcing, etc).

Quantification of risk can be achieved through analysing exposures against two predetermined criteria, and this is detailed in Table 2.8.

**Table 2.8: Quantification matrix for asset risk identification and assessment**

Matrix	Identification	Assessment
<b>Identification matrix</b>	<b>Area of risk that may be exposed to loss:</b> health and safety, environmental conditions, legal, contractual, strategic, political, assets and property, financial and commercial, etc.	<b>Source of risk:</b> things that possess the potential to cause harm through their effect on those entities exposed to loss.
<b>Assessment matrix</b>	<b>Consequence:</b> the impact of the risk if it occurs.	<b>Likelihood:</b> that a risk may occur, i.e. the probability that the consequence will occur.

“  
The true cost of ownership can only be established if the full life-cycle costs are known.”

## 2.9 Life-cycle costing

Life-cycle costing is a key asset management tool that takes into account the whole-of-life implications of planning, acquiring, operating, maintaining and disposing (including makegood provisions if necessary) of an asset. It is a process that analyses the known costs over an asset's life, or that of a non-asset solution, to reflect the true overall cost of acquiring an asset. Life-cycle costing is best performed prior to acquisition to allow a comparison of costs to be made. Additional guidance can be obtained on life-cycle costs from the Australian National Audit Office's Better Practice Guide, *Life-Cycle Costing*, issued in 2001.

When entities undertake strategic asset management it is important that they capture the life-cycle costs associated with the ownership of key assets, and that these costs are included in decisions relating to assets, including capital investment decisions and in determining the optimal mix for the asset portfolio. In certain circumstances it may be beneficial for an entity to develop a chart of accounts in its financial management information system that is used to track life-cycle costs, and project management modules can also be configured to capture this data.

To assist in making life-cycle costing more efficient, assets that have similar characteristics can be grouped together and profiled. The use of profiling across the whole of an entity's asset base can dramatically improve the life-cycle costing process. This can enable the entity to:

- identify the true costs of asset ownership more accurately and reliably; and
- enhance its ability to track life-cycle costs at the asset and program level.

Case Study 2.5 provides an example of how asset profiling may be developed.

## Case Study 2.5: Asset profiling

Asset profiling is a useful tool in developing generic profiles aligned with individual assets that share similar characteristics to determine the life-cycle costs, including the capital and operational components.

Estimations of life-cycle cost incorporating maintenance regimes, are, depending upon the nature of the assets, based upon assessment of the design specifications by engineers, quantity surveyors or other relevant experts.

Asset profiling provides a robust and defensible methodology for developing budget estimates and is built into capital management planning. This methodology provides assurance to an entity's executive as to the likely resource demands for both its existing asset base and for proposed acquisitions. The New Policy Proposal capital bid process is strengthened by having life-cycle costs supported by a sound methodology and expert, independently sourced calculations.

Asset profiling can be illustrated through a fictitious example of an asset profile for a freehold building, although the methodology and examples are equally relevant to other assets which comprise a number of interrelated components. A building is made up of many components and associated life-cycle costs. For the purposes of the example inflationary movements and revaluations are ignored, the building will be replaced at the end of its useful life, and depreciation is maintained at a constant level based upon the original acquisition cost.

**Table 2.9: Asset profile for a freehold building**

Component	Time period years	Last performed	Next task date	Useful life: 50 years	
				Capital (\$)	Operational (\$)
Building condition assessment	5	15/03/2007	15/03/2012		10,000
Window cleaning	1	31/01/2009	31/01/2010		5,000
Heating and air condition maintenance	5	31/10/2008	31/10/2013		10,000
Painting	10	30/06/2005	30/06/2015		15,000
Upgrade stairs, railings, handrails and guardrails	30	31/03/1985	31/03/2015	150,000	
Replace roofing, guttering and flashing	40	30/04/1980	30/04/2020	100,000	
Lift inspection and maintenance	3	31/07/2007	31/07/2010		10,000
Upgrade building automation systems	2	31/03/2008	31/03/2010	5,000	

## Case Study 2.5 (cont'd): Asset profiling

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Sub Total
Capital	5		5		5	150	5	170
Operational	5	15	5	15	25	20	5	90
Depreciation	500	500	500	500	500	500	500	3,500
<b>Total</b>	<b>510</b>	<b>515</b>	<b>510</b>	<b>515</b>	<b>530</b>	<b>670</b>	<b>510</b>	<b>3,760</b>

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	Grand Total
Capital		5		105		5		5	290
Operational	15	15	5	15	5	5	25	15	190
Depreciation	500	500	500	500	500	500	500	500	7,500
<b>Total</b>	<b>515</b>	<b>520</b>	<b>505</b>	<b>620</b>	<b>505</b>	<b>510</b>	<b>525</b>	<b>520</b>	<b>7,980</b>

Aggregated with asset profiles developed for other asset types, a composite financial impact of an entity's asset base can be integrated into an Asset Management Strategy and a Capital Management Plan.

Actual costs incurred against an asset profile are tracked to assess whether the original estimates that were made based on design specifications were reasonable. Adjustments to estimates and methodologies can then be made through this feedback loop.

Part 3

# The practical application of a strategic asset management framework

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# Part 3 The practical application of a strategic asset management framework

## 3.1 Document an asset management strategy

Guidance on how the long-term strategic planning process assists asset management was given in Part 2 of this Guide.

An asset management strategy sets out the strategic goals for the asset portfolio by outlining what programs will be delivered, the methods of program delivery including non-asset solutions, and what assets and resources will be required. An asset management strategy is the practical implementation of an entity's strategic goals and helps in identifying the optimal asset base that is necessary to support program delivery requirements.

An asset management strategy comprises a number of plans that detail how an entity will use its assets in an efficient and effective manner over each asset or asset group's life-cycle to support program delivery. An asset management strategy will usually cover the development and implementation of plans and programs for asset creation, operation, maintenance, rehabilitation, replacement, disposal and performance monitoring, to ensure that the desired levels of program delivery and other operational objectives are achieved at optimum cost.

The underlying principle in developing an asset management strategy is that each asset will deliver a future economic benefit to the entity by supporting program delivery, whether directly or indirectly.

### Integrated planning

An asset management strategy will assist entities to integrate their approach to planning over an asset's life-cycle through the identification of asset interdependencies such as:

- planning decisions which affect long-term operational and maintenance costs;
- poorly designed and managed maintenance programs which lead to planning for asset replacements earlier than intended; and
- rationales for disposal of assets, such as low utilisation, poor functionality or end of useful life, that will feed into the broader planning process.

A comprehensive asset management strategy establishes the performance requirements of assets where entities are committed to using assets to achieve their program delivery requirements.

A number of sub-plans usually support an asset management strategy as illustrated in Figure 3.1 below.

**Figure 3.1: Elements of an asset management strategy**



The supporting sub-plans to an asset management strategy will typically have a long-term focus, underpinned by more detailed shorter term plans that will usually include:

- an acquisition plan;
- an operations plan;
- a maintenance plan; and
- a disposal plan.

Each of these sub-plans are discussed in more detail below:

### **Acquisition plan**

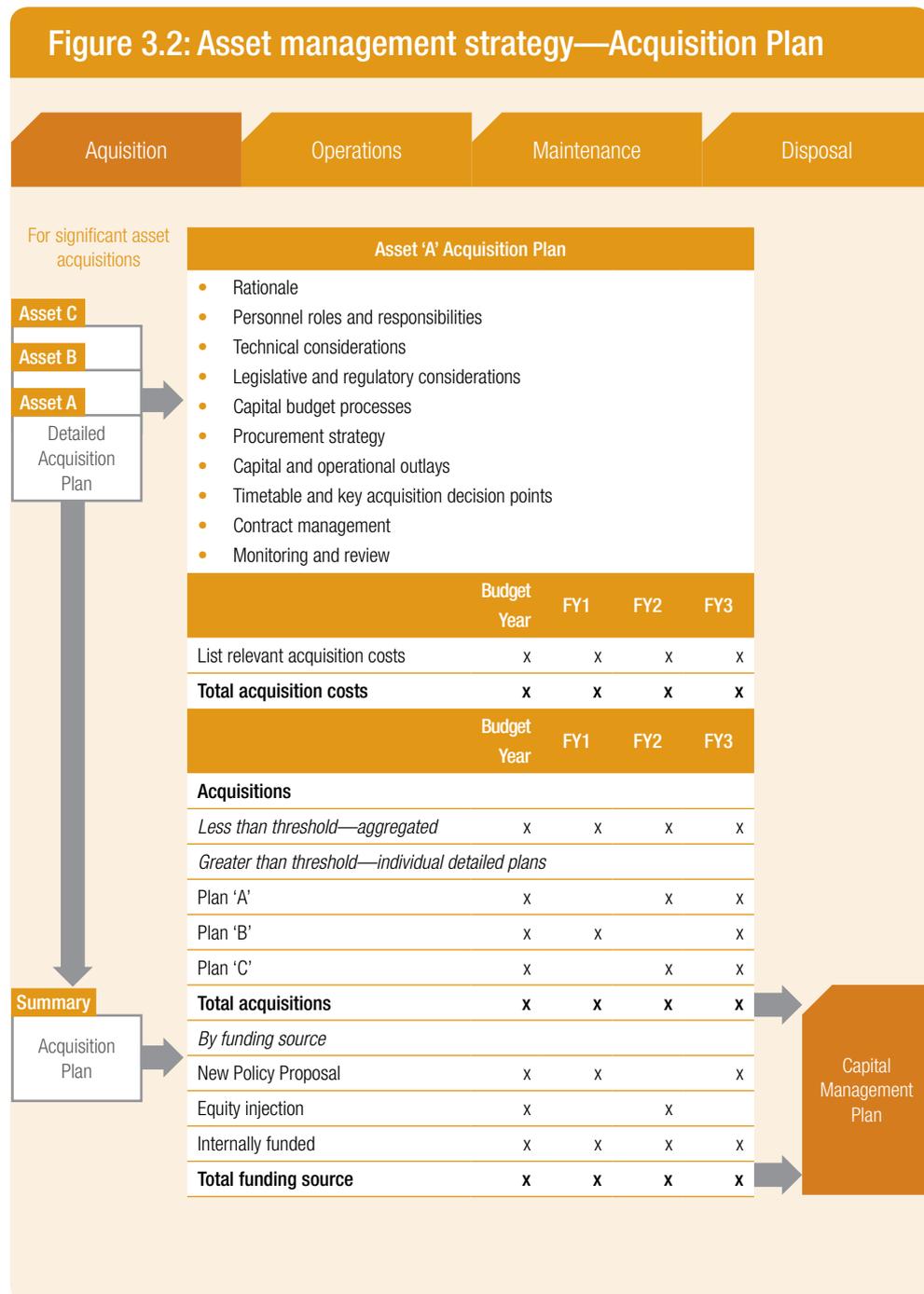
This is the key document for the acquisition of all major assets and links program delivery requirements to assets required. The plan feeds directly into the Capital Management Planning process.

Asset acquisition options will have been considered and a decision on asset acquisition will have been determined through the strategic capital management process, and business plans will have been developed to assess alternatives, including non-asset solutions as discussed in Section 2.2.

Acquisitions may be through a combination of means including:

- purchase;
- construction;
- development (e.g. internally developed software); and
- finance lease.

An example of the possible content of an acquisition plan is illustrated in Figure 3.2 below.



Detailed plans are prepared for significant acquisitions, whether in terms of price or complexity, and could include:

- a statement of need and acquisition rationale;
- roles and responsibilities of personnel required to manage the acquisition;
- activities required in the acquisition such as contract management, technical, legislative and management considerations;
- acquisition timeframes and key decision points;
- timing and amounts of capital outflows;
- indicative life-cycle costs; and
- monitoring and other control processes to ensure that acquisition occurs as intended.

The aggregation of detailed acquisition plans, along with those acquisitions that fall below the threshold for individual inclusion, are disclosed in a summary acquisition plan. This summary will be a key input into the development of a Capital Management Plan.

As part of the acquisition process, design and technical specifications, useful life, life-cycle costs, asset performance indicators and required maintenance levels will need to be determined. This information is able to then feed directly into the operations and maintenance plans.

For larger acquisitions the entity may be required to comply with other regulatory processes, for example Gateway reviews, that complement the acquisition process. Details of other regulatory processes that may apply in certain circumstances are outlined in Section 4.1.

## Operations plan

An operations plan complements the acquisition, maintenance and disposal plans and details the operational aspects of an asset on the basis of its life-cycle.

Asset condition audits and formal monitoring of asset performance indicators will assist entities to optimise their asset base and make asset decisions on a consistent and reliable basis.

An operations plan will set out roles and responsibilities for program and asset managers and assign responsibility for asset performance and accounting for life-cycle costs including:

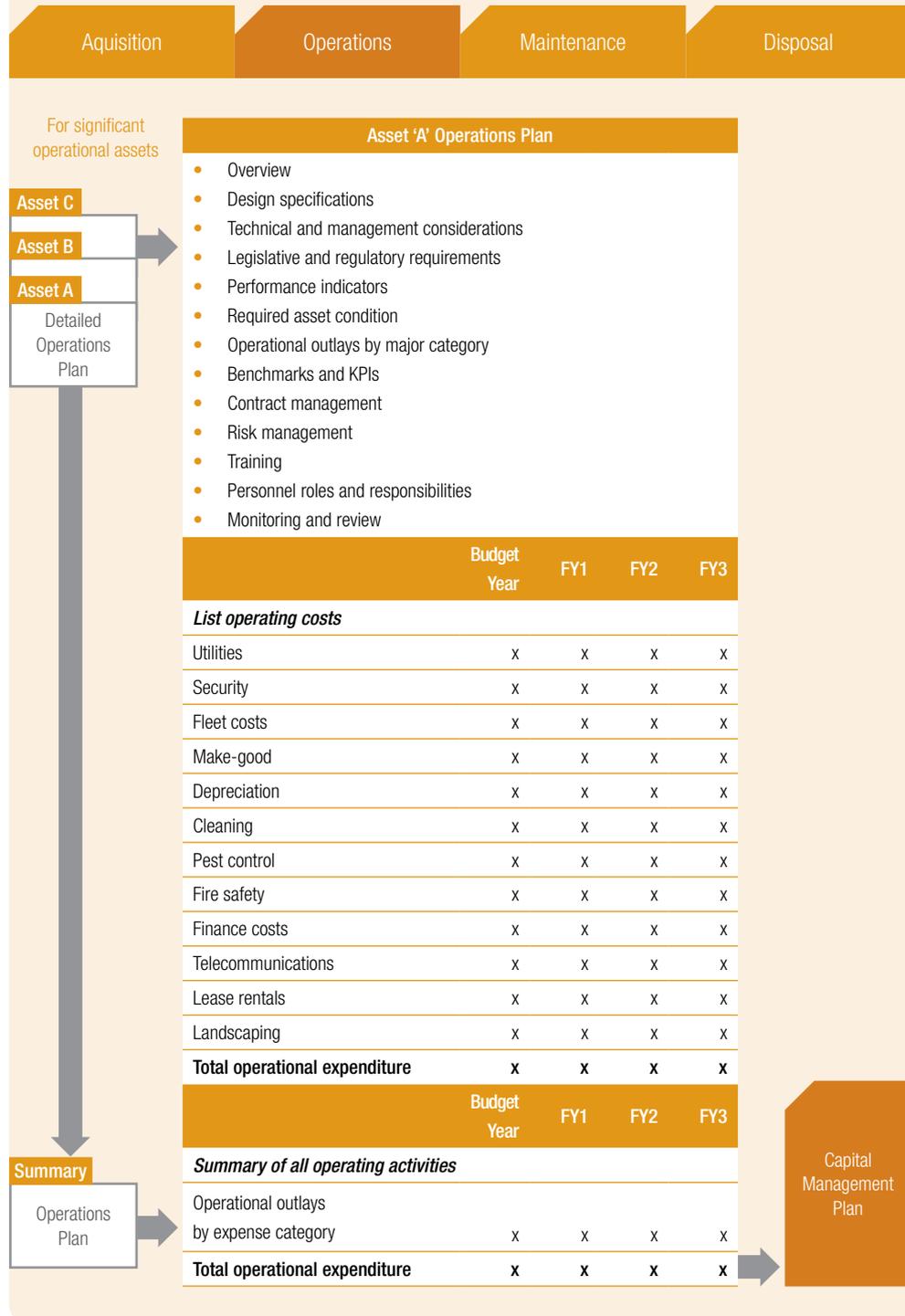
- asset performance measures;
- asset condition;
- physical security and safeguarding;
- depreciation;
- finance costs;
- operating costs such as energy and cleaning costs;
- employee costs where specialist staff are required to operate an asset;
- maintenance costs; and
- significant disposal costs such as make-good, demolition or restoration.

Operational costs may be classified into major asset categories that reflect the entity's business such as:

- facilities management; and
- Information Technology and Communications.

An example of the possible content of an operations plan is illustrated in Figure 3.3.

**Figure 3.3: Asset management strategy—Operations Plan**



To enable relevant accountability and performance reporting, the management information systems will be able to generate timely and reliable information, including the ability to track life-cycle costs at the key asset or groups of assets and program levels.

Benchmarking and key performance indicators (KPIs) are used to assess how effectively and efficiently assets are being operated. For example, a cost per square meter for categories such as utilities, cleaning, lease and security costs may be considered a suitable benchmark.

The analysis of KPIs and benchmarks may suggest opportunities to further decrease costs such as energy management assessments, installation of energy use monitoring, and the use of building management systems that efficiently control light and heating.

### **Maintenance plan**

Maintenance is a critical activity in the life-cycle of an asset. Poor maintenance often leads to a shorter useful life than that envisaged from design specifications and may lead to loss of functionality, a decrease in utilisation, pose a threat to human safety or result in a legislative breach.

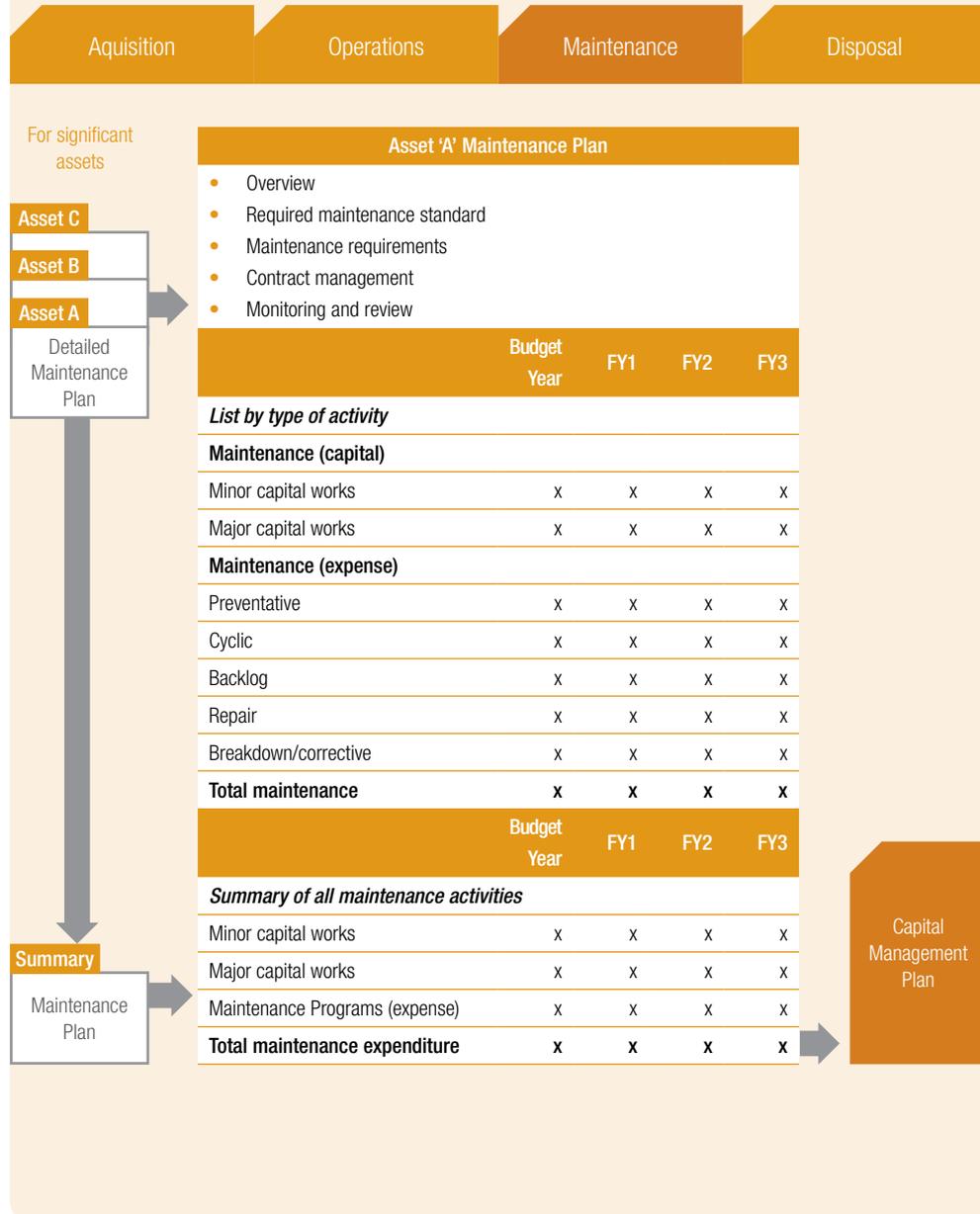
In addition, major maintenance activities may require long-term planning to allow critical assets to be taken off-line for extended periods of time.

Maintenance can be defined as serving two key purposes:

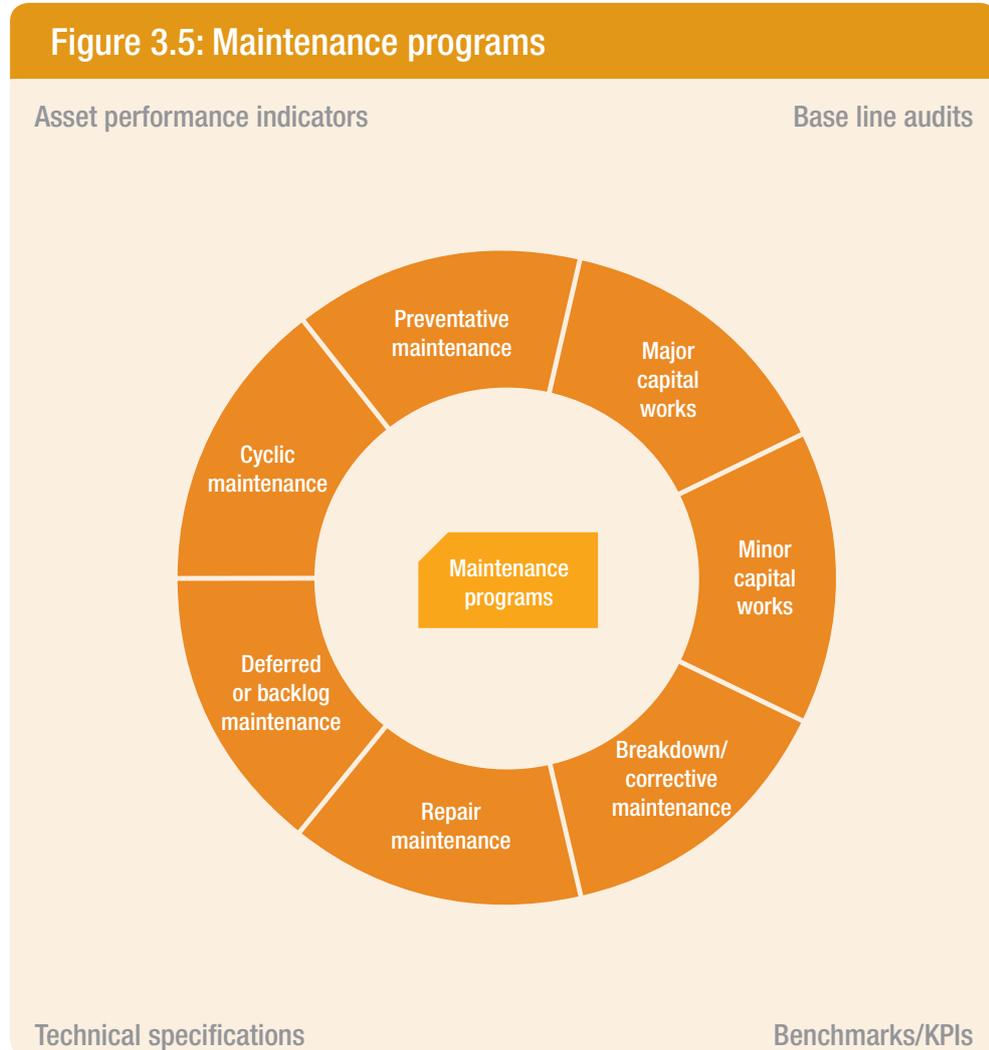
- **refurbishment:** the restoration of an asset to a required benchmark for its useful life to be achieved; and
- **enhancement:** to increase an asset's service potential.

An example of the possible content of a maintenance plan is illustrated in Figure 3.4.

**Figure 3.4: Asset management strategy—Maintenance Plan**



Maintenance may encompass a variety of activities. The different types of maintenance activities and core concepts are shown in Figure 3.5.



### Operational and recurrent

#### *Planned maintenance*

- **preventative:** regular periodic servicing and maintenance;
- **cyclic:** planned life-cycle activities such as repainting every ten years or replacing carpets every seven years; and
- **deferred or backlog:** maintaining records of deferred maintenance to allow re-establishment of the required level of maintenance.

#### *Unplanned maintenance*

- **repair:** unplanned maintenance activities that are budgeted for, such as replacement of broken lamps; and
- **breakdown/corrective:** unplanned maintenance activities that are not budgeted for, such as component failures before the end of the specified design life.

The above activities are generally expensed when incurred. However, where a condition of using an asset is to perform regular major inspections, the cost incurred is capitalised, for example, a legal requirement to inspect heavy machinery, or an aircraft, on a predefined basis.

## Capital works

Maintenance programs may also encompass capital works expenditures classified as:

- **major:** regular planned capital works such as new building works, refurbishments, IT upgrades. Where the intended purpose of the works is to enhance the performance of an existing asset then the amounts are capitalised, for instance to increase functionality or increase useful life; and
- **minor:** these can be planned or unplanned capital works that are typically minor in value and complexity, and tend not to enhance an asset's capability. An example of a minor capital work is the replacement of an office door.

A detailed maintenance plan can be developed for each significant maintenance activity and defines:

- the level and frequency of maintenance required, established through asset performance indicators and asset condition audits;
- maintenance roles and responsibilities;
- maintenance deliverables and timetables;
- maintenance that has been deferred, and the impact of doing so;
- contract management considerations;
- asset technical specifications; and
- performance and monitoring mechanisms.

An example of how one entity has assessed its asset maintenance activities, and integrated this information into its broader operations, is shown below in Case Study 3.1.

## Case Study 3.1: The National Museum of Australia

The National Museum of Australia (NMA) has integrated operational asset management information into its asset register including condition of the asset and maintenance requirements.

NMA assigns performance indicators to assets to establish:

- level and frequency of maintenance;
- history of breakdowns; and
- measurements for asset performance.

The required performance represents the quality levels that the NMA has decided the assets are to be managed to. The required benchmark assigned to assets will be compared against their actual condition during an annual audit process. This allows those assets that are not performing to the required performance indicators to be identified.

Rating the following performance indicators for each asset identifies the required level and frequency of maintenance. As performance requirements vary for different assets, the required indicator level will vary accordingly.

The performance indicators set by NMA are:

- criticality of the asset;
- functionality of the asset; and
- utilisation of the asset.

Proposed benchmarks for the assets have been established using a matrix of combinations of the performance indicators. These benchmarks are used to develop a five year maintenance plan generated from a longer term 25 year life cycle plan. The maintenance plan identifies the particular assets requiring maintenance or replacement and the costings feed into capital management planning and the budget estimate process.

Periodic audits are undertaken to ensure maintenance is carried out in line with required benchmarks. Where there are gaps between the actual versus desired benchmark then corrective maintenance is factored into the maintenance program.

Work orders are automatically generated from the asset register for scheduled maintenance. Actual maintenance costs are uploaded to the asset register and recorded against individual assets for monitoring and reporting purposes.

The Museum has set a number of operational key performance indicators that are reviewed and updated annually and include:

- 90% of preventative maintenance is completed on time and within budget;
- a ratio of 70%:30% of programmed maintenance versus corrective maintenance; and
- bi-annual independent audits of facilities management maintenance contracts to ensure maintenance requirements meet the asset condition requirements.

## Disposal plan

A disposal plan should be an integrated part of an asset management strategy in that it leads into the planning process for new or replacement assets and is a powerful management tool in assessing why the performance of certain assets may not have worked as intended.

Significant revenues may arise from asset sales and these may either be returned to government or used to fund future asset acquisitions, depending on the nature of the disposal and subject to Department of Finance and Deregulation guidance.

Assets may be disposed of for a number of reasons including:

- end of useful life;
- surplus to requirements;
- under-utilised;
- not fit for purpose;
- unserviceable; or
- does not meet legislative requirements.

A number of alternatives exist when an asset is no longer required for a specified purpose and these may include non-disposal options. These are:

- sale by public auction;
- tender;
- trade-in;
- transfer assets to another entity;
- write-off;
- demolition or destruction;
- reallocate asset to another program area within the entity; or
- lease surplus capacity.

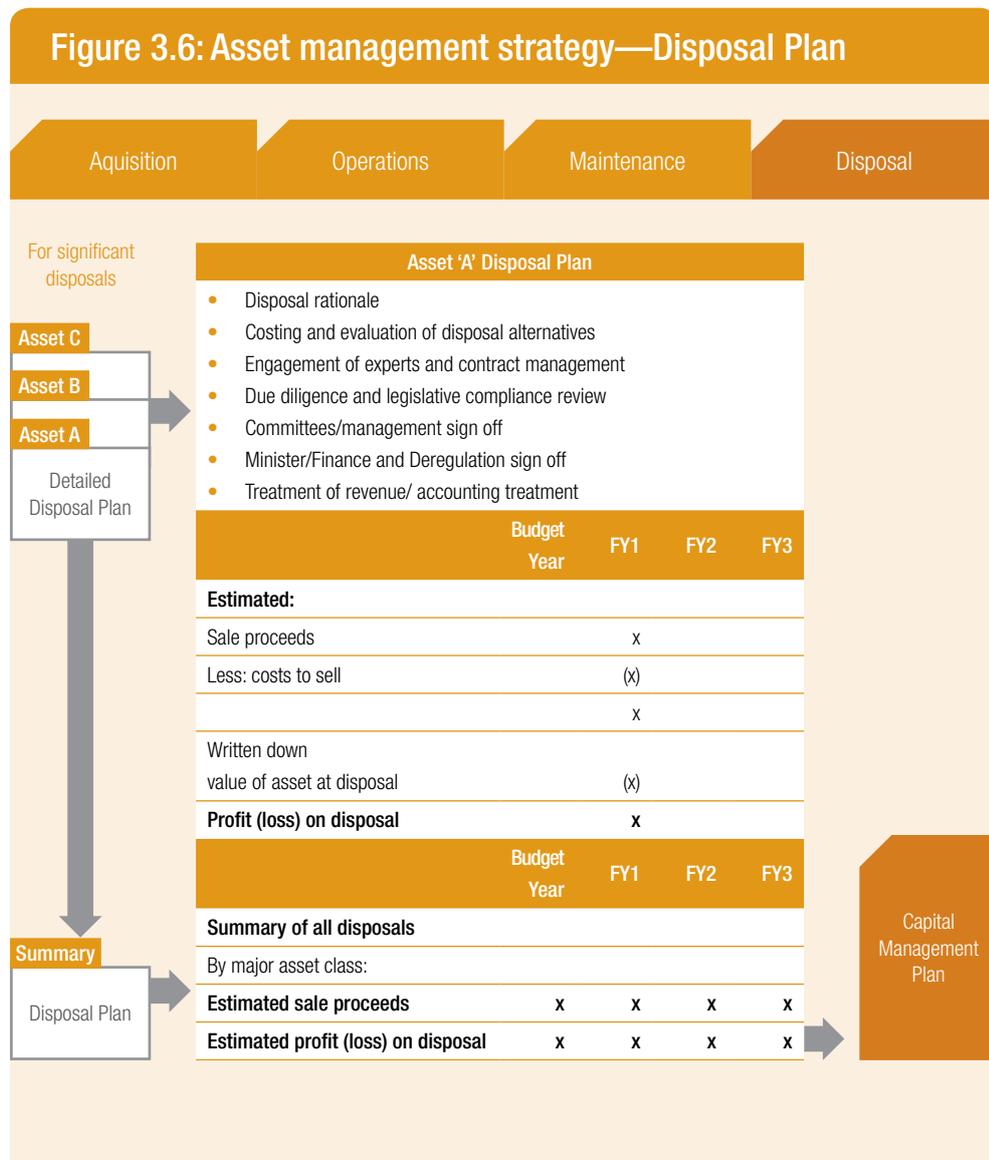
Planning for any significant disposal should include:

- rationale for disposal;
- the proper costing and evaluation of disposal alternatives;
- engagement of experts to assist in professional valuation and disposal;
- due diligence reviews to ensure there is sufficient transparency and accountability for asset disposals including compliance with legislative requirements; and
- proper approval authority, both within and outside the entity where required.

### Disposal of land and buildings

The Minister for Finance and Deregulation has the final responsibility for approving proposed disposals of land and buildings under the current legislative framework. *The Australian Government Property Ownership Framework* requires that decisions to divest property must take into account government objectives and demonstrate delivery of best value for money. Typically, FMA Act entities will submit a business case to the Department of Finance and Deregulation, setting out the rationale and means of disposal, taking into account the requirements of the *Commonwealth Property Disposals Policy and the Lands Acquisitions Act 1989*.

An example of the possible content of a disposal plan is illustrated in Figure 3.6.

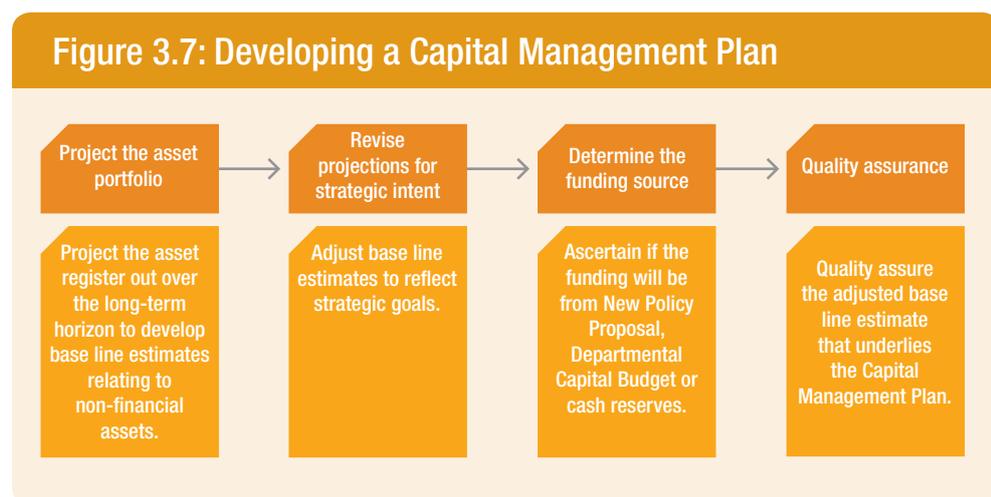


## 3.2 Document a Capital Management Plan

A Capital Management Plan (CMP) provides an overarching document as part of the strategic asset management framework that records how an entity can allocate scarce resources to its asset base and make strategic asset decisions to support program delivery. It is a key mechanism by which management practically implements the entity's strategic goals for the asset portfolio at an individual asset level.

The CMP may be defined as a comprehensive and structured approach to the long-term management of an entity's assets portfolio to deliver services efficiently and effectively.

The CMP can only really be developed after an entity has set the strategic goals for the asset portfolio, has in place an asset management strategy, and has implemented appropriate governance measures. For practical purposes the CMP is a data repository that details both recent actual asset transaction histories as well as how the strategic goals will be put in place over the medium to long term. As an example, and depending on individual circumstances, the medium to long term may be defined as five years, 10 years or even the next 15 years in some instances. For certain entities this may extend even further in the case of specialist assets as outlined previously in Case Study 3.1.



The process for developing a CMP is diagrammatically represented in Figure 3.7 above. The four steps in the process are:

- Project the asset portfolio.** An entity, in developing a CMP, would project its asset register over a multi-year period to develop base line estimates.
- Revise projections for strategic intent.** The projected base line estimates are then adjusted to reflect the entity's strategic goals for its asset portfolio, which are outlined in the asset management strategy.
- Determine the funding source.** Ascertain if the assets to be acquired are new or replacement assets and if they are to be funded from a New Policy Proposal, the Departmental Capital Budget (DCB) or internal cash reserves.
- Quality assurance.** Quality assure the information underlying the CMP. This is undertaken through capital investment triggers, analysis of high-value assets and an integrity check to the external estimates.

An example of this process is illustrated in Section 4.8.

### *a) Project the asset portfolio*

The purpose of an entity projecting forward its asset register is to gain an understanding of how its current asset portfolio meets the optimal asset mix that is required to achieve its program delivery objectives of efficiency and effectiveness. The information gained by undertaking this gap analysis highlights deficiencies between the existing asset portfolio and the entity's strategic goals, as detailed in an asset management strategy.

The primary building block for developing an entity's CMP is its asset register. Projected base line estimates are developed, based on an assumption of constant chain of replacement, and by using the useful life of individual assets. Where the projections do not accord with the entity's strategic asset goals they are removed from the base line estimates. For example, an asset that will not be replaced at the end of its useful life will not be included in the projections beyond its date of decommissioning.

For the purpose of illustrating how an entity could develop and adjust its projected base line estimates as a part of a CMP, a worked example is provided as follows.

#### **Case Study 3.2: Development of projected base line estimates**

Figure 3.8 below diagrammatically demonstrates the constant chain of replacement assumption for an item of scientific equipment that was acquired in the budget year as a result of a Cabinet decision.

This scientific equipment is valued at \$210 000 and has a useful life of three years with annual operating costs of \$40 000 and maintenance expenses of \$20 000. The program will continue for a six-year period after which time it will lapse.

Using the constant chain of replacement assumption, new scientific equipment will be acquired in the initial year of acquisition and then replaced after three years. Accordingly, the asset would be purchased initially in Budget Year and then again in forward estimate year (FE) 3 resulting in two cash outlays of \$210 000 in the respective years. The written-down value of the asset decreases each year with the accumulated depreciation and is recorded in the Balance Sheet. The depreciation expense, operational and maintenance costs are recorded in the Income Statement.

Figure 3.8: Developing projected base line asset estimates

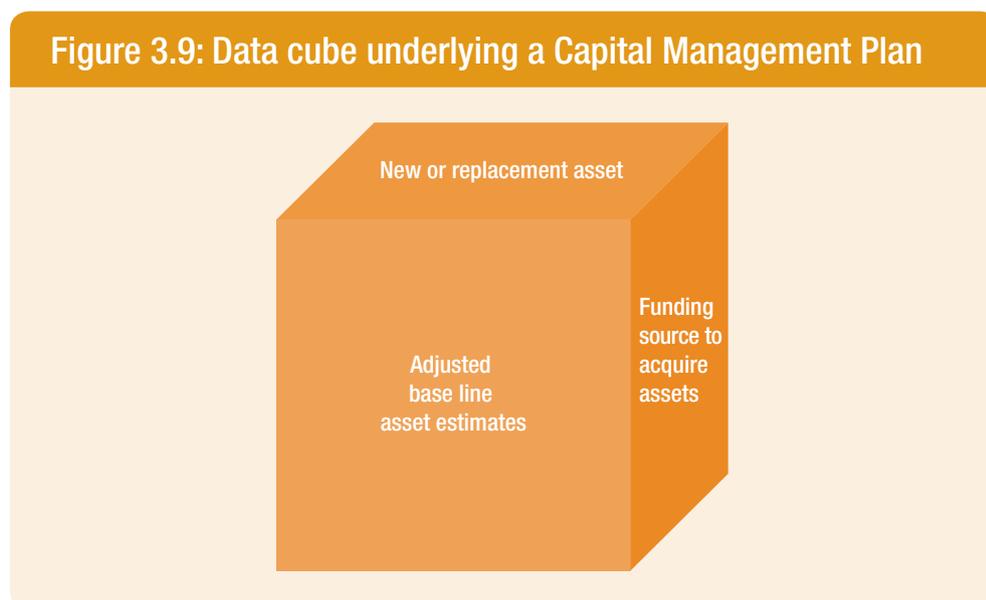
	Budget Year	FE1	FE2	FE3	FE4	FE5
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Non-Financial Assets</b>						
Gross Value	210	210	210	210	210	210
Accumulated depreciation	70	140	210	70	140	210
<b>Net book value</b>	<b>140</b>	<b>70</b>	<b>-</b>	<b>140</b>	<b>70</b>	<b>-</b>
<b>Life-cycle costs</b>						
Depreciation expense	70	70	70	70	70	70
Operating expenses	40	40	40	40	40	40
Maintenance expenses	20	20	20	20	20	20
	Budget Year	FE1	FE2	FE3	FE4	FE5
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Suppliers	60	60	60	60	60	60
Depreciation and amortisation	70	70	70	70	70	70
<b>BALANCE SHEET</b>						
<b>ASSETS</b>						
<b>Non-Financial Assets</b>						
Infrastructure, plant and equipment	140	70	-	140	70	-
<b>CASH FLOW STATEMENT</b>						
<b>OPERATING ACTIVITIES</b>						
<b>Cash Received</b>						
Operating cash inflows	60	60	60	60	60	60
<b>Cash Used</b>						
Suppliers	60	60	60	60	60	60
<b>CASH FLOW STATEMENT</b>						
<b>INVESTING ACTIVITIES</b>						
<b>Cash Received</b>						
Capital injection	210	-	-	210	-	-
<b>Cash Used</b>						
Purchase of infrastructure, plant and equipment	210	-	-	210	-	-

Extract  
Projected base line asset estimates

Financial statement impacts

### *b) Revise projections for strategic intent*

Projected base line asset estimates developed from the asset register need to be adjusted to reflect the entity's strategic goals for its asset portfolio. These adjusted estimates form the data cube underlying a CMP and identify if the acquisitions are for new or replacement assets and their associated funding source.



The entity's strategic goals, as previously discussed in Part 2, will be documented in the asset management strategy, which integrates the approach to planning over an asset's life-cycle, and comprises acquisition, disposal, operations and maintenance plans. These plans are analysed and used to consider any funding constraints that may exist in replacing assets, and then used to adjust the base line estimates so that the CMP reflects the strategic intent of the entity.

Applying this adjustment process to the Case Study example would result in the following changes:

### **Case Study 3.2 (cont'd): Adjusted Base line estimates**

If it was found the item of scientific equipment would not be fit for purpose as a replacement asset, then the entity's Asset Management Strategy would need to detail this in its acquisition plan.

The acquisition plan has identified that new technology will be available in FE3 for \$150 000 (rather than the amount paid for the existing asset that was acquired for \$210 000 in the budget year) with a useful life of three years, annual operating costs of \$30 000 and maintenance expenses of \$15 000. If the executive have approved this alternative replacement asset then it would form the basis of an adjustment to the projected base line estimates. Accordingly, the replacement asset would be purchased in FE3 and the above adjustments would be included in the CMP.



### *c) Determine the funding source*

Each asset to be acquired in the adjusted base line asset estimates is flagged as to whether it is a new asset or a replacement asset and if it is to be funded from either a New Policy Proposal, or the Departmental Capital Budget (DCB)/ internal cash reserves.<sup>3</sup>

Changes to the appropriations framework introduced by the Government in 2010, under Operation Sunlight, reduce the range of expenses that are funded in the year that the expense is incurred, and instead provide the appropriation when payments are expected to be made. Under the new arrangements:

- ongoing funding for depreciation, amortisation and make-good expenses will be replaced by DCB for departmental and administered assets for which funding for depreciation expenses was previously provided. This will enable entities to meet the costs associated with the replacement of minor assets, valued at \$10 million or less or to fund the annual capital component of finance lease charges, as well as costs that are eligible to be capitalised.
- the funding of make-good expenses will only be provided at the time an entity is required to return assets to their (near) original state prior to relinquishing use of those assets.

These changes apply to FMA Act entities in the general government sector that receive funding from annual appropriations directly or via a special account and the collecting institutions (such as the National Gallery of Australia). Commonwealth Authorities and Companies Act bodies that are not designated Collecting Institutions are excluded from the new arrangement.

The DCB allows FMA Act entities to meet the costs associated with replacement of minor assets (assets valued at \$10 million or less) and costs that are eligible to be capitalised. For assets valued at more than \$10 million, FMA Act entities are required to come forward with a New Policy Proposal consistent with the internally funded threshold in the Budget Process Operational Rules.

### **Determining whether new or replacement assets**

The following definitions provide a basis for determining if an acquisition constitutes a new or replacement asset, in order to ascertain the appropriate funding source.

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<sup>3</sup> This decision will be determined by reference to the Department of Finance and Deregulation's annual Budget Process Operational Rules.

**Table 3.1: Determining if an acquisition constitutes a new or replacement asset**

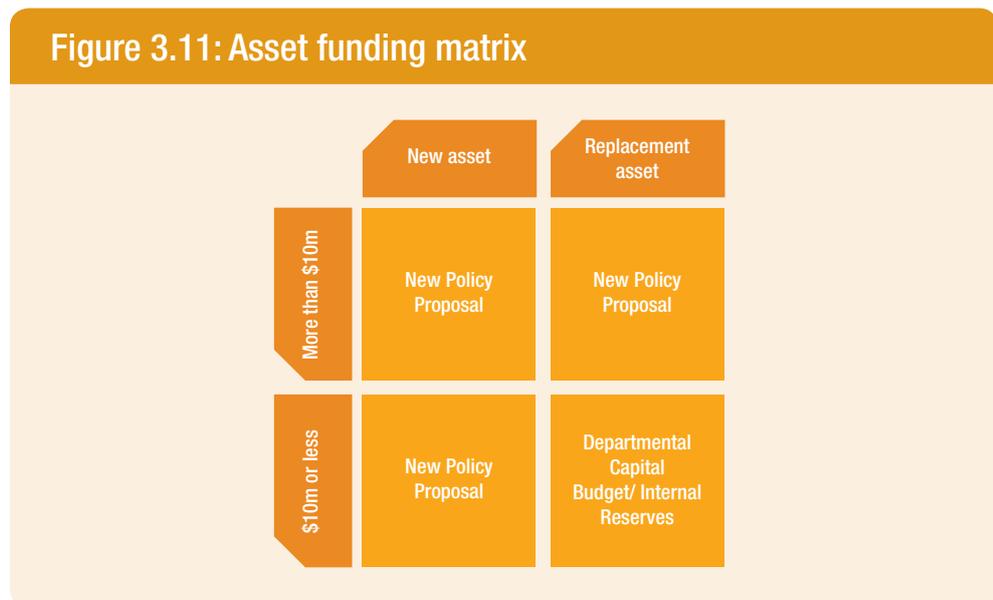
Asset type	Asset definition
<b>New asset</b>	A new asset is one that creates, or changes, existing policy, for example by expanding existing service capacity.*
<b>Replacement asset</b>	<p>A replacement asset is one that replaces an existing asset or is expenditure on an existing asset that is to be capitalised, such as conservation, restoration, preservation or renovation where the outcome is either to extend the life of the asset or enhance the asset in some way.</p> <p>Different types of expenditure that could be capitalised include:</p> <ul style="list-style-type: none"> <li>• internal (costs of developing assets within the entity, such as IT software assets);</li> <li>• conservation (aims to retard or prevent deterioration of, or damage to, assets through preventative treatment);</li> <li>• restoration (work that is performed to return an asset to its former condition);</li> <li>• preservation (includes items such as original artworks and collectables that are typically carefully restored and preserved for display or record-keeping purposes); or</li> <li>• renovation (work performed on an asset that aims to update, remodel or refit it, sometimes for a different future use).</li> </ul>

\* Further guidance on what is included from time to time within this definition is available from the Department of Finance and Deregulation's annual Budget Process Operational Rules or Finance Ministers Orders (FMO).

### Determining the asset funding source

The decision matrix in Figure 3.11 below can be used to establish the primary funding source of new or replacement assets.

The matrix shows that, for an FMA Act entity, only replacement assets of \$10 million dollars or less are to be funded from the DCB/internal reserves. All other acquisitions are funded through a New Policy Proposal. Further guidance on the definition of what expenditure constitutes a New Policy Proposal, or funding from internal reserves are contained in the Department of Finance and Deregulation's annual Budget Process Operational Rules.



### Case Study 3.2 (cont'd): Determining the funding source

As noted previously the scientific equipment was acquired in the budget year through a New Policy Proposal. The equipment is subsequently replaced in FE3 when the asset reaches the end of its useful life and is funded through the DCB. The differing source of funding for these assets is reflected below in Table 3.2.

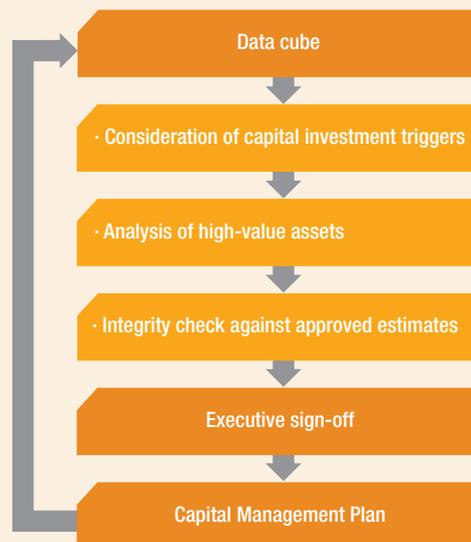
**Table 3.2: Determining the funding source**

Year	New asset \$'000	Replacement asset \$'000	
		\$10m or less	Greater than \$10m
Funding source	New Policy Proposal	Departmental capital budget	New Policy Proposal
Budget Year	210		
FE1			
FE2			
FE3		150	
FE4			
FE5			

#### d) Quality assurance

The final step in developing a CMP is to undertake quality assurance on the adjusted estimates that populate the data cube (Figure 3.12). This will assist the executive in its understanding of the alignment between the CMP and the strategic goals that have been outlined for the asset portfolio. The process of applying quality assurance to a CMP is reflected in the steps below.

**Figure 3.12: Quality-assuring the data cube**



### **Consideration of capital investment triggers**

The CMP can be used by an entity as an early warning system regarding future capital investment decisions. By using the replacement date of assets less a predetermined lead time period as a trigger point, an entity can ensure that the replacement of specified assets has been considered in relation to the strategic goals for the asset portfolio. The predetermined lead time period would be developed by the entity and would be dependent on the age, complexity and likely funding source of the asset.

### **Analysis of high-value assets**

For entities with large asset holdings it may not be cost effective to quality assure individual assets or even asset groups. In such circumstances it may be more efficient for entities to take a risk-based approach to quality assurance. One method for doing this is use of the Pareto Principle, or the 80/20 Rule as it is sometimes called. The 80/20 Rule means that most effects (80 percent) come from a few causes (20 percent). This approach can be directly applied to quality assuring the assets of an entity. As many of the asset management practices will be common for an entity, quality assuring a few high-value assets will help determine the quality of the data cube.

### **Integrity check against approved estimates**

A CMP can provide an integrity check with respect to the approved external estimates that relate to non-financial assets. The funding sources may not exceed what has been approved by the Department of Finance and Deregulation for the DCB and by the Australian Government for New Policy Proposals. If the CMP exceeds these approved amounts, it needs to be referred back to the executive team for further consideration to allow re-profiling of asset requirements or reassessment of the entity's funding prioritisation. This will enable the strategic goals to be revisited so the asset management strategy and CMP are maintained within approved funding limits.

### **Executive sign-off**

The final step in the development of a CMP is for the executive to sign-off that it is in accordance with the strategic goals of the asset portfolio and within approved funding limits set for the DCB and for New Policy Proposals requiring approval as part of the budget process by the Australian Government.

An example of how one entity, the Civil Aviation Safety Authority, has integrated the principles of a CMP with its internal governance framework is outlined below in Case Study 3.3.

### Case study 3.3: Civil Aviation Safety Authority's (CASA) Capital Budget Plan

*The role of the Strategic Priorities Committee is to propose the priorities for CASA's strategic program. It performs a key governance role overseeing the management and performance of the program of work.*

*The Capital Budget Plan enables decision-makers to establish priorities and planning for all capital including new, replacement and operational components.*

CASA's Capital Budget Plan enables it to consolidate the initiatives, objectives and strategies underlying the current and future management of its asset portfolio. The Capital Budget Plan is linked into CASA's executive leadership group's decision-making processes through the Strategic Priorities Committee which ensures that available capital funding and resources are directed towards initiatives that best align with CASA's strategic goals. Ultimately, CASA uses the Capital Budget Plan as a tool for the prioritisation of resources in the current and forward years to ensure asset decisions are prioritised against proposed projects and bids for increased operating expenditure. The Capital Budget Plan enables decision-makers to establish priorities and planning for all capital including new, replacement and operational components.

The Capital Budget Plan has a 15-year outlook as it has been found necessary to consider a longer-term view for monitoring and benchmarking asset performance, as well as funding of major refurbishment and replacements.

**Figure 3.13: CASA's Capital Budget Plan**



The Capital Budget Plan provides CASA with the ability to strategically manage their asset portfolio through providing:

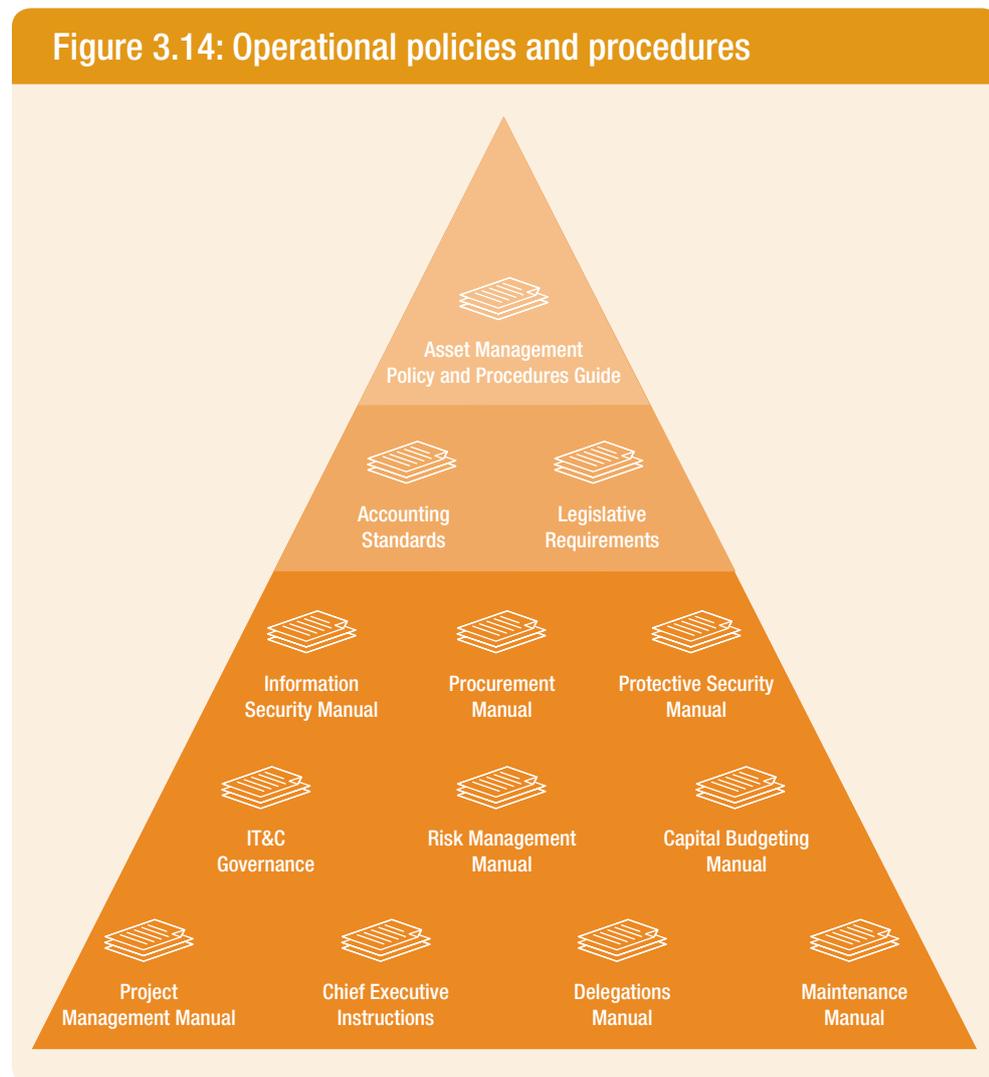
- a forecasting model that links capital projections to objectives set by the Chief Executive;
- capital projects;
- the ability to prioritise new capital acquisitions according to entity objectives;
- an integrated budget statement of comprehensive income, balance sheet and cash flow projections that are used in developing robust published estimates (the Capital Budget Plan directly populates the non-financial asset estimates (including depreciation) in the Portfolio Budget Statements and Portfolio Additional Estimate Statements);
- scenario analysis, funding forecasts, life-cycle costing for capital replacements and new initiatives;
- optimising service delivery through asset performance indicators; and
- strengthening corporate governance around asset management, including internal business case assessments.

### 3.3 Asset management policy and procedures guide

An asset management policy and procedures guide (AMG) is a key element of better practice entities' internal control environment. An AMG clearly establishes what is required to record, account for, control and safeguard assets within the Commonwealth legislative environment.

An AMG can be structured to give practical direction as to how to undertake day-to-day management of assets. An AMG can also reinforce the strategic direction of the entity through the outcomes of the asset management strategy and Capital Management Planning process. For entities with a small or more 'standard' asset base, it may be more efficient to incorporate the key parts of an AMG into its CEIs, or similar policy and procedures guidance material.

As illustrated in Figure 3.14 below, in managing an entity's asset base, an AMG is structured so as to consolidate and provide a central resource on an entity's operational policies and procedures covering all aspects of an asset's life cycle from planning to acquisition, maintenance, operation and disposal.



The structure of an AMG should be logical so that it reflects an entity's business activities, typically under a framework similar to that illustrated in Figure 3.15 below.

**Figure 3.15: Elements of an asset management guide**



The key elements for most entities are likely to encompass:

- **acquisition and divestment:** the procurement and disposal processes are explained;
- **recording:** defines what constitutes an asset, asset thresholds and grouping, asset classes and the asset register;
- **control and management:** sets out what is required under the regulatory environment and details operational requirements including asset management roles and responsibilities, physical security, stocktakes, personal issues and loans, losses and damages, asset performance indicators, disposals, write offs and insurance; and
- **accounting:** provides guidance on accounting for assets including valuation, impairment, useful lives, restructure, assets held for disposal, depreciation methods and rates, and heritage and cultural assets.

A checklist of topics typically included in an AMG as well as further commentary on significant and more complex areas of asset accounting are discussed in Section 4.7 of this Guide.

### 3.4 Asset register

The asset register is a cornerstone of an asset management framework for entities, no matter what the size of their asset portfolio, in that it keeps asset information as well as an historical record of both financial and non-financial information over each asset's life-cycle for the purposes of:

- asset planning;
- assisting in meeting accounting standards and legislative compliance;
- monitoring performance; and
- accountability.

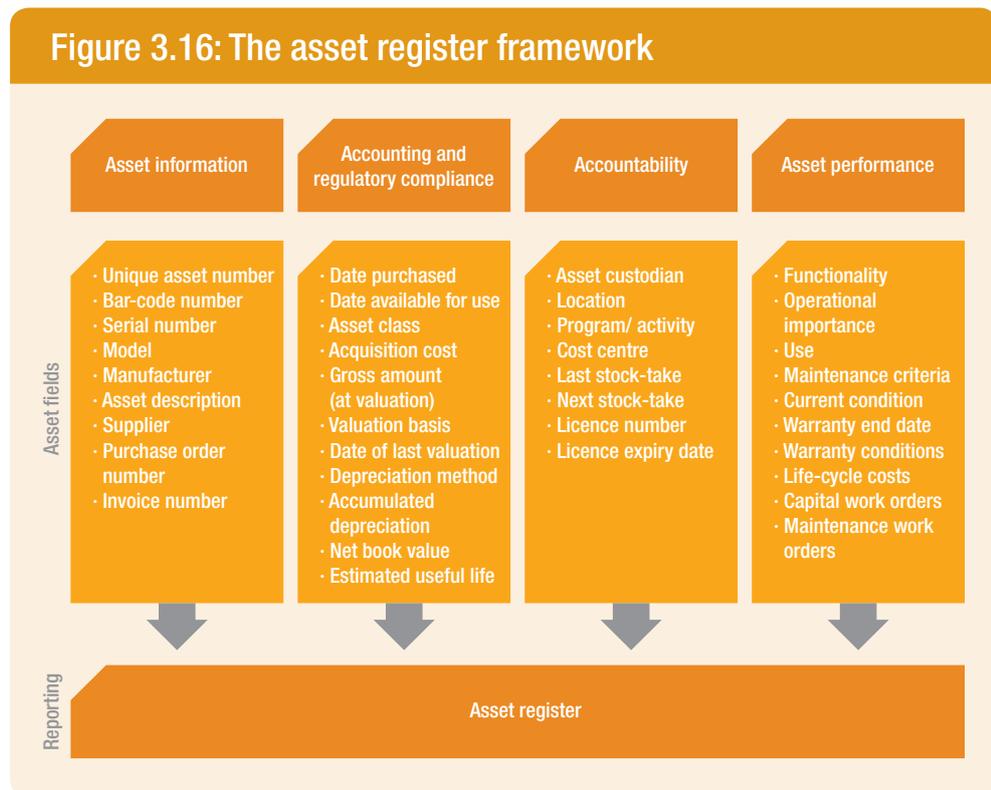
The asset register is a key to understanding in detail what assets are owned and controlled by an entity and, depending on the complexity of information entered, can be used to determine:

- the likely current condition of assets;
- when assets need to be replaced;
- information required to meet accounting standards and other regulatory requirements;
- asset locations and asset custodians for stocktakes;
- the level and frequency of asset maintenance programs; and
- life-cycle costs by asset, program and business activity.

An asset management strategy, capital budgeting process and a Capital Management Plan are all most effective when populated with accurate and up-to-date information, much of which can be sourced from the asset register.

The functional requirements of an asset register will depend on the size and nature of an entity's activities and asset portfolio and will be configured to be fit for purpose, that is, to deliver performance and accountability measures which are commensurate with the amount and role of assets and the level of asset management activity undertaken within the entity.

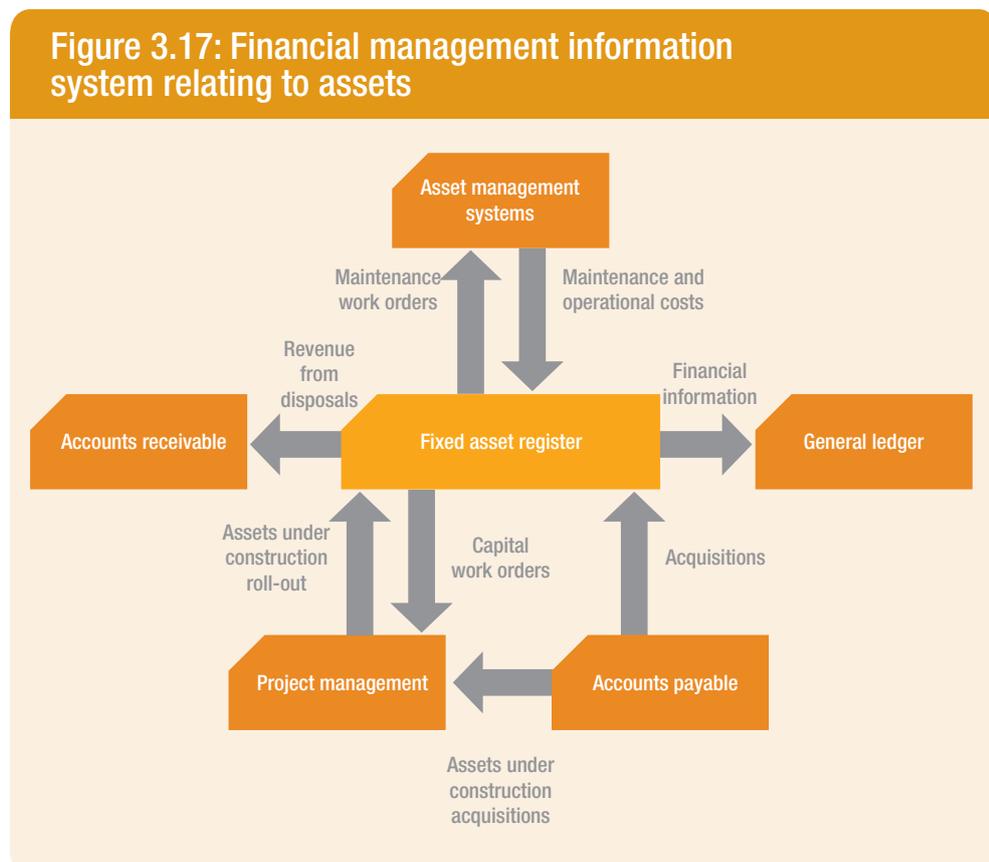
The information recorded in, and reports generated from, a comprehensive asset register could include those illustrated in Figure 3.16 below.



Better practice entities with significant asset holdings fully integrate the asset register into their financial management information system (FMIS) to obtain relevant and reliable information for review and decision-making. This helps to ensure that any asset transactions are updated on a real-time basis and that data integrity is maintained between the fixed asset register and other systems including:

- **general ledger:** the central resource for recording all financial transactions and for generating internal and external financial reports;
- **purchasing/accounts payable:** processing and management of all asset-related payments whether for capital, operations or maintenance;
- **project management:** management of all capital projects, recording detailed information on matters such as budgets, acquittal against deliverables, timetables and technical specifications;
- **accounts receivable:** recording of amounts owed from asset disposals; and
- **asset management systems:** used to manage operations and maintenance programs.

Typical information flows between the asset register and other FMIS financial modules for an entity holding a large or complex asset portfolio are illustrated in Figure 3.17 below. While the nature of the individual FMIS will be determined by various factors, smaller entities whose asset base is comprised primarily of more 'standard' assets may only require a FMIS relating to assets which is commensurate with the level of management and reporting information needed to maintain appropriate levels of accountability. The degree of sophistication for an entity's asset-related FMIS may also be influenced by the average volume of acquisitions or disposals/transfers during the year.



In better practice entities that have fully integrated systems, the asset register can be used to manage maintenance programs based upon agreed criteria resulting from an assessment of asset performance indicators such as functionality, operational importance and use. The agreed maintenance and capital programs, and work-orders can also be generated from the asset register for various activities including:

- new works;
- asset replacements;
- routine maintenance; and
- reactive maintenance.

Case Study 3.4 below demonstrates how the National Museum of Australia applies this approach to its asset base. An historical record of life-cycle costs by significant asset or asset class can also be maintained and used as a major input into the planning, budgeting and performance monitoring processes.

### Case Study 3.4: Asset register: The National Museum of Australia

The National Museum of Australia (Museum) records information in the asset register to assist facility management activities such as programmed and unplanned maintenance works and asset replacement.

Work-orders are automatically generated from the asset register module for assets requiring scheduled maintenance. Facility management providers (providers) perform maintenance as detailed in the work-orders. To ensure the providers maintain assets to the required benchmark, the Museum undertakes condition assessments of its assets via independent audits. Details of the work including actual costs and condition rating are recorded in the asset register. Unplanned maintenance work is also entered into the asset register and work-orders are generated to advise providers as to work required. Maintenance expenditure is analysed into programmable (scheduled) and non-programmable, such as breakdowns and other non-scheduled maintenance tasks, and monitored closely.

#### *Asset groupings and hierarchies*

A cost/benefit analysis will establish the appropriate level for assets to be recorded in the asset register, and how they should be grouped.

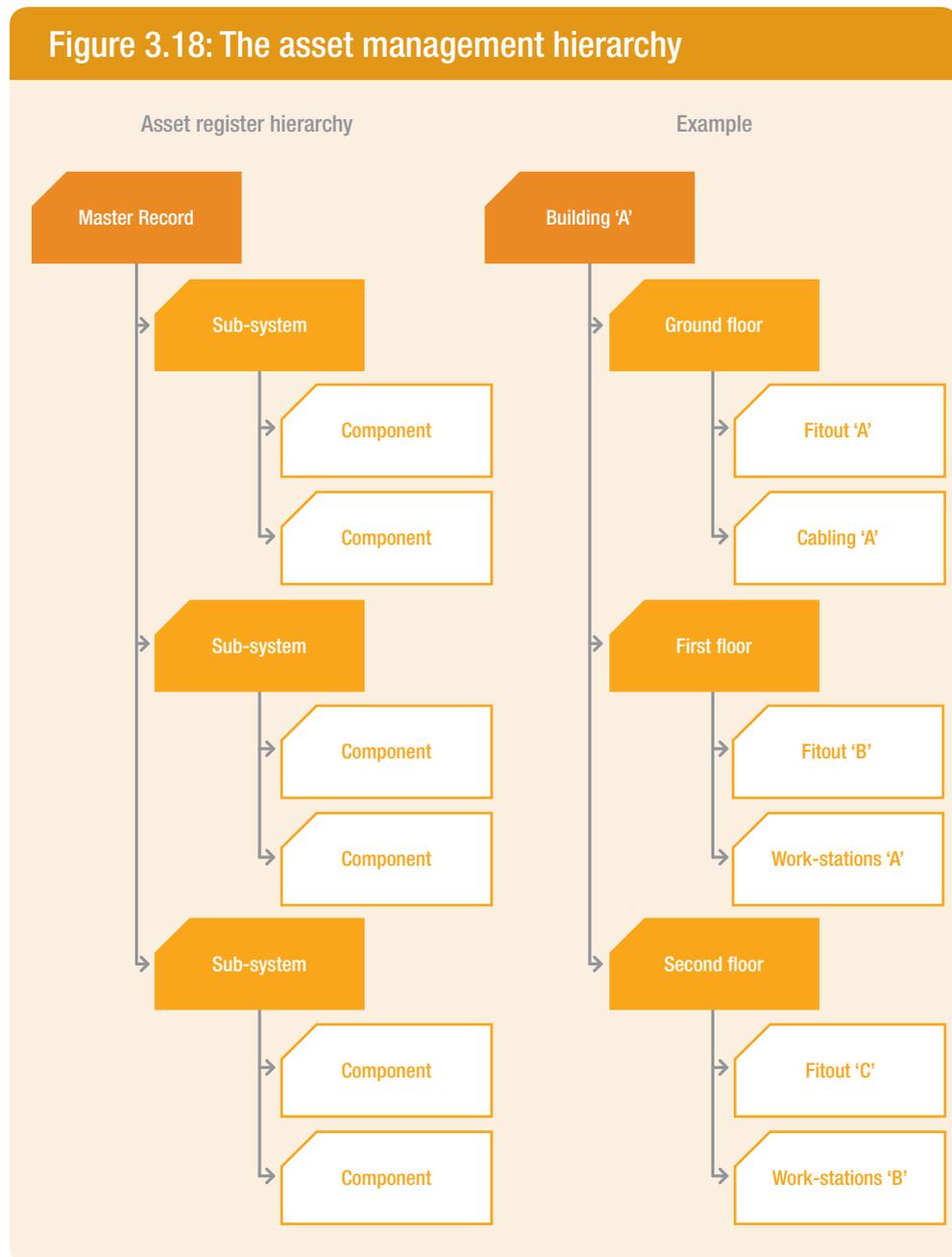
Where there are complex assets made up of a number of separate components that are readily identifiable, may be purchased at different times, have different depreciation methods or different useful lives, then it may be appropriate to use asset hierarchies. This would also assist entities to comply with the requirements of AASB 116, that each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item be depreciated separately where useful lives or depreciation methods differ.

Recording significant components of a complex asset separately will assist management in planning for maintenance, replacement, refurbishment and upgrade over an asset's life-cycle.

A master asset record is established for each functional asset and its sub-systems. Components and, where considered necessary, sub-components are used to group assets under the master record. For instance, a sub-component could be used to track capitalised spare parts where these parts are considered a significant part of the relevant functional asset.

If life-cycle costs are attributed to assets at the component level in the asset register, informed decisions as to the efficiency of an asset and its holding cost are more likely to be assessable. The performance of an asset and the cost of holding it can be analysed at increasing levels of detail either at the functional asset level or down through sub-systems to components.

The principles of asset management hierarchies are illustrated in Figure 3.18 below where an asset management hierarchy framework is set out and an example is given as to how hierarchies could be used to track a complex asset such as a leasehold building. The principles are equally relevant, however, to any asset that has a number of components, such as computer networks.



### *Inventories*

Inventories usually form a unique part of an entity's asset base because of their high turnover rate and low individual value compared to other asset categories. Inventories also usually require a different approach to their management and recording in the asset register compared to other assets. Inventories by definition comprise large quantities of relatively low-value items that are held by entities to meet the uncertainties in demand, supply and movement of the inventory items. Entities which are obliged to carry large inventories often have an inventory management sub-system within the asset register to track the movement of the individual items. Further information on inventories can be found in Section 4.9.

## Part 4

# Operational tools, checklists and further guidance

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# Part 4 Operational tools, checklists and further guidance

## Introduction

This section of the Guide provides entities with more detailed background and guidance to assist them in managing their asset portfolios. A number of standard 'templates' are included which should be tailored by entities so, where relevant, they are made 'fit-for-purpose' to suit the individual circumstances of the entity.

### 4.1 The legislative and regulatory environment

The Commonwealth's regulatory framework relating to asset management is quite diverse. Some of the more prominent principles and processes relating to the capital budgeting and procurement process through to general asset management and disposal are discussed below. Entities requiring more detailed information regarding obligations they may have in respect of individual elements of the regulatory framework should, in the first instance, seek clarification through the Department of Finance and Deregulation (Finance).

#### **Financial Management and Accountability Act 1997**

The FMA Act provides for an executive management structure, with each FMA Act entity governed by a Chief Executive. The Chief Executive is responsible for managing the entity in a way that, as stated in sub section 44(1) of the FMA Act, promotes the proper use of the Commonwealth resources for which the Chief Executive is responsible.

This section is supplemented by a requirement, in the FMA Regulations, for an approver not to approve a spending proposal unless the approver is satisfied, after reasonable inquiries, that giving effect to the spending proposal would be a proper use of Commonwealth resources. This approval is to occur before any arrangements are entered into that would, or could, lead to the spending of public money.<sup>4</sup>

Section 63 of the FMA Act provides for the Finance Minister to make Orders on certain matters identified in the Act, and on any matter on which regulations may be made. The principal matters covered by the FMA Orders concerning asset management are: the responsibility of Chief Executives to maintain entity accounts and records; and the requirements for the preparation of annual financial statements by entities.

#### **Commonwealth Authorities and Companies Act 1997**

The CAC Act sets out the financial management, accountability and audit obligations on Commonwealth statutory authorities and companies in which the Commonwealth has at least a direct controlling interest, and which are in addition to any specific requirements of their enabling legislation.

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<sup>4</sup> FMA Regulations 9, 10 and 13

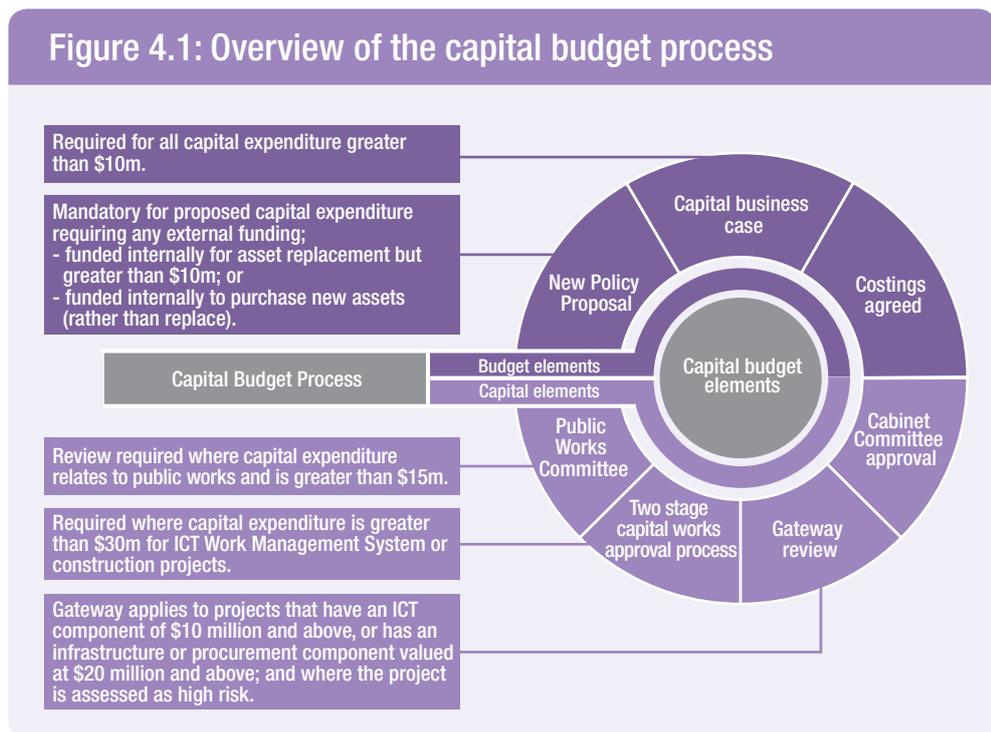
## The FMA Act regulatory framework for asset management

A selection of standards and codes of practice are disclosed in Section 4.2 to illustrate some of the key requirements that FMA Act entities must comply with, and include:

- implementation guidelines for the National Code of Practice for the Building and Construction Industry;
- Energy Efficiency in Government Operations policy;
- Chief Executive Instructions (CEIs);
- the Australian Government Protective Security Manual;
- the Australian Government Information Security Manual; and
- IT Governance Standards.

## Capital budgeting

An example of the diverse regulatory framework governing asset management is shown in Figure 4.1 below, which provides an outline of some of the processes involved when FMA Act entities are funding asset acquisitions as part of the asset management process. These processes have limited applicability to CAC Act entities who normally are not subject to the same budgetary framework.



Budget elements relate to the development of key documents to support capital expenditure and include New Policy Proposals and capital business cases.

Scrutiny and validation of these budget elements may be undertaken through various control elements, such as the Public Works Committee, Gateway Review, and Cabinet Committee approval.

Some of the more prominent principles and processes relating to the capital budget process diagrammatically represented above, or for asset management more generally, are discussed below and include:

- the Commonwealth Procurement Guidelines;
- the Australian Government Property Ownership Framework;
- the Commonwealth property disposals policy;
- the Public Works Committee;
- the capital budget approval process for large construction projects;
- the capital budget approval process for large Information, Communication and Technology (ICT) projects; and
- the Gateway Review process.

### **Commonwealth Procurement Guidelines (CPGs)**

The CPGs are issued by the Finance Minister under the FMA Regulation 7 and establish the policy framework for procurement within the Australian Government.

The core CPG principle is value for money underpinned by non-discriminatory competitive procurement processes, using resources in an efficient, effective and ethical manner and making decisions in an accountable and transparent manner consistent with government policies.

Though CAC entities are not necessarily subject to the CPGs many adopt some or all of the requirements in line with good practice.

Entities determine their own procurement practices, consistent with the CPGs, generally through Chief Executive Instructions or equivalent documents.

### **Australian Government Property Ownership Framework**

From 1 July 2005, the Australian Government Property Principles were replaced by the Australian Government Property Ownership Framework and the new principles apply to all FMA entities and CAC Bodies. The rationale behind the framework is that the government's core business excludes property ownership unless particular circumstances apply.

The objective of the framework is that all decisions to own or divest properties must support specific government objectives or represent value for money. The Commonwealth's expectations in relation to the management of property (within Australia) are articulated in the Commonwealth Property Management Guidelines.

### **Commonwealth property disposals policy**

Entities are required to report their landholdings to the Department of Finance and Deregulation on an annual basis as well as demonstrate the need to retain these assets through the Commonwealth land audit process.

As a general rule Commonwealth property, having no alternative efficient use, is to be sold on the open market at full market value. Exceptions to this general rule are where the land is considered suitable for optimising the Government's commitment to advancing housing and community outcomes or where a priority sale is made to a specific purchaser under special circumstances.

## Public Works Committee

The Parliamentary Standing Committee on Public Works (known as the Public Works Committee (the Committee)) was established in 1913. It is constituted by the *Public Works Committee Act 1969* (the PWC Act). The PWC Act provides that a public work with an estimated cost<sup>5</sup> exceeding a \$15<sup>6</sup> million threshold shall not be commenced unless:

- it has been referred to the Committee; and
- the House of Representatives has resolved, following examination of the report by the Committee, that it is expedient to proceed with the work (that is, an 'expediency motion' is passed).

Under the PWC Act, a public work, the cost of which exceeds the threshold, may only be commenced without such referral under certain specific exemption conditions, namely that:

- the House of Representatives has resolved that, by reason of the urgent nature of the work, it is expedient that it be carried out without having been referred to the Committee;
- the Governor-General has, by order, declared that the work is for defence purposes and that the reference of the work to the Committee would be contrary to the public interest (for example, for security reasons); or
- the work has been declared, under the Act, as being a repetitive work (for example, general maintenance work).<sup>7</sup>

The entity that is carrying out or contracting public works that are required to be referred to the Committee prepares a submission (also referred to as a 'Statement of Evidence'). The submission includes information on why the work is necessary, other options considered, estimated cost, and any plans or drawings that will help the Committee understand the purpose and scope of the work. At the same time as providing the Statement of Evidence, entities are required to provide the Committee with a separate table showing a breakdown of the major cost components of the proposed work (referred to as the Confidential Cost Breakdown). In order to protect the integrity of the tendering process and assist the Commonwealth in maximising its value for money in funding the project, the practice of the Committee is that only Committee members and secretariat staff view the Confidential Cost Breakdown.

Subsequently, the Committee holds public hearings in relation to public works projects referred to it. Members of the Committee intending to attend the hearing on a particular project will generally inspect the proposed construction site prior to the hearing.<sup>8</sup> At the public hearing, officers from the proponent entity appear before the Committee and any organisation or person who has sent in a submission to the Committee on the particular project may be invited to give evidence. Private hearings, involving the Committee members and the proponent entity, are also held to allow discussion about cost details of the work, which may include sensitive tendering information.

After the public hearing and responses have been made to any questions on notice, the Committee prepares a report to present to the Parliament. The Committee is able to make any recommendations it sees fit within the bounds of the Act, and may recommend the proposed public work does not proceed.

Once the report is tabled in the Parliament, a motion is made by the Minister for Finance and Deregulation (or delegate) to proceed with the work. This is the 'expediency motion' and usually supports the Committee's recommendations. The Act provides that work may not commence on a public work referred to the Committee until the House of Representatives has 'resolved that it is expedient to carry out the work'.

5 The Act defines 'estimated cost', in relation to a public work, to mean an estimate of cost made when all particulars of the work substantially affecting its costs have been determined.

6 The threshold was increased from \$6 million in November 2006.

7 See sub-section (8) of section 18 of the Act. There is no guidance or examples provided of what constitutes an urgent, defence purpose or repetitive work in the Committee's *Manual of Procedures for Departments and Agencies*, although it does note that when an exemption is sought, officers of the entity should attend a meeting of the Committee to explain the background to, and the need for, the exemption.

8 The public hearing is usually conducted either at or close to the site, following the Committee members' inspection.

## Capital budget approval process for large construction projects

In 2004–05, a new mandatory two-pass approval process was introduced for Defence capital acquisitions. A similar process was introduced following the 2007–08 Budget, for non-Defence major capital works valued at \$30 million or more.

Under the arrangements for Defence, first-pass approval is, in effect, approval for the department to proceed with more detailed analysis and costing of broad capability proposals. It is the point at which the government considers alternatives and approves a capability development option(s) to proceed with more detailed analysis and costing, with a view to subsequent approval of a specific capability. Second-pass approval is formal approval by the government of a specific capability solution to an identified capability development need. It is the point at which the government agrees to fund the acquisition of a specific capability system with a well-defined budget and schedule, and to allocate future provision for through life support costs.

For non-Defence projects, in the first stage of the approval process, the relevant portfolio Minister seeks in-principle approval for a project from Cabinet on the basis of a business need and broad order of costs, and funding to fully develop the project's scope and an accurate cost estimate, for further consideration by Cabinet. In the second stage of the approval process, the relevant portfolio minister seeks Cabinet agreement to full funding to commence construction, based on the project scope being developed to functional design brief standards, full costing of the project scope and an analysis of project benefits, risks, timetable, contingencies and any offsets.

## Capital budget approval process for large Information, Communication and Technology (ICT) projects

The Australian Government Information Management Office (AGIMO) provides advice and coordinates significant ICT project capital bids. Entities are required to submit a First Pass business case that supports the sponsoring minister's Cabinet submission to AGIMO for review and seek in-principle agreement from the Expenditure Review Committee (ERC) to proceed. If successful, a more detailed Second Pass business case is prepared, reviewed by AGIMO and put forward to the ERC for consideration. A Secretaries' ICT Governance Board has been established to provide advice for matters referred by either Finance or the ERC.

## The Gateway Review process

The Gateway Review process has been used in the United Kingdom since the year 2000, and in Victoria since 2003. The Victorian model is based largely on the initiative underway in the UK, through the Office of Government Commerce (OGC). Gateway is a project assurance methodology involving short, intensive, high-level reviews by an independent expert team at critical points ('gates') in a project's life-cycle.

In November 2005, the Australian Government endorsed the adoption of the OGC Gateway Review Process.<sup>9</sup> Gateway, as implemented by the Australian Government, does not provide an approval to proceed with a project, or with a particular phase of a project—it is the responsibility of the relevant entity to determine what action will be taken in respect of recommendations made in a Gateway review.

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<sup>9</sup> Department of Finance and Administration, *Guidance on the Gateway Review Process—A Project Assurance Methodology for the Australian Government*, Canberra, August 2006, p. 2.

Gateway applies to new projects requiring Government approval undertaken by entities operating under the FMA Act which satisfy certain financial and risk thresholds. The current financial thresholds are:

- \$10 million and over for information technology (IT) projects; and
- \$20 million and over for other procurement and infrastructure projects.<sup>10</sup>

These thresholds relate to the total costs, excluding administered payments, but inclusive of all related departmental expenses over the forward estimates.

Risk is assessed using the Gateway Assessment Tool (GAT). The GAT provides a standard set of high-level criteria and multiple choice questions to be answered by the relevant entity in relation to a proposed project, to determine the level of project risk (high, medium or low). The GAT takes into account factors such as the effects on stakeholders; the complexity of the project scope; the nature of any procurement processes to be undertaken; the degree of change required in the delivering entity; and identified capability to deliver the project. On the basis of answers provided by the entity, an indicative risk rating is assigned to the project, which is then confirmed by the Gateway Unit in Finance.<sup>11</sup>

## 4.2 Standards and Codes of Practice

A selection of standards and codes of practice are discussed below to illustrate some of the key requirements entities may, depending upon the nature of their assets, be required to comply with.

### **Implementation guidelines for the National Code of Practice for the Building and Construction Industry**

The revised Code and guidelines issued August 2009 by the Commonwealth outline the responsibilities of Australian Government entities as clients, project managers, contractors, subcontractors, consultants, related entities, industrial associations and employers in the construction industry.

The National Code of Practice for the Construction Industry is a set of principles which describes good practice in workplace relations, occupational health and safety, procurement and security of payment in the construction industry. Only contractors who are Code-compliant can undertake building and construction on Australian Government-funded projects.

### **Energy Efficiency in Government Operations policy (EEGO)**

EEGO aims to improve energy efficiency, and consequently reduce the whole-of-life-cycle cost and environmental impact of government operations, and applies to all FMA and CAC entities.

The policy contains mandatory energy-use targets for light and power under new leases and major refurbishments, and stipulations for new appliances and office equipment. The Department of the Environment, Water, Heritage and the Arts has responsibility for producing a whole-of-government energy performance report to be tabled in parliament each year.

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<sup>10</sup> These financial thresholds relate to the total value of the project, regardless of the timeframe taken to deliver the objectives. *ibid.*, p. 10.

<sup>11</sup> The Gateway Unit located in Finance provides guidance, support and additional information on the Gateway methodology to the Gateway Review Teams and FMA entities as required. The Gateway Unit does not undertake Gateway reviews.

## **The Australian Government Protective Security Manual (PSM)**

The Attorney-General's Department manages and disseminates the PSM on behalf of the interdepartmental Protective Security Policy Committee.

The PSM is the principal means for communicating protective security policies, procedures and minimum security requirements related to the protection of the government's official resources. It is designed to assist entities with their protective security arrangements and includes principles, standards and procedures for the protection of government personnel, infrastructure and information.

Part E of the PSM is concerned with the security of an entity's physical assets, highlighting legislative responsibilities for protecting its personnel and others from harm and its responsibility to the public to protect the integrity and availability of official information and resources.

## **The Australian Government Information Security Manual (ISM)**

The ISM forms a base line of information security requirements for government systems. The ISM's role is to promote a consistent approach to information security across all Australian Government, State and Territory entities and bodies. It provides a security risk assessment for information that is processed, stored or communicated by government systems with corresponding risk treatments to reduce the level of security risk to an acceptable level.

## **IT Governance Standards**

There are a number of IT governance standards that entities have adopted and incorporated into business processes. These include Control Objectives for Information and related Technology (COBIT), which provides a framework to ensure that IT resources are used responsibly and IT risks are managed appropriately.

Information Technology Infrastructure Library (ITIL) is also in general use across the Australian Government and is a widely accepted approach to service management across the world. ITIL provides guidance on the provision of quality IT services and on the accommodation and environmental facilities needed to support IT.

The international standard for IT governance ISO/IEC 38500:2010 'Corporate governance of information technology' provides a framework for effective governance of IT to promote effective, efficient and acceptable use of IT in organisations.

## **4.3 Lease versus purchase considerations**

### **Overview**

An entity's non-financial assets can be acquired either through outright purchase or leasing arrangements. When making a 'lease or buy' decision an entity must not only consider the financial implications of the options including the government's procurement criterion relating to 'value for money', but consideration must also be given to long-term strategic priorities and to qualitative factors (see Table 4.1 below). It is important to understand the implication of both options for the service delivery needs of the entity when determining the most appropriate option.

When leasing an asset the entity only pays for the use of the asset over the term of the lease and ownership of the asset does not pass to the entity at any stage unless the lease contract specifically states it. Leases where substantially all the risks and rewards incidental to ownership are transferred are usually classified as finance leases. When buying an asset, the entity pays the full cost of the asset at acquisition date and has full ownership over the asset.

A finance lease is recorded as an asset when the transaction (contract) is entered into and, similar to the outright purchase option, will give rise to depreciation expense as would be the case of other assets controlled by the entity. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is required to be fully depreciated over the lease term or its useful life, whichever is shorter.

An operating lease on the other hand, will usually specify a period over which an entity will have the right to use the goods, and have them replaced if they stop working during the lease period, but will then return the goods to the lessor at the end of the lease.

Better practice entities will usually undertake a risk assessment and cost benefit analysis to assess the implication of the operating lease vs finance lease vs outright purchase decision when considering key asset acquisitions.

### Assessment of advantage and disadvantages

The table below outlines the advantages and disadvantage of buying and leasing options to assist entities in considering the most appropriate option for their circumstances.

**Table 4.1: Advantages and disadvantages of buying and leasing options**

Buying		Leasing	
Advantages	Disadvantages	Advantages	Disadvantages
Outright asset ownership.	Major capital outlay up-front.	Cash-flow effective method for gaining access to assets as no major capital outlay up-front.	No asset ownership.
Assets can be modified at any stage to suit changing business requirements.	Entity incurs maintenance and repairs costs which typically increase as assets age.	Entity may not incur repair and maintenance costs as assets may fall under the warranty of the lessor over the term of the lease.	Assets may not be able to be modified to suit changing business requirements without lessor approval and attracting fees.
Asset can be replaced or disposed of at any time.	Entity incurs costs for the replacement or disposal of assets at the end of their useful lives.	The entity may not incur costs associated with disposal and replacement of assets at the end of their useful lives.	Lease terms are generally fixed so asset replacements and early terminations at the request of the entity may attract penalties and fees.
		Assets may be replaced more frequently, allowing the entity access to latest technology for no additional cost.	
		Possible access to knowledge, purchasing power and discounts offered by the lessor.	Potential capital outlay at the end of the lease term if purchasing the asset at the end of the lease.

The decision to either lease an asset or purchase it outright not only requires consideration of the broad advantages and disadvantages outlined above, but also requires an analysis of the financial implications of the decision. Financial parameters, such as the interest rate which may be charged on the financed amount as well as the implied opportunity cost of using the entity's own cash resources, may have a significant impact on the lease versus purchase decision. To assist entities in their analysis of the financial implication of the purchase versus lease decision, comparison calculator worksheets are often available through bank or finance company websites. An example of such a worksheet is included below in Figure 4.2.

**Figure 4.2: Example of a Buy versus Lease comparison calculator worksheet**

Example of a Buy versus Lease comparison calculator worksheet	
<b>Asset Details</b>	
<b>Asset purchase price</b> Total price of the asset including directly attributable costs	\$200 000
<b>Asset residual value to entity</b> The higher of market value less costs to sell and value-in-use to the entity at lease end date.	\$40 000
<b>Will ownership of the asset pass to the entity at lease end?</b> Is there a guaranteed residual payment amount?	Yes
<b>Lease Details</b>	
<b>Term of the lease</b> Lease term in years as contained in the lease contract	10
<b>Lease payment frequency</b> The frequency with which lease payments are made	Yearly
<b>Total number of lease payments</b> The total number of lease payments over the life of the lease	10
<b>Payment type</b> Whether periodic lease payments are made at the start or end of the period	Arrears
<b>Discount rate</b> The internal discount rate for the entity (usually based upon the entity's weighted average cost of capital unless another rate is mandated by the regulatory environment)	6.50%
<b>Periodic lease payments amount</b> The amount the entity is contractually obliged to pay on a periodic basis throughout the life of the lease	28,800
<b>Guaranteed residual payment</b> The amount the entity is contractually obliged to pay at the end of the lease term to secure asset ownership	2,000
<b>NPV Analysis - total discounted cash outflow</b>	
Buy option	<b>\$178 690.96</b>
Lease option	\$186 794.72
<b>Based upon discounted cash flows buying is cheaper by</b>	\$8 103.76
<b>Recommendation</b> This asset should be PURCHASED subject to consideration of qualitative factors	
<b>Net Cash - total undiscounted cash outflow</b>	
Buy option	\$160 000
Lease option	\$250 000
<b>Based upon net discounted cash flows BUYING is cheaper by</b>	\$90 000
<b>Implicit interest rate of the lease</b> The lessor's implicit interest rate in the lease contract (used to assess the lessor's implicit interest rate against the entity's discount rate)	7.36%

## 4.4 Strategic capital management planning survey

Strategic capital management planning surveys can be used to gather information on assets from both a qualitative and quantitative perspective. The survey would usually record the:

- general description;
- location and condition of the asset in question;
- asset user; and
- asset performance indicators.

An example of a Strategic Capital Management Planning survey is provided in Table 4.2.

**Table 4.2: Strategic Capital Management Planning survey extract**

{Organisation name}			
Strategic Capital Management Planning survey			
<p>The following survey requires the respondent to complete all sections relating to the asset outlined below. This information will be used to understand both the current performance of the asset and the future capital impacts that may arise as a result of this asset. Please indicate a nil response where applicable. The survey must be signed off.</p>			
Details of asset			
<b>Cost Centre:</b>			
<b>Asset:</b>			
<b>Asset ID:</b>			
Acquisition date	Acquisition price	Current Book Value	Useful life
1. Asset description and condition			
<i>Please provide a general description, the location and the condition of the asset.</i>			
2. Asset performance indicators			
2.1 How does the FUNCTIONALITY of the asset rate? (please tick one)			
<input type="checkbox"/> Ideal	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Not Suitable	
<i>Please provide comments to explain the answer above:</i>			
2.2 How does the OPERATIONAL IMPORTANCE of the asset rate? (please tick one)			
<input type="checkbox"/> Critical	<input type="checkbox"/> Operational Need	<input type="checkbox"/> Non-Essential	<input type="checkbox"/> Not Required
<i>Please provide comments to explain the answer above:</i>			
2.3 How does the USE of the asset rate? (please tick one)			
<input type="checkbox"/> Standard	<input type="checkbox"/> Excessive	<input type="checkbox"/> Under-Utilised	
<i>Please provide comments to explain the answer above:</i>			

The surveys may also seek additional information such as data about asset development, expenditure or enhancement, disposal, replacement and life-cycle costs. This would normally be dependent upon the extent to which the entity is applying asset performance indicators.

## 4.5 Business case for capital investment essentials

The necessity to prepare a business case to support capital investment will depend on the circumstances of individual entities. Better practice entities prepare a supporting business case for all major investments whether these be measured quantitatively in dollar terms or qualitatively in terms of the significance of the impact that the new asset will have on the operation of the entity.

If entities undertake a business case for capital investment, elements that could be considered for inclusion, depending on the circumstances, include strategic alignment, net present value analysis, projected accrual financial statements and cost-benefit analysis. Some of the assumptions that underpin the net present value analysis performed as part of the business case include incremental cash flows, nominal terms and comparability. A better practice business case for capital investment would address the key elements as depicted in Table 4.3 below.

**Table 4.3: Business case essentials**

Components	Key elements
<b>Summary</b>	<ul style="list-style-type: none"> <li>• What program delivery requirements will the asset or non-asset solution meet?</li> <li>• How is the proposed asset solution aligned with the entity's strategic goals for the asset portfolio?</li> <li>• The general background of the proposal, including a brief discussion on the current situation and all available/possible options.</li> <li>• A clear recommendation on the preferred asset portfolio solution.</li> </ul>
<b>Strategic alignment</b>	<ul style="list-style-type: none"> <li>• Outcomes—what are the measurable benefits to the entity from using the outputs? How do these relate to the entity's strategic goals?</li> <li>• Outputs—what are the tangible benefits that will be delivered as a result of the funding required to acquire the asset?</li> <li>• List of stakeholders, both internal and external, that may be impacted by the acquisition.</li> </ul>
<b>Net present value analysis</b>	<ul style="list-style-type: none"> <li>• Creation of value—will undertaking this proposal create value in its own right as demonstrated by a positive Net Present Value (NPV)? Additional guidance has been provided in Table 4.4 on assumptions underlying a NPV analysis, and non-cash flow impacts are covered in the section on accrual financial statement impacts.</li> <li>• Options—have alternative options been explored with lower NPVs, including evaluation against the status base line funding?</li> <li>• Discount rate—has the appropriate discount rate been applied in undertaking the net present value analysis?</li> </ul>
<b>Accrual financial statements</b>	<ul style="list-style-type: none"> <li>• Accrual financial statements projections should be prepared for the entity in undertaking the preferred option to detail the non-cash impacts including the operating result. Guidance on preparing projected accrual based financial statements is shown in Section 4.6.</li> </ul>

Components	Key elements
<b>Cost-Benefit analysis</b>	<ul style="list-style-type: none"> <li>• Identification of the tangible benefits (outcomes) in both financial and non-financial terms where possible.</li> <li>• Estimated costs, including: <ul style="list-style-type: none"> <li>– How much extra funding is required? What are the specific costs? Provide supporting calculations and documentation.</li> <li>– Required resources—what new resources will be required?</li> <li>– Use of current resources—what current resources will be used?</li> <li>– Clear identification of current-year and ongoing costs.</li> </ul> </li> </ul>
<b>Risk analysis</b>	<ul style="list-style-type: none"> <li>• Risks and risk minimisation strategies—what are the risks, and what is being done to mitigate them?</li> <li>• Provide a risk matrix for identification and assessment of risk.</li> <li>• Sensitivity analysis to quantify the impact of risk.</li> </ul>
<b>Related operations</b>	<ul style="list-style-type: none"> <li>• Are any other business as usual and/or project operations dependent upon the success of this proposal and associated actions?</li> <li>• Are any other business as usual or project operations interdependent with this proposal? Will any synergies exist?</li> <li>• Are there any other operations upon which the success of this proposal will depend?</li> </ul>
<b>Identified savings</b>	<ul style="list-style-type: none"> <li>• Will additional current-year funding result in any future year savings?</li> <li>• By what mechanism will the savings be achieved?</li> <li>• How will savings be monitored and reported?</li> <li>• Identify the phasing of the savings over future years.</li> </ul>

Table 4.4 explains some of the key assumptions that underpin a net present value analysis performed as part of the business case.

**Table 4.4: Assumptions underlying a net present value analysis**

Assumption	Relevance to net present value analysis
<b>Base case</b>	This is the 'minimalist' case that is required to be included in the business case and represents the lowest level of service and is the full cost (not incremental cash flows).
<b>NPV</b>	The NPV is the present value of the net cash flows. When comparing NPVs for the viable options the NPV of the base case should be taken as nil.
<b>Incremental cash flows</b>	Each viable option, apart from the base case option, is to be evaluated on an incremental cash flow basis. Incremental cash inflows and outflows are only those which are in addition to the base case option.
<b>Timing of cash flows</b>	Cash inflows and outflows are analysed at the time cash is received or payment made rather than the accrual recognition points.
<b>Nominal terms</b>	Cash inflows and outflows are in nominal terms which include estimates for inflation over the life of the procurement.

Assumption	Relevance to net present value analysis
<b>Comparability</b>	The evaluation period over which the project is to be obtained for each option should be equivalent and should include the full life-cycle costs. This may result in options using the lowest common multiple method for calculating the NPV (when replacement chains of assets can be made of equal length) or the equivalent annual value method which makes the assumption that chains of replacement are infinite. Comparability is required so that each option NPV may be used to rank its priority to determine the preferred option.
<b>Lowest common multiple method</b>	Conversion of the NPV into two chains of replacement of equal length being the lowest common multiple (not required if base case and option evaluation period is of equal length).
<b>Probabilistic estimation</b>	Each capital project will have a number of significant risks that should be considered when estimating project costs. Formal risk identification enables risk mitigation strategies to be established, and allows for proper costing as part of the capital budgeting process. One risk is that cost estimates have a level of uncertainty, which will reduce as the project nears completion. The overall estimate should be maintained under a costing framework which reflects that the base estimate may increase while the allowance for risk decreases. A contingency allowance is typically added to base estimates to cover uncertainties such as inherent risk, contingent risk and escalation. Probabilistic estimation can be used to calculate the contingency allowance. This is a weighted cost estimate of identified specific risks calculated by the multiplication of risk consequences by a probability factor. The aggregation of base estimate costs, the costs of all identified risks through probabilistic estimation and an allowance for inherent risk and escalation will result in a robust cost estimate for the project. Case Study 2.4 illustrates the use of probabilistic estimation.
<b>Discount rate</b>	The discount rate applied would be determined by the entity based on its individual circumstances and would typically be the weighted average cost of capital. Note, however, that other discount rates may be mandated under the regulatory environment, such as the Australian Government Property Ownership Framework.
<b>Source of information</b>	Cash inflows and cash outflows should be estimated, where possible, on externally available data. Such information may be obtained from market prices, industry experts and benchmarking data.
<b>Cash inflows</b>	Cash inflows are incremental income streams for each of the options expected to be generated in addition to those included in the base case. They should also include avoided cash outflows. For example, the current cost of procurement in the base case would be a future net cash outflow to be avoided if the option was for an alternative procurement strategy. Additionally, they should include the release of capital generally through a sale (residual value).
<b>Disposal cost</b>	The cost of removing a product after its usefulness has ended, including costs to decommission, dismantle, make environmentally safe, transport and dump. If the products are sold and the proceeds from the sale exceed the other costs of disposal, the product will have a disposal value that reduces the life-cycle cost.

## 4.6 Accrual financial statement projections

Estimated financial statements can be prepared on an annual basis to consider the effect of transactions of projected asset movements. It is important that a business case includes a quantitative analysis of the impact on the projected results of a procurement solution. In the preparation of adjusted estimated financial statements the potential accrual impacts on procurement cash inflows and outflows is usually considered. The following table illustrates some of the impacts that occur and the consequent adjustments that may be required as a result of implementing the preferred option (see the Section 2.5 discussion on business cases).

**Table 4.5: Impact on non-cash accrual adjustments**

Activity	Recognition, measurement and presentation		Impact on statements	
	Cash basis	Accrual basis	Comprehensive income and expenses	Balance sheet
<b>Vendor payments</b>	The vendor payments are recognised at the time the payment is made.	The cost is recognised at the time the obligation to compensate the supplier arises.	Expense is potentially recognised earlier than cash outflow.	Potential creation of 'supplier' payable or accrued liability.
<b>Receipt of goods</b>	The vendor payments are recognised at the time the payment is made.	Expense may not be recognised on receipt where the amount is inventory. Expense is recognised when inventory is consumed.	Expense is potentially recognised later than cash outflow.	Recognition of inventory asset.
<b>Payment in advance of receipt of services</b>	The cash outflow is recognised at the time the payment is made.	The expense is recognised in proportion to the delivery of the services.	The expense is recognised in proportion to the delivery of the services.	The payment is recognised as an asset. The asset is amortised to recognise the expense in a similar pattern as the consumption of the benefit.

Activity	Recognition, measurement and presentation		Impact on statements	
	Cash basis	Accrual basis	Comprehensive income and expenses	Balance sheet
<b>Cash inflows savings</b>	Avoided cash flows are accounted for as savings in the NPV model.	These represent a reduction in expenses. These are not brought to account under the accrual basis as increases in revenue but rather reduction in expenses.	Reduction in expenses.	The nature of the saving should be reviewed on an individual basis to determine the impact. For example, a reduction in employee cash outflows resulting from less staff would also reduce employee provisions which are recognised as liabilities.
<b>Acquisition of supporting assets</b>	Cash outflow is recognised at the time the payment is made.	The cost would be capitalised as an asset.	Depreciation on the asset is recognised.	Asset recognised net of accumulated depreciation.
<b>Maintenance costs</b>	Maintenance cash outflows are recognised at the time the payment is made for services and parts.	Maintenance expense is recognised when services are provided. The expenses may only be capitalised where the service increases the life of the asset or the economic benefits the asset provides.	Where the expenditure does not increase the remaining useful life of the asset or does not increase benefits provided by the asset, then an expense is recognised.	Where the expenditure that increases the remaining useful life, or benefits that the asset provides, is increased then an asset is recognised.
<b>Depreciation</b>	Not recognised. A cash outflow is only recognised where the asset is replaced.	Recognised on a systematic basis over the life of the asset.	Recognised as an expense on a systematic basis over the life of the asset.	Reductions in the written down value of the asset through increasing accumulated depreciation.

## 4.7 Asset management policy and procedures guide

### Physical security and control of assets

An asset management policy and procedures guide (AMG) should outline the operational requirements for entity staff who are responsible for the management or control of publicly owned assets, including matters such as loans, personal use and removal of assets for repair.

The AMG should address the requirements of the Commonwealth Protective and Information Security Manuals including protective security policy, information security, personnel security and physical security, which will assist in safeguarding an entity's assets.

Standard operating procedures should be developed for all aspects of security including:

- electronic access controls, building pass and identity documents;
- security infrastructure such as security alarms, management of keys and combinations, security lighting, CCTV, guard posts and services and communications;
- equipment such as security shredders, access control computers and encryption devices; and
- security awareness training.

### Portable and attractive items

A risk assessment will assist in establishing the likelihood and consequence of loss, misuse or misappropriation of portable and attractive items. Where the risk is assessed above low, registers and stocktakes can be used to track and provide control over physical security.

These items are usually expensed on acquisition.

### Gifting of public property

There are limited circumstances where an appropriate entity delegate, as a delegate of the Finance Minister, may approve an asset to be used as a gift or donation. Examples include the purchase of gifts in the process of providing official hospitality or the gifting disposal of surplus or obsolete assets to community groups.

All gifts are to be recorded in a gifts register and there are annual reporting requirements to the Finance Minister regarding all gifts made during the reporting period.

### Stock-takes

A stock-take is an important internal control mechanism that reconciles the asset register, to confirm it is a complete and accurate record of an entity's physical asset holdings. Unreconciled differences should be subject to investigation and follow-up of exceptions.

A stock-take can be used to:

- verify the physical existence and completeness of assets recorded on the asset register;
- review current useful lives and consider asset condition and asset performance indicators such as functionality, criticality and utilisation;
- review inventory levels and adherence to inventory management guidance;
- verify the proof of licence for software assets and that software assets are being used according to the terms and conditions of the licence; and
- assess the accuracy of details recorded on the asset register.

For entities with large asset or inventory levels, an efficient facilitation method involves bar-code labels which can be attached to each asset when first available for use. The stock-take can then be conducted efficiently through the use of bar-code scanners that download results back to a central data repository.

The results of stock-takes, including remedial action on exceptions, should be signed off by a suitable delegate, often a senior official from the entity's financial services group.

### Potential list of AMG topics

The following check-list provides guidance on potential topics that can be included in an AMG. Entities may need to tailor the AMG to suit their particular circumstances by focussing on those aspects that are most relevant.

**Table 4.6: Asset management policy and procedures guide checklist**

Heading	Section	Component
Asset management framework	Overview and scope	<ul style="list-style-type: none"> <li>Principle objectives of asset management including the creation and maintenance of an asset portfolio that contains an optimal mix of assets to meet service delivery needs.</li> <li>An overview of the inter-relationships between the asset management guide and other components of the asset management framework that link the asset portfolio with the entity's strategic intent and service delivery needs. This will include key inter-relationships with the asset management strategy, risk management strategy, capital management plan and capital budgeting process.</li> </ul>
		<ul style="list-style-type: none"> <li>Key stakeholders both internal and external.</li> <li>How the AMG will be communicated and made widely available.</li> <li>The AMG's review and update process.</li> </ul>
	Roles and responsibilities	<ul style="list-style-type: none"> <li>Roles and responsibilities over all aspects of asset management including asset planning, budgeting, performance evaluation, operations and maintenance, accountability and disposal.</li> </ul>
	Legal requirements	<ul style="list-style-type: none"> <li>The requirements of relevant legislation and other regulatory requirements.</li> </ul>
	Life-cycle approach	<ul style="list-style-type: none"> <li>How an asset is managed over its useful life to understand the longer term implications of holding assets. Explanation of the phases of an asset's life-cycle: planning, acquisition, operation and maintenance and disposal.</li> </ul>
Asset recognition	Asset definition	<ul style="list-style-type: none"> <li>Define what constitutes an asset for recording purposes.</li> </ul>
	Asset thresholds	<ul style="list-style-type: none"> <li>Rationale and consideration of materiality when setting asset thresholds, and process to change. Cost/benefit analysis to establish the appropriate threshold for individual and for group assets.</li> </ul>
	Asset groupings and classes	<ul style="list-style-type: none"> <li>Define the classes of property, plant and equipment as being groupings of assets of a similar nature and use in an entity's operations.</li> <li>Establish criteria for asset aggregation and grouping.</li> </ul>

Heading	Section	Component
Asset recognition	The asset register	<ul style="list-style-type: none"> <li>Establish and define the functional requirements of the asset register.</li> <li>The links between the asset register and asset planning, accounting standards and legislative compliance, asset performance and accountability.</li> </ul>
	Portable and attractive items	<ul style="list-style-type: none"> <li>Where assets do not meet the asset threshold define criteria for recording portable and attractive items.</li> </ul>
Asset acquisitions and divestment	Procurement process	<ul style="list-style-type: none"> <li>Define processes for asset procurement and inter-relationships with service delivery options, asset management strategy acquisition plan and entity-specific procurement policies and procedures.</li> <li>Define procedures for physical receipt and acceptance of assets and recording details in the Financial Management Information System (FMIS).</li> </ul>
	Non-asset solutions	<ul style="list-style-type: none"> <li>Establish process for consideration of non-asset solutions such as outsourcing and demand management techniques.</li> </ul>
	Lease versus buy	<ul style="list-style-type: none"> <li>Provide guidance on lease versus buy decision-making process.</li> </ul>
	Divestment	<ul style="list-style-type: none"> <li>Define policies and procedures for divestment including guidance on how to identify surplus, obsolete or underperforming assets, how to select an appropriate disposal method, and the approval process required for write-offs, trade-ins, or sale to staff.</li> <li>Link through to asset management strategy disposal plan.</li> </ul>
Asset control and management	Physical security	<ul style="list-style-type: none"> <li>Responsibilities of officials to care for public property in their possession including matters such as loans, personal use and removal of assets for repair.</li> <li>Requirements of the Commonwealth Protective and Information Security Manuals including protective security policy, information security, personnel security and physical security.</li> </ul>
	Stock-takes	<ul style="list-style-type: none"> <li>Define stock-take responsibilities and requirements to: <ul style="list-style-type: none"> <li>verify the physical existence and completeness of assets recorded on the asset register;</li> <li>assess the stock-take coverage between full count and reconciliation and cyclical coverage on the basis of risk profile and level of physical security;</li> <li>review current useful lives and consider asset condition and asset performance indicators such as functionality, criticality and utilisation;</li> <li>verify the proof of licence for software assets and confirm that software assets are being used according to the terms and conditions of the licence; and</li> <li>assess the accuracy of details recorded on the asset register.</li> </ul> </li> </ul>
	Authority and delegations	<ul style="list-style-type: none"> <li>List the various authorities and delegations that may be exercised over an asset's life-cycle.</li> </ul>

Heading	Section	Component
Asset control and management	Personal issues and loans	<ul style="list-style-type: none"> <li>The entity's policies and procedures relating to personal issues and loans.</li> </ul>
	Losses and damages	<ul style="list-style-type: none"> <li>Requirements to manage losses and damages including relevant delegations and responsibilities.</li> </ul>
	Insurance	<ul style="list-style-type: none"> <li>The entity's policies and procedures to ensure all assets are appropriately insured.</li> </ul>
	Gifting	<ul style="list-style-type: none"> <li>Policies and procedures on the acceptance of gifts and recording in a gifts' register.</li> <li>Process of annual reporting requirements to the Finance Minister of all gifts made during the reporting period.</li> </ul>
	Repairs and maintenance	<ul style="list-style-type: none"> <li>Roles and responsibilities for monitoring condition and use of assets and for initiating repairs and maintenance.</li> <li>Link to the asset management strategy maintenance plan that defines the standard, level and frequency of maintenance.</li> </ul>
Accounting for assets	Asset performance indicators	<ul style="list-style-type: none"> <li>The framework for establishing, recording and monitoring asset performance indicators including how the entity evaluates asset performance.</li> </ul>
	Acquisition and disposal	<ul style="list-style-type: none"> <li>Criteria and methodology for recording asset acquisitions including roll-out of assets under construction, capitalisation of internally developed software, assets received for no or for nominal consideration, finance leases and componentisation.</li> <li>Accounting for subsequent expenditure on existing assets including part replacement of assets, enhancement, refurbishment and maintenance activities.</li> <li>Define accounting requirements for asset disposal including meeting the requirements of AASB 5.</li> </ul>
	Transfers in/out	<ul style="list-style-type: none"> <li>Accounting for the transfer in and out of assets including through administrative restructuring arrangements.</li> </ul>
	Valuation	<ul style="list-style-type: none"> <li>Define valuation cycles, methodologies and accounting requirements</li> <li>Process for engaging independent expert valuers and/or use of in-house valuations.</li> </ul>
	Depreciation/useful life	<ul style="list-style-type: none"> <li>Set out the entity's policies on depreciation methods, useful lives and review processes.</li> </ul>
	Impairment	<ul style="list-style-type: none"> <li>Establish review process for assessing the carrying value of assets for impairment.</li> <li>Define typical impairment indicators including use of external and internal sources of information.</li> </ul>
	Heritage and cultural assets	<ul style="list-style-type: none"> <li>Define recognition criteria, valuation and depreciation policies.</li> <li>Guidance on how to determine whether curatorial and preservation policies support indefinite useful lives.</li> </ul>

## 4.8 Capital Management Plan

### Overview

Four steps are outlined in the Better Practice Guide for developing a Capital Management Plan (CMP). They are:

- 1. Project the asset portfolio.** An entity in developing a CMP would project its asset register over a multi-year period to develop projected base line estimates.
- 2. Revise projections for strategic intent.** The projected base line estimates are then adjusted to reflect the entity's strategic intent for its asset portfolio, which is outlined in the asset management strategy.
- 3. Determine the funding source to purchase assets.** Ascertain if the assets to be acquired are new or replacement assets and if they are to be funded from a New Policy Proposal, the Departmental Capital Budget (DCB) or cash reserves.
- 4. Quality assurance.** Quality assure the data cube underlying the CMP. This is undertaken through capital investment triggers, analysis of high-value assets and undertaking an integrity check to the external estimates.

A spreadsheet-style capital management plan is provided as a base point to develop entity-specific plans for the first three steps. The example included in the Guide is illustrated through this model and is presented as follows:

**Table 4.7: Capital Management Plan example: base line assumptions**

Baseline Options	
Scientific equipment purchased in budget year (\$'000)	210
Useful life (years)	3
Replacement methodology	Indefinite constant chain of replacement
Annual operating costs (\$'000)	40
Annual maintenance costs (\$'000)	20

1. Project the asset portfolio.

Table 4.8: Capital Management Plan example: projecting the asset portfolio

Asset Description	Acquisition Date	Expected Replacement Date	Acquisition Cost / Revaluation amount	Useful Life	Budget Year	FE1	FE2	FE3	FE4	FE5	FE6	FE7	FE8	FE9	FE10	FE11	FE12	FE13	FE14	
			\$'000		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Infrastructure, plant and equipment																				
Scientific Equipment A		FE3	210	3	210	-	-	210	-	-	210	-	-	210	-	-	210	-	-	-
<b>Total Infrastructure, plant and equipment</b>					<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	-
<b>Total Acquisitions</b>					<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	<b>210</b>	-	-	-

**Table 4.9: Capital Management Plan example: projected base line asset estimates**

	Budget	FE1	FE2	FE3	FE4	FE5	FE6	FE7	FE8	FE9	FE10	FE11	FE12	FE13	FE14
Year															
<b>Balance Sheet</b>															
<b>Non-Financial Assets</b>															
Infrastructure, plant and equipment															
Gross Value	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
Accumulated depreciation	(70)	(140)	(70)	(70)	(140)	(210)	(70)	(140)	(210)	(70)	(140)	(210)	(70)	(140)	(210)
<b>Net Book Value</b>	<b>140</b>	<b>70</b>	<b>-</b>												
Total Non-Financial Assets (Net)	140	70	-	140	70	-	140	70	-	140	70	-	140	70	-
<b>Statement of Comprehensive Income</b>															
<b>Expenses</b>															
Suppliers	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Depreciation and amortisation	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
<b>Total Expenses</b>	<b>130</b>														
<b>Cashflow Statement</b>															
<b>Operating Activities</b>															
Cash used															
Suppliers	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
<b>Total cash used operating activities</b>	<b>60</b>														
<b>Investing Activities</b>															
Cash used															
Purchase of infrastructure, plant and equipment	210	-	-	210	-	-	210	-	-	210	-	-	210	-	-
<b>Total cash used investing activities</b>	<b>210</b>	<b>-</b>	<b>-</b>												
Total net cash used	270	60	60	270	60	60	270	60	60	270	60	60	270	60	60

## 2. Revise projections for strategic intent.

**Table 4.10: Capital Management Plan example: strategic intent revision**

	Budget Year	FE3
Scientific equipment purchase (\$'000)	210	150
Useful life (years)	3	3
Replacement methodology	Indefinite constant chain of replacement	Indefinite constant chain of replacement
Annual operating costs (\$'000)	40	30
Annual maintenance costs (\$'000)	20	15

**Table 4.11: Capital Management Plan example: revised base line asset estimates**

	Budget Year	FE1	FE2	FE3	FE4	FE5	FE6	FE7	FE8	FE9	FE10	FE11	FE12	FE13	FE14
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Balance Sheet</b>															
<b>Non-Financial Assets</b>															
Infrastructure, plant and equipment															
Gross Value	210	210	210	150	150	150	150	150	150	150	150	150	150	150	150
Accumulated depreciation	(70)	(140)	(210)	(50)	(100)	(150)	(50)	(100)	(150)	(50)	(100)	(150)	(50)	(100)	(150)
<b>Net Book Value</b>	<b>140</b>	<b>70</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>0</b>	<b>100</b>	<b>50</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>
<b>Total Non-Financial Assets (Net)</b>	<b>140</b>	<b>70</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>	<b>100</b>	<b>50</b>	<b>-</b>
<b>Statement of Comprehensive Income</b>															
<b>Expenses</b>															
Suppliers	60	60	60	45	45	45	45	45	45	45	45	45	45	45	45
Depreciation and amortisation	70	70	70	50	50	50	50	50	50	50	50	50	50	50	50
<b>Total Expenses</b>	<b>130</b>	<b>130</b>	<b>130</b>	<b>95</b>	<b>95</b>	<b>95</b>									
<b>Cashflow Statement</b>															
<b>Operating Activities</b>															
Cash used															
Suppliers	60	60	60	45	45	45	45	45	45	45	45	45	45	45	45
<b>Total cash used operating activities</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>45</b>	<b>45</b>	<b>45</b>									
<b>Investing Activities</b>															
Cash used															
Purchase of infrastructure, plant and equipment	210	-	-	150	-	-	150	-	-	150	-	-	150	-	-
<b>Total cash used investing activities</b>	<b>210</b>	<b>-</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>-</b>
<b>Total net cash used</b>	<b>270</b>	<b>60</b>	<b>60</b>	<b>195</b>	<b>45</b>	<b>45</b>									

### 3. Determine the funding source to purchase assets

**Table 4.12: Capital Management Plan example: funding source**

Capital Component	Budget Year	FE1	FE2	FE3**	FE4	FE5	FE6	FE7	FE8	FE9	FE10	FE11	FE12	FE13	FE14	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
<b>New Policy Proposals</b>																
New Assets Replacements greater than \$10 million	210*															
<b>Sub Total</b>	<b>210</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Departmental Capital Budgets / Cash Reserves</b>																
Replacements less than \$10 million			150			150				150					150	
<b>Sub Total</b>	-	-	<b>150</b>	-	-	<b>150</b>	-	-	-	<b>150</b>	-	-	-	-	<b>150</b>	-
<b>Acquisitions Total</b>	<b>210</b>	-	-	<b>150</b>	-	<b>150</b>	-	-	-	<b>150</b>	-	-	-	-	<b>150</b>	-
<b>Bill 1</b>																
Suppliers	60	60	60	45	45	45	45	45	45	45	45	45	45	45	45	45
<b>Recurrent Expenditure Total</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>45</b>

\* On approval of the New Policy Proposal the Departmental Capital Budget would be increased by this capital amount.

\*\* For illustrative purposes the revision of projections in FE3 has been disclosed. In practice the initial NPP approved amount in the budget year would be projected forward and a new set of estimates produced in FE3.

## 4.9 AASB Standards for asset management

### Background

This section of the Guide is provided to assist entities to identify some of the key issues associated with asset management that arise from applying standards promulgated by the Australian Accounting Standards Board (AASB). Complying with AASB Standards is a requirement of all Australian government entities. The AASB Standards quoted are those applying at the time of publication of this Guide. Entities should consider if future revisions to individual standards have relevance to their particular circumstances.

### *Asset recognition*

#### Overview

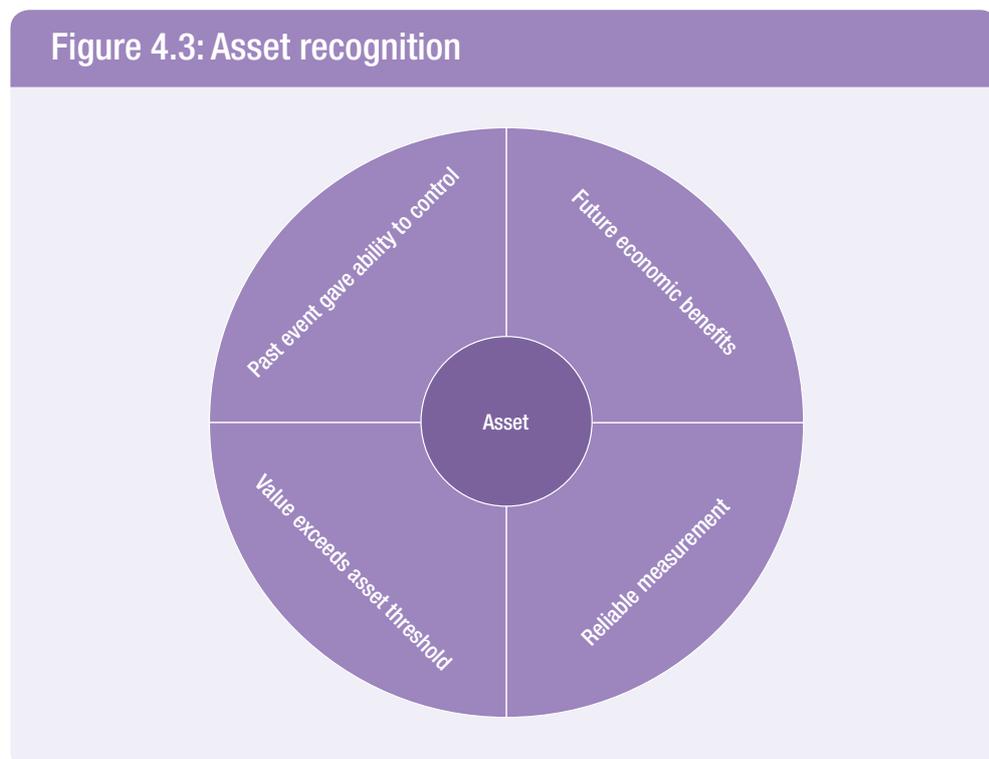
The criteria for recording assets is set out in the following AASB Standards:

**Table 4.13: Applicable AASB Standards**

AASB	Name
116	<i>Property, Plant and Equipment</i>
138	<i>Intangible Assets</i>

#### Asset recognition

Assets can be either tangible or intangible and are recognised in the asset register when certain criteria are met as illustrated in Figure 4.3 below.



For non-profit entities **future economic benefits** relate to the ability of an asset to contribute either directly or indirectly to the delivery of programs and services in accordance with the entity's objectives beyond the current accounting year.

Whether **control** is exercised over an asset is a matter of substance over form and does not necessarily relate to ownership of the asset or the terms of contractual arrangements. For example, finance leases are recorded as assets when the contract is entered into as there is a transfer of substantially all the risks and rewards incidental to ownership. There must be a past event that gives rise to the control such as purchase, receipt of an asset as a result of restructuring arrangements, or through gifting.

**Reliable measurement** is typically the purchase price but can be easily identified through market valuation or the use of valuation experts. Where reliable measurement cannot be established then the asset should not be recognised. Generally for not-for-profit entities assets acquired at no cost or for nominal consideration are recognised initially at fair value at the date of control.

**Asset recognition thresholds** are set at a level to ensure that resources are not devoted to administering minor assets that do not have an impact on decision-making processes.

A cost/benefit analysis is often undertaken to determine appropriate asset threshold levels. This will ensure the asset register can generate relevant, reliable and accurate information for decision-making. Where a low asset threshold is set this will often result in an over-cluttering of the register, leading to inefficiencies and higher administration costs. Conversely a high asset threshold may result in a material understatement of assets in the financial statements.

AASB 1031 *Materiality* establishes that information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

AASB 1031 also states that significant professional judgement is required when determining the materiality of items and is influenced by:

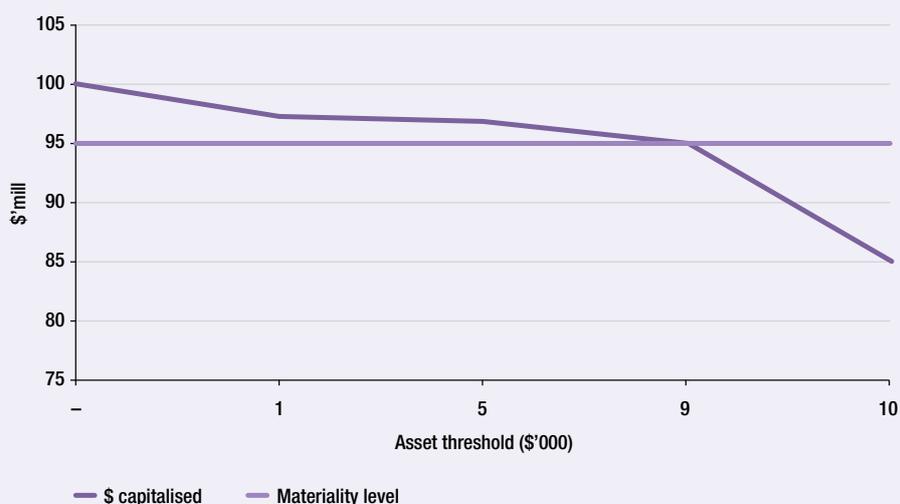
- (a) the nature of the entity's operation/s;
- (b) the size of the entity;
- (c) materiality requirements outlined in applicable accounting standards;
- (d) the type of the transaction classes of the entity;
- (e) any legislative requirements; and
- (f) the users of the financial statements.

Application of materiality to asset thresholds as set out above may result in different asset thresholds for different classes of assets. Entities should regularly review their asset thresholds to ensure they are still appropriate. As thresholds are part of an entity's accounting policies they should only be changed if this results in more reliable and relevant information.

## Worked example 4.1: Setting an asset threshold

An entity sets an asset threshold for buildings that will ensure 95% of building costs are capitalised. An analysis then determines that a threshold of \$9000 would allow for 95% of the value of the population to be capitalised (or \$95 million)

Figure 4.4 outlines the results of the analysis.



The entity concludes that a \$9000 asset threshold level for buildings is appropriate.

### Asset aggregation

In some instances it is beneficial to aggregate assets and show them as one asset record as opposed to listing each asset individually. For example, a leasehold improvement project typically involves furniture and remodelling and creation of workspaces where an individual asset may fall below the asset threshold but the total project cost is significant.

For these instances a bulk asset dollar threshold may be set for each affected asset class.

For instance, an individual capitalisation threshold may be set at \$5000 for leasehold improvements, and an associated \$50 000 bulk capitalisation threshold may be set for the acquisition of large numbers of minor value assets or for projects where it is not beneficial to show individual assets separately.

Where assets do not meet the asset threshold, portable and attractive registers can be used where physical security is considered a risk. This may be applicable for items such as mobile phones and cameras.

### Asset classes

A class of property, plant and equipment is a grouping of assets of a similar nature and use in an entity's operations.<sup>12</sup> Each entity should make an assessment as to which asset classes are appropriate and how assets should be

<sup>12</sup> AASB 116 *Property, Plant and Equipment*.

classified in its financial management information system to ensure the structure supports internal reporting requirements as well as compliance with relevant accounting standards and other regulatory requirements.

Typically used asset classes are described in Table 4.14 below:

**Table 4.14: Typical asset classes**

Statutory reporting requirement	Asset class
Land	<ul style="list-style-type: none"> <li>• Freehold land</li> <li>• Leasehold land</li> <li>• Heritage land</li> </ul>
Buildings	<ul style="list-style-type: none"> <li>• Freehold buildings</li> <li>• Leasehold improvements</li> <li>• Heritage buildings</li> <li>• Capital work-in-progress</li> </ul>
Heritage and cultural*	<ul style="list-style-type: none"> <li>• Collections</li> <li>• Artworks</li> <li>• Furniture</li> <li>• Other</li> </ul>
Infrastructure, plant and equipment	<ul style="list-style-type: none"> <li>• Office equipment</li> <li>• Furniture and fittings</li> <li>• Plant and machinery</li> <li>• Information technology and communication               <ul style="list-style-type: none"> <li>– General computer equipment</li> <li>– Printers</li> <li>– Mainframes</li> <li>– Network equipment</li> <li>– Personal computers</li> <li>– Cabling</li> <li>– Communications</li> </ul> </li> <li>• Scientific equipment</li> <li>• Capital work-in-progress</li> </ul>
Intangibles	<ul style="list-style-type: none"> <li>• Internally developed software</li> <li>• Purchased software</li> <li>• Other intangibles</li> <li>• Capital work-in-progress</li> </ul>

\* Heritage and cultural items are buildings, other structures, works of art, artefacts, collectables, historical treasures, or similar items, which are held for their cultural, environmental or historical significance, FMO 37.

## Determining the initial carrying value of property, plant and equipment

### Overview

The following AASB Standard is relevant when determining the initial carrying value of property, plant and equipment:

**Table 4.15: Applicable AASB Standards**

AASB	Name
116	<i>Property, Plant and Equipment</i>
117	<i>Leases</i>

### Initial recognition

Assets are recognised only when it is probable that future economic benefits will result and the cost can be reliably measured.

Cost can be determined by a combination of:

- cash and cash equivalents;
- the fair value of other consideration given; and
- the estimated cost of any obligation to 'makegood', that is, to dismantle an item or items and restore the site on which they are located.

For not-for-profit entities where an asset is acquired at no cost, or for a nominal cost, the cost is typically the fair value at the date of acquisition.

It should be noted that the initial carrying amount of finance leased assets must be calculated in accordance with AASB 117 (with subsequent accounting as per AASB 116).

AASB 117 requires that at the commencement of the lease term, lessees shall recognise finance leases as assets and liabilities in their statements of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease. The discount rate to be used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease, if this is practicable to determine; if not, the lessee's incremental borrowing rate shall be used. Any initial direct costs of the lessee are added to the amount recognised as an asset.

### Subsequent expenditure

Expenditure is capitalised in the following circumstances:

- **enhancement:** it is expected there will be a resulting increase in an asset's useful life, capacity, quality or a reduction in operational costs;
- **part replacement:** noting that the part replaced is derecognised, AASB 116 allows the cost of the replacement part to be used as a guide to the original cost of the replaced part if the cost of that part is not known;
- **major inspections:** where regular major inspections are essential for the ongoing operation of an asset the costs are capitalised and any remaining costs of previous inspections are derecognised; and
- **safety equipment:** where the equipment is necessary to obtain future economic benefits from other assets.

## Calculating depreciation and amortisation expense

### Overview

The requirements for calculating depreciation and amortisation expense as well as determining useful lives is set out in the following AASB Standards:

**Table 4.16: Applicable AASB Standards**

AASB	Name
116	<i>Property, Plant and Equipment</i>
138	<i>Intangible Assets</i>

Depreciation and amortisation expense is the systematic allocation of the depreciable amount of an asset over its useful life. Depreciable amount is defined as the cost of an asset, or other amount substituted for cost, less its residual value.

Residual value is defined as the estimated amount that an entity would currently obtain from the disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life. It should be noted that more stringent criteria is set out in AASB 138 as to when a positive residual value can be assumed for an intangible asset with a finite useful life.

Depreciation of an asset begins when it is available for use, that is, when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation of an asset will cease on disposal or when no future economic benefits are expected from its use. It should also be noted that depreciation ceases for assets when they meet the criteria of 'held for sale' under AASB 5.

The residual value and the useful life of an asset are reviewed at least at the end of each annual reporting period and, if expectations differ from previous estimates, the change(s) should be accounted for as a change in an accounting estimate.

Depreciation is generally recognised as an expense unless it relates to fixed production overheads when converting materials to finished goods, as specified in AASB 102 *Inventories*, or relates to a construction asset as defined in AASB 111 *Construction Contracts*, or when the asset's residual value equals or exceeds its carrying amount.

### Determination of useful lives

The useful life of an asset is defined in terms of the asset's expected utility to the entity. The asset management policy of the entity may involve the disposal of assets after a specified time or after consumption of a specified proportion of the future economic benefits embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets and is dependent on:

- the period over which an asset is expected to be available for use by an entity; or
- the number of production or similar units expected to be obtained from the asset by an entity.

Factors outlined in AASB 116 to determine the useful life of a tangible asset are:

- expected use of the asset. Use is assessed by reference to the asset's expected capacity or physical output;
- expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance program, and the care and maintenance of the asset while idle;

- technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset; and
- legal or similar limits on the use of the asset, such as the expiry dates of related leases.

### Indefinite useful life

Indefinite useful life is where there is no foreseeable end to the period over which future economic benefits are expected to be generated by the asset for the entity.

This does not mean the asset has an infinite useful life, but that the entity has the ability and intention to maintain the asset indefinitely in close approximation to its present state.

Land is normally considered to have an indefinite useful life, while buildings normally have a finite useful life. The Australian Implementation Guidance to AASB 116 contains special rules for heritage and cultural assets: in certain circumstances they will be regarded as having an indefinite useful life.

### Depreciation method

The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity. A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life.

These methods include:

- **the straight-line method:** a constant charge over the useful life if the asset's residual value does not change;
- **the diminishing balance method:** a decreasing charge over the useful life; and
- **units of production method:** a charge based on the expected use or output.

## Accounting for asset impairment

### Overview

The following AASB Standards are applicable when considering whether there is any impairment of assets:

**Table 4.17: Applicable AASB Standards**

Asset class	AASB
All assets except for those covered by other AASB Standards listed below	136 <i>Impairment of Assets</i>
Inventories	102 <i>Inventories</i>
Assets arising under construction contracts	111 <i>Construction Contracts</i>
Deferred tax assets	112 <i>Income Taxes</i>
Employee benefit assets	119 <i>Employee Benefits</i>
Financial assets	139 <i>Financial Instruments: Recognition and Measurement</i>
Investment property measured at fair value	140 <i>Investment Property</i>
Biological assets measured at fair value less costs to sell	141 <i>Agriculture</i>

Asset class	AASB
Assets arising under insurance contracts	4 Insurance Contracts 1023 General Insurance Contracts 1038 Life Insurance Contracts
Non-current assets classified as held for sale	5 Non-current assets held for sale and discontinued operations

AASB 136 *Impairment of Assets* requires that entities should review the carrying value of assets for impairment. Impairment indicators include external and internal sources of information such as:

- a significant decline in an asset's market value more than would be expected as a result of the passage of time or normal use;
- significant changes in the technological, market, economic or legal environment in which the entity operates or in the market to which an asset is dedicated; and
- evidence is available of obsolescence or physical damage of an asset.

Where assets are found to have indications of impairment then a recoverable amount test is undertaken and where necessary an impairment loss is recognised.

The loss is recognised as an expense unless it relates to a revalued asset. In the latter case the loss is recognised directly against the revaluation reserve to the extent the loss does not exceed the amount in the revaluation reserve for that same asset.

Depreciation charges are adjusted subsequent to an impairment loss to allocate the revised carrying amount, less its residual value on a systematic basis over its remaining useful life.

An assessment must be made at each reporting date to estimate the recoverable amount of any asset that may be impaired.

In some cases, estimates, averages and computational shortcuts may provide reasonable approximations of recoverable amounts. This is particularly relevant where recoverable amounts need to be determined for a large number of similar assets.

An impairment loss is the amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount.

For all assets that would fall under the requirements of AASB 136 *Impairment of Assets* guidance is provided below.

### Impairment assessment (under AASB 136)

AASB 136 identifies a three-stage approach in assessing assets for impairment:

- Stage 1: Is there any indication an asset may be impaired;
- Stage 2: Where there are indications of impairment, measure recoverable amount; and
- Stage 3: Where relevant, recognise and measure an impairment loss.

#### Stage 1: Asset impairment indicators

Asset impairment indicators are obtained from a variety of internal and external sources of information and may include:

**Table 4.18: Asset impairment indicators**

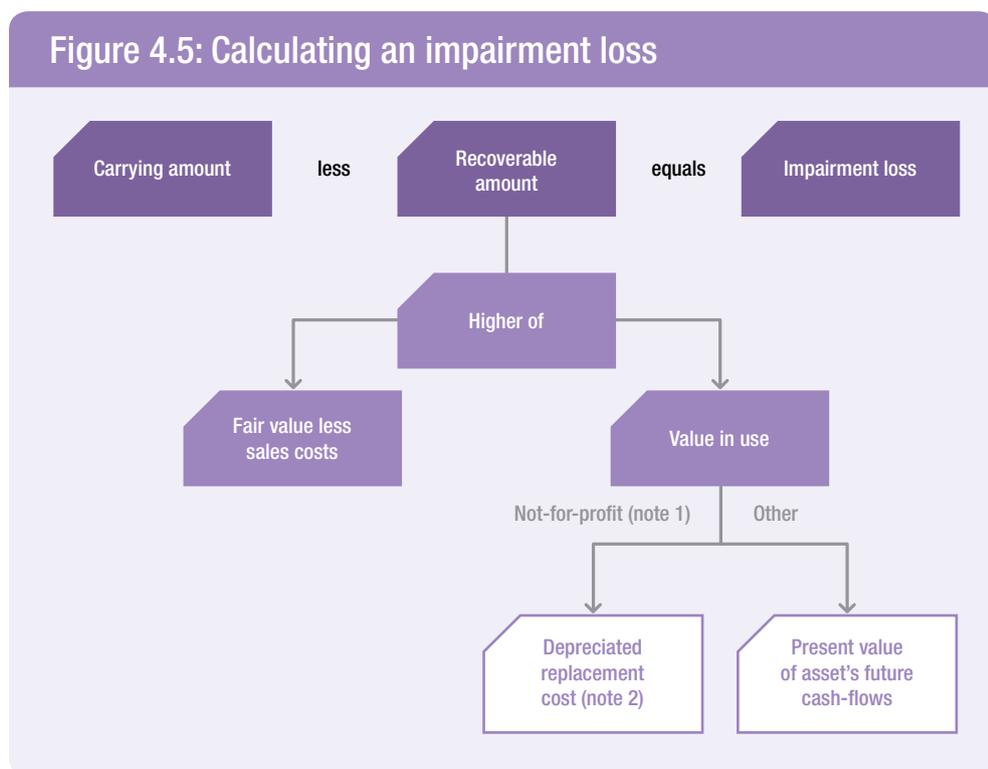
Impairment Indicator	Description	Example
Physical damage	<ul style="list-style-type: none"> <li>The asset can no longer provide the level and quality of future economic benefits as originally intended due to being physically damaged.</li> <li>Restoration will be required to restore service utility.</li> </ul>	<ul style="list-style-type: none"> <li>A building has been structurally damaged through flooding.</li> </ul>
Asset performance indicators	<ul style="list-style-type: none"> <li>Asset condition stocktakes may indicate that an asset is not operating as intended in terms of performance, utilisation, functionality or criticality.</li> </ul>	<ul style="list-style-type: none"> <li>An item of internally developed software is deemed not fit for purpose through the annual asset condition stock-take.</li> </ul>
Changes to laws and regulations	<ul style="list-style-type: none"> <li>A change to a law or regulation may have an adverse effect on an asset's service potential.</li> </ul>	<ul style="list-style-type: none"> <li>A change in building safety regulations means a current building can no longer be legally occupied.</li> <li>Scientific equipment can no longer be used as it does not meet changes to safety regulations.</li> </ul>
Change in use of asset or the manner in which it is used	<ul style="list-style-type: none"> <li>This may arise as a result of restructuring arrangements or changes in service delivery methods.</li> <li>The asset's expected useful life may be shorter than originally intended.</li> </ul>	<ul style="list-style-type: none"> <li>Decreased utilisation of stand-alone printers as photocopiers are available for scanning, copying and printing.</li> <li>The consolidation of all rural administration centres into state and territory capitals, leading to the early cancellation of leases and abandonment of associated leasehold improvements.</li> </ul>
Technological obsolescence	<ul style="list-style-type: none"> <li>An asset's service potential is impaired through advances in technology that lead to more efficient or effective alternative service delivery methods.</li> </ul>	<ul style="list-style-type: none"> <li>Lower number of servers required due to server virtualisation.</li> <li>Tape storage facilities are abandoned with the onset of digitisation of records.</li> </ul>
Funding commitment	<ul style="list-style-type: none"> <li>Funding required to develop and install an asset is reduced or withdrawn.</li> </ul>	<ul style="list-style-type: none"> <li>A partially completed, internally developed software project has funding withdrawn which means the project cannot be completed.</li> </ul>

Impairment Indicator	Description	Example
Market value review	<ul style="list-style-type: none"> <li>An asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use.</li> </ul>	<ul style="list-style-type: none"> <li>The cost of replacing a mainframe has significantly decreased over the reporting period.</li> </ul>
Adverse movements in market rates of return	<ul style="list-style-type: none"> <li>The discount rate used to calculate an asset's value in use has increased significantly with a corresponding decrease in the asset's recoverable amount.</li> </ul>	<ul style="list-style-type: none"> <li>A cash-generating unit calculates a printer's recoverable amount through an estimate of the future cash flows it is expected to generate. Market changes impacting adversely on the discount rate result in a significant decrease in the value-in-use calculation.</li> </ul>

The remaining useful life and the residual value of an asset should also be reviewed where indications of impairment are present.

### Stage 2: Measure recoverable amount

The diagram below illustrates how to calculate an impairment loss in line with AASB 136 *Impairment of Assets*.



Note 1 Depreciated replacement cost is permitted for not-for-profit entities in respect of non-cash-generating assets whose economic benefits would be replaced if the entity was deprived of them.

Note 2 Depreciated replacement cost: The current replacement cost of an asset less accumulated depreciation (to reflect the already consumed or expired economic benefits of the asset).

### Stage 3: Recognition and measurement of an impairment loss

Where the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable amount. The reduction reflects the impairment loss.

Impairment losses are recognised immediately in profit or loss unless the asset has previously been revalued. In this case the impairment loss is recognised directly against any revaluation reserve for the asset to the extent of the available amount in the reserve. The one exception is for not-for-profit entities where the impairment loss can be offset against available revaluation reserves up to the amount available for that same class of asset.

After the recognition of an impairment loss, the depreciation (amortisation) charge for the asset shall be adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

## Accounting for asset revaluations

### Overview

The following table lists the AASB Standards which are applicable when considering asset revaluations:

**Table 4.19: Applicable AASB Standards**

AASB	Name
116	<i>Property, Plant and Equipment</i>
138	<i>Intangible Assets</i>
140	<i>Investment Property</i>

Commonwealth government policy is for the following non-financial assets to be measured at fair value in accordance with AASB 116 *Property, Plant and Equipment* and AASB 140 *Investment Property*, as applicable:

- land and buildings;
- infrastructure, plant and equipment;
- heritage and cultural assets (where not intangible assets); and
- investment properties.<sup>13</sup>

Intangible assets must be valued by class at:

- cost, in the absence of an active market; or
- fair value, where an active market exists for the entire asset class.

AASB 116 *Property, Plant and Equipment* defines fair value as the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's-length transaction.

Where an asset is revalued, the carrying amount is the fair value at the date of revaluation less subsequent accumulated depreciation less subsequent accumulated impairment losses.

However, when an asset is held at cost, the carrying value is cost less accumulated depreciation less accumulated impairment losses.

<sup>13</sup> The FMOs exempt for-profit entities from the requirement to measure PPE and investment properties at fair value (although Finance does require the information for the Australian Government's consolidated financial statements).

For the purposes of the standards an asset class is defined as a grouping of assets of a similar nature and use in an entity's operations.

## Revaluation considerations

The following table notes a range of matters that should be considered when establishing a revaluation program.

**Table 4.20: Revaluation Considerations**

Consideration	Reference
Investment properties must be revalued on an annual basis.	AASB 140
Revaluations should always be undertaken by asset class.	AASB 116
For intangible assets there should be an active market for all assets in the class otherwise all assets must be carried at cost.	FMO 33
The revaluation frequency is dependent on the volatility of changes in fair values. For example where an asset class is subject to fair value volatility it may be appropriate to revalue this asset class on an annual basis. For other asset classes where fair value volatility is not expected to be an issue it may be appropriate to undertake a revaluation every three to five years.	AASB 116 / AASB 138
The standards require an annual assessment of fair value. Where there are significant differences between the asset's current carrying value and fair value the whole asset class should be revalued.	AASB 116 / AASB 138
In most cases independent professionally qualified experts are used to undertake revaluations. However in limited circumstances in-house revaluations may be undertaken under stringent conditions.	AASB 116 / FMO 33
It is permitted to revalue assets within an asset class in-house in years where there is no independent revaluation, for example an appropriate index relevant to an asset class may be used. However an annual assessment of fair value is still required.	FMO 33
The gross or net revaluation method is permitted when accounting for revaluations.	AASB 116 / AASB 138

## Establishing fair value

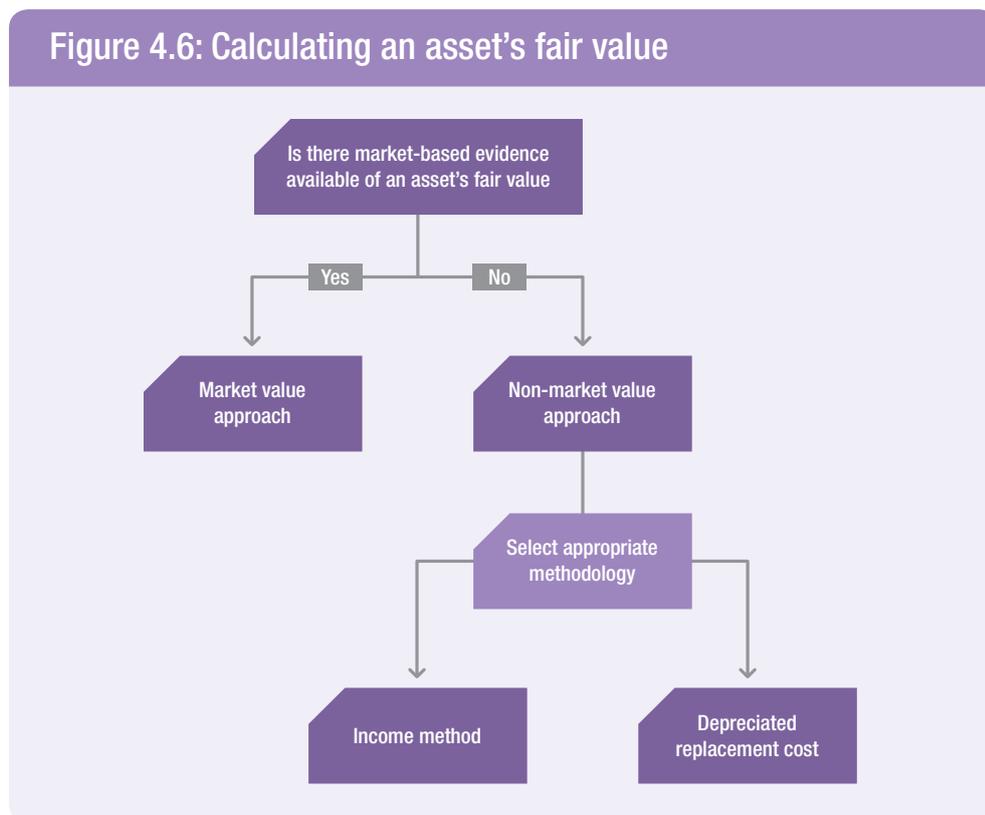
In the absence of market-based evidence to establish an asset's fair value there are two alternate methodologies available. These are the income method and the depreciated replacement cost method.

The income method is often more suited to cash-generating assets or cash-generating units. This methodology calculates a proxy to fair value as the present value of the future cash flows the entity expects to derive from the asset. This is achieved by applying an appropriate discount rate to those future cash flows.

Depreciated replacement cost is the current replacement cost of an asset less, where applicable, accumulated depreciation that reflects the already consumed or expired economic benefits of the asset. The current replacement cost is the lowest cost at which the gross economic benefits of an asset could currently be obtained in the normal course of business AASB 136.

The following diagram illustrates how to establish the appropriate fair value methodology.

**Figure 4.6: Calculating an asset's fair value**



### *Accounting for internally developed software*

#### **Overview**

The following AASB standard is applicable when accounting for internally developed software (IDS):

**Table 4.21: Applicable AASB Standards**

AASB	Name
138	<i>Intangible Assets</i>

IDS is software developed by the entity, or software that is purchased and significantly modified for internal use.

AASB 138 *Intangible Assets* identifies two stages in the acquisition, development, maintenance or enhancement of IDS:

- **Research stage:** obtain knowledge, evaluate alternatives and make selection conditions; and
- **Development stage:** the design, construction and testing prior to the asset being available for use.

All research costs are expensed and certain development costs are capitalised if they meet the requirements of AASB 138.

In most cases IDS will be measured using the cost model as defined under AASB 138, which is at cost less any accumulated amortisation and any accumulated impairment losses.

AASB 138 *Intangible Assets* paragraph 8 defines an intangible asset as an identifiable non-monetary asset without physical substance.

The Department of Finance and Deregulation Accounting Guidance Note 2007/1 defines IDS as software developed by the entity, or purchased by the entity and significantly modified, for internal use. Accounting Guidance Note 2007/1 provides a number of practical examples in this regard. There is no obligation for Australian Government entities to adhere to it but entities should also have regard to the contents of the Australian Standard *AS/NZS ISO/IEC 38500:2010 Corporate Governance of Information Technology*.

### **Asset recognition**

For the recognition of internally developed software AASB 138 requires that:

- it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- the cost of the asset can be measured reliably.

AASB 138 requires that:

- an intangible asset shall be measured initially at cost;
- in respect of not-for-profit entities where an asset is acquired at no cost, or for a nominal cost, the cost is its fair value at the date of acquisition;
- To assess whether IDS meets the recognition criteria the generation of IDS is classified into:
  - a research phase; and
  - a development phase.

### **Research**

Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Research activities include the formulation, design, evaluation and final selection of possible alternatives for new or improved processes, systems or services.

Expenditure on research shall be recognised as an expense when it is incurred.

### **Development**

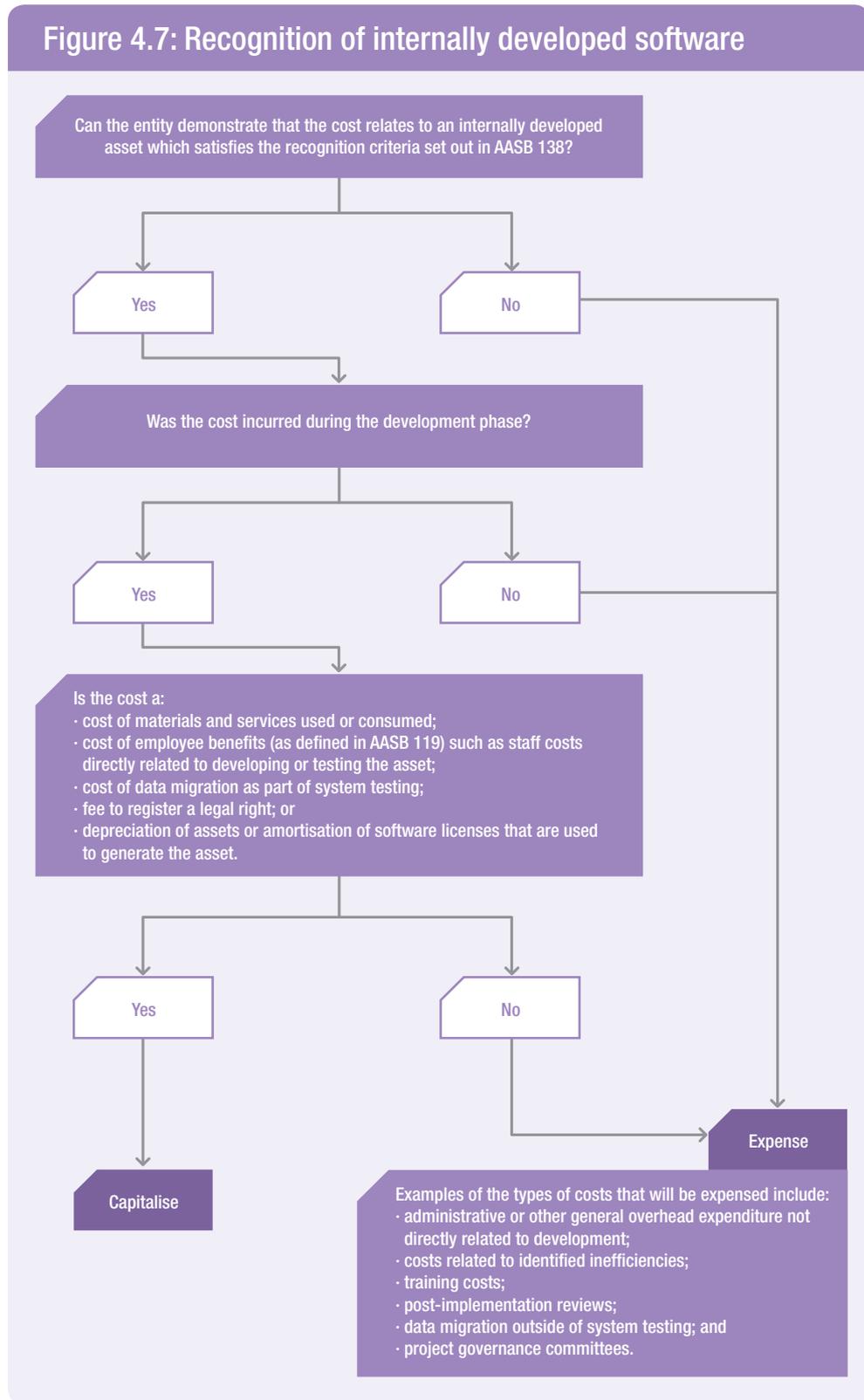
Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems, or services before the start of commercial production or use.

An intangible asset arising from development activities can be recognised if an entity demonstrates all of the following:

- the technical feasibility of completing the asset so that it will be available for use or for sale;
- its intention to complete the asset and use or sell it;
- its ability to use or sell the asset;
- it is probable that the expected future economic benefits that are attributable to the intangible asset will flow to the entity;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the asset; and
- its ability to measure reliably the expenditure attributable to the asset during its development.

Figure 4.7 illustrates the types of costs that can be recognised as development costs.

**Figure 4.7: Recognition of internally developed software**



Expenditure on IDS that was initially recognised as an expense shall not be recognised as part of the cost of IDS at a later date.

## Accounting for non-current assets held for disposal

### Overview

The following AASB standard is applicable when accounting for non-current assets held for sale:

**Table 4.22: Applicable AASB Standards**

AASB	Name
5	<i>Non-current assets held for sale and discontinued operations.</i>

The standard does not apply to those assets that are covered under another Australian Accounting Standard as detailed in AASB.

AASB 5 is also not relevant to any non-commercial disposal of assets, such as when assets are abandoned, gifted or destroyed.

Where an asset is to be permanently withdrawn from use the carrying value should be reviewed. Typically this will result in the carrying value being adjusted to selling or scrap value.

Assets will generally be disposed through:

- asset sale; or
- abandonment.

Where the sale is expected to result in a loss, the loss is recognised immediately. However where the sale is expected to result in a profit this is not recognised until control of the asset has passed to the buyer.

Where assets are abandoned through scrapping or being decommissioned the asset is written off in line with AASB 116. Similar provisions are also made in AASB 138 and AASB 140.

Where the asset is to be sold, it should not be reclassified as a current asset and disclosed as held for sale until the requirements of AASB 5 *Non Current Assets Held for Sale and Discontinued Operations* are met.

Non-current assets held for sale or disposal are valued differently because their future economic benefits are represented by cash, or other forms of sales proceeds, on disposal, rather than service potential from continued use.

Where a non-current asset is part of a disposal group, the requirements of AASB 5 apply to the group as a whole. AASB 5 defines a disposal group as a group of assets to be disposed of, by sale or otherwise, together as a group in a single transaction, and liabilities directly associated with those assets that will be transferred in the transaction.

Where there is a restructuring of administrative arrangements or the restructuring of administered activities of a government department AASB 5 is not relevant. In these cases AASB 1004 *Contributions* is relevant as well as the *Finance Minister Orders for Financial Reporting*.

## Carrying amount and classification

Assets that meet the criteria to be classified as held for sale are to be measured at either carrying amount or fair value less costs to sell, whichever is lower. Where the criteria are met, depreciation on such assets should also cease.

An entity shall classify a non-current asset, or disposal group, as held for sale if its carrying amount will be recovered principally through a sales transaction rather than through continuing use.

The asset must be available for immediate sale in its present condition subject to any terms that are usual and customary for sales of such assets and its sale must be highly probable.

Highly probable is demonstrated by management being committed to a plan to sell the asset and an active program to complete the plan and find a buyer. Price must be reasonable in relation to its current fair value. The sale should be expected to be completed within one year.

Events or circumstances may extend the period to complete the sale beyond one year, generally events and circumstances beyond the entity's control, and management must still be committed to the disposal plan.

When the sale is expected to occur beyond one year the entity shall measure costs to sell at their present value.

Immediately before the initial classification of the asset as held for sale the carrying amount of the asset shall be measured in accordance with applicable Australian Accounting Standards (eg for property, plant and equipment and intangibles 116, 136 and 138 would apply).

An impairment loss should be recognised for any write-down of assets to fair value less costs to sell. After reclassification of the asset it should always be held at fair value less costs to sell, unless the asset subsequently fails the criteria to be classified as held for sale and consequently is measured on a different basis.

AASB 5 requires a gain to be recognised for any subsequent increase in fair value less costs to sell, but not in excess of the cumulative impairment loss.

The non-current asset is not depreciated/amortised while it is classified as held for sale.

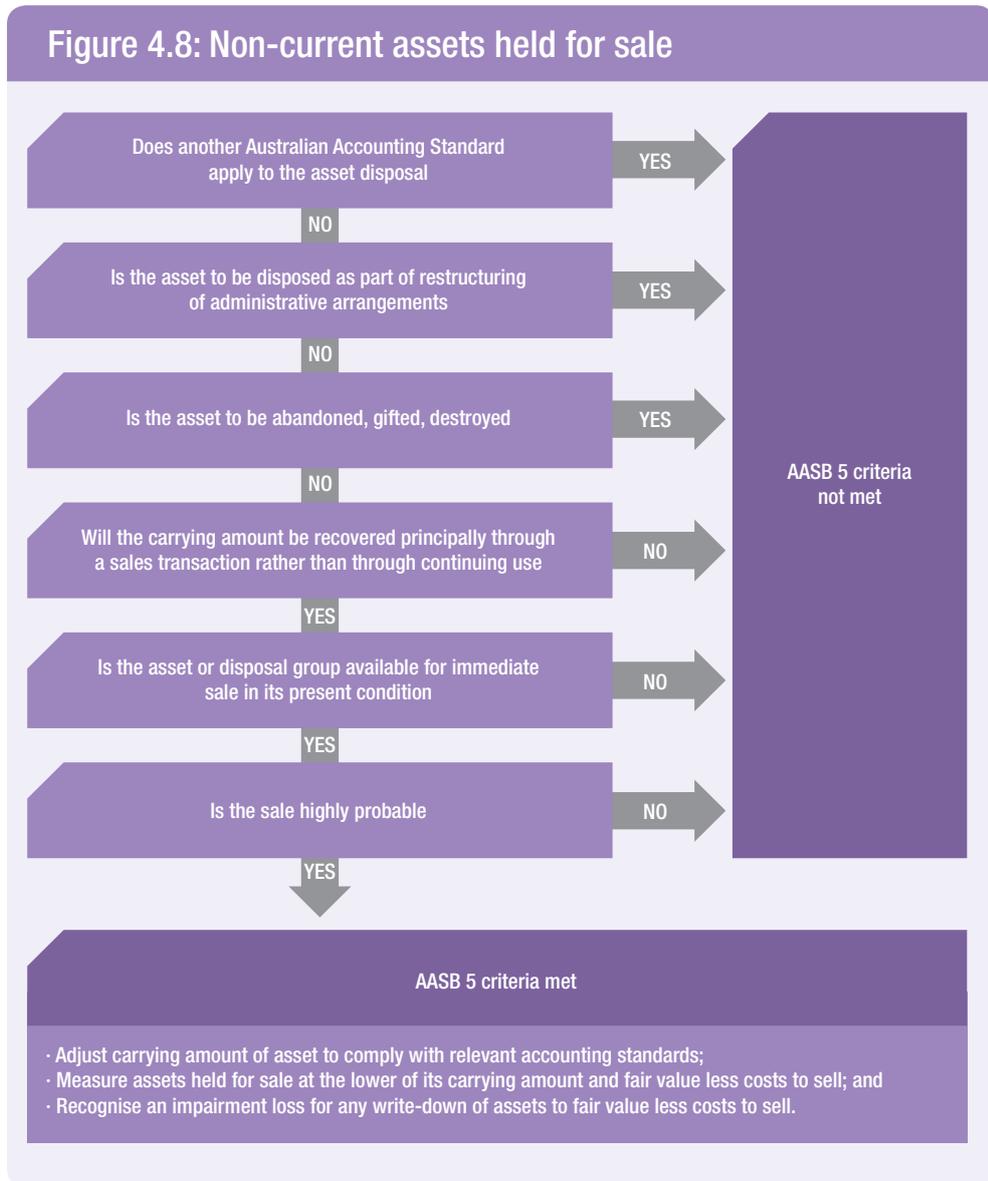
## Changes to a plan of sale

Where the criteria under the standard to classify the asset as held for sale are no longer met the asset is to be measured at the lower of:

- its carrying amount before the asset was held for sale, adjusted for any depreciation, amortisation or revaluations that would have been recognised had the asset not been classified as held for sale; and
- its recoverable amount at the date of the subsequent decision not to sell (where recoverable amount is the higher of an asset's fair value less costs to sell and value in use).

The following diagram illustrates what criteria are required to be met to comply with the requirements of AASB 5.

**Figure 4.8: Non-current assets held for sale**



### Accounting for inventories

**Table 4.23: Applicable AASB Standards**

AASB	Name
102	<i>Inventories</i>

#### Overview

AASB 102 *Inventories* specifies that inventories are assets:

- held for sale in the ordinary course of business;
- in the process of production for such sale; or
- in the form of materials or supplies to be consumed in the production process or in the rendering of services.

Inventories held for sale are valued at cost or net realisable value, whichever is lower. For not-for-profit entities inventories held for distribution should be measured at cost less any loss of service potential. In practical terms the current replacement cost is a good indicator of loss of service potential. Obsolescence would also need to be considered.

The cost of inventories comprises all costs of purchases, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Where inventories have been acquired at no cost or for nominal consideration the initial cost will be current replacement cost as at the date of acquisition.

Where specific costs can be identified attributable to specific items of inventory, then these costs would be directly attributed to those items. However, where there are large numbers of interchangeable items then either the first-in-first-out (FIFO) or weighted average cost (WAC) formula should be used.

When inventories are either sold, distributed or consumed then an expense is recognised.

### **Carrying value**

A not-for-profit entity may hold inventories whose future economic benefits or service potential are not directly related to their ability to generate net cash inflows. For example, goods are distributed at no charge or for a nominal amount. In these cases the service potential is reflected by the amount the entity would need to pay to acquire the economic benefits or service potential to achieve the entity's objectives. Each not-for-profit entity shall measure inventories held for distribution at cost less any loss of service potential.

In many cases the loss of service potential would be identified and measured based on the existence of a current replacement cost that is lower than the inventories' current carrying amount. Loss of service potential may also be identified through loss of operating capacity due to obsolescence.

Inventories held for sale shall be measured at cost or net realisable value, whichever is lower.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to completion and the estimated selling costs.

### **Costs of inventory**

The cost of inventories shall comprise all costs of purchase, costs of conversion and other costs incurred in bringing inventories to their present location and condition.

In respect of not-for-profit entities where inventories are acquired at no cost, or for nominal consideration, the cost shall be the current replacement cost as at the date of acquisition.

Costs of inventory includes:

- purchase price;
- non-recoverable import duties and taxes;
- transport and handling;
- other costs directly attributable to the acquisition of inventory; and
- directly attributable costs of conversion:
  - direct labour costs; and
  - systematic allocation of fixed and variable production overhead costs.

Costs of inventory excludes:

- abnormal amounts of wasted materials, labour or production costs;
- storage costs, unless those costs are necessary in the production process before a further production stage;
- administrative overheads that do not contribute to bringing inventories to their present location and condition; and
- selling costs.

## Cost methods

Where inventory items are not ordinarily interchangeable, specific identification of costs should be used.

The first-in-first-out (FIFO) method or weighted average cost (WAC) formula is permitted where inventory is interchangeable and often it is not possible to differentiate individual inventory items. A good example of such a 'fungible' asset is a litre of fuel: essentially one litre of fuel is indistinguishable from another litre of the same fuel, and as such is fully interchangeable. The entity would use the same cost formula for all inventories, such as 'fuel', having a similar nature and use to the entity.

The FIFO method requires that items of inventory that were purchased or produced first are sold or used first. Consequently the items remaining in inventory are those most recently purchased or produced.

WAC is calculated by determining the cost of each item from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period. The average may be calculated on varying bases dependent upon the circumstances of the entity.

### Example: use of cost formula to measure carrying value of fuel holdings

Fuel is bought on a quarterly basis. The entity has estimated that on average it turns over fuel every nine months. The entity's year end is 30 June. Recent fuel transactions are:

**Table 4.24: Recent fuel transactions**

Date	Transaction	Litres	\$	Cost per Litre (\$)	Litres on Hand
30.06.x0	Opening balance				5000
31.08.x0	Consumption	(1000)			4000
30.09.x0	Purchase	1000	2500	2.50	5000
31.10.x0	Consumption	(2000)			3000
31.12.x0	Purchase	3000	9000	3.00	6000
31.01.x1	Consumption	(2000)			4000
31.03.x1	Purchase	4000	9600	2.40	8000
31.05.x1	Consumption	(4000)			4000
30.06.x1	Purchase	4000	14 000	3.50	8000

From the above analysis there are 8000 litres of fuel on hand at 30.06.x1. AASB 102 permits two methods of establishing the cost of these inventories, FIFO and WAC. Based upon this example these methodologies are discussed in more detail below.

## FIFO Method

Under this methodology items of inventory that were purchased or produced first are sold or used first. As there are 8000 litres of fuel on hand at 30.06.x1, the calculation in Table 4.25 requires purchase prices for the last 8000 litres of fuel that were purchased.

**Table 4.25: FIFO Method**

Date	Transaction	Litres	\$ per litre	\$
31.03.x1	Purchase	4000	2.40	9600
30.06.x1	Purchase	4000	3.50	14 000
<b>Closing inventory balance at 30.06.x1</b>		<b>8000</b>		<b>23 600</b>

## WAC Method

Under this methodology the entity has estimated that fuel holdings are, on average, turned over every nine months. In this example a weighted average would be established with purchases made after a commencement date of 1.10.x0.

**Table 4.26: WAC method**

Date	Transaction	Litres (A)	\$ per litre	\$(B)
31.12.x0	Purchase	3000	3.00	9000
31.03.x1	Purchase	4000	2.40	9600
30.06.x1	Purchase	4000	3.50	14 000
<b>Purchases made over last 9 months</b>		<b>11 000</b>		<b>32 600</b>
<b>Weighted average cost (B/A)</b>				<b>2.96</b>

**Table 4.27: WAC calculation of inventory balance**

Litres on hand at 30.06.x1	WAC (\$/litre)	\$
8000	2.96	23 680
<b>Closing inventory balance at 30.06.x1</b>		<b>23 680</b>

## Management of Inventories

In addition to complying with AASB 102, better practice entities will also develop suitable guidelines for managing inventories. As inventories are high-volume and usually low value by their nature, they need to be managed in a different way to assets such as land and buildings.

Guidelines for management of inventories may include:

- periodic reviews of inventory levels;
- processes and procedures for handling, storing and using inventories; and
- the accounting and record keeping procedures to be applied to inventories.

## *Accounting for heritage and cultural assets*

The following AASB standard is applicable when accounting for heritage and cultural assets:

**Table 4.28: Applicable AASB Standards**

AASB	Name
116	Property, plant and equipment.

Heritage and cultural assets may include items such as buildings, works of arts, artefacts and collectables which are held for their cultural, environmental or historical significance.

However these assets do not include structures constructed to assist with their display, transport or storage or buildings of historical interest that are used to provide office accommodation.

Where it can be demonstrated that an asset's service potential will be maintained for an indefinite period through conservation, restoration and preservation activities the asset may be considered to have an indefinite life. This is typically undertaken through the development and implementation of rigorous and comprehensive curatorial and preservation policies.

AASB 116 Australian Implementation Guidance paragraph G4 defines curatorial and preservation policies as those developed and monitored by qualified personnel and includes the following:

- a clearly stated objective about the holding and preservation of items;
- a well-developed plan to achieve the objective, including demonstration of how the policy will be implemented, based on advice by appropriately qualified experts;
- monitoring procedures;
- periodic reviews; and
- endorsement and adoption by the entity's governing body.

Heritage assets initially acquired at no or nominal cost should be initially measured at fair value. In some cases, it may be impossible to arrive at a reliable measure of fair value. This may be because the asset cannot be replaced or reproduced and doesn't generate cash flows. In such cases, the heritage asset should not be recognised as an asset.

## Glossary

The following definitions apply for the purposes of this Guide:

Term	Explanation
<b>Accrual accounting</b>	The accrual basis of accounting requires all economic resources and obligations of an entity to be reported, not just monetary items. Accrual accounting statements therefore show the net wealth of an entity at the end of a period. Transactions and other events affecting net wealth are recorded as income and expenses when they occur, not when cash is received or paid.
<b>Asset</b>	An asset is a resource controlled by the entity as a result of past events, and from which future economic benefits are expected to flow to the entity.
<b>Asset condition audit</b>	Structured assessment of an entity's asset base to ascertain performance information such as utilisation, functionality and utilisation. Decisions made from analysing the outcomes of the condition audit are factored into the asset management strategy.
<b>Asset recognition</b>	An asset is recognised in the balance sheet when it is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured reliably.*
<b>CAC body</b>	A body that is prescribed by regulations under the Commonwealth Authorities and Companies Act 1997, holds money on its own account and is either: <ul style="list-style-type: none"> <li>(a) a body corporate that is incorporated for a public purpose by an Act; or</li> <li>(b) a body corporate that is incorporated for a public purpose by: <ul style="list-style-type: none"> <li>(i) regulations under an Act; or</li> <li>(ii) an Ordinance of an external Territory (other than Norfolk Island) or regulations under such an Ordinance.</li> </ul> </li> </ul>
<b>Carrying amount</b>	Carrying amount is the amount at which an asset is recognised in the balance sheet after deducting any accumulated depreciation/amortisation and any accumulated impairment losses.
<b>Chief Executive's Instructions</b>	Sub-section 52(10) of the FMA Act provides that Chief Executives may give instructions to officials in their entity on any matter necessary or convenient for carrying out or giving effect to the FMA Act. Chief Executive's Instructions may be issued for any matter that promotes the efficient, effective and ethical use of Commonwealth resources for which the Chief Executive is responsible, including in relation to public money, public property and other resources.
<b>Cost</b>	Cost is the amount of cash or cash equivalents paid or the fair value of other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other Australian Accounting Standards.**
<b>Criticality</b>	Criticality, or operational importance, reflects how heavily the asset user depends on the asset to meet service delivery obligations.

\* AASB Framework for the Preparation and Presentation of Financial Statements.

\*\* AASB 116 Property Plant and Equipment.

Term	Explanation
Effectiveness	Relates to how well outcomes meet objectives. It concerns the immediate characteristics of an entity's outputs, and the degree to which an asset contributes to achieving specified outcomes. Entities should ensure that an asset is suitable to the nature of their business and supports the delivery of budget funded entity outcomes.
Efficiency	Relates to the productivity of Commonwealth resources used to conduct an activity in order to achieve the maximum value for those resources, to ensure that it is appropriate to business needs, the best value for money, and consistent with the principles outlined in the FMA Act.
Fair value	Fair value of an asset is the amount for which that asset could be exchanged between knowledgeable, willing parties in an arm's-length transaction.
FMA agency	A body that is governed by the FMA Act and regulations is an Agency which is defined as a: <ul style="list-style-type: none"> <li>a) Department of State: <ul style="list-style-type: none"> <li>(i) including persons who are allocated to the Department (for the purposes of the FMA Act) by regulations made for that purpose; but</li> <li>(ii) not including any part of the Department that is a prescribed Agency;</li> </ul> </li> <li>b) Department of the Parliament, including persons who are allocated to the Department (for the purposes of this Act) by regulations made for the purposes of this paragraph;</li> <li>c) prescribed Agency.</li> </ul>
Functionality	Functionality is 'fitness for purpose'. It describes how well a current asset matches the activities that it supports.
Intangible asset	An intangible asset is an identifiable non-monetary asset without physical substance. <sup>***</sup>
Operational planning	Outlines expected operational activities for an entity to deliver priorities, functions and obligations.
Inventory	Inventories are assets: <ul style="list-style-type: none"> <li>• held for sale in the ordinary course of business;</li> <li>• in the process of production for such sale; or</li> <li>• in the form of materials or supplies to be consumed in the production process or in the rendering of services.</li> </ul>
Non-asset solution	A non-asset solution does not involve the ownership of assets by the entity in meeting its program delivery requirements.
Out-turn costs	These are costs expressed in today's dollars adjusted for the effects of inflation where the outlay is expected in a future year.
Risk management	Risk is part of the environment in which entities operate. Risk management involves the systematic identification, analysis, treatment and allocation of risks. The extent of risk management required will vary depending on the potential impact of the risks.

<sup>\*\*\*</sup> AASB 138 Intangibles.

Term	Explanation
Useful life	Useful life is the period over which an asset is expected to be available for use by an entity, or the number of production or similar units expected to be obtained from the asset by an entity. The useful life of an asset may be different to the period of its physical life.
Use	An assessment of how intensively an asset is used based upon its design specifications. Use may be classified as expected, excessive or under-utilised.
Whole-of-life costing	An estimate of all expected costs over the lifetime of the relevant asset, including the costs of acquisition, operation and maintenance and disposal.