

Strategic Asset Management Framework



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DOCUMENT VERSION CONTROL

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V0.01	09/10/2025	David Jamieson	First draft published for internal review
V0.02	09/11/2025	David Jamieson	Revisions to Draft document post review
V0.03	16/12/2025	David Jamieson	Revisions to Roles and Responsibilities throughout document in accordance with changes to Policy
V0.04	13/05/2026	David Jamieson	Revised Committee function to advisory role in accordance with Policy, added ARV section, expanded Decision Making process, identified IT position within framework/policy and created a “lift-out” section for actions/ongoing requirements

OVERVIEW

The purpose of the Strategic Asset Management Framework (SAMF) is to establish a systematic and coordinated approach to managing the University's infrastructure assets throughout their lifecycle. The framework is designed to ensure assets are managed effectively and efficiently to support the University's strategic objectives, minimise risk, optimise lifecycle costs and enhance the overall campus experience.

The SAMF documents the interrelation between asset management policies, objectives and processes necessary to achieve the University's strategic objectives, meet its business needs and manage compliance obligations. It is based on sound asset management practices and is aligned with the principles and requirements of the International Standard for Asset Management, ISO 55000.

Further, this document establishes a clear framework to inform decision-making regarding the University's physical assets, encompassing infrastructure enhancement/renewal planning, lifecycle plans and financial modelling. It provides clear definitions on roles and responsibilities for asset management activities and establishes the governance and controls in place to ensure continued investment and support is provided to the University's Asset Management Information System and processes.

FRAMEWORK GOVERNANCE

The Strategic Asset Management Framework is owned and issued by the Property, Facilities and Development Division (PFD).

The Director, Property, Facilities and Development Division (Director PFD), under the authority of the Policy Owner, is responsible for the development, continuous improvement and approval of the Strategic Asset Management Framework (SAMF).

This Framework associated procedures/guidelines and the Asset Management Information System are to be periodically reviewed with feedback/input garnered via the Performance Evaluation and Continuous Improvement strategies outlined herein. Further detail on Roles and Responsibilities can be found in the *Asset Management Principles* section.

CONTEXT

The SAMF should not be read in isolation from the University's *Physical Asset Management Policy*, which is the foundational document defining the overarching principles and objectives for Asset Management.

Scope and Exclusions

This Framework applies to the physical assets of the University as defined in the *Physical Asset Management Policy*. Certain asset categories are currently excluded from scope, including Information Technology & Audio-Visual hardware, software, intangible assets and collections. This is reflective of the University's current asset management maturity and the recognition that some Asset Classes/Categories are more appropriately governed under separate frameworks at this point of time.

Of the current exclusions Information Technology & Audio-Visual assets represent a significant and growing area of infrastructure risk and lifecycle cost. As the asset management programme matures, the University should look to incorporate the management of these assets (and potentially other excluded categories as opportunity arises) into the scope of this Policy and Framework. Any expansion

will require a considered approach to ownership, data management and resourcing before inclusion - consistent with the principles established herein.

Terminology

A detailed Glossary of Terms used in the SAMF can be found in *Appendix C*, the following commonly used terms should be noted prior to continued reading:

- **Asset** – is an umbrella term for tangible/physical resources owned by the University which have potential or actual value to the organisation. Examples may include property, buildings, resources, natural environment, plant, machinery, Vehicles, Teaching Equipment and Research/Scientific equipment
- **Asset Management Information System (AMIS)** – refers to the University's Enterprise Asset Management Information System (also known as an EAM, CMMS or ITMS) and which is used to assign, track and report on assets of value to the organisation across their respective lifecycle phases i.e. the Asset Register - refer to *Asset Information and Data Management* for more detail
- **Strategic Asset Management Framework (SAMF)** – documents the principles for a whole of business approach to managing assets across their lifecycle and provides oversight of these functions across a range of documents from Policies to Strategies to Procedures

Framework Hierarchy

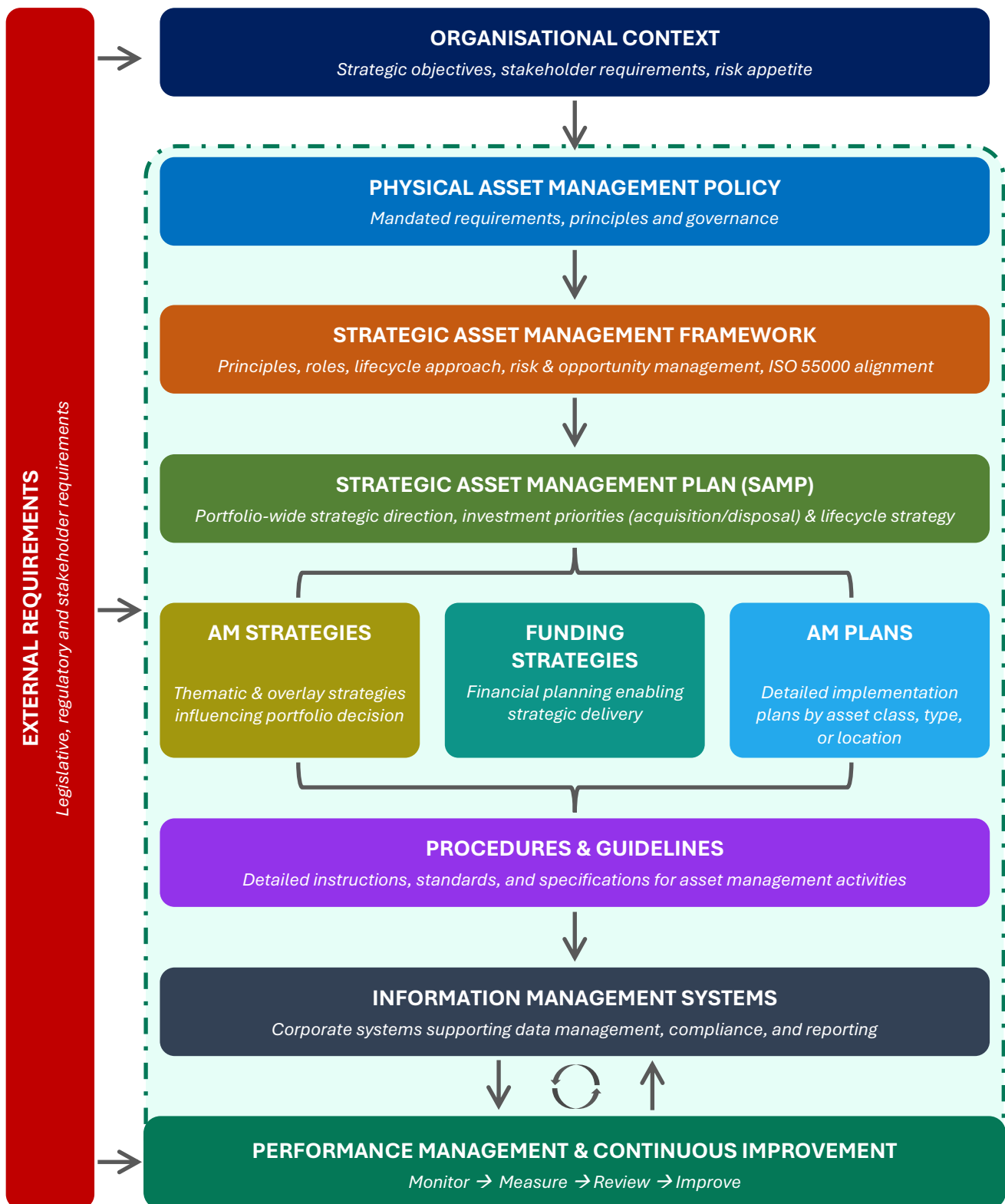


Figure 1 – Asset Management System Hierarchy

The following expands on the *Asset Management System Hierarchy* as per figure 1 above but are not considered exhaustive in nature.

External Requirements

Legislation, standards, regulatory requirements and stakeholder expectations that influence decision-making across the organisation, including asset management activities – examples include: Legislation

& Compliance: University Charter, WHS/OHS, SafeWork SA, Office of the Technical Regulator (OTR), Heritage Act

- Standards Framework: NCC, Disability Discrimination Act (DDA), International Standards (i.e. ISO 55000 series for Asset Management) and Australian Standards (i.e. AS/NZS 1851 Fire Protection Systems Maintenance)
- Regulatory: TEQSA, Australian Universities Accord, Athena Swan Charter, EPA, Local Government planning/building approvals and Insurance requirements
- Stakeholders: Student safety, accessibility and wellbeing requirements, Staff workplace requirements, local community and industry partnerships

Organisational Context

Internal inputs that define the organisations' vision, mission and values, business policies, stakeholder requirements, goals and risk management/appetite – examples include:

- Agenda 2035
- Campus Master Plan & Development Plan(s)
- Sustainability Strategy
- Risk Management Policy

Physical Asset Management Policy

Defines any mandated requirements and overall intentions/principles from an organisational level for overseeing Asset Management Activities.

Strategic Asset Management Plan (SAMP)

Portfolio-wide strategic direction providing investment priorities, lifecycle strategies and acquisition/disposal criteria. Typically contains; Portfolio Analysis, Gap Analysis, Investment/Divestment Priorities, Risk Management and Service Levels.

Asset Management Strategies

Provide technical strategies that are aligned with organisational objectives and which are optimised specifically for the management of the University's assets to meet Service Levels – examples include:

- Technical Strategies: Thermal Strategic Plan, R22 Phaseout, Energy Management
- Conservation Plans: Heritage Conservation, Environmental Management, Revegetation Plan
- Acquisition & Disposal Plans: Residential Housing Strategy

Funding Strategies

The Framework and resulting Strategies/Plans must consider the University's ability to support Asset Management Activities within the broader Organisational context of the University. This includes but is not limited to:

- Capital Infrastructure Plan (annualised CAPEX funding)
- Operating Budgets (i.e. OPEX)
- Sinking Funds
- Alternative Ownership Models (i.e. leasing arrangements, joint ownership, MoU's, etc.)

Asset Management Plans (AMP)

AMP's are a set of detailed, long-term plans created for a specific Asset Class/Asset Category and/or a Location (such as a Campus or Building). They serve as a strategic roadmap, typically with a 5-20 year horizon; outlining the lifecycle management strategy, actions and resources needed to meet the University's service delivery requirements. This living document is a critical tool for informing and guiding the annual planning and budgeting process. A typical AMP should include:

- Asset Description: Summary of the asset class, including its purpose, location and condition

- Service Level Objectives: required performance standards (e.g., uptime, capacity, user satisfaction)
- Lifecycle Strategy: Management plan from acquisition to *End of Life*, covering maintenance, renewals and operations
- Financials: Projected lifecycle costs (CAPEX and OPEX) and funding requirements
- Risk Profile: Key risks and mitigation strategies
- Performance Monitoring: KPIs and metrics measuring the AMP's success

AMP's form the basis for annualised Asset Renewal Plans (i.e. Capital Infrastructure Plans) subject to Organisational strategy and Funding Strategies at the time of compiling.

Examples include Campus AMP or Building specific AMP, Services AMP (i.e. HVAC), Roads & Carparks AMP.

Procedures and Guidelines

Detailed processes and instructions supporting asset management activities – examples include:

- Flinders University Design Guidelines & suite of Technical Standards
- Asset Assessment Guideline – A standardised methodology for evaluating the physical condition, functionality and remaining useful life of assets (i.e. an Audit Guideline)
- AMIS Functional Outline – A technical specification for the University's AMIS, including detailed description of fields, formulas and workflows, standardised reporting requirements and system access protocols
- Asset Management & Maintenance Management Procedures
- Procurement Policy, PP&E Procedure and Asset Disposal Procedure (Financial Asset Procedures)
- Compliance Register & Legislative Mapping
- Service Mapping

Information Management Systems

Foundational corporate systems for collating asset information in support of Asset Lifecycle, Maintenance and Compliance management functions; used to support business functions and the development of Asset Management Strategies & Plans. – examples include:

- ServiceOne – AMIS & Maintenance Management System (MMS) including Compliance Management
- GeoHub – Space Management System (SMS)
- SharePoint – Document/Records Management System (DMS)

Performance Monitoring and Continuous Improvement

Systematic monitoring and review of framework performance at all levels, with feedback driving continuous improvement across strategic, tactical and operational activities, as specified in ISO 55001:2024, Clauses 9 and 10.

- Monitor & Measure: KPIs, Performance Reports, Compliance Tracking, Condition Data
- Review & Improve: Quality Management System (QMS), Audits, Corrective Actions, Innovation & Development, Training, Lessons Learned, Benchmarking, Stakeholder Feedback

Definition of an Asset

The definition of what constitutes an Asset and the scope of how this is applied across the Organisation is detailed in the *Physical Asset Management Policy*.

The decision to record an Asset and to manage it in the context of this framework is made by an *Organisational Unit* and is based on an assessed “business need”. This threshold for inclusion is therefore not tied to an arbitrary requirement such as its purchase price (i.e. Financial/Fixed Asset Management). In doing so however each Organisational Unit must assess the level of effort and ongoing resourcing required to effectively maintain the asset record prior to committing to the establishment of new asset categories within the AMIS.

Compliance and Alignment with Standards

The SAMF is informed by the following internationally recognised strategic references:

- British Standards Institute PAS 55
- the ISO 55000 Standard for Asset Management
- the International Infrastructure Management Manual

The ISO 55000 series is a set of international standards for asset management, providing a comprehensive framework for organisations to manage their physical and financial assets effectively over their lifecycles. ISO 55001 is the certifiable standard for which an organisation can seek to be formally assessed against. Doing so demonstrates that an organisation's AMIS meets the standard's requirements, which helps in optimising asset performance, mitigating risks, enhancing financial returns and building confidence with stakeholders like customers and regulators.

Currently, the University has decided to align with the principles within this suite of standards only and to not seek formal certification. This provides a solid grounding for developing the Asset Management Framework and ensures the University meets best practice as outlined in the standards – further it provides a pathway for the University should it decide to seek certification in the future.

Specific outcomes and actions are tabled in greater detail in subsequent Asset Management Plan(s) and are developed by each *Organisational Unit* specific to their Business needs and in alignment with the University's various Strategic Objectives.

ASSET MANAGEMENT PRINCIPLES

This framework articulates the guiding principles that inform Flinders University's asset management practices. These principles are informed by the requirements of the University, alignment with University Strategy and industry best practices - particularly the ISO 55000 series of standards.

It is not the intent of this SAMF to provide guidance on appropriate or specific metrics (such as maturity levels) or detail plans on how to achieve any specific outcomes and goals.

ALIGNMENT

This section ensures the AMIS is aligned with the University's strategic goals and operational environment, consistent with ISO 55001:2024, Clause 4.

- **Organisational Strategy:** Asset management activities support the University's strategic objectives
- **Sustainability:** A commitment to managing assets in an environmentally, socially and economically responsible manner
- **Stakeholder Analysis:** Identifying all relevant internal and external stakeholders (e.g., students, staff, government, contractors) and their asset-related needs and expectations
- **Asset Portfolio:** A comprehensive overview of the University's infrastructure assets, including buildings, utilities, roads and grounds
- **External and Internal Issues:** Considering factors such as funding, regulatory changes, technology advancements and demographic shifts that impact asset management

- **Decision Making:** Applying consistent, criteria-based prioritisation to all asset management decisions to ensure they reflect the University's values, risk appetite and strategic objectives

Decision Making Criteria

To ensure consistency and transparency, the University applies a common set of decision making criteria across all asset management activities, aligned with ISO 55001:2024, Clause 4.5. This framework defines the criteria used to evaluate and prioritise asset management decisions across the portfolio, ensuring that decisions reflect the University's values and strategic objectives.

The University defines value, in the context of asset management, as the optimum combination of quality, quantity, risk, timeliness and cost associated with an asset across its Whole of Life - consistent with the definition established in the Physical Asset Management Policy.

Decision-making criteria are applied in the following order of priority:

1. **Safety and Compliance:** Decisions that address safety risks or legislative/regulatory obligations take precedence. Non-negotiable compliance requirements are not subject to cost-benefit trade-offs
2. **Risk and Business Continuity:** Assets presenting an elevated risk to business continuity or service delivery are prioritised based on the University's risk appetite (see Risk Management section)
3. **Service Level and Strategic Alignment:** Decisions are evaluated against their contribution to maintaining or improving required Levels of Service and alignment with the University's strategic objectives
4. **Whole of Life Value:** Where safety, compliance and risk considerations are satisfied, decisions are assessed on a Total Cost of Ownership (TCO) basis, ensuring long-term affordability and value for money
5. **Sustainability:** Environmental impact, carbon reduction objectives and alignment with the University's Sustainability Strategy are considered in all asset decisions, particularly at the planning and End of Life phases

These criteria are applied across all asset management activities including planning, capital prioritisation, maintenance strategy, procurement and End of Life decisions – and are underlying principles for subsequent inclusion in asset management strategies and plans. The Director PFD is responsible for maintaining and communicating these criteria, with Asset Managers responsible for their application within respective portfolios and Asset Management Plans.

ACCOUNTABILITY

This component defines clear roles, responsibilities and the necessary support systems to deliver on the asset management objectives, as detailed in ISO 55001:2024, Clauses 5 and 7.

- **Management Commitment:** Demonstrating leadership commitment through the establishment of asset management roles (as needed) including the AMAC and clear communication of the *Physical Asset Management Policy*
- **Asset Management Objectives:** Establishing asset management objectives at enterprise and operational levels to ensure a clear line of sight between the Physical Asset Management Policy and individual Asset Management Plans
- **Roles, Competence & Awareness:** Ensuring all staff involved in asset management have the necessary skills and training to fulfil their roles, with competence requirements developed in alignment with ISO 55012:2024
- **Information Management:** Establishing a robust AMIS to maintain accurate and up-to-date data on all assets. This system's management is a key accountability area

- **Resource Allocation:** Securing adequate financial, human and technological resources to execute asset management plans

Roles and Responsibilities

Effective Asset Management for the University requires clearly defined ownership and responsibility with engagement from all *Organisational units* to ensure a coordinated whole of organisation approach.

The roles outlined in the University's *Physical Asset Management Policy* are operationalised at the University as follows, with additional governance and supporting roles included to clarify framework implementation:

ROLE	POLICY DEFINITION	TYPICAL POSITION(S)
Policy Owner	Accountable for the Physical Asset Management Policy and associated Framework. Responsible for ensuring asset management governance is appropriately resourced and embedded across the University	Vice President, Corporate Services (VPCS)
Director PFD	Develop and implement the SAMF. Govern continued improvements and investment in the AMIS	Director, Property, Facilities and Development
Asset Owners	Typically, high-level decision-makers responsible for defining or informing overall strategy, governance / resource allocation of AM Activities. Asset Owners may assign or share Asset Manager or Custodian responsibilities across organisational boundaries - refer to <i>Assigning Ownership and Responsibility</i> for further detail	Director(s) of Organisational units (e.g., Director PFD, Director College Services)
Asset Managers	Develop asset management plans and lifecycle strategies for asset classes/portfolios. Translate strategic objectives into operational programs and provide oversight of Asset Custodians	Asset Managers, Technical Services Managers
Asset Custodians	Operational responsibility for assets across their lifecycle including procurement, utilisation, maintenance, servicing, certification, record-keeping (i.e. AMIS) and disposal	Facility Managers, Project Coordinators (i.e. CSPC), Lab Managers, Support Officers, Logistics Coordinators, Asset Officers

Figure 2 – Roles and Responsibilities Summary

Note: The above positions are representative examples. Actual role assignments may vary by Organisational unit based on structure and resourcing. Refer to the Physical Asset Management Policy for formal role definitions and responsibilities.

SUPPORTING ROLES	DEFINITION	TYPICAL POSITION(S)
Asset Management Advisory Committee	A committee responsible for informing development of the framework, procedures, guidelines and the AMIS itself	Comprised of Asset Owners and Asset Managers from across Organisational units
Executive Leadership	Supporting role <u>only</u> that provides organisational strategy/context and general promotion of Asset Management within the University	Vice-President (Corporate Services) and Vice-President and Executive Dean (Colleges)

SUPPORTING ROLES	DEFINITION	TYPICAL POSITION(S)
SME's	Supporting role <u>only</u> that may, from time to time, provide specialised expertise to inform asset management planning, compliance, reporting and AMIS data management	Planners, Project Managers, Contract Managers, WHS, Finance, Service Providers, Consultants, Engineers

Figure 3 – Supporting Roles and Responsibilities Summary

Consultation Requirements

The following groups should also be consulted in asset management activities where relevant:

- University Community (students, staff, building users)
- Working Groups and Committees:
 - Infrastructure Committee (Capital Infrastructure Plan)
 - Sustainability Advisory Group
 - Work Health & Safety Committee
 - Academic/Research planning groups

Asset Management Advisory Committee (AMAC)

AMAC is a cross-organisational advisory forum that provides advice and recommendations to the Director PFD and Asset Owners to support continuous improvement of the AMIS, Strategic Asset Management Framework and associated procedures, while identifying cross-organisational challenges and promoting the adoption of good practice.

AMAC is an advisory body only. All decisions remain with the relevant Asset Owner or Director PFD as defined in the Physical Asset Management Policy.

Key functions, as documented in the Committee's Terms of Reference (ToR), include:

- Reviewing and providing recommendations on asset management frameworks, procedures and system enhancements
- Facilitating knowledge sharing and the adoption of good practice across organisational units
- Identifying cross-organisational challenges, opportunities and capability gaps
- Contributing input into performance monitoring, reporting and periodic maturity assessments
- Supporting and promoting Framework implementation within respective organisational units
- Acting as a reference group to provide feedback on new initiatives prior to broader implementation

The AMAC itself does not hold decision-making authority nor does it not replace or override the accountabilities defined in the Physical Asset Management Policy.

RACI

To detail responsibilities for specific Asset Management Activities, the University uses the RACI Model. This ensures common tasks are clearly assigned ownership and accountability:

- **Responsible (R):** Those who do the work to complete the task
- **Accountable (A):** The one ultimately answerable for the correct and thorough completion of the task
- **Consulted (C):** Those whose input is sought (two-way communication)
- **Informed (I):** Those who are kept up-to-date on progress (one-way communication)

The following RACI matrix details the distribution of responsibilities across key asset management activities:

TASK	RESPONSIBLE	ACCOUNTABLE	CONSULTED	INFORMED
1. Establish, maintain and review the Asset Management Policy and Framework	Director PFD	Policy Owner, Executive Leadership	Asset Owners, Asset Managers, AMAC	<i>University Community</i>
2. Define Asset Management Objectives (Enterprise)	Director PFD	Policy Owner	Asset Owners, Asset Managers, AMAC	<i>University Community</i>
3. Develop Strategic Asset Plans	Asset Managers	Asset Owners	Asset Custodians, SME's	<i>University Community</i>
4. Develop Asset Management Plans (AMPs)	Asset Managers	Asset Owners	Asset Custodians, SME's	<i>Relevant stakeholders within Organisational unit</i>
5. Manage Change Management Program	Asset Managers	Asset Owners	AMAC	Asset Owners
6. Execute Change Management Activities (record updates)	Asset Custodians	Asset Managers	SME's	Asset Owners
7. Conduct Asset Condition Assessments	Asset Custodians, SME's	Asset Managers		Asset Owners
8. Plan and Execute Maintenance Activities	Asset Custodians	Asset Managers	SME's	WHS
9. Manage Capital Improvement Program	Asset Managers	Asset Owners	<i>Project Delivery Team, Infrastructure Committee, Planners, SME's</i>	<i>Finance Department</i>
10. Monitor and Review Asset Management Performance	Asset Managers	Director PFD	Asset Owners, AMAC, SME's	<i>University Community</i>

Figure 4 – RACI Matrix

Assigning Ownership and Responsibility

The need to assess and assign Ownership and Responsibility to an Asset is a fundamental requirement of the Framework to ensure appropriate governance with Asset Management Activities as outlined herein are appropriately resourced and actioned. The Asset Owner is ultimately responsible for the Lifecycle Management of an Asset (including the upkeep of asset data) and each Organisational Unit will need to ensure appropriate resourcing is available to effectively manage this requirement - see *Whole of Life Approach* for more detail.

Cross Organisational Assignments

Where assets serve shared or cross-institutional purposes, an Asset Owner may assign or share Asset Manager or Asset Custodian responsibilities with staff outside their own Organisational unit. This recognises that the most appropriate person to manage or maintain an asset is not always within the same division as the Asset Owner.

Such arrangements are not directives; they require the agreement of the relevant Asset Owner in the receiving Organisational unit prior to implementation. Where agreement is reached, the arrangement should be documented and reflected in the AMIS to ensure accountability remains clear. The AMAC provides a natural forum for facilitating or resolving cross-organisational discussions of this nature where needed.

Responsibilities

Ownership of an asset confers the following essential responsibilities:

- **Financial and Resource Management:** Ensuring adequate resources are provided to manage the asset for its entire lifecycle, covering all costs associated with:
 - New Provisioning: Establishing services (e.g., power, water, air) required for a new asset's operation
 - Disposal and Make-Good: Termination or removal of services completely when an asset is disposed of and not renewed, including the costs of making good any resulting damage to finishes and fitments (simple capping/termination at the point of removal is not acceptable)
- **Service Level Administration:** Administering and provisioning the appropriate levels of service by the asset(s) for the local User Group or the wider University Community.
- **Asset Governance and Control:** Maintaining the appropriate controls and standards across the asset portfolio, which includes:
 - Compliance and Safety: Ensuring the asset meets and maintains all relevant compliance, WHS and licensing requirements
 - Quality Adherence: Adhering to minimum quality levels and technical standards, in accordance with any relevant Technical Standards and Design Guidelines
 - Procurement Approval: Evaluating requests for purchasing of new assets by other Organisational Units where those assets fall under the Asset Owner's authority. This process is critical to preventing oversupply (e.g., shared research equipment) and ensuring the asset fits within the overall technical and compliance framework (e.g., Fire Extinguishers or Defibrillators)

Principles

There are several considerations dependant on the scale/scope of the assets, the service they provide or the method of procurement which may influence the ownership – a detailed breakdown of the assessment can be found in *Appendix A* and a high-level summary below for context:

CONSIDERATION	RESPONSIBILITY	NOTES
1. Are there Legislative Compliance Obligations	PFD	Excludes Local User Group specific requirements for Certification of equipment or spaces in support of their individual research activities (i.e. PC2) or Industry Associations (i.e. Engineering Australia) – refer <i>Cross Organisational Assignments</i>
2. Is it Dedicated Equipment or Portable / Non-Fixed in nature (i.e. Benchtop)	Local User Group	Includes items funded by way of grants or that provide further augmentation to Base Building Infrastructure to an asset (i.e. Milli-Q)

CONSIDERATION	RESPONSIBILITY	NOTES
3. Is it Fixed Infrastructure i.e. Base Building / Underground Services	PFD	Services and Systems that serve more than one space/whole of building or that provide basic provisions to ensure spaces remain operable/habitable as per their intended purpose
4. Is it part of a Corporate Platform(s) / Network(s)	PFD	Examples include Corporate BMS Platform, Access Controls and Gas Detection
5. Is it able to be included under the Scope of University wide Service Providers	PFD	Gas Systems Safety Checks, Ice Machines, etc.
6. Is it a Consumable item or subject to a “Local” Commercial Agreement	Local User Group	Bottled Gas supply
7. All other items	Local User Group	

Figure 5 – Asset Ownership Principles

Note: Ownership of an Asset does not necessarily absolve a Local User Group from Operational Responsibilities such as checks on cleanliness, alarming, stocktake, booking management, etc.

Asset Management Objectives

Enterprise-level objectives apply across the entire asset portfolio and are established at the framework level. Detailed, measurable (SMART) operational objectives are documented in individual Asset Management Plans and reviewed annually by Asset Managers.

The University's enterprise-level asset management objectives are to:

- Provide and maintain a safe, compliant and fit-for-purpose physical environment that supports the University's teaching, learning and research activities
- Manage the asset portfolio to achieve defined Levels of Service within available resources, taking a risk-based approach to investment prioritisation
- Maintain asset data accuracy within the AMIS at greater than 95% to support informed decision-making
- Progress asset management maturity in alignment with ISO 55001:2024 principles, assessed triennially
- Reduce the environmental impact of asset management activities in support of the University's Sustainability Strategy

The Director PFD is responsible for establishing and communicating enterprise-level objectives, reviewed annually as part of the management review cycle.

Competence and Training

The University is committed to ensuring that staff undertaking asset management activities have the competence necessary to fulfil their roles. Competence requirements for each role will be developed in alignment with ISO 55012:2024 and documented in a subsequent version of this Framework.

In the interim, the following principles apply:

- Asset Owners are responsible for ensuring staff in Asset Manager and Custodian roles have the necessary skills and experience for their responsibilities

- Training needs identified through internal audits or maturity assessments are to be escalated to the Asset Owner
- Staff are encouraged to familiarise themselves with the latest ISO 55000 series as a foundation for their asset management practice

Communication

Clear and consistent communication of asset management information to relevant stakeholders is a requirement of ISO 55001:2024, Clause 7.4. A formal communication plan defining what is communicated, when, by whom and to which stakeholders will be developed as part of the next iteration of this Framework.

In the interim, communication of asset management activities is managed through existing governance mechanisms including the AMAC, the annual management review cycle and quarterly performance reporting. Any significant changes to the Framework, asset management objectives or AMIS are to be communicated to Asset Owners and Asset Managers by the Director PFD.

WHOLE OF LIFE APPROACH

This section outlines how the University will manage assets across their entire lifecycle to optimise performance and maximise value, reflecting the requirements of ISO 55001:2024, Clauses 6 and 8.

- **Asset Management Plan (AMP):** A detailed, multi-year plan outlining specific activities, resources and timelines for each asset class (e.g., HVAC systems, electrical infrastructure). This ensures assets are managed for value across their entire life
- **Levels of Service:** Defining the performance standards that assets must deliver to meet the University's business objectives, providing the basis for investment decisions, maintenance strategies and performance monitoring
- **Lifecycle Management:** Planning for all stages of an asset's life: planning, procurement, operation, maintenance and *End of Life* (incl. financially).
- **Value for Money:** Maximising value for the University in all asset-related decisions, considering whole-of-life costs and benefits i.e. TCO
- **Maintenance Strategy:** Defining the mix of preventive, predictive and reactive maintenance activities for different asset types
- **Asset Operations:** Documenting procedures for the safe and efficient operation of assets (i.e. SOP's, Shutdown/Start-up Procedures, Emergency Isolation Procedures, etc.)
- **Change Management:** A controlled process for managing changes to assets, including upgrades and modifications

Levels of Service

Levels of Service (LoS) define the performance standards that assets are required to deliver to meet the University's business objectives and stakeholder needs. A formal Levels of Service framework will be developed and documented in subsequent Asset Management Plans and a future version of this Framework.

When developing Levels of Service, the following should be considered:

- Service levels should reflect stakeholder needs and be developed in consultation with relevant User Groups, WHS and academic/research planning groups
- Asset criticality should inform the standard of service assigned - essential assets require higher availability and faster response times
- Performance against service levels should be monitored through the AMIS and reported as part of the review process

- Where a gap exists between current performance and required service levels, this should inform capital investment priorities and maintenance strategy

Lifecycle Management

Effective asset lifecycle planning and management needs a whole-of-life approach to the management of assets, whereby all activity within the entire spectrum of its life is considered during its lifecycle phases, per *figure 6* below:

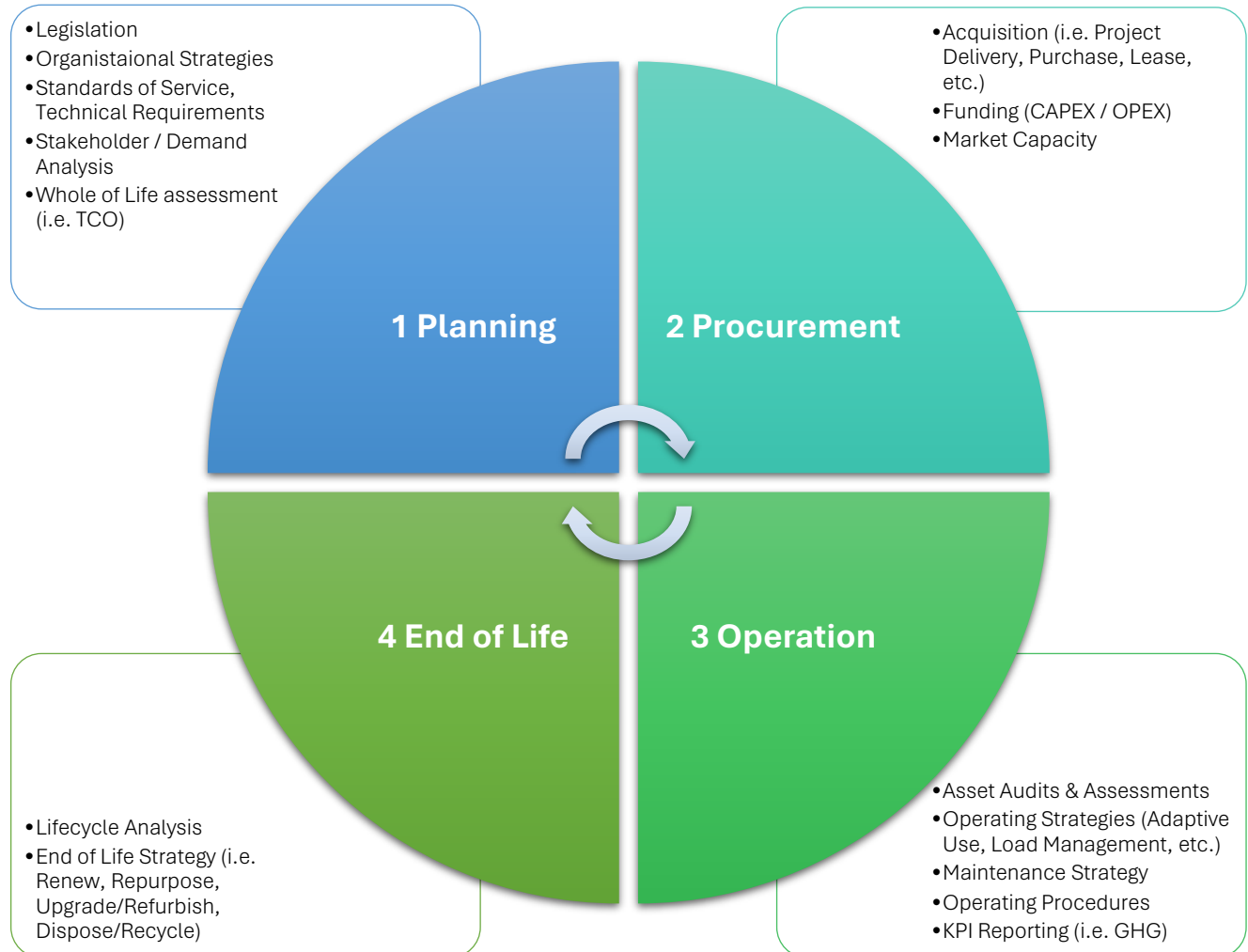


Figure 6 – Asset Lifecycle Planning and Management Process

Planning Phase

The planning phase establishes the requirement for an asset or service by reviewing enterprise and operational objectives, strategic plans and required service levels for the asset. Asset requirements are typically documented in a business case, SAMP or similar planning document for executive consideration and approval.

A critical component of planning is *Total Cost of Ownership (TCO)* analysis, which evaluates the whole-of-life costs of potential asset solutions including capital acquisition, operating costs, maintenance, disposal and any residual value. *TCO* analysis informs decision-making by comparing options on a lifecycle basis rather than initial purchase price alone, ensuring affordability and value for money throughout the asset's anticipated service life. This analysis is then used to inform ongoing Operating Budgets (OPEX) and ensures sufficient funding is allocated for the asset throughout its lifecycle.

Effective planning requires an understanding of future demand for the services that assets provide. Asset Managers should consider demand factors as part of the planning process, including changes in

student and staff population, evolving research and teaching requirements, technology change, sustainability commitments and regulatory obligations. Demand analysis will be formalised within individual Asset Management Plans and developed further in a future version of this Framework.

See section on *Change Management* for typical avenues that must be considered when planning for new or replacement assets.

The University's suite of Design Guidelines and Technical Standards may prescribe performance requirements, preferred products (manufacturer/model) or suppliers for certain trade packages and disciplines to achieve a minimum desired level of quality for all assets, systems and finishes installed across the portfolio.

Repair/overhaul or other solutions such as shared use agreements (i.e. booking systems or similar) for existing assets should be considered prior to purchasing new assets. In accordance with the University's Sustainability Strategy and to maximise value from its existing asset portfolio.

Procurement Phase

Depending on value and complexity, assets should be procured using an approved method of acquisition, as proposed in a Procurement Plan.

On commissioning the Asset Register, Asset Management Plans and associated corporate systems (Finance, Maintenance, etc.) must be updated to account for the asset and its lifecycle requirements.

Fundamental to the planning and procurement phase is the need to consider asset data and information handover at commissioning. It is the responsibility of the Asset Owner to ensure all data remains relevant and up to date. The following associated frameworks/processes assist in ensuring the correct formats and detail are provided to the University in a timely fashion for import into the AMIS:

- Project Management Framework
- Technical Standards
- Project Pack

Operation Phase

The Operation phase is the longest and most costly phase of the asset life cycle. During this phase the asset is managed such that its intended service outcome(s) and maximising return on investment, in terms of value, are realised. Activity includes:

- Maintenance Management
 - Unscheduled maintenance (redundancy measures, KPI's, reporting)
 - Scheduled maintenance (QA, strategy/tasking review, KPI's, reporting)
 - Compliance Management (Reporting, registration and licensing)
- Auditing & Assessments
 - Stocktake
 - Condition and Lifecycle assessments
 - Criticality assessments
 - Risk assessments

Asset data will be reviewed and updated periodically in accordance with the University's *Asset Assessment Guidelines* and is used to update the asset strategy in associated Asset Management Plan(s) or inform correlating Planning activities. This is used as a reference by Organisational units to create annual Service Delivery Plans and inform Budgets (OPEX) to ensure:

- Maintenance and compliance obligations are met (including records management)
- Certification & licencing are kept up to date
- Contract schedules & operating budgets are accurate

- Asset management plans are updated and driven from accurate/informed life cycle modelling
- Reporting across Asset Classes, Location and/or Ownership remain relevant and accurate
- Asset valuations for depreciation or insurance are accurate
- Business decisions & planning activities are validated and supported by accurate data
- Ownership/responsibilities can be assigned

Beyond Lifecycle and Condition Assessment the University should also consider the following when planning for the *End of Life* phase of an asset:

- Maintainability (ongoing availability of spares, specialised skills)
- Cost effectiveness – TCO i.e. cost to operate and repair compared to replacement
- Functional capability – assessment whether the asset continues to be fit for purpose
- Compliance – conformance with legislative obligations and/or organisational strategy
- Reliability standards – failure of the asset to meet ‘downtime’ standards
- Business continuity – impacts to business because of downtime or asset failure and measures that can be put in place to mitigate (i.e. temporary replacements, N+1 Redundancy etc.)

End of Life Phase

End of Life decision-making is a critical phase in the asset lifecycle that requires careful analysis to optimise value and minimise risk. As assets approach the end of their end of life, the University conducts comprehensive lifecycle analysis to evaluate technical condition, functional performance, actual costs incurred versus original projections and alignment with current and future service requirements. This assessment compares the original *TCO* estimates against actual expenditure to identify variances, understand cost drivers and inform future investment decisions. The analysis also considers changes in operational needs, technological advances, regulatory requirements and sustainability objectives.

Based on this analysis, the University determines the most appropriate End of Life strategy from several options:

- Renewal (replacement with new assets)
- Repurposing (adapting the asset for alternative uses)
- Upgrading or refurbishment (extending useful life through significant investment)
- Disposal and recycling (decommissioning and environmentally responsible disposal)

The selected strategy balances lifecycle costs, service continuity, risk management, environmental responsibility and alignment with strategic objectives. Lessons learned from the lifecycle cost analysis feed into continuous improvement processes, refining future *TCO* estimates and enhancing the accuracy of long-term financial planning. This decision-making process is documented in Asset Management Plans and guided by the acquisition and disposal criteria established in the *SAMP*.

On disposal of an asset the Asset Owner is responsible for ensuring the Asset Register, Asset Management Plans and any associated corporate systems/records (Finance, Maintenance, etc.) are updated with the required changes. Details of the Disposal method must be completed in accordance with the requirements of the AMIS itself and associated processes i.e. the University’s *Asset Disposal Procedure* (for Financial Assets).

Deletion of Asset Records in the Asset Register to reflect Disposals is not permitted; instead this is achieved through managing the asset “State” i.e. “In Use” vs “Retired” - including any Sub-states as necessary.

Retired Assets and their associated services should be disposed of completely and not left “In-Situ”. Ensuring the asset is disposed of correctly including the termination of any associated

services/systems/connections is the responsibility of the Asset Owner (often via a third-party contractor). This includes any further requirements to:

- Review and close out any applicable *Downstream Updates* (refer to section below)
- Fulfil any internal reporting and controls i.e. WHS, Waste Management, recycling/reuse, or GHG Emissions
- Ensure no safety issues are introduced/remains by way of the disposal of the asset

Change Management

The University will observe change management requirements and practices that are typically triggered from one of the following sources:

- **Capital/Strategic Projects (CAPEX):** Changes occurring as part of capital projects are subject to formal controls. The University's Technical Standards outline the requirements for Project Handover, including the submission of updated Operations & Maintenance (O&M) manuals and Asset Register templates. These processes ensure that changes to the asset portfolio are formally documented and captured
- **Service Providers (OPEX):** For changes made by third-party service and maintenance providers, control is managed through contractual arrangements. Service Provider contracts include Key Performance Indicators (KPIs) that require the reporting and capture of any changes to assets, ensuring the University's asset records remain current
- **Audit Programs:** Changes can also be identified through formal audit programs, such as stocktakes, condition audits and technical inspections. These audits are crucial for discovering latent additions (previously unrecorded assets), validating the existence and condition of assets and compiling additions of new asset classes or types based on assessed business needs
- **Local Users:** Changes initiated by local users, such as the purchasing or disposal plant and equipment or minor works, are less formally guided. It is recommended that the University develops further guidance in this area to ensure all changes, regardless of scale, are captured and appropriately reflected in the asset register

Updates from the above sources will inevitably vary in volume and scope, ranging from the addition or disposal of whole buildings and the various assets contained within to the update of a single attribute against an asset. It is therefore imperative that the University puts in place appropriate resources (see Roles and Responsibilities) as well as Quality Management Systems (QMS) to verify the accuracy of these changes and any downstream impacts to related service lines within the University i.e. maintenance.

The types of updates and actions required of can be broadly summarised below:

- **Addition:** procurement and/or installation of a new Asset, includes assets “On Order” or “In Stock” but not yet deployed/commissioned
- **Disposal:** disposal of an existing Asset, including Assets considered to be “Consumed” or “Out of Service” (i.e. permanent isolation of the Asset and/or its service pending disposal from site)
- **Data Update:** an existing Asset that requires associated data to be updated, including Assets that have been physically relocated from one location to another (i.e., Site, Building, Level or Space), updates based on auditing (i.e. Lifecycle assessments) or if any associated data was found to be incorrect/missing (i.e., Asset tag, Serial #, Quantity of Refrigerant, etc.)

Data Quality

It is vital that the asset data and all associated records or supporting information are reviewed, approved and incorporated (where needed) at the point in time the change is to be initiated. This

reduces “re-work” at a later point in time and sets the AMIS up to meet its intended quality targets.

Examples of the types of the supporting information include but is not limited to:

- As-built documentation - drawings, O&M manuals
- Manufacturer/model details
- Serial numbers and asset identification
- Warranty information
- Compliance documentation - CoC, National Association of Testing Authorities (NATA) certification, plant registration, licences
- Financial details - purchase order, invoice, cost centre
- Asset Ownership

Depending on the source of the change there are existing controls or procedures which support the University in achieving the desired quality outcomes. Asset Custodians/Asset Managers should familiarise themselves with these tools i.e. Contracts, KPI's, Project Handover Checklists, etc.

Downstream Updates

Changes to asset data in the AMIS may trigger several “downstream” impacts, as part of closing out the Change Management process Asset Custodians on behalf of the Asset Owner must verify any impacts and take action accordingly – impacted systems and process include:

- Hazard registers (where applicable) i.e. Asbestos Register, Confined Space, etc.
- Compliance register (update inspection requirement and register/deregister with relevant authority as necessary including any forms/fees associated with this)
- Ensure any commercial agreements including maintenance via service providers are modified where necessary
- Maintenance schedules (new WO/WOT's required, cancel WO/WOT's for disposed assets)
- Financial system (notify Finance of disposals)
- Space management system (update room equipment lists)
- Risk assessments (update hazard registers if applicable)

RISK AND OPPORTUNITY MANAGEMENT

As a core principle integrating throughout the Framework, risk and opportunity management ensures the University proactively identifies and addresses both threats to and opportunities arising from, its assets and infrastructure, as outlined in ISO 55001:2024, Clause 6.

- **Risk Assessment:** A systematic process to identify and prioritise risks to assets, including failure, obsolescence and non-compliance
- **Risk Appetite:** Determine the business' risk appetite and setting acceptable levels of risk to objectively profile assets and identify those that present an elevated risk to business continuity/strategy
- **Risk Treatment:** Implementing actions to mitigate, transfer, or accept risks based on the University's risk appetite. Examples of this could include options such as the following:
 - Review CAPEX/OPEX budgets
 - Review Planned Maintenance Schedules/Tasking
 - Undertake major overhaul of asset(s) in lieu of renewal
 - Operational mitigations such as N+1 Redundancy measures (i.e. spare parts, portable/temporary replacement, etc.) or decanting/mothballing spaces
 - Formal acceptance of Risk
- **Opportunity Management:** Proactively identifying and acting on asset-related opportunities to improve performance, reduce cost or advance the University's strategic objectives

Risk Assessment Process

The University undertakes asset-related risk assessments through:

- Conducting Asset Audits & Assessments:
 - Criticality Assessment - Determining the consequence of asset failure on business operations, safety, compliance and reputation
 - Condition Assessment - Evaluating physical condition and remaining useful life
 - Asset Data – collating asset attributes and data for further context as to risks associated with the asset i.e. Refrigerant type, Maintenance history, etc.
- Risk Profiling: Evaluating results of asset assessments and/or asset data to inform potential risk ratings - examples might include but are not limited to:
 - Criticality and Condition to determine overall risk exposure using a risk matrix (as per example in *figure 7* below)
 - Refrigerant Type & Quantity against Condition
 - Reactive maintenance callouts comparative to similar assets
 - Maintenance Cost/TCO compared to Asset Replacement Value (ARV)
- Documenting Risk: Asset-related risks are captured in *Organisational unit* risk registers, formally assessed in accordance with University Risk Policy, potential treatments identified and escalated where appropriate

Determining and reporting on Risk can be accounted for in numerous methods (see *Asset Management Information System Functional Outline* for example reports), one such example is shown below for reference and provides a Risk Based approach for determining timing of asset intervention strategies such as Major Overhaul or Asset Replacement; it achieves this by evaluating Asset Condition against Asset Criticality. This matrix provides indicative risk ratings for prioritisation purposes. Formal risk assessments documented in *Organisational unit* risk registers must include context-specific factors and approved treatment plans in accordance with the University's Risk Management Policy – this and similar reports are designed to highlight potential risk in the University's Asset portfolio for awareness only.

CRITICALITY RATING	CONDITION RATING				
	1 VERY POOR	2 POOR	3 FAIR	4 GOOD	5 EXCELLENT
C5 ESSENTIAL	Extreme	Extreme	High	Moderate	Low
C4 HIGH	Extreme	High	High	Moderate	Low
C3 MEDIUM	High	High	Moderate	Low	Low
C2 LOW	Moderate	Moderate	Low	Low	Low
C1 NOT REQUIRED	Moderate	Moderate	Low	Low	Low

Figure 7 – Asset Condition & Criticality Risk Matrix

Risk Appetite

The example Condition and Criticality Risk Matrix in *figure 7* above whilst insightful should not be acted on without further context as it only provides a view into risk for one element of an asset or Asset Class and may not consider the Organisation's current operating context and strategies.

Determining the University's risk appetite to inform prioritisation and scheduling of any potential Asset intervention strategies can be defined as follows:

- a. Extreme: Not acceptable - requires immediate intervention (i.e. within 1 year) or formal acceptance by Asset Owner with documented mitigation plan

- b. High: Tolerable only with active monitoring and planned intervention within 2-3 years
- c. Moderate: Acceptable with routine monitoring and inclusion in forward capital planning activities within 4+ years
- d. Low: Acceptable - managed through routine maintenance

Risk Treatment Strategies

When risks are identified, the following treatment options are to be considered:

- a. Mitigate: Undertake capital works (renewal, upgrade, major overhaul) or adjust maintenance strategies to reduce likelihood or consequence of failure
- b. Transfer: Implement insurance, contractual warranties, or service provider agreements to transfer financial/operational risk
- c. Avoid: Decommission assets, change operational processes, or implement alternative service delivery models
- d. Accept: Formally document acceptance of risk where treatment costs outweigh benefits, with contingency plans in place (e.g., spare equipment, redundancy measures, decanting arrangements)

Integration with Other Risk Processes

Asset-related risks interface with:

- Legislative Compliance
- WHS Risk Management- Physical safety hazards, compliance with safety regulations
- Business Continuity Planning - Critical asset failure scenarios and recovery strategies
- Financial Risk - Budget volatility from unplanned asset failures
- Reputational Risk - Service delivery failures impacting stakeholders

Asset Managers are responsible for ensuring asset risks are appropriately captured, assessed and treated in accordance with this framework and escalated to Asset Owners when risks exceed acceptable thresholds.

Identifying and Acting on Opportunities

Asset Managers are responsible for identifying and evaluating opportunities within their portfolios as part of regular planning and performance review activities. Opportunities may arise from a range of sources including:

- **Technology Advancement:** Emerging technologies that could improve asset performance, enable predictive maintenance, or reduce operating costs (e.g. IoT-enabled condition monitoring, energy management systems)
- **Space and Portfolio Rationalisation:** Opportunities to consolidate, repurpose or divest underutilised assets to improve portfolio efficiency and release capital for higher-priority investments
- **Sustainability and Energy:** Capital investments in energy efficiency, renewable generation or emissions reduction that deliver long-term financial and environmental returns, in alignment with the University's Sustainability Strategy
- **Shared Use and Collaboration:** Opportunities to share assets across Organisational units or with external partners to reduce duplication and improve utilisation
- **Funding and Grants:** External funding opportunities that could accelerate renewal or enhancement of assets that would otherwise require deferral

Identified opportunities are to be documented in the relevant Asset Management Plan, assessed against the University's decision-making criteria and escalated to the Asset Owner where capital

investment or cross-organisational coordination is required. Opportunities that cannot be acted upon within the current planning cycle are captured for future consideration rather than discarded.

PERFORMANCE AND CONTINUOUS IMPROVEMENT

Effective asset management includes ongoing monitoring, measurement, assessment and review (performance monitoring) to improve the performance of the asset portfolio through continued development and improvements to the University's *Physical Asset Management Policy*, Framework and System(s). Performance monitoring assesses the ability to fulfil the requirements or objectives defined in asset strategies and plans and includes analysis of measured results.

This component focuses on evaluating the effectiveness of the asset management framework and using those insights to drive continual improvement, as specified in ISO 55001:2024, Clauses 9 and 10.

- **Monitoring and Measurement:** Put in place processes and controls to monitor and review the performance of assets and the effectiveness of the framework
- **Internal Audit and Management Review:** Conducting regular internal audits to assess training and education opportunities, maturity levels, verify compliance with the framework and/or ISO 55000 standards and to make necessary adjustments
- **Corrective Actions:** Establishing a process for addressing non-conformities identified during audits or performance reviews
- **Continual Improvement:** Actively seeking opportunities to enhance the effectiveness of the AMIS and *Asset Management Activities* through innovation and best practices
- **Data-Driven Decision Making:** The University is committed to using data to inform its asset management decisions

Monitoring and Measurement

The University will use key metrics to monitor asset performance and assess the effectiveness of the SAMF itself.

Asset Performance Metrics

Asset Managers and Asset Custodians are responsible for monitoring the operational performance of the University's assets through metrics such as:

- Availability: Asset uptime and reliability (% operational time)
- Condition: Physical state and remaining useful life tracking
- Cost Performance: Actual vs. budgeted OPEX/CAPEX expenditure
- Compliance: Adherence to maintenance schedules and regulatory requirements (% tasks completed on time)
- Service Delivery: User satisfaction and service level achievement
- Sustainability: Energy and water efficiency, GHG emissions, waste metrics

Framework Performance Metrics

Director PFD is responsible for monitoring the success and health of the SAMF; this will be measured through indicators including:

- Data Quality: Asset register accuracy
- Planning Effectiveness: Forecast vs. actual renewal requirements
- Process Maturity: ISO 55000 maturity assessment scores
- Resource Utilisation: Maintenance productivity and budget variance
- Risk Management: Number of unplanned failures vs. planned interventions

Quality Management Systems

The Asset Owner within each Organisational unit is responsible for ensuring Quality Management Systems (QMS) are established and overseeing review cycles to assure data accuracy and process adherence. QMS are used to verify data accuracy through regular audits of the asset register against physical assets (via stocktake or selective audit programs), validate changes submitted through the Change Management process, monitor KPIs via quarterly dashboard reporting and conduct process audits of AM procedures.

Review Cycles

Structured review cycles ensure timely attention to performance data:

- **Monthly:** Asset Custodians review outstanding maintenance tasks and data update requirements
- **Quarterly:** Asset Managers review performance indicators and undertake selective sampling (i.e. QA) on asset performance and data quality resulting from change management activities
- **Annually:** The Director PFD reviews SAMF effectiveness, AM maturity, approves framework updates and identifies improvements for the AMIS in consultation with AMAC. Asset Managers to review and update their AMP's as needed
- **Triennially:** Undertake Asset Management maturity assessment and benchmarking against sector peers is conducted

Target Setting

- Asset data accuracy – target of >95%
- Asset maturity levels – targets to be set once initial maturity assessment undertaken

Persistent or systemic non-conformances are reported to the Director PFD for corrective action, with input sought from AMAC where cross-organisational issues are identified.

Internal Audit and Management Review

Formal assurance activities verify compliance and assess the strategic direction of the framework.

Internal Audit Program

Internal audits are coordinated by PFD to assess alignment with the Asset Management Framework, associated procedures and relevant standards. Audit findings are reviewed with relevant stakeholders, with input from the AMAC where appropriate to identify improvement opportunities and share insights across organisational units.

The audits will assess training needs and competency gaps, verify compliance with SAMF procedures and Policy requirements and identify opportunities for process improvement. Audit findings are documented with clear action plans assigned to responsible parties and tracked through to completion.

Management Review

Director PFD conducts formal management reviews annually to assess the suitability of the SAMF for the current organisational context, review performance against AM objectives and KPIs, evaluate the adequacy of resources and identify strategic priorities for framework and system development.

Corrective Action and Continuous Improvement Culture

The University operates on a continuous improvement cycle, ensuring that non-conformities lead to sustained enhancement.

Corrective and Preventive Actions (CAPA)

When non-conformities or improvement opportunities are identified, a structured CAPA process is followed:

- a. Root Cause Analysis (RCA) is conducted
- b. Corrective action is developed and implemented
- c. Effectiveness is verified through follow-up reviews
- d. Lessons learned are shared
- e. Preventive measures are implemented to avoid recurrence

Continuous Improvement Culture

Improvement is actively pursued through Innovation pilots (testing new technologies or service delivery models), Benchmarking (comparing performance against industry best practice), Staff development (training programs to build AM capability), Stakeholder feedback (regular engagement with asset users) and Technology adoption (leveraging data analytics, IoT sensors and digital tools).

Organisational Knowledge Management

The effectiveness of asset management practice depends not only on systems and data, but on the knowledge held by individuals across Organisational units. The University is committed to identifying, maintaining and sharing the knowledge required to manage its assets effectively; including knowledge that may otherwise be lost through staff turnover or organisational change.

Asset Managers and Asset Custodians are responsible for ensuring that knowledge critical to the management of assets; including operational history, maintenance records, compliance obligations and lessons learned from projects or failures is documented in the AMIS or associated systems rather than held solely by individuals. This is particularly important for specialist or high-criticality assets.

Where staff transitions are planned, Asset Owners are responsible for ensuring appropriate handover processes are in place to preserve institutional knowledge. Lessons learned from condition assessments, audits and project completions are to be documented and used to update Asset Management Plans, improving future decision-making and lifecycle cost estimates.

AMAC serves as the primary mechanism for sharing knowledge and good practice across Organisational units, including insights from maturity assessments, benchmarking and sector engagement.

Asset Management Maturity

The University will undertake periodic assessment of its Asset Management Maturity using an appropriate maturity assessment tool and/or benchmarking exercises. This assessment should indicate whether the level of organisational asset management maturity and performance is appropriate to the scale, scope and criticality of the assets in the University's portfolio. The assessment should profile the strengths and weaknesses to target areas of improvement.

The requirements, timing, frequency and type of maturity assessment(s) to be undertaken will be determined by the Director PFD in consultation with AMAC.

Data Driven Decision Making

The University is committed to leveraging asset data to inform strategic financial and operational decisions. Information gathered through monitoring and measurement activities will be analysed to:

- Inform Capital Planning: Utilise asset condition data and lifecycle cost analysis to prioritise capital investment and renewal projects

- Optimise Maintenance: Shift from reactive to predictive and proactive maintenance strategies based on asset performance data
- Evaluate Project Performance: Measure the effectiveness of completed projects and ensure they deliver the intended value and align with strategic objectives
- Enhance Financial Modelling: Use real-world data to improve the accuracy of financial forecasts and long-term budget planning for assets

ASSET INFORMATION AND DATA MANAGEMENT

The AMIS from a functional perspective is detailed in the *Asset Management Information System Functional Outline* with a high-level overview of core features and requirements provided in this SAMF.

The ability to drive automations within the AMIS (such as Work Plans), report on key metrics and provide insights for business activities (i.e. planning) requires a well-structured and cohesive platform. Given the University's current maturity levels in Asset Management and resourcing the AMIS has been broadly structured into the following pillars as per *figure 8* below:

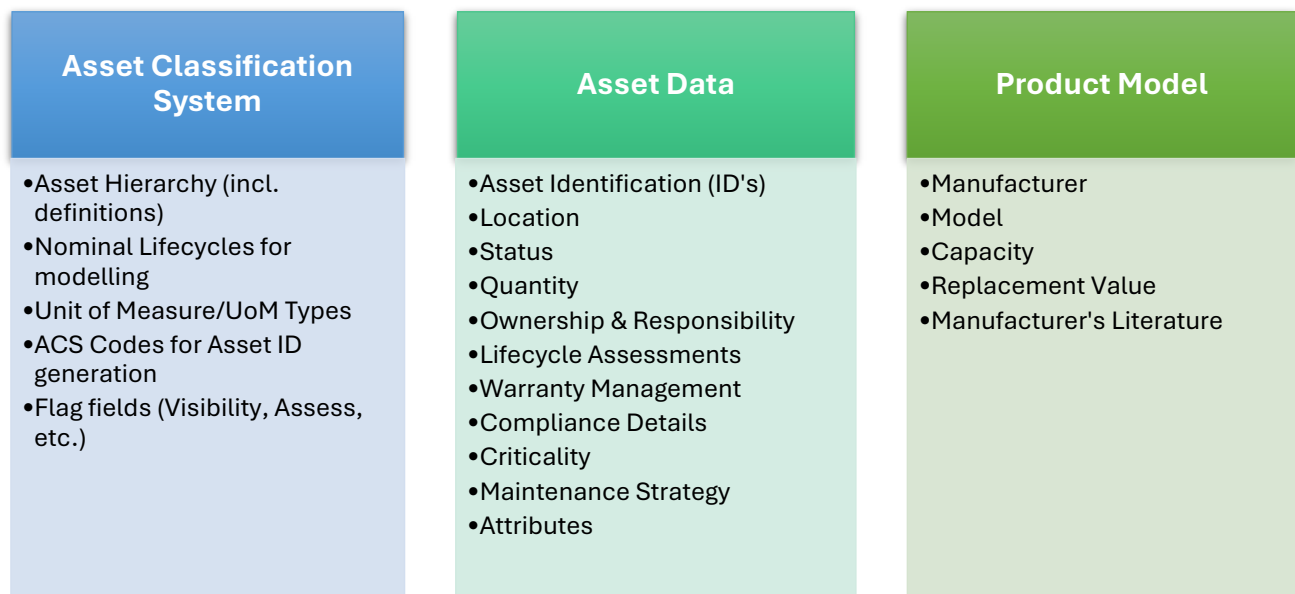


Figure 8 – Overview of AMIS Structure

ASSET CLASSIFICATION SYSTEM

An Asset Classification System (ACS) is a structured framework used to group and categorise assets typically based on shared characteristics like value, risk, maintenance tasking, physical existence and function. This is a critical underpinning element to any AMIS and is done to help organisations manage, value, plan and operate them effectively. This systematic approach enables better decision-making, risk assessment, regulatory compliance and resource allocation by providing a common language and a logical structure for understanding and handling different types of assets, whether they are financial investments, physical equipment, or sensitive information.

The Asset Classification System is governed by PFD with input and recommendations from the AMAC. This is due to the wide-reaching implications of ensuring a performant and stable ACS for all Organisational Units. The addition of new Asset Categories will be based on an assessed Business need to capture/record new assets and approved on the proviso that appropriate resourcing exists to suitably maintain the subsequent asset records.

The Asset Classification System defined by PFD on behalf of the University is a bespoke four tier classification system; developed to support the operational and planning needs by the University. The definitions in the ACS are drawn from a combination of industry best practices (general terminology and standards), existing Construction Classification Systems and legacy corporate systems (i.e. prior Asset/Maintenance Management System).

A high-level overview of the data contained in the ACS is as follows – noting that more detail can be found in the *Asset Management Information System Functional Outline*:

- **Asset Hierarchy:** A four tier hierarchy - Asset Class, Asset System, Asset Category and Asset Type
- **Definition:** provides definitions and context for each element within the hierarchy to so that a user selects the correct asset definition as well as providing structure or guidance for reports or associated fields in the Asset Data. Includes:
 - Description: detailed description of the Asset from a functional perspective to distinguish it from similar ones
 - ACS Code: used as part of the structure in creating an Asset ID (i.e. AHU - Air Handling Unit)
 - Images – showcasing examples of the asset
 - Units of Measure (UoM) – for recording the “quantity of an asset appropriately and driving ARV (i.e. m2 vs each)
 - UoM Type – used in conjunction with UoM to define how the Asset Record will capture the quantity such (i.e. Individual Asset, Collective Asset, Virtual Asset, etc.)
 - Lifecycle fields - Nominal lifecycle periods, fixed lifecycles, etc.
- **Flag fields:** used to drive checks and reporting on requirements to undertake condition assessments, apply asset tags, ensure visibility for certain report requirements (i.e. WHS and so forth)

Asset Hierarchy

The University requires all assets in the AMIS to be classified in accordance with the Asset Classification System. The ACS is based on a four-tier structure, known as the *Asset Hierarchy*, which provides a suitable combination of granularity for defining specific requirements like managing tailored maintenance tasking or understanding criticality of assets whilst permitting rolling-up of assets into logical groupings for high-level reporting – an overview of the structure of the hierarchy is shown below in *figure 9* for reference.

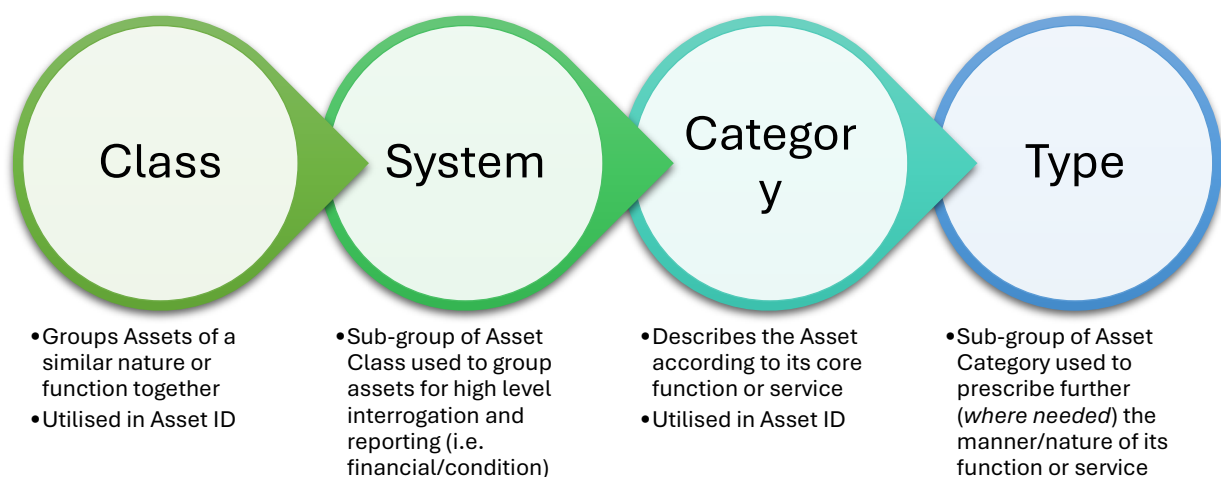


Figure 9 – ACS Hierarchy Overview

The following excerpt from the ACS provides an example of how assets are defined from a functional perspective in the AMIS and in accordance with the Asset Hierarchy as outlined above:

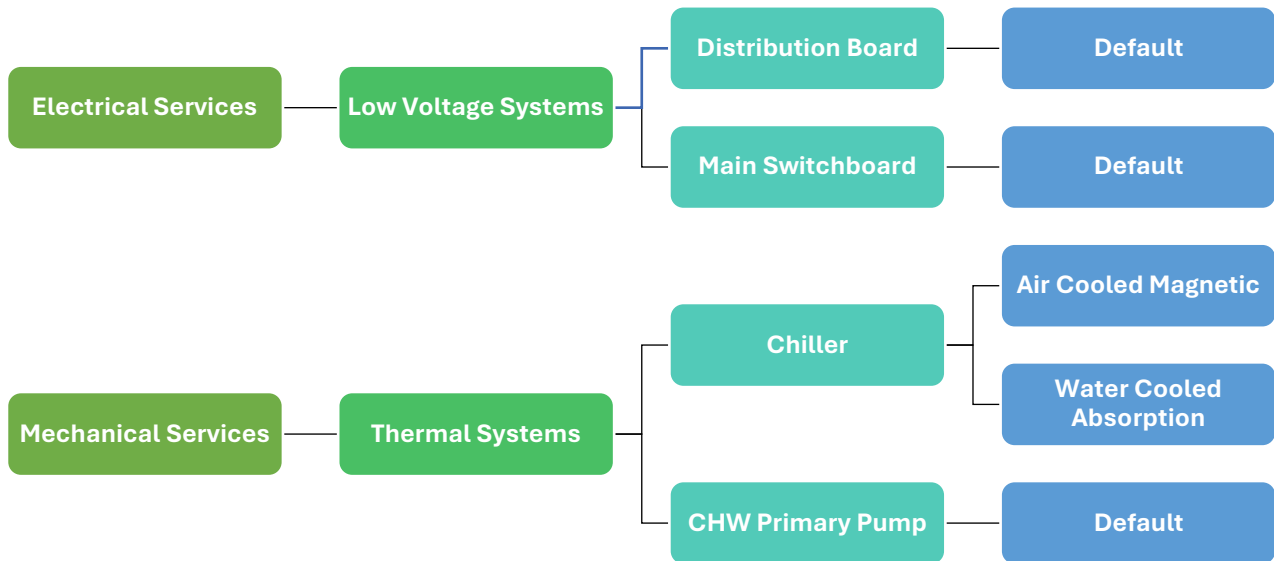


Figure 10 – Asset Classification System Excerpt

ACS Reference Fields

The use of centrally managed “Reference” fields from the ACS (see Definitions and Flag fields in the above) ensures that a universal approach to assessing/reporting on assets is maintained with minimal effort for upkeep. This is currently considered the best approach to achieve accurate Lifecycle reporting without the need to individually assess assets on a case-by-case basis. As the University’s approach to AM matures this can be reviewed.

ASSET DATA

The majority of data associated with assets is located in this Data Set and is used to inform multiple reporting requirements and activities with service lines other than Asset Management. Due to the expansive nature of this data set it is primarily the responsibility of the Asset Custodians along with SME’s to ensure the Asset Register and associated information is maintained and accurate – this is documented further in the section on Change Management. Appropriate controls for QA/QMS must be setup and the AMAC along with Asset Managers/Asset Owners are responsible for reviewing and interrogating this information to ensure it is fit for purpose.

Detailed field specifications, validation rules and mandatory fields are documented in the *Asset Management Information System Functional Outline*. A high-level overview of the capabilities and requirements for managing assets in the AMIS are as follows:

- **General:** Asset Identification, Location, Quantity, Ownership/Responsibility, etc.
- **Lifecycle:** Condition, Standard of Service, Utilisation, Replacement Value, Remaining Life, etc.
- **Maintenance:** Strategy, Criticality, Warranty Periods, Compliance Data, Permit/Hazard Awareness, etc.
- **Financial:** Financial Asset ID, Purchase/Disposal Details, Vendor details, etc.
- **Relational:** Related Assets & Area Served
- **Attributes:** Consumables Qty/Codes, Refrigerant Qty/Type, General Features, etc.

Appropriate management of the University’s assets in the AMIS supports the following Functions or Service Lines:

- a. Lifecycle Renewal planning/Capital Planning

- b. Maintenance & Compliance Management
- c. Financial Asset Management practices (Purchasing/Disposal awareness, Stocktake, etc.)
- d. Sustainability Initiatives & Reporting
- e. WHS (Hazard awareness, responsibility, etc.)

Asset Identification

The AMIS has been set up to record multiple Asset ID's so that users can correlate physical assets to their respective digital record in the AMIS, to simplify access to asset information using field devices and so that documentation such as licences or "For Construction" drawings are relatable for detailed analysis. More detail on the structure and application of Asset ID's can be found in the *Asset Identification and Labelling Technical Standard* – a high level overview is as follows:

- **Asset tag** – a unique barcode applied to the asset supporting scanning/lookup functions from field devices. It is a mandatory field in the AMIS and where an Asset is unable or not required to be barcoded the Asset ID (as per the next dot point) shall be referenced instead. The value of the Asset tag bears no meaning and if damaged/lost should be replaced with the next available barcode in that sequence and the asset record updated
- **Asset ID**
 - A universal Asset ID that is applied to all Assets from the planning phase and referenced throughout documentation and the AMIS. It is in effect a Service ID and is able to be re-used for Assets that are renewed so that documentation does not require updating (i.e. single line drawings)
 - Spatial ID for Assets that are a virtualised representation of a physical Location such as a Building (i.e. BPK_101) or a Controlled Environment such as a walk-in Cold Room (i.e. BPK_101_02_206)

Note: Serial Number is a valuable field to record in the AMIS and can be used to correlate digital records to physical assets is not a University controlled value and hence cannot be guaranteed to be unique. Asset Labelling of ID's on Assets must make use of the Asset tag or Asset ID's as per the above dot points.

PRODUCT MODEL

Product Model is really a sub-set of Asset Data however is a functionally distinct table within the AMIS. A high-level overview of the data contained in Product Model is as follows – noting that more detail can be found in the *Asset Management Information System Functional Outline*:

- **Manufacturer:** including business details such as ABN, Point of Contact, Location, etc.
- **Model:** Capacity, Order Codes, technical literature, etc.
- **Asset Replacement Value (ARV)**
- **Quality/Failure Analysis**
- **Product Recalls/Industry notes**

This data set is updated and curated by *Asset Custodians* however as ARV forms a core data set for developing AMPs it will be routinely reviewed and maintained by Asset Managers. Like the ACS it provides centralised "Reference" fields for use in reports and calculations within the AMIS. This approach is currently considered the best approach to achieve consistency across the portfolio without the need to individually assess assets on a case-by-case basis. As the University's approach to AM matures this can be reviewed.

Asset Replacement Value

Asset Replacement Value (ARV) represents the estimated cost to replace an existing asset on a like-for-like basis, that delivers the same function, performance and level of service under typical conditions. It is based on standardised assumptions for asset type, capacity/configuration and is intended for

planning, valuation and portfolio-level decision-making purposes. ARV is consistent with the concept of Current Replacement Cost (CRC) as used in TEFMA guidance for higher education facilities management and aligns with the lifecycle cost principles of ISO 55001:2024.

Detailed guidance on how ARV is calculated within the AMIS, including formulas, indexation methodology and data fields, is documented in the Asset Management Information System Functional Outline.

ARV is a planning-level estimate only and should not be used as a project cost estimate or for individual procurement decisions. Detailed project costs are to be developed through the capital planning process.

Use of ARV

ARV is a foundational input to a range of asset management and financial planning activities across the University's portfolio, including:

- **Lifecycle Renewal Planning:** Modelling future capital requirements by combining ARV with condition and remaining useful life data to identify and prioritise renewal investment across the portfolio
- **Depreciated Replacement Cost (DRC):** ARV adjusted by the asset's current condition rating to provide an estimate of remaining economic value, used in portfolio-level financial reporting and condition-based prioritisation
- **Maintenance Cost Ratio:** Comparing annual maintenance expenditure against ARV to identify assets where the cost to maintain is approaching or exceeding replacement value, informing End of Life decision-making
- **Insurance Valuation:** Providing a basis for assessing the insurable value of the University's asset portfolio
- **Risk Profiling:** Supporting risk-based investment prioritisation by providing a consistent financial reference point across asset classes
- **Sector Benchmarking:** Supporting participation in TEFMA and other higher education benchmarking activities where portfolio replacement values are a required input

ARV Exclusions

ARV is based on standardised assumptions and excludes:

- Costs that are asset-specific or site-specific in nature, including:
 - Complex access requirements (e.g. crane lifts for rooftop installations)
 - Extensive service runs (e.g. pipework, cabling or refrigerant lines)
 - Hazardous material remediation (e.g. asbestos removal)
 - Integration with systems including where existing already or not but desirable (e.g. Building Management Systems)
 - Other abnormal site or project conditions
- Costs associated with upgrades, increases in capacity or changes in the level of service delivered by the asset
- Detailed project delivery costs such as design fees, regulatory approvals, contingencies and other construction-related overheads
- Cost saving considerations through bundling or other mechanisms
- Any associated Return on Investment (ROI)
- Upgrades, increases in capacity or improvements to the level of service delivered by the asset

Where any of the above exclusions are likely to materially affect the cost of asset replacement, the additional costs should be captured separately in the relevant Asset Management Plan or as part of the capital planning process.

Strategic ARV Alignment

While ARV is based on standardised assumptions, the University may elect to assign a consistent ARV across multiple asset types or models within the same asset class where a strategic decision has been made to standardise procurement or to simplify record keeping. This may arise where the University has determined; through a relevant strategy document, procurement panel arrangement or preferred supplier agreement that a specific model, brand or supplier will be used for a particular asset class or type regardless of individual product differences.

In these cases, the ARV assigned reflects the University's intended replacement cost under that strategic position rather than a strict open-market like-for-like assessment. This approach reduces administrative overhead, improves consistency across the portfolio and ensures that lifecycle cost modelling reflects how the University intends to procure assets in practice.

Where a strategic ARV alignment has been applied, this should be noted in the relevant Product Model record in the AMIS and referenced in the associated Asset Management Plan or procurement strategy document to provide an auditable basis for the value assigned.

ARV Update Requirements

ARV values must remain current to be meaningful for planning and decision-making. The following update obligations apply:

- **Annual Indexation:** ARV values are to be reviewed and indexed annually by Asset Managers to reflect movements in construction costs, market pricing and inflation. Indexation methodology is documented in the AMIS Functional Outline.
- **Out-of-Cycle Updates:** ARV should be updated outside the annual cycle where a significant change in market conditions occurs, new product information becomes available, or an asset has been replaced or significantly upgraded through a capital project.
- **Post-Project Revaluation:** Following completion of a capital project, the ARV of affected assets should be updated to reflect the actual replacement cost achieved, providing a more accurate reference point for future planning.
- **Responsibility:** Asset Custodians are responsible for maintaining ARV data in the AMIS at the asset record level. Asset Managers are responsible for reviewing and validating ARV values across their portfolios as part of the annual AMP review cycle, ensuring the data remains fit for portfolio-level planning and reporting.

As ARV sits within the centralised Product Model table in the AMIS, updates to a model record will flow through automatically to all associated asset records, thereby reducing the maintenance burden of updating individual records and ensuring consistency across the portfolio.

STANDARDISED REPORTING

Wherever possible, reporting for the purposes of Asset Management should be undertaken as “close” to the data source as possible, be persistent, universal (i.e. across Organisational units) and provide insights so that actions can be undertaken on the University’s asset portfolio based on informed and data driven decisions. With this in mind reports should be created in the following order of preference:

1. within the AMIS itself
2. using third party analytics platforms (i.e. Power BI, GeoHub, etc.) connected directly to the AMIS

3. manual exports of data to Excel (i.e. CSV) – *only recommended for “one-off” assessments and reports*

This does not include Asset Management Plans which are typically annualised reports from multiple data sources (including some of the above) and not able to be compiled into a dashboard currently – the AMAC will however investigate further options for creating a live (or near live) AMP by way of further development of the AMIS and associated tools.

Typical reports and insights from a well maintained and curated Asset Register in the AMIS will be able to provide insights into:

1. Lifecycle Management (Condition Ratings, Degradation Curves, Remaining Useful Life, Sweating, etc.)
2. Levels of Service (Standard of Service, Fault Analysis, Quality Reviews, etc.)
3. Financial Insights (Replacement Values, Contents and Insurance Evaluation, TCO, etc.)
4. Criticality and Risk
5. Maintenance Planning (Maintenance History & Scheduling, Compliance, etc.)
6. Asset Component and Materiality (Refrigerant Qty/Type, Consumables, etc.)
7. Relationships (Area Served and Parent/Child Assets)

Asset Managers are responsible for driving consistency and utility out of reports, with AMAC providing input on cross-organisational reporting needs. Asset Managers will undertake gap analysis, quality assurance and audits on data to inform development cycles and focus areas for improvement within the AMIS. Detailed information on reports, supporting fields (including calculated ones) and how reporting metrics are constructed (i.e. formulas) can be found in the *Asset Management Information System Functional Outline*.

APPENDICES

APPENDIX A – ASSET AND EQUIPMENT OWNERSHIP SUMMARY LIST

This table provides a high-level overview of common Asset Types that are often confused as to Ownership & Responsibility. This is not considered holistic and where an item is not in the below and ownership is unclear the flow chart provided in *Appendix B* should be considered instead. For context “UG” refers to the Local User Group which depending on the occupants in the space and/or users of the equipment can include PFD, IDS or other Divisions and is not reflective of the University’s Academic Units alone.

The following Overriding Factors as per *figure 11* below may influence the Ownership of the asset in question. Where relevant, this is indicated in the Summary Ownership table using the “❖” symbol; with further detail in the Notes explaining how it is applied.

OVERRIDING FACTOR	PFD	UG	NOTES
Commercial Agreements (Plant/Equipment & Consumables)		✓	The signatory on the Commercial Agreement is responsible party i.e. bottled gas (BOC, Air Liquide, etc), Puratap, etc.
Portable or Benchtop Equipment		✓	Except where Legislative Compliance Requirements. Often serving a local requirement only such as specific to a piece of research equipment. Example equipment includes: Air Compressors, Autoclaves, Dust Extraction, Vac Pumps, UPS, Mobile Hoists, etc.
Registered Plant	✓		Legislative Compliance <u>only</u> – registration with research bodies or due to grants are the responsibility of the Local User Group

Figure 11 – Ownership Summary Overriding Factors

ASSET CLASS	ASSET CATEGORY	PFD	UG	NOTES
Controls	BMS	✓	✓	PFD responsible for Corporate BMS Platform (e.g., Tridium, Honeywell) serving base building services and all associated field devices/controls. Local User Groups responsible for standalone, non-networked control systems specific to research equipment (e.g., Argus environmental monitoring for animal facilities, greenhouses). Where uncertainty exists, default to PFD ownership if the system monitors/controls building infrastructure or serves multiple spaces.
	CBUS	✓		
	CEMS	✓	✓	PFD responsible for CEMS Network but not provision of new points or alarming
	Dagard System	✓		

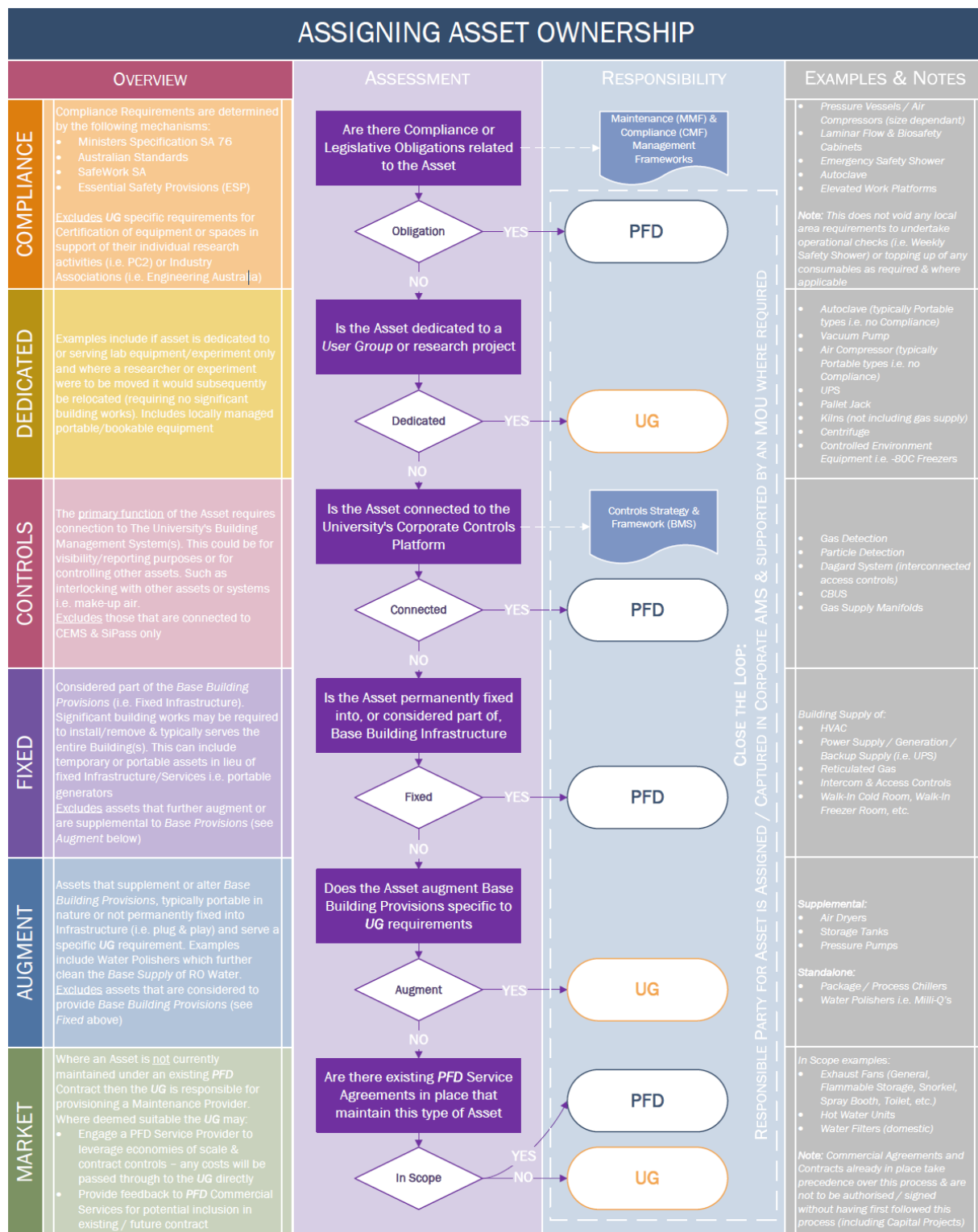
ASSET CLASS	ASSET CATEGORY	PFD	UG	NOTES
Electrical Services	UPS - Building / Critical Infrastructure	✓	✓	See “Portable or Benchtop Equipment” (i.e. computer or experiment specific)
	Backup Power Generators	✓		
	Solar PV	✓		Incl. Inverters
	Emergency Stop Stations	✓	✓	Local User Group responsible for Operational checks <u>only</u> i.e. periodic activation and familiarisation
Fire Services	Fire Extinguishers & Fire Blankets	✓		
	Fire Suppression Systems	✓		Fire Sprinkler, gas suppression, etc.
	VESDA	✓		
Furniture, Fixtures and Equipment	Defibrillators	✓		
	First aid kits		✓	Maintained by local First Aid Coordinators (under the purview of WHS)
	Kilns		✓	
	Centrifuges		✓	
	Controlled Environment Equipment		✓	i.e. -80C Freezers or Research Fridges & Freezers
	Commercial Retail Equipment	✓	✓	PFD to maintain University owned/procured assets (i.e. Bain Marie, Ovens, Deep Fryers, Commercial Fridges/Freezers, Ware washers, etc.) Noting this is subject to any “Commercial Agreements” with the retailer
	Incubators		✓	
	Pest Control	✓		i.e. Insect Zappers, Bird Deterrents, Rodent/Insect Controls, etc.
	Whitegoods	✓	✓	PFD to maintain whitegoods in all “Common Areas” e.g. staff kitchens, laundries, residential facilities. Local User group responsible for Whitegoods installed in non-common areas such as offices. Clothes Dryers, Washing Machines, Dishwashers, Fridges/Freezers, etc.
	Workshop Tools & Equipment	✓	✓	PFD/Local User Group responsible for own tools
	Specialist Laboratory, Medical and Research Equipment		✓	i.e. X-Ray machines, sterilisers, training apparatus
	Sporting & Exercise Equipment		✓	

ASSET CLASS	ASSET CATEGORY	PFD	UG	NOTES
	Sports Grounds & Infrastructure	✓		<i>i.e. mixed use courts or fixed equipment that is common/open to all incl. ovals, courts/flooring, generally accessible and fixed equipment</i>
Hydraulic Services	Reverse Osmosis Unit	✓	✓	See “Portable or Benchtop Equipment”
	Milli-Q’s		✓	
	Water Polishing Units		✓	<i>Incl. any associated Storage Tanks, Pressure Pumps</i>
	Acidified Drinking Water Unit	✓		
	Emergency Safety Shower & Eyewash Stations	✓	✓	<i>Local User Group responsible for Operational checks <u>only</u> i.e. periodic activation and familiarisation</i>
	Trade Waste	✓		
	Arrestors, Silt Traps & Gullies	✓	✓	<i>PFD maintains building drainage infrastructure and large trade waste systems (e.g., Grease, Silts & Solids, Washdown Bays, etc.) Local User Groups responsible for cleaning under-bench traps, floor gullies within their spaces and localised equipment traps (e.g., autoclave drains).</i>
	Reticulated Gas Systems incl. Gas Manifolds	✓	✓	<i>In official/approved gas store/storage cages only and that serve as building infrastructure i.e. not specific to a researcher/piece of equipment. See “Commercial Agreements”</i>
	Portable Gas / Locally Plumbed		✓	
	Potable Water Stations	✓		<i>i.e. drinking fountains, generic water filters, Chilled &/or Boiling Water units</i>
Mechanical Services	Hot Water Supply (units, pumps, storage, etc.)	✓		
	Air Conditioners	✓		
	Air Compressors, Nitrogen Generators, Steam Generators, etc.	✓	✓	See “Portable or Benchtop Equipment”
	Air Filters	✓	✓	<i>Part of building ventilation/air quality infrastructure – including specialist types (i.e. HEPA, Carbon, etc.) See “Portable or Benchtop Equipment”</i>
	Autoclave	✓	✓	See “Portable or Benchtop Equipment”
	Boilers	✓		
	Chillers	✓	✓	<i>PFD maintain those that provide Air Conditioning to spaces and Local User</i>

ASSET CLASS	ASSET CATEGORY	PFD	UG	NOTES
				<i>Group's are responsible for those that are specific to research equipment (i.e. "Process Chillers")</i>
	Controlled Environments	✓	✓	<i>PFD maintain HVAC to Controlled Environments including specialist ventilation (e.g. PC2, Walk In Cold Rooms & Freezers) Local User Group responsible for Operational checks <u>only</u> i.e. cleanliness, accessibility, stored materials, etc.</i>
	Cooling Towers	✓		
	Dust Extraction Unit	✓	✓	<i>See "Portable or Benchtop Equipment"</i>
	Fume Cupboards	✓	✓	<i>Local User Group responsible for Operational checks only i.e. cleanliness, accessibility, stored materials, etc.</i>
	Gas & Particle Detection	✓		<i>i.e. O2, CO2, CO, etc...</i>
	Humidification & Dehumidification Systems	✓	✓	<i>PFD maintain those that serve spaces and Local User Group's are responsible for those that are specific to research equipment</i>
	Ice Machine	✓		
	Recirculating Fume, Laminar Flow & Biosafety Cabinets		✓	
	Supply & Exhaust Fans	✓		<i>Including Snorkel Exhaust Fans, Spray Paint/Welding Bay types</i>
Security Services	Access Controls & Locks	✓		<i>i.e. card readers</i>
	Automatic Doors, Boom Gates, etc.	✓		
	CCTV	✓		
Transportation Systems	Elevated Work Platforms, Boom Lifts, etc.	✓		
	Fleet Vehicles & Trailers	✓	✓	
	Forklifts, Pallet Jacks & Trolleys	✓	✓	
	Hoists/Gantry	✓		<i>Fixed types only i.e. serves a building/space. Includes accessibility types</i>
	Lifts & Dumbwaiters	✓		
	Vehicle Hoist	✓		

Figure 12 – Ownership Summary

APPENDIX B – OWNERSHIP AND RESPONSIBILITY DECISION TREE



NOTES:

- UG (User Group):** means any Academic Unit/Institute/Team (excluding Resources) that has specific requirements or controls for their spaces/assets and are able to fund equipment purchases and any pursuant maintenance requirements – this includes Individual Users such as Researchers
- Base Building Provisions:** means the basic supply of Utilities and/or Services to a Building to ensure Occupancy & in support of the Official Designated Use of the Space(s). Often incorporated within PFD's Contracts & Agreements such as Electricity, Compressed Air, etc.
- Access Restrictions:** regardless of assigned Owner the Permit To Work process and Access Protocols must be adhered to by all Personnel where an Asset is located in a Restricted or Controlled Space (i.e. Roof, Tunnel, Confined Space, etc.)
- Asset ID:** the application of an Asset Tag/ID or inclusion in the "Facilities Assets" table in the Corporate Asset Management System (AMS) does not denote ownership by PFD. This only affords visibility of the Asset to ensure services are maintained and outages/notifications are foreseeable
- Purchasing:** predetermination of Asset Ownership does not determine the Responsible Party required to make the initial purchase/investment for the Asset or Equipment
- Certification & Licencing:** the assigned Owner is also responsible for attaining/disposing, storing & displaying any required Licences & Certificates where applicable including fees/payments

Figure 13 – Assigning Asset Ownership and Responsibility Decision Tree

APPENDIX C - GLOSSARY

TERM	ACRONYM	DEFINITION
Asset(s)		<i>See Physical Asset(s)</i>
Asset Classification System	ACS	A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two. <i>Also known as an Asset Hierarchy.</i>
Asset Custodian		Staff who are assigned responsibility for an asset across all phases of its useful life (i.e. planning/purchasing, utilisation, maintenance and end of life), that operational controls are put in place for an asset where required (i.e. crisis management) and ensuring the digital records in the AMIS reflect the physical asset portfolio. Refer <i>Roles and Responsibilities</i> section for detail.
Asset Management	AM	Refers to systematic and coordinated activities and practices through which the University optimally and sustainably manages its assets and <i>asset systems</i> , their associated performance, risks and costs over their lifecycles for the purpose of achieving the organisational strategic objectives
Asset Manager		Are responsible for the development of Asset Management Plans, informing Asset Strategies and managing Capital Budgets in support of Asset Renewal activities on behalf of their Organisational units. Refer <i>Responsibilities</i> section for detail.
Asset Management Activities		Refers to the typical outputs resulting from Asset Management such as informing Asset Strategies, creation of Asset Management Plans, Maintenance Management, Condition Auditing and Reporting, Renewal Planning (OPEX and CAPEX), documenting/managing Compliance Obligations, Business Continuity Planning and Risk Assessments, Technical Standards/Design Guidelines
Asset Management Advisory Committee	AMAC	An advisory forum that provides input, feedback and recommendations to the Director PFD and Asset Owners to support informed decision making and continuous improvement of asset management practices. Refer <i>Responsibilities</i> section for detail.
Asset Management Plan	AMP	Refers to the typical outputs resulting from Asset Management such as informing Asset Strategies, creation of Asset Management Plans, informing Maintenance Planning, Condition Auditing and Reporting, Renewal Planning (OPEX and CAPEX), documenting/managing Compliance Obligations, Business Continuity Planning and Risk Assessments, Technical Standards/Design Guidelines
Asset Management Information System	AMIS	Refers to the University's Enterprise Asset Management Information System (also known as an EAM) and which is used to track the assets of value to the organisation
Asset Portfolio		The complete set of assets managed by the organisation, as represented in the asset register and reflected in the physical estate (including buildings, infrastructure and land).
Asset Owner		Typically Directors/Divisional Heads of the University's various Divisions/Departments (i.e. at "CLevel 2" within the University's Organisational units). Refer <i>Responsibilities</i> section for detail.
Asset Register		A record of individual assets and associated data (see Whole of Life) compiled within the University's Asset Management Information System. Assets recorded within the register must be considered of value to the University (see Physical Asset). Within the context of this policy Asset Register is not referring to the <i>University's Financial Asset Management Information System</i> .
Asset Replacement Value	ARV	The cost of rebuilding or replacing an existing capital asset to its initial standard.
Asset Tag		An approved Flinders University format Barcode used for AM purposes.

TERM	ACRONYM	DEFINITION
Building Information Model	BIM	
Business Objectives		Refers to the objectives the University has set as a Teaching, Learning and Research focussed institution to meet its various performance/growth targets, sustainability strategy, organisational goals and stakeholder needs.
Building Management System	BMS	
Capital Infrastructure Plan	CIP	Typically an annual plan or standalone business case detailing a program of works (or project) for asset replacement, augmentation or additions including sources of funding.
Certificate of Compliance	CoC	<i>Also known as CofC and eCoC.</i>
Corrective Maintenance		Maintenance performed after an asset failure or fault has occurred to restore it to its required operating condition.
Defects and Liability Period	DLP	
Demand Management		Activities undertaken to influence, predict and manage the demand for assets and asset-based services to ensure efficient and effective use of resources.
Document Management System	DMS	<i>Also known as a Records Management System (RMS).</i>
Essential Safety Provisions	ESP	
Facilities Management	FM	
Levels of Service	LoS	The defined/required service quality for a particular activity or service areas delivered by an Asset(s) against which service performance may be measured.
Lifecycle Cost	LC	The total cost of an asset across its life, including planning, acquisition, operation, maintenance, renewal and disposal. <i>Also referred to as Total Cost of Ownership (TCO) in operational and financial contexts.</i>
Maintenance Management System	MMS	
Material Safety Data Sheet	MSDS	
NATA	NATA	National Association of Testing Authorities.
O&M Manual	O&M	Operations and Maintenance Manual.
Optimised Decision Making	ODM	A structured approach to decision-making that balances cost, risk, performance and stakeholder outcomes to achieve the best overall value.
Organisational Objective		Overarching objective that sets the context and direction for an organisation's activities. <i>Also known as Enterprise Objective.</i>
Organisational unit		Refers to a College, Portfolio, or other structured entity within the University. Ultimately accountable for the Whole of Life management of all assets under their ownership and control, including the planning of specific projects to meet service delivery needs and meeting their own stakeholder obligations.

TERM	ACRONYM	DEFINITION
Office of the Gene Technology Regulator	OGTR	Office of the Gene Technology Regulator.
Person Conducting Business Undertaking	PCBU	Person Conducting Business Undertaking.
Performance Monitoring		Continuous or periodic quantitative and qualitative assessments of the actual performance compared with specific objectives, targets, or standards.
Planned Maintenance	PM	Maintenance activities that are scheduled and performed proactively to prevent asset failure or degradation. Includes: - Preventive Maintenance – scheduled maintenance performed at defined intervals (typically time-based) - Predictive Maintenance – maintenance triggered by asset condition, performance or usage data
Predictive Models		Typically use condition and performance deterioration curves to project the lifecycle costs of each asset for different maintenance or renewal strategies and identify the optimal treatment strategy.
Project Manager	PM	
Property, Facilities and Development	PFD	
Quality Management Systems	QMS	
Remaining Useful Life	RUL	The estimated time an asset is expected to continue to meet required performance and service levels before renewal or replacement is required. RUL is used to determine an “ <i>End of Life</i> ” date value in the AMIS.
Service Provider	SP	Provide Facilities Management services relating to the provision of building and site maintenance, minor works and small construction to the Organisational units. Sometimes known more specifically as a Facilities Management Services Provider (FMSP).
Space Management System	SMS	
Safe Operating Procedures	SOP	
Strategic Asset Management Framework	SAMF	The governing document that establishes the principles, roles, lifecycle approach and risk management requirements for asset management at the University, aligned with ISO 55000. Note that ISO 55000 uses the term “Asset Management System (AMS)” to describe the broader system of policies, plans, processes and information used to manage assets - the SAMF is the University's primary expression of this. Not to be confused with AMIS, which refers specifically to the University's Enterprise Asset Management software platform and is treated as distinct from the SAMF/AMS - refer to <i>Asset Management Information System</i> in this Glossary for detail
Total Cost of Ownership	TCO	A financial measure of the full lifecycle cost of an asset. <i>See Lifecycle Cost.</i>
University Community		include members of Council, committee members, students, staff members, committee appointees, the University's Colleges and board members and contractors working for and on behalf of the University.
Useful Life		The period over which an asset is expected to deliver acceptable performance and meet required levels of service under defined operating conditions – also known as “Lifecycle” in the AMIS.

TERM	ACRONYM	DEFINITION
		Assets operating beyond their <i>Useful Life</i> may continue to function but typically do so with increased risk, reduced performance, or higher maintenance costs and may no longer represent value for money (sometimes referred to as being beyond economic useful life). <i>See Remaining Useful Life.</i>
Value		In the context of the <i>Physical Asset Management Policy</i> and Framework; value represents the optimum combination of quality, quantity, risk, timeliness and cost associated with an Asset(s) from a Whole of Life perspective.
Whole of Life		A term used to describe the approach to managing an Assets “Lifecycle”: planning, procurement, operation and end of life phases.

Figure 14 – Glossary of Terms

APPENDIX D – SAMF DELIVERY OVERVIEW

This appendix consolidates the implementation actions, ongoing obligations and performance measures arising from the Strategic Asset Management Framework into a single “lift-out” reference for the Director PFD, Asset Owners and Asset Managers. It is intended to support delivery planning, progress tracking and performance oversight across the life of the Framework.

The appendix is structured into three parts:

- **Part 1 – Implementation Action Register:** All outstanding development actions and documents required to give full effect to this Framework, organised into a single consolidated register
- **Part 2 – Ongoing Obligations:** Recurring actions structured by frequency that must be maintained to sustain Framework compliance
- **Part 3 – KPI Summary:** A consolidated summary of the key performance indicators (KPIs) referenced throughout the Framework, suitable for use in performance reporting and management reviews (includes an outline for future KPI development)

This appendix should be reviewed annually by the Director PFD as part of the management review cycle. Completion of actions, status updates and any new obligations arising from framework revisions should be recorded at that time.

Part 1 - Implementation Action Register

The following register captures all outstanding development actions and supporting documents required to give full effect to this Framework. Items are categorised by type; Framework Development refers to structural, governance or process actions whilst Document Development refers to specific documents cited within the Framework that must be confirmed as current or developed if not yet in place.

Timing indicates the trigger for targeted completion of the action; these are generally tied to versions/revisions of the SAMF itself but can be based on other trigger events.

The Status column is provided for implementation tracking and should be maintained by the Director PFD.

#	ITEM	TYPE	SECTION / REFERENCE	RESPONSIBLE	TIMING	STATUS
1	Formalise Asset Ownership Model across Organisational Units	Framework	Accountability	Director PFD / Asset Owners	On approval of SAMF V1.00	
2	Assign ownership to all assets recorded in AMIS	Framework	Accountability	Asset Managers / Asset Owners	Post Approval of SAMF V1.00	
3	Formalise asset management roles and competence requirements per ISO 55012:2024	Framework	Accountability	Director PFD / Asset Owners	Post Approval of SAMF V1.00	
4	Establish QMS controls for asset data quality verification across Organisational units	Framework	Performance & Continuous Improvement	Asset Owners	Post Approval of SAMF V1.00	
5	AMIS Functional Outline	Document	Asset Information & Data Management	Director PFD	Post Approval of SAMF V1.00	
6	Compliance Register and Legislative Mapping	Document	Procedures & Guidelines	Director PFD / Asset Managers	Post Approval of SAMF V1.00	
7	Asset Assessment Guidelines	Document	Whole of Life – Operation Phase	Director PFD	Post Approval of SAMF V1.00	
8	AMIS and MMS Procedures	Document	Procedures & Guidelines	Director PFD	Post Approval of SAMF V1.00	
9	Investigate live or near-live AMP reporting capability within AMIS and associated tools	Framework	Asset Information & Data Management	Director PFD / Asset Managers	Post Approval of SAMF V1.00	
10	Engage IDS to incorporate IT/AV assets within the scope of the Policy/Framework and align with asset management practices	Framework	Context	Director PFD / CIO	Post Approval of SAMF V1.00	

#	ITEM	TYPE	SECTION / REFERENCE	RESPONSIBLE	TIMING	STATUS
11	Establish AMAC and document Terms of Reference	Framework + Document	Accountability	Director PFD	Within 2 years of SAMF V1.00 implementation	
12	Undertake initial Asset Management maturity assessment	Framework	Performance & Continuous Improvement	Director PFD in consultation with AMAC	Within 2 years of SAMF V1.00 implementation	
13	Set Asset Management maturity level targets	Framework	Performance & Continuous Improvement	Director PFD in consultation with AMAC	Post initial maturity assessment	
14	Develop SAMP	Framework	Context	Director PFD	Post approval of Campus Implementation Plan	
15	Develop formal communication plan for asset management activities	Framework	Accountability	Director PFD	Part of SAMF V2.00 development	
16	Formalise Levels of Service framework within Asset Management Plans	Framework	Whole of Life	Asset Managers	Post approval of SAMF V2.00	
17	Formalise demand management approach within Asset Management Plans	Framework	Whole of Life	Asset Managers	Post approval of SAMF V2.00	
18	Develop individual Asset Management Plans per asset class, type or location	Framework	Whole of Life	Asset Managers / Asset Owners	Ongoing	

Figure 15 – Continued Development items as identified within the SAMF

Part 2 – Ongoing Obligations

The following obligations are recurring actions required to maintain compliance with this Framework, structured by frequency to support planning and calendar scheduling. Responsibility sits with the role identified, with overall oversight from the Director PFD through the annual management review cycle.

Where obligations are not being met, or systemic non-conformances are identified, these should be escalated to the Director PFD and, where cross-organisational issues are involved, referred to AMAC for input.

FREQUENCY	ACTION	RESPONSIBLE
Monthly	Review outstanding maintenance tasks and data update requirements in AMIS	Asset Custodians
Quarterly	Review relevant KPIs and performance indicators; undertake QA sampling on asset data quality and change management activities	Asset Managers
Annually	Review SAMF effectiveness and AM maturity; approve framework updates; identify AMIS improvements	Director PFD in consultation with AMAC
Annually	Review and update Asset Management Plans	Asset Managers
Annually	Conduct formal management review against AM objectives and KPIs; evaluate resource adequacy	Director PFD
Annually	Review and update Capital Infrastructure Plan	Asset Managers / Asset Owners
Annually	Issue an Asset Management Statement/Report summarising the condition and performance of the University's asset portfolio, key investment decisions made during the year and priorities for the year ahead Audience and format (e.g. internal report, Infrastructure Committee paper, or published statement) to be confirmed in the Communication Plan	Director PFD
As required	Escalate asset risks exceeding acceptable thresholds to Asset Owners	Asset Managers
As required	Execute change management activities and downstream system updates following asset additions, disposals or data changes	Asset Custodians
As required	Conduct internal audits of SAMF compliance; document findings and assign corrective actions	Director PFD
As required	Communicate significant changes to the Policy, Framework, asset management objectives or AMIS to Asset Owners and Asset Managers	Director PFD

FREQUENCY	ACTION	RESPONSIBLE
Triennially	Undertake Asset Management maturity assessment and benchmarking against sector peers	Director PFD in consultation with AMAC
Triennially	Publish a summary of maturity assessment outcomes and improvement priorities to relevant stakeholders Format to be confirmed in the Communication Plan	Director PFD in consultation with AMAC
Periodically	Conduct asset condition assessments in accordance with the Asset Assessment Guideline	Asset Custodians / Asset Managers

Figure 16 – Summary of ongoing Obligations in support of the SAMF

Part 3 – KPI Summary

The following table provides a consolidated reference for the key performance indicators referenced throughout this Framework. They link strategic objectives to measurable outcomes, supporting performance oversight, informed decision-making and continuous improvement. Targets represent baseline expectations and will be refined as asset management maturity improves. They are floors rather than ceilings — where performance data indicates a higher standard is achievable, or where the consequences of underperformance warrant a more demanding threshold (such as statutory compliance or renewal backlog), targets should be escalated accordingly through the annual management review cycle.

This table should be reviewed annually by the Director PFD and updated to reflect agreed changes to targets or the addition of new measures as maturity develops.

Foundational KPIs

AREA	KPI	TARGET	NOTES / INTENT
Governance	% assets with assigned owner aligned to SAMF principles	100%	Fundamental accountability requirement; priority action in implementation action register
Asset Data	Data completeness (critical fields)	≥ 95%	Prerequisite for maintenance tasking, compliance tracking and lifecycle modelling. Covers fields such as location, type, condition, age, replacement value, criticality and standard of service
	Data accuracy (validated via audit/sampling)	≥ 90%	Validates that captured assets reflect the real-world portfolio. Assessed via periodic stocktakes and audit sampling
Compliance	Statutory and regulatory maintenance task completion rate	100%	Non-negotiable; takes precedence over all other KPIs (incl. licence renewals and associated fees)
Maintenance	Planned vs unplanned maintenance ratio	≥ 60% planned (\$)	Key maturity indicator; improvement expected over time
	Maintenance Tasks Supported by Work Plans	100%	Ensures all recurring maintenance tasks are executed using Work Plans linked to assets, supporting consistency, strategy alignment and improved planned maintenance performance. Requires transition from legacy plans and the creation of documented task specifications
	Maintenance schedule compliance	≥ 90%	Shows operational delivery discipline

AREA	KPI	TARGET	NOTES / INTENT
Asset Management Plans	% asset classes with a current AMP in place (relevant classes only)	100%	Core maturity requirement; to be built out per implementation register
Financial Performance	Maintenance spend as % of asset value	1.5% to 4%	Typical industry benchmark (i.e. TEFMA); varies by asset class and age. Primary use at this stage is establishing a baseline for trend analysis
	Renewal spend as % of asset value	1.5% to 2%	Typical industry benchmark (i.e. TEFMA) for avoiding backlog growth. Where spend falls below this range the gap should be quantified as a renewal backlog figure to inform capital planning advocacy

Figure 17 – Overview of Foundational KPIs as referenced in the SAMF

Developing KPIs

The following KPIs should be developed and implemented as the level of Asset Management Maturity improves, this includes as the SAMF itself is updated or other key milestones are reached.

AREA	KPI	TARGET	TRIGGER
Governance	% ownership changes assessed for funding and lifecycle impacts	100%	Once ownership model is fully formalised
Asset Management Plans	AMP review currency	≤ 3 years old	Once initial AMPs are in place
Levels of Service	% assets meeting defined LoS	≥ 90%	Once LoS framework is formalised in AMPs
Condition	% of assets assessed on schedule per the Auditing Guideline	≥ 90%	Once the Auditing Guideline is endorsed and an audit programme is established
	% assets in acceptable condition (Condition 3–5)	≥ 85–90%	Once condition assessment programme is established and acceptable targets for ongoing condition updates are established
Lifecycle / Renewal	Renewal delivery vs plan	≥ 90%	Once AMPs and Capital Infrastructure Plan are aligned
	Renewal gap / backlog trend	Stable or reducing	Once lifecycle forecasting is operational

AREA	KPI	TARGET	TRIGGER
	Lifecycle forecast coverage	≥ 10 years visibility	Once AMPs provide sufficient horizon data
Financial Performance	CAPEX renewal spend vs approved plan	≥ 90%	Once renewal programme is established
Sustainability	Energy and water efficiency trends; GHG emissions	TBD	To align with University Sustainability Strategy targets
Service Delivery	User satisfaction with asset-based services	TBD	Once LoS framework and survey mechanism are in place
AM Maturity	ISO 55000 maturity assessment score	TBD	To be set following initial maturity assessment

Figure 18 – Overview of KPIs to be developed