Strategic Asset Management Plan

2016 to 2020
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1 Introduction and Overview

1.1 General Introduction

The business environment and educational ecosystem that the CQUniversity operates in is dynamic and increasingly competitive. Achieving and maintaining differentiation which distinguishes CQUniversity is critical to ensuring organisational sustainability. CQUniversity’s Strategic Plan 2015 – 2020 “Strong to Great” defines the overarching goals and specific targets to direct organisational focus and resources towards a Great Student Experience, Great Research, Being Inclusive, Distance Education, and Social Innovation. Together, these elements will drive realisation the vision to be “Australia’s most engaged University” by 2020.

In order to effectively contribute to these outcomes, CQUniversity’s strategic assets – campus facilities and information and communications technology - must meet the needs of a new generation of students, teachers, researchers and the wider communities with which CQUniversity engages.

As a public institution, CQUniversity is required to have a Strategic Asset Management (SAM) Plan in place in order to effectively manage its strategic assets.

The fundamental purpose of strategic asset management is to ensure agility and timely response to changing university needs. The purpose of the Strategic Asset Management Plan is to establish guiding principles and to provide a sound basis for decisions on the procurement, management, utilisation and disposal of facility and ICT assets in accordance with the business needs of CQUniversity and in line with the organisation’s strategic and operational plans.

In joining together the two pre-existing plans, it is important to recognise that while there are shared, high level strategic asset management principles between the two domains, the practice of strategic and operational asset management in each of facilities and ICT is fundamentally different. The approach taken in this document is to consolidate the shared context and strategic elements, and then to provide two sets of appendices – one focused on facilities (DFM), and one focused on information and communication technology (IaTD). These appendices in turn allow the exploration of each domain and setting of strategic asset management goals and objectives in a way that makes sense to DFM and to IaTD.

This merged Strategic Asset Management Plan – 2016 to 2020 is based on plans, information, and data currently available in the University. It is expected that the Plan will undergo significant review and updating as the CQUniversity Planning Framework is developed and implemented and the information and data available within the SAMF becomes increasingly aligned with CQUniversity’s Strategic Plan.

For the SAMP to be developed into a durable ‘tool’, DFM and IaTD will need to work very closely on an ongoing basis with CQUniversity’s stakeholders, communities, faculties, departments and users. There needs to be an investment in time, funds and appreciation for the SAMP to be effectively implemented and the associated benefits realised.

1.2 Overview of CQUniversity

CQUniversity Australia has a unique and interesting history. The University was originally founded in Rockhampton in 1967 and was known as the Queensland Institute of Technology (Capricornia). By 1974 it was among only a few Australian institutes to commence the delivery of distance education.

Between 1978 and 1989 further campuses were established in Bundaberg, Emerald, Gladstone, and Mackay and in 1992 the Institute achieved full University status to become known as Central Queensland University. Along with locations in regional Queensland, CQUniversity has also expanded its presence throughout Australia with campuses in Adelaide, Brisbane, Melbourne, Noosa and Sydney, Study Centres in Biloela and Yeppoon, a Cairns Distance Education Study Centre, a delivery site in Edithvale, Victoria, and Partner Study Hubs in Cannonvale, Queensland and Geraldton, Western Australia.

Now more than 20 years on, and following a merger with CQ TAFE on 1 July 2014, CQUniversity is responsible for providing a diverse range of training and education programs and courses to more than 30,000 students studying qualifications from certificate to post doctorate level.

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1 Financial and Performance Management Standard 2009, s15 (1) (c), s23.
2 Source – CQUniversity Website https://www.cqu.edu.au/about-us/history
Study areas include Apprenticeships, Trades and Training, Business, Accounting and Law, Creative, Performing and Visual Arts, Education and Humanities, Engineering and Built Environment, Health, Information Technology and Digital Media, Psychology, Social Work and Community Services, Science and Environment, and Work and Study Preparation. The merger with CQ TAFE saw the establishment of Queensland's first dual sector university, providing a more comprehensive approach to education, training, research and engagement in the central Queensland region and beyond.

CQUniversity continues to be a leader in the delivery of distance education with approximately half of the student cohort being made up of students studying by distance education. Compared to other universities, CQUniversity is also proud to have the highest ratio of students from mature age, Aboriginal and Torres Strait Islander, first-in-family and low socio-economic backgrounds. The University defines itself by who it embraces rather than who it excludes, and because of this is widely recognised as Australia's most inclusive university.

CQUniversity students have some of the best graduate outcomes, with recent data released by Graduate Careers Australia indicating that CQUniversity has an overall full-time graduate employment rate of 81.1%. This figure is almost 10% higher than the national average of 71.3% for Australian resident bachelor degree graduates.

CQUniversity has also established itself as a research focused university and in the 2012 Excellence in Research Australia rankings the University was rated at or above world standard in the areas of agriculture, applied mathematics, nursing, and medical and health sciences.

CQUniversity is among Australia’s most engaged universities and throughout the years has formed valuable partnerships with government, community and industry groups, right across the national university footprint and overseas.

1.3 Outcomes of the CQUniversity Strategic Asset Management Plan

Strategic asset management underpins all activities related to managing an organisation's physical infrastructure assets for optimal outcomes.

The SAMP will provide an effective and integrated strategic and operational framework all classes of facilities and information and communications technology assets, leveraging the inherent capabilities in those assets to assist CQUniversity to achieve its strategic priorities.

For this to occur, CQUniversity has still to develop and implement strategies that match the quality, quantity and type of assets with the defined service requires, and a vertical perspective that ensures the decisions taken about each asset or group of assets are supported with structured methodologies and decision making tools that take into account the total life of the asset.

This SAMP focuses on two main classes of assets: built environment (facilities) and information and communications technology (ICT). Other asset classes, eg human capital, intellectual property, will require separate planning activity.
2 Context

2.1 Context

The needs of the student and research community, business partners and governments at local, state and federal levels. This is manifested by demands on the University for better services, higher quality infrastructure, value for money educational outcomes and innovative solutions. The challenge for CQUniversity is to balance expectations with the best use of limited resources.

The University's capacity to respond to the demands for services depends largely on its financial resources. As part of the University's budget processes, resources are allocated to achieve the objectives and priorities according to the strategic priorities and goals of the University in response to these demands.

Strategic asset management of an organisation’s built environment and information and communications technology assets is the concept of aligning the organisation’s available assets with its service delivery needs, to optimise the outcomes sought. Strategic asset management focuses on the outcome or purpose of an asset or asset class and guides decision-making processes over the entire life of the asset (i.e. planning, investment/procurement, management-in-use and disposal phases).

The challenge for CQUniversity is to balance expectations with the best use of limited resources while considering growth vs ongoing maintenance.

2.2 Principles and Elements of Strategic Asset Management

Strategic asset management is facilitated by systematic decision-making processes throughout the life of the asset (regardless of its type or class).

The principles of strategic asset management are:

- assets only exist to support the delivery of services
- asset planning is a key corporate activity that must be undertaken along with planning for human resources, information systems, knowledge creation and transfer, and finance
- non-asset solutions, full life-cycle costs, risks and existing alternatives must be considered before investing in assets
- responsibility for assets should reside with the elements that control them
- asset management at business unit level should reflect the organisation’s overall asset policy framework;
- the elimination of waste, and
- the full cost of providing, operating and maintaining assets should be reflected in the delivery of services.

The elements of strategic asset management shown in Figure 1 each have a role to play in best practice planning, provision, management, maintenance and eventual disposal of assets.
Strategic asset management provides a framework for better practice in the planning, provision, management, and eventual disposal or adaptation of assets for a new use.

The framework provides a lateral perspective, to allow the organisation to develop strategies that match the quality, quantity and type of assets with the defined service need, and a vertical perspective that ensures the decisions taken about each asset or group of assets are supported with structured methodologies and decision making tools that take into account the total life of the asset.

2.2.1 Service Demand

Strategic asset management commences with the identification and analysis of organisational and community demands and expectations of service – the business context in which assets must be strategically managed to deliver outcomes. This context may be influenced by Government policy, levels of government funding, and decisions on the levels of cost recovery from both internal and external parties.

Such policies can have significant flow-on effect on the resources available to the asset management business units to deliver services. In many ways, the asset management business units must not only be responsive to economic, social and legislative change but may also need to be an agent for, or driver of, change within the organisation.

2.2.2 Resource Planning

Resource planning is essential for all major works to ensure not only the immediate resources are available but also the long term life cycle resource support have been considered and will be provided long after the construction is completed. Both facilities and information and communications technology require longer range capital investment and operational investment planning despite their different elements.

2.2.3 Implementation

Implementation of efficient and effective asset management requires a clear understanding of the responsibilities of ownership. The outcome includes comprehensive plans for facilities management, information and communication technology management, capital investment, management and maintenance of existing assets, and disposal or adaptation for a new use of surplus assets.

The plans must demonstrate strategies that yield the following benefits:

- a clear understanding of the role that assets play in support of organisational objectives
- alignment of assets with service delivery strategies
- the provision of an environment that supports service delivery
• the optimal functionality and utilisation of assets
• the development of assets which are environmentally sustainable in design and operation
• management efficiencies and effectiveness (economic sustainability)
• maximum return on investment
• appropriate workplace health and safety management
• rapid identification and reporting of surplus or under-utilised assets
• access to accurate data and information
• maximum benefit from the application of capital and operational funds, and
• the identification and quantification of opportunities and risks.

2.2.3.1 New investments

Assets are platforms for the delivery of services. Proposals for new buildings or infrastructure or for new or refreshed information and communications technology solutions should only be implemented if they directly support new or improved services and capability to teaching and learning, academic research, and university business.

Strategic Asset Management requires that a structured approach be taken through which the need for new investment can be demonstrated.

In particular, the University, through its facility and ICT asset management business units must consider:
• the need for the asset and whether existing assets can meet the need, or be refurbished to accommodate the new need
• alternatives to physical assets which may deliver the service, and
• the opportunities for private sector to provide the service to the University or its clients.

In all cases where it is decided to proceed with the delivery of a new investment in assets, the full life cycle costs and function of the assets shall be considered with this information being used to shape the investment decision.

2.2.3.2 Management of assets

Assets have a life-cycle – they are planned, created, used, managed and disposed of when no longer required. Understanding this concept referred to as the asset life-cycle will assist the University to optimise the value, use and benefits derived from the assets it controls. See Figure 2 below.
Strategic Asset Management will focus the management of existing assets to address the strategic priorities of the organisation. This will require the institution to have in place:

- ICT plans (systems, backup/maintenance, lifecycle/new technology)
- maintenance plans
- facilities management plans including plans for;
  - space allocation and management
  - management of utilities
  - risk management, and
- managing for sustainability.

### 2.2.3.3 Disposal of surplus assets

Strategic asset management across facilities and information and communications technology will identify those assets which are under-utilised. Opportunities can then be reviewed for increasing utilisation in their current form by

- transferring functional responsibility to another Business Unit which has a need for additional capacity or utility
- altering and adapting their form for another purpose, or
- selling or renting it to an external user.

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2.3 Service Delivery

The primary focus of strategic asset management is to achieve optimal service delivery through effective asset solutions and efficient asset management.

Traditional asset performance has been measured in terms of inputs and the minimisation of waste at the input end of the resource equation.

Contrastively, strategic asset management requires a focus on outcomes and the output end of the resource equation.

3 Legislative framework, policies and procedures

There are a variety of legislative and statutory requirements that CQUniversity must comply with in terms of its strategic asset management, as well as a number of industry best practices and organisational policies.

3.1 State Legislation

The University’s operations are governed by the Central Queensland University Act 1998, the 2014 amendment (enabling the merger of CQTAFE) and any subordinate legislation.

3.2 Financial and Performance Management Standard

As a Statutory Body in Queensland, the University must comply with the provisions of the Financial and Performance Management Standard 2009. Section 23 of the Standard requires the University to have in place:

(2) an asset management system which must provide for—
   (a) identifying, acquiring, managing, disposing of, valuing, recording and writing off assets
   (b) if the accountable officer or statutory body considers the cost of acquiring, maintaining or improving a physical asset is significant (a significant asset)—conducting an evaluation before making the acquisition or carrying out the maintenance or improvement
   (c) reviewing the performance of completed significant assets to ensure the objectives of the department or statutory body in acquiring, maintaining or improving the assets were met, and
   (d) regularly maintaining the assets.

(3) each accountable officer and each statutory body, in identifying, acquiring, maintaining, disposing of, valuing or revaluing, recording or writing off assets, must comply with the document called ‘Non-current asset policies for the Queensland Public Sector’ published by the treasury department and consequently the CQUniversity’s Financial Management Practices Manual.

In effect, the Financial and Performance Management Standard 2009 requires the University to have in place a Strategic Asset Management Plan in accordance with the principles described in Section 2.2 above.

The Financial and Performance Management Standard is the key legislative driver for the preparation and maintenance of the SAMP.

3.3 Commonwealth Legislation

The principal legislative requirements imposed by the Commonwealth Government are those set down by Higher Education Funding Act and its subordinate and associated legislation. These are not proscriptive in terms of asset management, but assume that prudent financial management is a feature of the operating environment, and that compliance to standards can be proven by periodic audit.

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### 3.4 State and Local Authority Legislation

State and local authority legislation which governs CQUniversity in terms of asset management includes but is not limited to:

- **Financial Accountability Act**
- **Building Act**
- Building Code of Australia
- Town Plans and Local Laws/Ordinances for each local government area in which the University owns or occupies buildings
- **Integrated Planning Act**
- Development Control Plans for the particular areas where they exist
- Specific Ordinances such as the Vegetation Protection Ordinances, Water Supply and Sewerage By-laws
- **Electricity Act**
- Flammable and Combustible Liquid Regulations
- **Workplace Health and Safety Act**
- **Anti-Discrimination Legislation Environmental Protection Act**
- **Fire Safety Act**

In addition, as part of the operations of facility assets the requirements of numerous Australian Standards come into play.

### 3.5 Other Legislation

For built environment, other legislation and standards are applicable to the University’s construction, maintenance and operational activities. Where necessary these are referred to in the specific plans for those activities.

For the information and communication technology environment, other legislation and standards are applicable to the University’s management of information and data.

It is also important to ensure that all policies and procedures which apply to the organisation are complied with or reviewed as part of the planning exercise. These policies and procedures are reflected in the CQUniversity Policy Portal, which are briefly:

**Policies and Processes**

- policies and guidelines for financial and asset management at organisational level
- policies and guidelines for information and communication technology at an organisational level
- specific policies and procedures for asset management at business unit level
- decision-making tools for planning, risk assessment, operational management and maintenance.

### 3.6 Best Practice

While legislation may require that a strategic asset management plan is developed and adopted for the acquisition, maintenance, operation and eventual disposal of assets, best practice in asset management would also suggest that the efficient use of resources is founded on having a SAMP in place and actively used as part of the planning and management processes of the organisation.

There are some shared best practices across facilities and information and communication technologies, including the Australian National Audit Office guidelines above for strategic asset management.
For the built environment and facilities, an example of best practice is the UK’s Institute of Asset Management (IAM) BSI PAS 55. It aligns closely with and conforms to ISO 55000⁵. PAS 55 is closely aligned with the TEFMA guidelines⁶.

For ICT, an example of best practice is the COBIT 5 framework⁷.

4 The CQUUniversity Strategic Asset Management Plan

4.1 The CQUUniversity Estate⁸

CQUUniversity has many locations; each with its own lively character and range of facilities and services as well as program and course offerings. CQUUniversity and CQ TAFE have now merged and have commenced operating as Queensland's first dual sector University. CQUUniversity now offers a more comprehensive approach to education and training and has one of the largest footprints of any tertiary education institution in Australia.

CQUUniversity has 15 campuses across Australia including Cairns, Townsville, Mackay (2), Rockhampton (2), Gladstone (2), Emerald, Bundaberg, Noosa, Brisbane, Sydney, Adelaide and Melbourne.

Other locations for CQUUniversity are currently established in Biloela, Cairns, Charters Towers, Cooma, Edithvale, Geraldton, Karratha, Perth and Yeppoon. These locations will be as a mix of Distance Education Study Centres, Partner Study Hubs, Study Centres and Delivery Sites.

Built environment assets are distributed across all of these locations, as are information and communication technology assets. The North Rockhampton campus has the largest concentration of both asset classes.

4.2 Strategic Asset Management Plan Approval and Review

The Director, Facilities Management and the Chief Information and Digital Officer have joint responsibility for preparation, management and ongoing review of the SAMP. Line of business executives and operational staff in both Facilities and IaTD contribute to the development of the plan and its execution.

Once prepared, the SAMP is presented to the Executive Management Committee by the Senior DVC International and Services, and recommended for approval to the Strategic Planning and Projects Committee.

The SAMP will be under continual review but will be formally reviewed not less frequently than every five years.

4.2.1 The Institutional Planning Framework

CQUUniversity's Planning Framework consists of a number of plans which are intended to be integrated, supportive of each other and align with the University's Strategic Plan.

These documents are underpinned by the University's Risk Management Policy and the Risk Management Framework and Guidelines which provide the basis for coordinated risk management at the University. The integrated planning framework is demonstrated below.

5 ISO 55000 International Standard for Asset Management.
7 ISACA. COBIT 5 : A Business Framework for the Governance and Management of Enterprise IT.
8 Source CQUUniversity Website - http://www.cqu.edu.au/about-us/locations
Other more detailed planning documents exist to support the CQUniversity Strategic Plan. These are grouped under the following headings.

- 5 Year Strategic Planning Documents
- 1 Year Corporate Planning Documents
- Divisional and Directorate Operational Plans
- Faculty and School Operational Plans
- Performance Review, Planning and Development Framework

It should be noted that the current Planning Framework of the University omits any reference to the planning and integration of the built environment and information and communication technology assets into the process. However, it is critical that:

- the organisational framework for the management of the University’s assets must be supported by sound methodologies and appropriate professional and technical advice
- the framework must take into account the academic structure and nature of the University as well as the administrative and other support structures
- management of assets to service the University at its various and varied campus locations must take into account the specific needs of the local communities as well as the need to be efficient in the use of resources
- management of the diverse range of assets contained in the University’s portfolio also suggests that reference to international best practice in the area impacts on the organisational framework within which the Directorate of Facilities Management and the Directorate of Information and Communication Technology operate

### 4.2.2 Management levels

The management levels which must be recognised are:

- The CQUniversity Council and its Committees, in particular, the following Committees will have an interest in the Strategic Asset Management Plan:
  - Strategic Planning and Projects Committee
• Audit, Risk and Finance Committee, and
• Academic Board
• The Vice-Chancellor and President of the University, and the Vice-Chancellor’s Advisory Committee, which set the strategic and policy direction of the University
• The Executive Management Committee
• The Senior Deputy Vice-Chancellor (International and Services) for oversight and strategic management of the facilities and information and communication technologies of the University
• The Director, Information and Communication Technology for strategic planning, implementation and management of ICT assets of the University
• The Director, Facilities Management, for strategic planning, construction and management of the physical assets of the University
• Heads of Campus and the Campus Facilities Coordinators who are responsible and accountable for the daily operation of the built environment assets on each campus
• Heads of ICT Business Service lines who are responsible and accountable for the daily operation of ICT assets across all campuses.

4.2.3 The Role of the Directorate of Facilities Management

The role of the Directorate of Facilities Management is to optimise the strategic use, development, and the operations and maintenance, of CQU’s physical resources and associated services for learning, teaching, research and community engagement and partnership.

The Directorate’s core business is “customer-oriented strategic facilities management”. This has a number of components:
• planning and acquisition of physical assets
• management and operation of physical assets and facilities management support services, and
• disposal of surplus physical assets.

The Directorate of Facilities Management identifies opportunities and provides facilities and services for the better delivery of teaching, learning and research.

4.2.4 The Role of Directorate of Information Technology

The Information Technology Directorate (IaTD) delivers business and technical solutions for the whole of the University’s activities in learning, teaching, research and corporate functions.

The fundamental purpose of strategic ICT asset management is to ensure agility and timely ICT response to changing university needs. ICT services must meet the needs of a new generation of digitally-aware students, understanding that the information and technology needs of corporate business areas and teaching, learning and research areas (Faculties/Schools) will become increasingly acute. ICT services will therefore need to mature quickly in order to be adaptable and agile in response. At the same time, improved ICT investment planning, strategic ICT asset management and relevant governance controls are critical to ensuring long term return on investment.

4.3 Service Demand

Service demand is influenced by Government policy at both State and Commonwealth levels about access, levels of government funding, decisions on the levels of user-pay and the levels of support for teaching and research.

The University must not only be responsive to economic, social and legislative change but should also be a driver of change.

All of these demand pressures, and their potential mitigators, impact on the type and distribution of the physical and ICT assets required by the University.
4.4 Directions

The University’s Strategic Plan provides a medium term horizon against which performance can be measured and which schools and divisions can use to provide direction to their own strategic plans. Fundamental to the development of corporate plans and service delivery strategies is rationalisation of demand against available resources.

Typically, financial, information, knowledge and human resource managers have dominated the service delivery planning process.

However, it is important that managers responsible for the planning and provision and use of physical resources are also involved. The operating expenses of the physical assets over their life far exceed the initial capital cost and are a significant part of service delivery. The involvement of resource managers in the planning process maintains the focus on service delivery and encourages innovation.

4.5 Resource Planning

The delivery of teaching and research services by the University consumes most of its resources. It will be important for the University to have in place good processes for the optimisation of limited resources and this is more likely to occur when resource managers work together at the strategic level.

4.6 Assets

The management of assets by each of the Directorates is outlined below in the attached Appendices. A common format is used in order to provide a standard for the planning, management, and reporting of Assets.

4.7 Domain Specific Plans

Recognising the distinct operationalisation of asset management in each of the built environment and information and communications technology domains, the subsequent sections (collections of appendices) focus separately on each domain.

Facilities

- Appendix A1. Facilities – General Overview
- Appendix A2. Facilities – Strategic Estate Planning
- Appendix A3. Facilities – Capital Planning and Delivery (Ten Year Plan)
- Appendix A4. Facilities – Space Management
- Appendix A5. Facilities – Infrastructure Operations and Maintenance
- Appendix A6. Facilities - Key Performance Indicators

Information and Communications Technology

- Appendix B1. ICT - Introduction and Business Context
- Appendix B2. ICT - General Asset Management Principles
- Appendix B3. ICT - Principles for Specific ICT Asset Classes
- Appendix B4. ICT - Implementation Guidance
- Appendix B5. ICT - Investment Governance
- Appendix B6. ICT - Review Cycle
- Appendix B7. ICT - Related Strategies, Plans and Policies
- Appendix B8. ICT - Asset Lifecycle & Management Schedule
- Appendix B9. ICT - Asset Portfolio Evaluation Framework
Appendix A1. Facilities – General Overview

Objectives

The objectives of facilities asset management are:

- ensure that the facilities support the University’s strategic objectives
- ensure that the needs and expectations of the users of facilities are met
- ensure that the University’s assets are protected, maintained and enhanced
- achieve specified performance levels for
  - functionality
  - condition
  - operation
  - compliance
  - financial performance, and
- manage the risks associated with operation.

Benefits

The benefits of effective facilities management are:

- alignment of asset performance with users’ expectations
- asset performance which is relevant to the users’ productivity and service delivery
- improved user/occupant satisfaction
- predictable asset financial performance through a life cycle cost approach
- improved workplace conditions stimulating worker productivity
- compliance with statutory requirements
- enhanced community perceptions
- environmental compatibility
- extended asset life
- improved performance of building systems
- reduction of waste in operating costs, and
- effective risk management.

Risks

The risks associated with not having effective facilities management in place are:

- buildings which do not meet the users’ functional needs leading to lower productivity in areas of core business
- a shortened asset life requiring earlier replacement than necessary
- breaches of statutory requirements
- unhealthy or unsafe workplaces or workplaces that do not meet the needs of people with disabilities
- lack of public safety for staff and students
- breakdown of systems or loss of assets with consequential associated loss in productivity in teaching and research
- inefficient performance of systems leading to higher operating costs
• inefficient utilisation of space leading to the creation of unnecessary additional space
• unpredictable asset performance leading to unexpected conflicts and costs, and
• adverse environmental impacts.

General

This is a significant investment in physical assets for the University to support our students in their pursuit of gaining a better education, providing key research activities, staff and student accommodation as well as support to the local communities and indigenous groups.

It is estimated that the current property and infrastructure assets represent between 60-75% of the University’s assets, and as such need to be managed and maintained effectively. During 2013 it was estimated that the Gross floor area is approximately 150,000 sq. metres with an estimated ARV of $450M. This has since increased following the merge with CQ TAFE.

To better manage our assets efficiently we need to ensure we are working hard to increase the level if utilisation of all spaces across the University. This is discussed later in this plan.

In supporting the University Mission, for the next two-three years DFM will focus on the core activities listed below:
• space management
• contract management
• operations and maintenance
• property
• asset management and estate planning
• compliance
• energy, environment and sustainability, and
• capital planning and delivery.

Asset Classification

The facilities assets have been classified to allow for improved management assessment, and identification of our assets.

At the highest level the facilities estate is grouped as follows.

Asset Groups
A. Infrastructure (roads, car parks, paths, bridges, utilities)
B. Buildings (includes fixed P&E) – Owned by CQU
C. Buildings (includes fixed P&E) – Leased by CQU
D. Structures (towers, fences)
E. Land
F. Special Plant and Equipment (Fleet vehicles, machinery)

These asset groups are then further broken down in to the following asset classes.

Asset Class
1. Road / car park / bridge
2. Paths / walkways
3. Mechanical/HVAC
4. Hydraulic
5. Fire
6. Security
7. Electrical
8. Grounds/landscaping/sports
10. Fleet/Machinery
11. Special Equipment

These asset groups and classes will be standardised across the CQUiversity estate to allow analysis as a whole University or per campus, or even per building to provide useful comparison.

As we further develop and implement a new asset management system we will establish the hierarchy in a similar manner so that reporting can be provided in a logical way as outlined above. Our general operating budget is already developed with most of these items as headings to allow for an improved understanding of spending and maintenance in each of the main areas per campus.
Appendix A2. Facilities – Strategic Estate Planning

Strategic estate planning is an essential element in the overall management of assets for the University considering the fact that the Estate (buildings and Infrastructure) are the most expensive assets we own, lease, operate and maintain. Through effective medium and long term planning the University can improve itself, potentially save millions of dollars, and deliver improved solutions and outcomes.

Planning will also help us identify opportunities while allowing us to focus on the short term priorities and achieve a healthy Return On Investment (ROI) and value for money solutions. Further to this proactive planning will help improve factors such as:

- functionality & effectiveness
- support to students
- buildability
- maintainability
- life cycle costing
- sustainable development

Objectives

- link to the University Mission, Vision and Strategic Plan
- provide a planned manner in which to develop the University estate
- focus on 2-20 year horizon
- identify opportunities for development to benefit the University
- provide master planning to the University to enable decision making and further planning activities
- provide a functional and effective environment for our students, staff and community
- provide advice on estate development, and
- identification of alternate funding sources.

While DFM will be responsible for the strategic estate planning, it will include key internal stakeholders as part of a planning group. Engagement with others will also be undertaken by the group where required.

A strategic planning group is required to be tasked with the responsibility of developing high level strategic plans relating to the University Estate which could then be further developed in other user groups. The main goal of this group is to be thinking 3-10 years in the future. This is ideally where acquisition and disposal, campus developments, and significant commercial opportunities would be discussed and formulated.

The principles for consideration would include:

- priority should be to refurbish existing buildings to control expansion and ongoing costs
- work together to develop inputs into the future estate planning of the University
- input to and review of the CQUUniversity Estate Master Plans as they are developed and reviewed including a commitment from all to follow established Master Plans
- value each other’s input and learn from our mistakes
- effective and efficient use of facilities
- all space is university space
- identify innovative, effective and efficient ways to grow the University
Acquisition and Disposal

It is important financially that both the acquisition and disposal of assets are planned and well considered. Quick decisions can often lead to long term costly liabilities that could restrict future growth opportunities.

All acquisitions and disposals must follow the appropriate approvals and level of authority at the time within the University.

It would be wise that minor acquisitions (lease or purchase) are identified at least 12 months in advance as it may be difficult to identify a suitable property for a reasonable price. Fit out would normally be additional to this depending on location and approvals required. For any new locations it would be best to provide as much time as possible to ensure the best Return on Investment can be achieved.

Major acquisitions normally require a minimum of two years to complete following a proper due diligence process. This would be undertaken following the approval of a proper business case. It envisaged that these would be discussed at the Strategic Estate Planning Advisory Group prior to finalisation of the Business case and action being taken.

Disposal of Assets should also be planned (to achieve maximum return) where possible and follow the correct procedures at the time.

Master Planning

Master planning is a key element of strategic estate planning. For the University it is comparable to town planning undertaken by Councils for cities. The idea is that each major campus/regional location has master plan that forms an integrated master plan for the University.

These master plans follow the direction provided by the University Strategic Plan. Once in place they should be reviewed every five years and updated when necessary. The idea of the plan is not to be definitive but to provide an overall direction and plan for how a campus can/should develop when considering the various factors in a timely manner. This could include precincts for differing areas, community spaces, future unplanned development, as well as supporting infrastructure.

Some effort was undertaken in 2012 to renew the campus master plans for the regional campuses in a programmed manner, due to the dual sector merger these were put on hold. It is expected these will now be finalised in 2015.
Appendix A3. Facilities – Capital Planning and Delivery (10 Year Plan)

Objectives

The following are the objectives related to the Capital Planning and Delivery aspects of the University:

- align the Usage and delivery of Assets in line with the Strategic Directions of the University
- provide a platform of sustainability for the University
- identify the lifecycle costs associated with the University Infrastructure and Estate
- plan for replacement and upgrades of Assets where required in the life cycle
- delivery of value for money solutions
- develop and maintain a 10 year (min) capital plan
- always consider refurbishing existing infrastructure before building new

Methodology

DFM will seek to engage with all areas of the University to meet the objectives stated above. In particular DFM will seek to develop a number of forums across the University from which to gain and share information, also direction and discussion. It is important that DFM are considered and engaged early in the planning process to ensure key decisions can be made through an informed manner. Examples of such forums would include:

- Capital Planning Group. This group would basically consist of HOC’s, Academic and Research representatives, Budget team, and other key business teams in order to develop a comprehensive single Capital Plan for the University. This is an annual planning activity coordinated by DFM.
- Planning & Delivery. Specific project planning and deliver is performed through active engagement and discussion with stakeholders to ensure delivery in line with the key success factors for the University.

As part of the ongoing responsibility DFM would report to Project Steering Committees, VCAC, Strategic Planning and Projects Committee and Council on major projects.

Carryover projects are identified to ensure accurate budget management and control of expenditure across financial years during the life of a project. No other carryover funds are permitted.

DFM will further develop and undertake works as approved by the University in line with approved business case and funding requests.

The table below is a summary of 10 year plan showing estimated capital spend each year as well as the cumulative spend over 10 years. This graph also demonstrates that there is probably a good understanding of the short to medium term needs (up to five years). After 2018 the estimated spend drops considerably highlighting the need for better data capture and planning. This has commenced with a detailed plant asset audit undertaken during 2013 but not completed in time for the capital budget submission. It is expected that the capital budget to be submitted in 2014 will be much better with increased accuracy and support data.
Renewal

Renewal of suitable assets is an important consideration for the University given its expanding portfolio. Buildings and ageing infrastructure must be considered to determine the remaining life, value, and utilisation of renewal prior to building new assets. This is a philosophy that is gaining favour throughout the University.

The University commenced a renewal program for the Rockhampton Campus in 2009/2010. As a result a number of key buildings were refurbished utilising the University’s own capital funds.

- engineering buildings (28 & 29) - $10.5m
- library building (10) - $7.26m
- buildings 7,8,9 - $1.2M

Additional buildings have been identified for renewal as well with initial cost estimates provided based on basic works. It is anticipated that a renewal program will be developed and contained within the 10 year capital plan.
Appendix A4. Facilities – Space Management

Objectives

Space management has been identified as one of the core activities and responsibilities of DFM. Space management includes the accurate recording of space, planning, using space modelling, application of benchmarks to measure how well space is being used.

Space data collected through space information systems and room utilisation audits are reviewed and compared to:

- obtain an understanding of how well space is being utilised
- assist with the equitable distribution of available space
- identify areas of improvement
- provide a reasonable ROI for built space
- plan space required for teaching, research, community, students and staff
- plan for future growth of the University in a sustainable manner.

Utilisation

During T1 2013 a detailed utilisation audit was undertaken of the teaching spaces on the regional campuses. The audit comprised two separate weeks and consisted of a physical audit of the spaces during each of the allocated class times. The results highlighted that the average utilisation of teaching spaces is 25%. The industry benchmark is 75% and the University decided through the VCAC that it would endeavour to reach this benchmark. The next detailed audit may be undertaken in 2015.

The graph below effectively demonstrates the overall results of the audit, highlighting that our teaching and learning spaces in general are underutilised.

The following are the preliminary recommendations to VCAC following the Teaching Space Audit.

- adopt the industry benchmarks for space use
- continue to refine and improvement on technique and systems to aid in future audits
- information management
- update of computer systems with space types, capacity, responsible faculty or section and/or school or group
- liaise with Faculty and Divisions to adjust and/or develop booking database/s to provide the required audit information: room number; date; time; class name and number of internal enrolments
- define university-wide terminology of space types to streamline booking information and update systems.

- develop mechanisms where utilisation data is reviewed and considered as part of new or refurbished building projects
- seriously consider the size of spaces being built as the class numbers are generally below 20. Make the teaching spaces more flexible so two 20 student spaces can be opened to a 40 student space on the few times it is needed
- consider mothballing some existing spaces to increase utilisation and save on costs
- repurpose some spaces as required
- look to hire out spaces to community or other organisations to gain revenue.

In order to better utilise space DFM “quarantines” vacant space to allow planning, flexibility and creative use of space across the university as a means of increasing utilisation and the student experience.

Principles

A set of Space Management Principles were developed in 2011 and are used to help manage space across the University.

Management and Co-operation

It is envisaged that in order to properly manage space as a commodity across the University it will require the establishment of a Space Planning Group. While DFM has the overall responsibility it is important to create a group whereby space is discussed in order to educate others on the associated costs of space and to ensure the utilisation increases to 75% in an efficient manner.
Appendix A5. Facilities – Infrastructure Operations and Maintenance

Scope

The Maintenance Strategic Plan applies to the maintenance of physical assets. This plan only applies to those assets for which the Directorate Facilities Management (DFM) has been assigned responsibility and does not apply to communications and other groups computing systems/hardware and any special equipment.

Maintenance Mission

The Maintenance Mission is to ensure that the University’s facilities, infrastructure and landscape provide their maximum service potential to meet students’ needs by providing the optimum level of maintenance and care in an ecologically sustainable manner.

The DFM team also subscribes to the following aspects of service as being fundamental to our success:

- responsiveness to client needs
- integrity and quality of service
- minimisation of waste
- equity of opportunity
- environmental awareness
- continuous improvement
- teamwork

Objectives

The University's objectives in maintaining and operating buildings, plant and equipment are to:

- ensure the safe, efficient and continued operation of the University’s property assets
- manage the full life cycle costs of assets
- ensure compliance with legislated requirements
- make opportunities to improve functionality across the estate
- improve the information contained in the University's asset database

Definition

The University's physical assets are maintained in accordance with Maintenance Plans for buildings, building services, infrastructure and landscaping. The plan covers the requirements for statutory maintenance, preventive maintenance, reactive/emergency maintenance, deferred and backlog maintenance and bushfire management. The maintenance plans include conditioned-based assessment through comprehensive facilities audits.

Maintenance strategic planning is the process that provides a strategic link between the University's maintenance program and its primary focus of teaching, learning and research.

The Maintenance Plan is linked with the Capital Investment Plan and with the Operations Plan.

Maintenance is defined as all actions necessary for retaining an item or asset in, or restoring it to, a condition in which it achieves its originally specified service potential. It does not include cleaning or refurbishment.

Maintenance

The majority of maintenance is currently conducted as a reactive service by DFM. DFM coordinates preventative/planned maintenance on air conditioning, fire services and high voltage (HV) infrastructure by engaging specialist contractors under annual corporate contracts.
a) Reactive/Emergency maintenance

Reactive/Emergency maintenance on the University’s property assets is the responsibility of DFM and is provided through a combination of in-house staff and contractors. DFM addresses maintenance problems arising from building plant and equipment, as well as the functioning of campus-wide services such as power, water, gas, fire, sewer and stormwater.

The forecast expenditure for reactive/emergency maintenance has been derived from historical data and expert opinion. DFM is regularly reviewing the maintenance needs and expenditure of the University’s property assets to achieve a more strategic and life cycle cost approach.

b) Preventative Maintenance

Preventative maintenance is the maintenance of equipment, facilities and infrastructure to keep it in a satisfactory operating condition by systematic inspection, detection; and correction of failures either before they occur or before they develop into major defects.

DFM ensures that equipment, facilities and infrastructure is serviced and maintained in accordance with the recommended manufacturer specifications by using in-house staff and contractors.

c) Deferred and Backlog Maintenance

Deferred and backlog maintenance is carried out whenever possible giving consideration to budgetary constraints and prioritising of other statutory maintenance and compliance needs.

Completion of building condition and compliance audits will assist in future programming of deferred and backlog maintenance.

Statutory Requirements

Some maintenance must be done to comply with a vast variety of acts, regulations and standards as well as to ensure the continued retention of asset value and service potential.

The Occupational Health and Safety Act (2000) require the maintenance of air conditioning for occupant comfort and to prevent further health risks such as Legionella. The maintenance of lifts, fire safety systems, emergency lighting systems, and evacuation systems is also prescribed. The Act also imposes obligations on the University to provide a safe workplace.

The Environmental Protection Act requires that waste systems for air, water and noise be maintained within prescribed limits. Elimination of ozone-damaging refrigerants requires replacement and containment procedures to be in place.

Legislation requires that comprehensive asbestos registers are in place and that a plan for its containment and/or removal exists.


Plumbing and Drainage Regulations (National Plumbing and Drainage Code) (Plumbing and Drainage Regulations 2003) (AS3700) (AS2850) outlines the maintenance and operating procedures of Plumbing and Drainage systems across Campus.

In addition, while not necessarily classed as statutory maintenance, insurance underwriters require effective maintenance in order to minimise risk of loss either through theft or damage by wind or rain.
Maintenance Strategy

The CQUniversity Maintenance Policy statement is:

‘The standard and frequency of maintenance will be such as to optimise life-cycle costs for the assets’

Maintenance of assets is carried out to ensure that our facilities and landscape provide their maximum service potential to meet our clients' needs. This is achieved by providing the optimum level of maintenance and care in an ecologically sustainable manner.

The physical assets of the University will be maintained in order to deliver their maximum service potential in the following order of priority:

1. Maintenance required by legislation in accordance with regulations and as further set out in codes of practice and preventive maintenance schedules
2. Reactive/emergency maintenance is the most appropriate way to achieve customer satisfaction and not compromise the integrity of assets
3. Critical service areas by the use of preventive maintenance techniques
4. Any deferred and backlog maintenance which accrues in priority as determined to eliminate risk

Performance will be measured against best practice and be reviewed regularly for improvement.

The Maintenance Strategy is built upon the following goals:

The following goals have been identified to ensure the CQUniversity estate can be maintained appropriately going into the future. A number of these goals are dependent on resource and budget availability.

**Maintenance Goal 1**

Maintenance required by legislation will be performed in accordance with regulations and as set out in codes of practice and preventive maintenance schedules.

All statutory maintenance is listed on preventive maintenance schedules in advance of the time that the work needs to be done. The work is assigned to trades staff or contractors by the relevant supervisor and recorded when completed.

Whenever new assets are acquired, the necessary statutory maintenance requirements are added to the asset register and details of preventative maintenance schedules are included along with all other maintenance requirements.

Any new requirements for existing assets arising out of changing legislation are also added to the asset register as they are identified. All supervisors and relevant trade staff have responsibilities for identifying these requirements. The asset register should be regularly updated as required.

Some examples of statutory maintenance requirements are:

- fire safety systems such as fire alarms, hose reels, hydrants, fire doors and closers, fire dampers, emergency and exit lighting systems, and landing valves, emergency evacuation systems
- lifts and hoists
- air-conditioning systems
- exhaust systems
- cooling towers and evaporative condensers
- reflux valves
- RPZ Valves, backflow testing
- warm water systems
Maintenance Goal 2

Reactive/emergency maintenance will be done in response to requests for maintenance from the users, when identified as being required by DFM, or when identified through a condition-based facilities audit.

All maintenance requests are managed through the maintenance management system and are prioritised by urgency.

The maintenance management system records details of cost including labour and materials, contracts and actual response time.

The following are the response standards which facilities management clients could expect from calls for maintenance to the Technical and Services Assistance Centre (TaSAC) help desk. Response times are measured from when a client reports the maintenance fault to TaSAC until the time a tradesperson attends site to inspect, make initial repairs, isolate services and minimise hazard to personnel and property as required.

Table 1. Response standards

<table>
<thead>
<tr>
<th>Action</th>
<th>Response Parameters</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 1 – classification of areas for attention:</td>
<td>Priority 1 – Upon receipt of notification, within 2 hours.</td>
<td>95%</td>
</tr>
<tr>
<td>Burst Water pipes, Energy outages (eg, reset circuit breaker, loss of power), Essential air-conditioning (eg, animal houses, main computer room), and Essential ventilation. Failure of low temperature freezers/fridges. Gas leaks, passengers trapped in lifts, fires, broken glass, blocked sewerage, toilets, soil lines, Electrical faults (identified as potentially dangerous), Cold Room failures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 2 – classification of areas for attention:</td>
<td>Priority 2 – Upon receipt of notification, within that working day of notification.</td>
<td>95%</td>
</tr>
<tr>
<td>Blocked storm water drains, broken doors (external), major roof leaks, broken glass (internal/external), broken locks (external), broken door handle, door jammed, air-conditioning failures (in buildings with inoperable windows). Air-conditioning failures (lecture theatres), Fume cupboard failures, water leaks, reverse osmosis equipment/deionisers, malfunctioning whiteboards/blackboards, running taps (hot water), no water, flickering fluorescent lamps (teaching rooms), emergency and exit lighting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 3 – classification of areas for attention:</td>
<td>Priority 3 — Upon receipt of notification, within three (3) working days of notification.</td>
<td>90%</td>
</tr>
<tr>
<td>Flickering fluorescent lamps (open areas), failed hot water systems, minor roof leaks, security lighting (external), faulty toilet cistern, toilets running constantly, toilet seat broken, stair lighting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 4 – classification of areas for attention:</td>
<td>Priority 4 – Upon receipt of notification, within two (2) weeks of notification.</td>
<td>90%</td>
</tr>
<tr>
<td>Dripping taps, failed lamps, torn carpets, pipe work insulation, non-essential air conditioning, pest problems, broken door closer, internal painting (essential), external painting (essential), electrical faults (non-dangerous), rusted box gutters, leaking (external downpipes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 5 – classification of areas for attention:</td>
<td>Priority 5 – Upon receipt of notification, works to be programmed.</td>
<td></td>
</tr>
<tr>
<td>Resurfacing bench tops, repairs to caulking, internal painting, external painting, road resurfacing, kerb and channelling repairs, painting repairs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following are the completion standards which DFM clients should expect. Completion times are measured from when a tradesperson responds to the maintenance fault (see above service levels for response) until the required repairs are completed. Completion time is the date and time the work was completed or re-prioritised.

Table 2. Completion standards

<table>
<thead>
<tr>
<th>Action</th>
<th>Response Parameters</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Reactive/Emergency Maintenance Work Orders - Priorities 1 and 2</td>
<td>Priorities 1 and 2 – Upon responding to initial call, completion within five (5) working days given availability of parts, otherwise within five (5) working days of availability of parts.</td>
<td>85%</td>
</tr>
<tr>
<td>Completion of Reactive/Emergency Maintenance Work Orders - Priorities 3 and 4</td>
<td>Priorities 3 and 4 – Upon responding to initial call, completion within ten (10) working days given availability of parts, otherwise within ten (10) working days of availability of parts.</td>
<td>85%</td>
</tr>
<tr>
<td>Completion of Reactive/Emergency Maintenance Work Orders - Priority 5</td>
<td>Priority 5 – Completion in accordance with the program set for this work after appraisal and planning.</td>
<td>85%</td>
</tr>
</tbody>
</table>

Maintenance Goal 3

Critical service areas will be supported by the use of preventive maintenance techniques.

Those areas where a breakdown of plant or failure of a system will have an adverse effect on the operations of the University will be supported by preventive maintenance techniques. Some examples of those facilities where these measures are necessary are:

- air-conditioning in facilities where there are no windows and the only form of ventilation is by the air-conditioning system. All lecture spaces and some office spaces fall into this category
- pumps and infrastructure providing the water supply to the site
- substations and ring main units
- services to computer rooms
- fume exhaust systems which are necessary for research as well as for health and safety
- laboratory services such as compressed air, vacuum, demineralised water and gas
- the chiller plants on each campus and their associated infrastructure
- roof and gutter cleaning

In such cases a risk analysis will be carried out to determine the appropriate level of preventive maintenance.

Maintenance Goal 4

It is planned to undertake a condition based audit of all regional campuses; this will identify deficiencies as well as measure performance.

The audit will be used to determine the overall condition of the asset at a point in time and to plan future maintenance needs based on the work identified as being necessary then or which may become necessary in the next 5 years.

The information will be used to determine the Facility Condition Index for the asset and for the University by aggregation. The target benchmark is 0.95 which would indicate that the University’s assets are at 95% of their “as new” condition or service potential.
Facility indexes are established during facility audits by applying the following criteria.

**Facilities Condition Audits and Maintenance Reviews**

Maintaining facilities in a good state of repair and avoiding future unnecessary and costly repairs requires the long-term commitment of adequate resources for essential and adequate maintenance.

The components of an effective maintenance management program are the:
- identification of the problems
- planning for maintenance both technically and physically
- allocation of funding commensurate with the need.

**Identification of Maintenance Problems by Facilities Condition Audit**

Facilities Condition Auditing is part of the ongoing program of asset management.

An effective Facilities Condition Audit evaluation system includes:
- inspect buildings by components on the basis of physical analysis
- provides a functional analysis of the facilities
- evaluates different components of the analysis to produce a final assessment
- provides a final determination of conditions which is usable as a basis for future surveys
- provides data that can be used for setting and justifying priorities.

The purpose of a facilities condition audit is to evaluate the functional and physical adequacy of campus facilities with particular reference to building fabric and building services components in order to provide an input for life cycle cost analysis, short-term maintenance planning and long-term planning purposes. The concept has been extended by Facilities Management to include site services, infrastructure and landscaping.

A comprehensive approach should be taken to include a description of a building’s characteristics, the existing condition of building components and an overall facility rating (a numerical value) for physical and functional condition. Maintenance aspects are noted and recorded as part of the audit.

The comprehensive audit approach provides four outputs:
- a description of a building’s major components
- an analysis of a building’s condition
- a costed list of maintenance items prioritised according to risk, condition and functionality
- an overall rating of a building’s condition.

**Life Cycle Costs**

It is planned to regularly review the University’s maintenance activities in order to optimise expenditure. As a result of these reviews, Preventive maintenance frequencies will be periodically examined to see if there can be some reduction in frequency.

Over-servicing can be as damaging as under-servicing. Some "mean times between services" can be expanded as a result. In other cases, life cycle costs may warrant capital expenditure to reduce long-term operating costs, not only for maintenance, but also in cleaning and energy.
Table 3. Condition Ratings

<table>
<thead>
<tr>
<th>Conditional status</th>
<th>General description</th>
<th>Facility Condition Index</th>
<th>Condition Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolish</td>
<td>Asset has deteriorated badly; serious structural problems; general appearance is</td>
<td>≤ 0.19</td>
<td>C5</td>
</tr>
<tr>
<td></td>
<td>poor with eroded protective coatings; elements are broken, services are not</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>performing; significant number of major defects exist.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>Asset is in poor condition; deteriorated surfaces require significant attention;</td>
<td>0.49 ≤ 0.20</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td>services are functional but failing often; significant backlog maintenance work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>exists.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>Asset is in average condition; deteriorated surfaces require attention; services</td>
<td>0.74 ≤ 0.50</td>
<td>C3</td>
</tr>
<tr>
<td></td>
<td>are functional, but require attention; backlog maintenance work exists.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>Asset exhibits superficial wear and tear, minor defects, minor signs of</td>
<td>0.94 ≤ 0.75</td>
<td>C2</td>
</tr>
<tr>
<td></td>
<td>deterioration to surface finishes; but does not require major maintenance; no</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>major defects exist.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Good</td>
<td>Asset exhibits superficial wear and tear, minor defects, minor signs of</td>
<td>≥ 0.95</td>
<td>C1</td>
</tr>
<tr>
<td></td>
<td>deterioration to surface finishes; but does not require major maintenance; no</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>major defects exist.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maintenance Goal 5

Deferred and backlog maintenance will be prioritised in accordance with risk and will be completed as funding becomes available in order to eliminate those items of highest risk to the University.

Any deferred and backlog maintenance as determined by priority will be conducted to eliminate risk wherever possible.

Risk Rating

A risk rating is assigned based on an assessment of the risks resulting from the condition of the asset element inspected. Risks may include occupational health and safety issues, random failures which may cause significant disruptions or safety related issues or collateral damage to other elements.

Table 4. Risk Ratings

<table>
<thead>
<tr>
<th>Risk Status</th>
<th>General Description</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory maintenance</td>
<td>Asset is either unusable in current condition or should not be used in current</td>
<td>R5</td>
</tr>
<tr>
<td></td>
<td>condition. Immediate high risk to security, health and safety, property damage;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>significant cost implication.</td>
<td></td>
</tr>
<tr>
<td>Requires significant risk management</td>
<td>Major disruption to service capability. High probability of risk to health and</td>
<td>R4</td>
</tr>
<tr>
<td></td>
<td>safety or property; high cost implication/financial loss. Requires high levels of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intervention.</td>
<td></td>
</tr>
<tr>
<td>Below general standard, requires some risk</td>
<td>Intermittent disruptions and inconvenience to operations. Probability of risk to</td>
<td>R3</td>
</tr>
<tr>
<td>management</td>
<td>health and safety or property is minor; medium level cost implication. Requires</td>
<td></td>
</tr>
<tr>
<td></td>
<td>regular checking and monitoring.</td>
<td></td>
</tr>
<tr>
<td>Reasonable standard</td>
<td>Intermittent, minor inconvenience to operations. Probability of risk to health and</td>
<td>R2</td>
</tr>
<tr>
<td></td>
<td>safety or property is slight; low cost implication. Does not require regular</td>
<td></td>
</tr>
<tr>
<td></td>
<td>checking and monitoring.</td>
<td></td>
</tr>
<tr>
<td>Maintained at good general standard</td>
<td>No effect on service capability. No risk.</td>
<td>R1</td>
</tr>
</tbody>
</table>
Importance Rating

An importance rating is assigned based on an assessment of the importance of the element or facility to the overall operation of the University. By way of example, it is important that the appearance and performance of the Vice-Chancellor's Office and building is at a high level or that high profile teaching or research facilities which have strategic importance are maintained to a very good standard. On the other hand, storage sheds may be less important to the strategic mission of the University.

Table 5. Importance ratings

<table>
<thead>
<tr>
<th>Importance Status</th>
<th>General Description</th>
<th>Importance Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>Buildings and facilities which have a high public profile or to which benefactors or official visitors to the University are often invited, eg. Chancellery, Library, major Lecture Theatres, Performing Arts venues, Galleries.</td>
<td>I5</td>
</tr>
<tr>
<td>Important</td>
<td>General University buildings for teaching, research and administration and which are of a permanent construction.</td>
<td>I4</td>
</tr>
<tr>
<td>Fair Importance</td>
<td>Temporary buildings or facilities which need to remain active and in use but which would be replaced by a permanent building if funds were available.</td>
<td>I3</td>
</tr>
<tr>
<td>Low importance</td>
<td>Facility is usable as is and is not to be replaced</td>
<td>I2</td>
</tr>
<tr>
<td>Not important</td>
<td>Facility is due for demolition or otherwise has a very low use or profile.</td>
<td>I1</td>
</tr>
</tbody>
</table>

Functionality Rating

A functionality rating is assigned based on an assessment of the suitability of the element or facility in order for it to deliver its nominated service potential. The functionality rating is a measure of the building’s adaptability, efficiency of space and utilities usage, and the expenditure required to refurbish the facility for its new intended use (as indicated by the Facility Functionality Index).

Table 6. Functionality ratings

<table>
<thead>
<tr>
<th>Conditional Status</th>
<th>General Description</th>
<th>Facility Condition Index</th>
<th>Condition Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not functional</td>
<td>Facility is very inefficient in the use of utilities, has a spatial efficiency of less than 40%, or requires more than 80% of estimated asset value to refurbish.</td>
<td>( \leq 0.19 )</td>
<td>F5</td>
</tr>
<tr>
<td>Low functionality</td>
<td>Facility has a spatial efficiency between 40% and 50% and requires between 50% and 80% of estimated asset value to refurbish.</td>
<td>( 0.49 \leq 0.20 )</td>
<td>F4</td>
</tr>
<tr>
<td>Fair functionality</td>
<td>Facility has a spatial efficiency between 50% and 65%, has accessible service paths although services are out of date, and requires between 25% and 50% of estimated asset value to refurbish.</td>
<td>( 0.74 \leq 0.50 )</td>
<td>F3</td>
</tr>
<tr>
<td>Functional</td>
<td>Spatial efficiency is between 65% and 75%, services are reasonably up to date and have spare capacity, requires less than 25% of estimated asset value to refurbish.</td>
<td>( 0.94 \leq 0.75 )</td>
<td>F2</td>
</tr>
<tr>
<td>Very functional</td>
<td>Spatial efficiency is over 75%, building layout is very flexible and can be adapted with minimal effort, requires less than 5% of estimated asset value to refurbish.</td>
<td>( \geq 0.95 )</td>
<td>F1</td>
</tr>
</tbody>
</table>

Overall Rating = \( [(C \times 50\% + R \times 25\% + I \times 10\% + F \times 15\%) \times 20\%] \)
The Overall Rating is used to provide guidance in the allocation of resources to projects.

The facilities condition audit also reveals the extent of backlog and deferred maintenance which the University needs to address. Over time, the information is used to show trends.

To achieve a facility condition index of 0.95, the total value of backlog and deferred maintenance must be not more than 5% of the estimated asset value.

This system is to be introduced into the University commencing in 2015.

**Maintenance Management Responsibilities**

Maintenance management policy is established by DFM within the overall policies for management of the University's assets set by the Audit, Risk and Finance Committee of the University Council.

DFM is responsible for development of policy under management of the Director and shall monitor the implementation and effectiveness of maintenance on each campus through the Facilities Audit process and other performance measures.

Maintenance supervision on each campus is the direct responsibility of the Campus Maintenance and Operations Supervisors who shall adopt a combination of contract and employed staff and resources for the implementation of the policy in order to ensure the delivery of the required service level.

**Resources**

**Adequate funding of preventative, emergency, unplanned and reactive maintenance**

Facilities maintenance is funded by an ongoing budget approved through University Council for a program for the upkeep and preservation of buildings, equipment, roads, grounds, and utilities required to maintain CQUniversity property in a condition adequate to support the University's mission.

Maintenance in this normal program includes the planned, preventive, emergency, as well as the unplanned or reactive maintenance required to provide a safe, healthy and secure environment. Each type of maintenance is utilised by the different operational maintenance plan functions to complete their tasks. At times the University defers certain maintenance work due to budget constraints. This maintenance work constitutes a deferred maintenance backlog.

**Maintenance Funding Projections**

Facilities management condition audits are planned to be conducted annually and will indicate the value of backlog and deferred maintenance required for all campuses.

Expenditure for preventive and reactive/emergency maintenance can only be prioritised when allocated budget for this work is approved.

**Allocation of Resources for Maintenance within Facilities Management**

Generally, the allocation of resources for maintenance between campuses will be made to the respective campus when the funding to DFM allows.

If resources to DFM are reduced by the University then the allocation to campuses will be reduced generally by priority.

**Facilities Management - Computerised Maintenance Management System**

DFM operates a Computerised Maintenance Management System (CMMS) to record, monitor and track all work for maintenance, landscaping, minor works, alterations and additions.
The system does not provide all required information and alternate CMMS are being investigated for applicability and possible acquisition in future. Any new prospective system will be required to provide information on the costs of all jobs and performance measures such as completion times against target. The system should allow a method for noting recharging costs to other responsible departments. It is noted that management by data is a future key requirement in DFM.

**Maintenance Operations**

Facilities operation is the provision of day-to-day services required to operate the University's buildings and grounds. The University's expectation is that the campus will operate its Facilities in the most efficient manner to provide timely, effective, and economical plant operation in support of the University's requirements.

Preventive emergency and unplanned maintenance is provided through in house and outsourced vendor contracts. CQUuniversity currently maintains a number of contracts for services that include elevator maintenance, pest control, water treatment, air-conditioning maintenance, fire maintenance, and emergency lighting maintenance. These vendors are selected through a competitive tendering process based upon qualifications, experience, and the ability to provide services, appropriate staffing levels, and overall value to CQUuniversity. DFM staff and nominated campus staff on all Campuses oversee the performance of the outsourced vendors and are responsible to ensure the quality of services and compliance with the vendor contracts.

Maintenance operations on each campus are directly managed by the Maintenance and Operations Supervisors and nominated staff appointed.

**Future Planning - 1 to 10 Year Term**

The following items are planned for implementation:

- CMMS upgrade (1-3 years)
- Introduction of Condition Based Maintenance for critical equipment (5 – 10 years)

**Computerised Maintenance Management System (CMMS)**

A CMMS maintains a computer database of information about an organisation's maintenance operations. This information is intended to assist maintenance staff to be more effective in maintaining the infrastructure of the University. A CMMS assists with and provides a repository for information in relation to the following:

- determining priorities for repairs
- assist management make informed decisions
- assist in calculating costs
- assist in decisions regarding repair versus replacement
- CMMS data assists in verifying compliance
- CMMS schedules work tasks and allows assignment of various trades or non-trades personnel
- CMMS records costs and resource usage against tasks and tracks relevant information such as the cause of the problem, downtime involved and recommendations for future action
- CMMS automatically schedules preventive maintenance based on maintenance plans and/or Original Equipment Manufacturer (OEM) recommendations.

**Archibus**

Archibus is a CMMS that has been identified as being ideal for CQUuniversity's needs for now and into the future.

The Archibus CMMS has concentrated expertise in the education industry and is currently being used by most of the major Universities in Australia.

Archibus has the capability to assist in providing compliant facilities and related infrastructure while minimising operating costs.
DFM believe that Archibus is the most appropriate replacement for MEX for the following reasons:

- asset management is enhanced through greater historical data collection
- programming of planned maintenance is uncomplicated
- allocation of resources and costs to single tasks is possible
- ability to link multiple sub-tasks to a major or primary task
- space management:
  - Archibus can maximise funding and Indirect Cost Recovery (ICR) through accurate, defensible space utilisation data
  - Archibus creates a central information repository to better analyse space allocation scenarios and improve strategic space planning
- Archibus streamlines the work order process to improve productivity and customer satisfaction. It is user friendly
- creates better opportunities to share knowledge and information across a large number of Universities
- provides excellent opportunities for enhanced analysis and informed decision-making
- Archibus has a number of modules available including a fleet management module; this would assist greatly as currently all Fleet data is prepared manually in spread sheet form.

**Condition Based Maintenance (CBM)**

CBM is maintenance that is conducted ‘when the need arises’. This maintenance is performed after one or more indicators show that equipment is going to fail or that equipment performance is deteriorating.

CBM is based on using real-time data to prioritise and optimise maintenance resources. Observation of the state of the system is known as condition monitoring. Such a system will determine the equipment's health, and actions will be taken only when maintenance is actually necessary. CBM is typically only used on critical or essential equipment.

DFM does not currently conduct CBM on any University equipment. There are some types of equipment/systems that DFM has identified as critical and plans to introduce CBM methodology to maintain in the future. The following systems/equipment has been identified where CBM would greatly assist DFM:

- air-conditioning - water chilled systems
- high voltage systems
- emergency generators

Ideally CBM will allow DFM to do only the right thing at the right time for our critical equipment/systems, minimising spare parts costs, system downtime and time spent on maintenance.

**Operations**

**Scope**

The scope of facilities operations management in this document refers to the sites, buildings, building services and infrastructure of services to support those sites and buildings, on all the University’s campuses.
Elements of Facilities Operations

The elements of facilities operations are shown in the diagram below.

DFM is guided by corporate policies which are implemented at campus level. DFM has responsibility for:

- security and access control
- vehicle fleet management
- cleaning and waste management:
  - cleaning
  - waste collection and removal
  - recycling
  - hazardous waste management
- management of utilities
- management of services infrastructure to meet changing demands;
- local energy management initiatives within overall energy management policies

Specific operational plans for each campus and service type are structured around a common foundation. All facilities management operations revolve around a structured Physical Asset Register.
Security

The actions/strategies are an outline of what needs to be done to meet the objectives and take action with the security risks identified in the threat assessments, or meet the controls needed to give assurance in asset sharing agreements.

The supporting documents, Security Manual and Procedures & Guidelines are designed to provide a safe environment for staff, students and visitors and to protect the University’s assets and property.

Scope

Given the nature, size and geographic factors associated with a multi-campus multi-state structure an integrated and layered approach to security has been adopted.

Layer One - awareness by all members of the University (staff and students), with the goal being that they take responsibility for their own safety, personal property and the property of the University.

Layer Two – surveillance; the goal being for DFM to provide appropriate physical and electronic resources to monitor activity on campuses.

Layer Three – deterrence combined with response. In this case the goal is that effective and appropriate response measures are in place to deal with any actions, activities or incidents that may arise.

CQUUniversity Security aims to be proactive in the service provided wherever possible. This entails working with Staff and Students to promote a safety/security conscious culture where:

- people take responsibility for their own safety
- people encourage others to take responsibility for their own safety
- people feel empowered and not threatened
- people report suspicious incidents and behaviour
- people are supportive of each other
- people are encouraged to come up with ideas to enhance safety and security
- people respect security staff
- buildings and campus locations are designed with safety and security as a fundamental consideration.

Mission Statement

“To provide a high level of security and safety for students, staff and visitors and protection of university property in an environment conducive to learning and working, while considering the available resources.”

Objectives

The primary objective of CQUUniversity security is to provide a combination of security principles that prevent and deter; make people aware; provide surveillance and access control and response to Security or Emergency situations/incidents.

Policy

The CQUUniversity Security Policy maintains that staff and students, buildings and campuses will be safe and secure and promotes an organisational culture that appreciates the value of security.

Operational Plan

CQUUniversity Security Operational Plan supports the following plans of awareness, surveillance, deterrence and response:
Goal 1 – Awareness

CQUniversity security strategies for raising awareness are:

- Building and maintaining stronger relationships with the campus community
- Developing a community partnership with staff and students
- Develop Innovative ways of communicating with students
- Community engagement
- Crime prevention

The first step in promoting security awareness at CQUniversity is the formation of publications and dissemination of information, policies, practices and procedures.

The Security team will promote a range of materials developed and adopted by DFM about security, access to buildings and facilities, availability of facilities for use and other specialist services as they apply to the campuses. Facilities Management will publish security information on the DFM Portal.

DFM Security continually monitors and reports on crime to develop a ‘picture’ of activity which can be used to develop strategies and undertake appropriate measures to minimise that activity through University community participation.

Goal 2 – Surveillance

Ensure that appropriate resources exist to monitor activity on campus.

Surveillance relates to the monitoring of activities within an area. The Fundamental idea of Crime Prevention Through Environmental Design (CPTED) is that it is possible to use knowledge and creativity to design those built environments in ways that lessen or prevent the incidence of such crime.

Natural surveillance is a design concept that aims to keep potential offenders and intruders under observation through the creation of environments where there is sufficient opportunity for people engaged in their normal behaviour to observe the space around them.

In order to provide a cost effective surveillance presence, DFM rosters the minimum amount of security hours to meet the needs of the University community through random patrols, security escorts, etc. CQUniversity security is also supported on all campus with security guards and closed circuit television (CCTV).

In the event that DFM becomes aware of an extraordinary event such as a student demonstration, DFM has the authority to call in additional guards at short notice.

Goal 3 – Deterrence and Response

Ensure effective and appropriate deterrent and response measures are in place to deal with any actions, activities or incidents that may arise.

The primary strategies for prevention and deterrence are:

- The adoption of Crime Prevention Through Environmental Design (CPTED) principles. CPTED principles are adopted at the design stage of a building and checked by the Project Manager and the Maintenance and Operations Supervisor during construction.
- The use of physical and electronic security measures. Primary physical measures include: locking systems, appropriate signage, effective lighting and the effective use of static and mobile patrols. Primary electronic measures include alarms and access control.

CQUniversity aims to restrict access to buildings through a combination of electronic and physical keying.

Secondary means of deterrence include the use of Closed Circuit Television (CCTV).

New technology will be reviewed for its applicability to existing functional requirements.
The primary means of response is the effective application of physical measures, principally security guards, and the review and modification of policies, procedures, practices and systems as deficiencies are identified.

Specific goals for CQUniversity security are:

- improve and expand the CCTV surveillance of all campuses
- improve access to buildings through the use of electronic swipe cards & keying systems and electronic locks.

**Performance Measures**

DFM will monitor the cost effectiveness by the adoption of performance indicators which measure outputs, outcomes and inputs and by benchmarking against other institutions and organisations.

**Current Performance Indicators Include:**

- satisfaction rating (as per customer satisfaction survey)
- number of complaints and compliments received per period, and
- number of security incidents by classification.

**Fleet Management**

**Scope**

The provision, allocation and utilisation of motor vehicles at CQUniversity regional campuses are managed by DFM. This plan applies to enable effective and efficient utilisation of the University vehicle fleet, thereby reducing overall capital outlay, maintenance and running costs, whilst providing a service to CQUniversity staff.

**Mission**

*The Mission of the Fleet Management organisation within DFM is to provide a high level of vehicle fleet service to CQUniversity staff, whilst reducing overall capital outlay, maintenance and running costs*”

**Objectives**

Ensure that appropriate controls are in place and that fleet vehicles are adequately managed on an ongoing basis. All aspects of CQUniversity vehicle fleet management are facilitated by DFM.

**Policy**

The CQUniversity vehicle fleet management usage and guidelines are contained within the following documents:

- Motor Vehicle Policy
- Motor Vehicle Procedures

**Definitions**

Fleet Vehicle - a Fleet Vehicle is a motor vehicle that is owned by CQUniversity and is available to staff for short term general University business use, at no cost to the user.

**Operational Plan**

The goals and strategies which are in place to achieve these goals are as follows:

**Goal 1 – Fleet Composition**

Ensure that a variety of vehicle types are included in the vehicle fleet to meet the demands of CQUniversity’s operations.

DFM are responsible for the acquisition and disposal of fleet vehicles and will ensure that the vehicles within the fleet meet the sometimes changing requirements of the University.
Goal 2 – Availability

Ensure that vehicles are maintained, cleaned and prepared for use when and where they are required for the conduct of University operations.

DFM will ensure that the fleet is maintained to a high standard of serviceability and cleanliness and that there is a vehicle available for loan when required at least 85% of the time.

Goal 3 – Cost Effectiveness

Ensure that maximum efficient utilisation of the vehicle fleet is achieved thereby reducing overall capital outlay, maintenance and running costs.

Performance Measures

DFM will monitor the cost effectiveness by the adoption of performance indicators which measure outputs, outcomes and inputs and by benchmarking against other institutions and organisations.

Current performance indicators include:

- gathering statistical data:
  - continued improvement to ensure efficient/effective utilisation
  - fuel and servicing costs
  - trend usage to ensure the fleet compilation meets the needs of the users
  - possible reduction/rationalisation of the fleet.

Cleaning and Waste Management

The University’s physical assets are cleaned and waste is removed or recycled in accordance with this Cleaning and Waste Management Operational Plan.

The plan provides an operational link to the Facilities Strategic Asset Management Plan for buildings, building services and infrastructure.

The Operational Plan covers the requirements for:

- the regular cleaning of all internal rooms
- the provision of periodical or special cleans of spaces or elements of buildings or the grounds
- hygiene services
- the removal of general waste to landfill
- the removal of clinical waste in accordance with statutory requirements
- recycling of materials
- pest control

Scope

The Cleaning and Waste Management Plan applies only to the cleaning of non-current or capital physical assets. These assets are those which have an expected life longer than one accounting period (financial year). This plan only applies to those assets for which DFM has been assigned responsibility and does not apply to communications and computing systems or hardware.

Mission

“The Mission of Cleaning and Waste Management within DFM is to provide a clean and environmentally safe and healthy workplace at best value for money”
Objectives

The objective of Cleaning and Waste Strategic Plan is to provide a clean and environmentally safe working environment.

Policy

The Cleaning and Waste Management Policy of the University is two tiered:

- The standard and frequency of cleaning will be such as to provide a clean and environmentally safe workplace at optimum cost.
- The waste hierarchy will be promoted to achieve more sustainable environmental outcomes and to minimise waste disposal costs.

Performance shall be measured against best practice and be reviewed regularly for improvement.

Effective cleaning management yields the following benefits:

- facilities and services will be available to meet University needs when required
- operations will be in accordance with relevant legislation, in particular health and safety
- customer satisfaction will be good or better

Definitions

Cleaning is defined as all activities designed to reduce contamination to an acceptable degree. It may include dispersion and removal of solids, physical scrubbing, flushing, draining, disinfection, etc. Regular cleaning helps maintain the service life of fixtures and fittings eg. carpets etc. therefore cleaning is by default, maintenance.

Waste includes anything that is:

(a) left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity, or
(b) surplus to the industrial, commercial, domestic or other activity generating the waste.

Construction or demolition waste means waste resulting from carrying out a construction or demolition activity, but does not include paper, cardboard, unseasoned timber, vegetation, and regulated waste.

General Waste means waste other than regulated waste, but not “Construction and Demolition Waste” as defined above.

Special waste means industrial or commercial waste mentioned in Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation (2008). In particular, the following are forms of Special Waste dealt with by the University:

- clinical and related waste is waste that has the potential to cause disease. Clinical and related waste is cytotoxic and restricted pharmaceutical drug waste and human body parts (ie, recognisable organs, bones and gross body parts but excluding teeth, gums, hair, nails or bone fragments), or animal carcasses that are infected with cytotoxic or restricted pharmaceutical drugs and associated animal bedding and excreta.
- used oils and expired chemicals is waste that has been generated by servicing vehicles and machinery and chemicals that require disposal at a regulated site.
- environmental waste is waste generated via the cleaning of vehicles and marine craft in wash down bays to remove marine growth or to prevent the transfer of noxious weeds etc which requires collection and disposal so as not to re-enter the environment.

Recycling is the process of collecting, sorting, cleansing, treating and reconstituting materials that would otherwise become General Waste, and returning them to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.
Operational Plan

The Cleaning and Waste Management Operational Plan supports the following goals in the Facilities Strategic Asset Management Plan:

Goal 1

Adopt and promote the waste hierarchy:

- avoid
- reduce
- reuse
- recycle
- disposal

The strategies for this goal are tightly linked to all other goals.

Goal 2

To provide cleaning to all University facilities at the best value for money.

This goal will be achieved through:

- environmentally sound specifications
- linking the cleaning operation to the University’s objectives
- managing customer expectations
- managing the contract through − scheduled and random inspections, and by reviewing feedback in satisfaction surveys

Goal 3

Ensure the efficient collection and environmentally sustainable removal and disposal of waste on each campus.

This goal will be achieved through:

- specific waste management policy’s in the scope of works for projects
- specific waste management policy’s for all maintenance contractors
- education and behavioural change to University users
- investing in an efficient recycling collection system.

To achieve both environmental and sustainable outcomes a recycling scheme will be developed for all campuses. This scheme will promote recycling by grouping recyclable products such as glass, PET plastics and cartons in co-mix recycling bins. Paper is currently recycled through the collection of cardboard industrial bins and paper recycling wheelie bins.

Goal 4

Provide environmentally friendly pest control services to the University.

Pest control services are contracted out annually. The specifications are written to provide an environment free of pests using environmentally sound techniques.
Performance Measures

DFM will monitor the cost effectiveness by the adoption of performance indicators which measure outputs, outcomes and inputs and by benchmarking against other institutions and organisations.

Current performance indicators include:
- cleaning expenditure per square metre
- cleaning expenditure per EFTSL
- percentage of total waste recycled
- waste disposal expenditure as a percentage of total cleaning and waste disposal expenditure.

Utilities

Mission

“To manage the utilities of the University in order to provide the required service at the most economical cost”

Operational Plan

The goals and the strategies which are in place to achieve these goals are as follows:

Goal 1

Ensure the availability of power, gas, water and sewerage for the University’s operations.

The capacity and condition of the infrastructure system will be monitored and maintained under the Maintenance Plan. When new buildings are proposed the necessary extensions or upgrading of the systems will be part of the Capital Investment Plan.

Facilities Management will be responsible for ensuring that the service is available for the operations of the campus and shall coordinate the timings of any necessary shutdowns for whatever purpose.

Goal 2

Ensure that usage of utilities is minimised commensurate with requirements.

DFM will have local responsibility for the implementation of any management programs for the conservation of resources or the minimisation of waste of utilities. These will be within the overall policy framework for conservation as determined by DFM, but will be campus specific. In addition, DFM may put in place particular conservation programs for individual campuses.

Goal 3

Provide a cost effective service to the University and the community.

Performance Measures

DFM will monitor the cost effectiveness by the adoption of performance indicators which measure outputs, outcomes and inputs and by benchmarking against other institutions and organisations.

Current performance indicators include:
- energy expenditure per square metre
- energy consumption per square metre
- water consumption per square metre, and
- water cost per square metre.
Appendix A6. Facilities Key Performance Indicators

Facilities - Key Performance Indicators

Below are examples of typical key performance indicators that will be introduced and implemented to the University over the next five years.

1. Space Management
   a) aim for industry benchmark of 75% utilisation for all teaching spaces
   b) GFA/EFTSL
   c) staff space vs teaching space

2. Backlog Maintenance
   a) BM total effort in weeks
   b) total cost of BM
   c) BM/ARV

3. Property
   a) total cost/sq.m
   b) lease costs/sq.m
   c) total cost per person

4. Life cycle costs

5. Repairs vs PM
   a) $ repairs vs $ planned maintenance
   b) cost of repairs/callouts, number of callouts

6. Capital Project Delivery
   a) $ spent – planned vs actual
   b) delivery on time > 80%
   c) delivery under budget > 90%
   d) refurbishment vs new

7. Utilities
   a) energy usage/GFA
   b) energy costs/GFA
   c) CO2 product
   d) water usage/GFA
   e) water cost/GFA
   f) gas usage
   g) gas costs
INFORMATION AND COMMUNICATIONS TECHNOLOGY

DETAILED INFORMATION

Appendices Series B 1 - 9
Appendix B1. ICT - Introduction and Business Context

ICT Strategic Asset Management provides the framework to ensure that ICT assets are managed in a cost-effective manner while maximising the benefits from IT investments and managing the industry-standard expectations of quality of service. For the purpose of this Plan ICT assets are defined as those which include any university-owned information, system or hardware that is used in the course of business activities.

In CQUniversity’s context the fundamental purpose of strategic ICT asset management is to ensure agility and timely ICT response to changing university needs. ICT services must meet the needs of a new generation of digitally-aware students, understanding that the information and technology needs of corporate business areas and teaching, learning and research areas (Faculties/Schools) will become increasingly acute. ICT services will therefore need to mature quickly in order to be adaptable and agile in response. At the same time, improved ICT investment planning, strategic ICT asset management and relevant governance controls are critical to ensuring long term return on investment.

The purpose of this ICT Strategic Asset Management Plan (ICT SAMP) is to establish guiding principles and to provide a sound basis for decisions on the procurement, management, utilisation and disposal of ICT assets in accordance with the business needs of CQUniversity and in line with the organisation’s strategic and operational plans.

The risks, benefits and costs associated with ongoing management of aging ICT assets must be continually assessed and used to inform strategic investment decisions. Business cases to support investments in new ICT assets must meet organisational standards and justify the viability of alternative options including non-asset solutions such as pursuing managed service arrangements which may include “as-a-Service” and “cloud” offerings.

The remainder of these Appendices articulate both general and asset class-specific principles for ICT asset management, and provides a lifecycle schedule to guide in the replacement, upgrade and maintenance decisions relating to ICT assets. It also gives an indication of the potential impact new modes of ICT service provision may have on the way ICT assets are treated. The principles in this Plan have been developed considering elements of the COBIT 5 framework9 and the Australian National Audit Office guidelines for strategic asset management10 and represent best practice.

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9. ISACA. COBIT 5: A Business Framework for the Governance and Management of Enterprise IT.

Appendix B2. ICT - General Asset Management Principles

In order to ensure agility in responding to changing business needs ICT asset management must be ongoing throughout the life of the asset. In the future, ICT will focus more on the delivery of end-user capability and utility rather than on traditional hardware deployment and support and software configuration and management. Managed (or brokered) ICT services offerings will become the norm.

Unlike other assets with relatively long life spans (eg. buildings), ICT assets can quickly become outmoded and can quickly become cost-inefficient if not managed carefully. ICT assets are also subject to external influences such as vendor-driven upgrade pathways and security threats from sometimes unknown sources. Even so, the core principles of asset management apply, even while the ICT service model may change.

The following general principles underpin the ICT SAMP:

- ICT assets are applied to activities that are critical to sustain or improve performance and service delivery of the University.
- ICT asset management is integrated with the University’s strategic plan and with the investment priorities set by the ICT Oversight Committee.
- ICT maintenance and replacement budgets will be centrally managed.
- The University’s ICT assets will be consolidated and their procurement and support will be standardised wherever practicable to reduce costs by achieving economies of scale.
- ICT strategic asset management encompasses the full asset lifecycle from planning to disposal.
- ICT assets will be reviewed annually as part of operational and capital planning or more regularly if ICT risk assessment requires.
- Asset planning decisions are based on an evaluation of options which assesses full lifecycle costs, risks and benefits.
- Wherever practicable, ICT solutions should be Commercial-Off-The-Shelf (COTS), minimising the need to customise.
- New investments in ICT must consider alternative solutions including non-asset solutions, for example managed service arrangements which may include “as-a-service” and “cloud” offerings.
- ICT investment decisions will be based on a range of considerations including assessment of the extent to which the solution is fit for purpose, support arrangements, business outcomes the solution contributes to, risks and benefits, and cost. Cost of the solution will not be given undue weight in investment decisions.
- Business owners of ICT assets deployed in faculties and departments are clearly identified.
- IaTD is responsible for lifecycle management for those assets it supports. Ideally all ICT assets should be centrally managed.
- “Green ICT” strategies will be included in all new investment business cases.

ICT assets have a specific lifecycle to them – distinct from other classes of assets.
ICT Strategy, Planning and Sourcing

Effective “best practice” strategic ICT asset management requires that IaTD has a sound understanding of its ICT inventory and capability. It refers to portfolio level investment decision making and includes identifying sourcing opportunities. As an enterprise level view portfolio planning drives decisions to invest or disinvest in ICT, including through migration from traditional ICT operation to alternative ways of sourcing ICT services. Both technical and user trends (e.g. social media) are considered in this phase.

Procurement Planning and Investment Management

Once investment decisions have been made, project or activity based schedules for acquisition are developed. Procurement decisions are taken and contractual instruments put in place.

ICT procurement needs to be responsive to the agility and flexibility that will be provided by new as-a-service requirements.

Deployment and Change Management

Refers to the deployment, utilisation, operation and ongoing maintenance of ICT assets. It includes mapping of systems and their integration and configuration change management process. Maintenance and upgrade scheduling, information security and general service standards are managed in an ongoing fashion through this part of the cycle. Operation and management includes specification of disaster recovery and business continuity process. Optimising the use of the asset to improve productivity continues through this phase.

Disposal

Relates to the activities around the removal of obsolete assets. In addition to obsolescence, disposal may be required because of business decisions, for example decisions to obtain ICT as managed services provided by third parties. For ICT it is critical that disposal planning is consistent with disaster recovery and configuration management.

Within each of these four ICT strategic asset management lifecycle stages of: ICT strategy, planning and sourcing; ICT procurement planning, investment management and project delivery; deployment and change management, configuration control and maintenance and ICT disposal there are further specific principles, described below.
ICT Strategy, Planning and Sourcing

Strategic ICT asset management best practice requires that a sound understanding of ICT inventory and capability is maintained. While this understanding is important, best practice also requires portfolio-level investment decision making and includes consideration of non-traditional sourcing opportunities.

At the enterprise level, portfolio planning drives decisions to invest or disinvest in ICT, including through migration from traditional ICT operation to alternative ways of sourcing ICT services.

Both technical and user trends and requirements are considered in this phase.

Lifecycle Principles

ICT asset planning is based on the following principles:

- service delivery elements for which ICT is a critical enabler have been identified in IaTD operational planning documents
- the relationship between ICT assets and business services and needs is known, with linkages established through enterprise architecture.
- all ICT assets are identified in an asset register/inventory
- ICT assets are categorised for their criticality or listed in terms of impact on other integrated systems critical to service delivery
- physical inventory is managed in an ongoing way against discrete hardware, operating and application licensing requirements and informs strategic and operational planning
- assets are evaluated against agreed performance indicators to assess whether the asset is being appropriately used, maintained, is fit for purpose, serviceable and financially viable. This evaluation is to coincide with operational and capital planning
- assets are periodically reviewed to identify opportunities to leverage emerging technologies or alternative sourcing strategies to reduce costs or increase value for money.

ICT Procurement Planning, Investment Management and Project Delivery

Once investment decisions have been made, project or activity-based schedules for ICT asset acquisition (including replacement) are developed. Procurement decisions are taken and contractual instruments put in place. ICT procurement processes needs to be responsive to the agility and flexibility that will be provided by new as-a-service offerings and requirements.

Lifecycle Principles

ICT asset investment/procurement is based on the following principles:

- Requests for investments in new ICT assets must be justified in a written business case. The detail of the business case is relevant to the quantum of investment required, the criticality of the ICT requirement, and risk assessment. Justification for large investments must address alignment with strategic initiatives and operational goals and clearly articulate the business benefits relative to all identified solution and delivery options.
- alternative solutions to new investment in ICT should include:
  - risk assessment of the upgrade of existing ICT assets
  - managed services, adoption of ICT as-a-service , “cloud”
  - optimising the use of existing assets (e.g. relocating/redeploying assets, increase existing use, increase capacity)
  - on-demand asset management ( e.g. pay-as-you go storage, BYOD)
  - co-sharing of ICT investments (such as open-source software, resource sharing)

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11 Refer to Appendix 2 for the Asset Portfolio Evaluation Framework as advocated by the Australian National Audit Office.
12 Refer to Appendix 3 for a list of advantages and disadvantages of buying versus leasing as provided by the Australian National Audit Office.
• replacement of equipment will be based on either warranty expiration or availability of plausible, alternative maintenance options considering demand and age
• prolonging the life of an asset through alternative maintenance options following warranty expiration should only be considered for assets providing a low-risk service that could tolerate risk of failure and support non-time critical services
• replacing end-of-life equipment to be undertaken on a planned and scheduled basis, where possible, to enable bulk purchasing and reduce overall spending
• the procurement and provision of all ICT equipment is subject to CQUniversity's procurement policy and procedures.

**ICT Deployment and Change Management, Configuration Control and Maintenance**

This element of the ICT asset management cycle refers to the production ICT environment. Its scope includes the deployment, operation and ongoing maintenance of ICT assets. It includes mapping of systems and their integration and configuration change management process.

Maintenance and upgrade scheduling, information security and general service standards are managed in an ongoing fashion through this part of the cycle to protect the integrity of current investments. Operation and management includes ICT risk management through disaster recovery and business continuity process.

Optimising the use of the ICT asset to improve productivity continues through this phase.

**Lifecycle Principles**

ICT asset operation and management is based on the following principles:

• all university ICT assets, and their support arrangements should be managed by IaTD to ensure consistency of application and to drive economies of scale
• on receipt, ICT assets are recorded in a centrally maintained asset inventory and asset-tagged where applicable
• all ICT asset details are to be recorded in the University configuration management database
• ICT assets will be managed as part of an integrated system, and where possible multiple similar/same units will be managed as a single asset (e.g. desktop PCs as a fleet)
• changes to ICT assets or components of them, will be consistent with relevant standards for configuration change management.

**ICT Disposal**

Disposal relates to the activities around the removal of obsolete assets. In addition to obsolescence, disposal may be required because of business decisions, for example decisions to obtain ICT as managed services provided by third parties.

In some cases disposal may be required in order to manage risk or to realise opportunities that have not previously been identified.

For ICT, it is critical that disposal planning is consistent with disaster recovery and configuration management.

**Lifecycle Principles**

ICT asset disposal is based on the following principles:

• assets are disposed when they serve no useful purpose due to retirement of all related services, obsolete technology, disproportionately high costs in maintenance or lack of functional requirement
• information held on assets pending disposal must also be disposed of securely according to data retention and disposal policies outlined by the Queensland State Archives, to comply with software license agreements, and in an environmentally-friendly manner
• ICT asset disposals are to be reflected in the configuration management database.
Appendix B3. ICT - Principles for Specific ICT Asset Classes

This section outlines principles, goals and objectives for managing specific ICT asset classes.

ICT assets are rarely “stand alone” and their ongoing utility should be assessed as a whole rather than as individual assets in most cases. For example a single desktop personal computer needs to be considered as part of a fleet, so that consistent support, imaging, maintenance, and upgrade can be provided.

Additionally, operating and other software licence provisions are auditable and non-compliance can potentially have significant financial implications for the University. The status of these can only be understood by taking a holistic approach to managing the asset.

Desktops, Laptops and Mobile Devices

 Principles relating to desktops, laptops and mobile devices:

- devices in this class will be procured through central arrangements managed by IaTD, in accordance with the Centralised ICT Procurement Principles
- each staff member will be allocated a single desktop solution to perform their duties which will be either a desktop or laptop
- standard models and imaging will be defined by IaTD, in consultation with stakeholders. Exceptions will be considered on an individual genuine needs basis
- IaTD will define the policy for use of personal devices (BYOD)
- computer equipment for student computer facilities is determined by student utilisation rates, scheduled teaching and face to face delivery requirements and impact of student BYOD
- PCs will be retained for a minimum of three years, and maximum of four years. Retention or replacement/disposal decisions will be based on serviceability, fitness for purpose and total cost of ownership
- IaTD manages the disposal of end-of-life computers in the following order of priority:
  - redeployed to other areas within the university
  - donation to not-for-profit recipients through the donation program
  - disposal via the approved disposal process.

Printers

 Principles relating to printers:

- printers and print services refers to office or administrative printing on devices including desktop printers, multi-function devices, facsimile, photocopy, and mapping devices
- multi-function devices should be leased, or print services obtained through third parties where cost efficiencies in doing so can be realised
- consolidation of highly distributed print devices are a key to driving cost and maintenance and support efficiencies
- The Director IaTD will set and from time to time amend guidelines for university print services, including the centralisation and management of a print services budget
- consumables are recognised as a high cost component of print services and default print settings should be optimised to reduce operating costs; e.g. minimise colour printing, implement secure print release etc
- providing local visibility to print service utilisation, aligned to organisational cost centres, is an important enabler of whole of organisation print service asset optimisation
- wherever practicable and in the context of the operation of the university, “print to paper” should be avoided.
Software

Principles relating to software:

- utilise and maximise existing enterprise systems and licenses where possible
- applications will be rationalised where duplication or a lack of use / inactivity can be identified.
- software licencing will be actively managed by IaTD
- adopt software-as-a-service (SaaS) in preference to buying or developing applications
- purchase of new applications will be minimised in favour of as-a-service options
- where solution build is necessary, development and test environments must be supportable by software licensing arrangements
- implement standard software solutions (Commercial-Off-The-Shelf – COTS) where possible, avoiding customisations
- leverage user groups to understand business outcomes requirements and to gain support for solution options
- solution options will include benefits realisation measures
- software reviews are to take into consideration evaluation and performance indicators described in Appendix B2 and must also consider whether:
  - the current vendor has lived up to expectations, and
  - the product is available from vendors other than the current vendor (this includes considering alternative resellers for a particular item of software).

Servers and Storage

Principles relating to servers and storage:

- as-a-service options for infrastructure (IaaS) and platforms (PaaS) will be preferred over replacement options that include purchasing and operating in house
- where in-house operation is preferred, virtualised infrastructure will be the architectural model of choice. Migrating existing server and storage infrastructure towards virtualisation will be prioritised
- where hardware quotes are obtained they are to be based on five year warranties where possible, with extension options
- servers and storage and their warranty periods and conditions are to be tracked in a configuration management database
- servers and storage replacement decisions will be determined through a portfolio investment decision making process, with approval of the Executive Management Committee
- all as-a-service options are to include migration and change management costings in replacement business cases.

Communications Platforms

Principles relating to communications platforms:

- communications platforms includes ICT assets such as telephony systems, unified communications systems and video conferencing, whether used for teaching and learning, research, or corporate/administrative purposes
- unified communications platforms will be the preferred future investment direction. Where required, as-a-Service approaches to traditional telephony systems will be the preference over managed services or build-operate-maintain
- specifically for video conferencing, ICT investment will be prioritised in accordance with the critical teaching and learning capabilities that video conferencing delivers in a distributed / distance education environment. This may mean a disproportionately larger investment, and higher quality of service compared to other environments
• where hardware and software is required to be purchased (i.e., cannot be delivered as a service), they are to be accompanied by five-year warranties where possible, with extension options.

**Networks and Network Equipment**

Principles relating to networks and network equipment:

- network equipment and services are prioritised for investment recognising their critical place in distributed campus environments and online student services delivery
- where hardware quotes are obtained, they are to be based on five-year warranties and maintenance/support agreements where possible, with extension options to ensure alignment with potential service life of the equipment
- network replacement decisions will be determined through a portfolio investment decision-making process, with approval of the Executive Management Committee
- all as-a-service options are to include migration and change management costings in replacement business cases.

**Licences and Contracts**

Principles relating to licences and contracts:

- purchased software licences and ICT corporate contracts will be maintained in a register
- software licences and performance of contracts will be actively managed by IaTD in an ongoing fashion
- vendor performance against key contract provisions will be regularly reported to the ICT Oversight Board by IaTD, with a focus on exceptions
- IaTD will ensure that appropriate lead time is provided for re-negotiation of licences, or contracts. For enterprise licenses and contracts, this lead time should be no less than six months to allow for alternate options (including both functional and procurement options) to be investigated and enacted if required
- prior to licence and contract renewal, business owners conduct a review to ensure value, benefits, and compliance are maintained. Specific questions to be answered include:
  - Is the product/service still required?
  - What is the product/service used for?
  - Is there any other product currently in use or available that could perform the same function?
  - Are the same quantities of this product/service required, or is there an opportunity to consolidate or reduce the current contract?
  - Has the current vendor lived up to expectations?
  - Is this product/service available from vendors other than the current vendor?
- at licence and contract renewal, attempts to re-negotiate licence and maintenance costs should be carried out
- monitoring software installation and usage for licence compliance will be carried out proactively.

**ICT-intensive Facilities**

Principles relating to ICT-intensive facilities:

- Data Centres, Student Computing facilities, Video Conferencing suites, High Performance Computing facilities, Communications Rooms and Learning Spaces share a particular set of end-user requirements which drive technical design, and hence warrant specific coordination between IaTD and Facilities in strategic asset management
- design and fitout of these facilities will be in accordance with the approved standards and design specifications (‘ICT Building Standards’)
- operation and maintenance of these facilities will be coordinated between IaTD and Facilities to ensure continuity of service.
Appendix B4. ICT - Implementation Guidance

The ICT SAMP has been developed in the context of significant organisational change, some of which is transformative. The general principles describe how the University’s ICT assets should be managed in line with the changing portfolio (business) arrangements.

Appendix 1 provides a list of a number of important higher and lower level University plans and policies which impact on, and are impacted by the ICT SAMP.

Appendix 2 describes typical lifespan for each asset class and further describes general actions that should be taken to ensure effective ICT asset management. It also outlines broad timelines for action should as-a-service options including Cloud services, be determined to be best options for ICT service delivery in the future.

Appendix 3 describes the criteria used to evaluate both the condition and extent to which ICT assets remain “fit for purpose” in the current business context.

The Information and Technology Directorate will apply software management, and monitor licencing and contract performance against the principles outlined previously in this plan. In order to continue to improve the way this risk is managed the Directorate will adopt the following approach to assessing maturity.

<table>
<thead>
<tr>
<th>Maturity Level 1 Basic</th>
<th>Maturity Level 2 Standardised</th>
<th>Maturity Level 3 Managed</th>
<th>Maturity Level 4 Optimised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrolled Distributed No single repository for software licence registration No single repository for Contract registration Ad hoc monitoring of licence distribution Ad hoc monitoring of contract performance No planned approach to renegotiation and optimisation</td>
<td>Data registries established Status of licencing and contract performance used in some cases for investment decision making. Monitoring is carried out at scheduled times but not yet embedded in day to day process.</td>
<td>Licence based Investment decisions are managed against business targets. Contracts are managed against specific performance and are actively managed. Tools for software and contract management are in place and the process is increasingly automated.</td>
<td>Fully optimised processes and full automation. Management information on licencing and contracts is available in real or near to real time. Software licencing and contracts management is fully embedded in business processes</td>
</tr>
</tbody>
</table>

Note: Adapted from Microsoft’s Software Asset Management maturity assessment process

Implementation will continue to be guided by the needs of the University as described from time to time in higher order plans or policy.
Appendix B5. ICT - Investment Governance

Creating and optimising value though effective ICT investment is increasingly important for all organisations.

Formal governing bodies need to be aware of their accountabilities in terms of managing ICT risk, for opportunity and benefits management, and for ensuring that ICT operations are transparent and relevant to business needs.

Moreover, ICT investment decision making needs to be business-driven rather than technical expedience.

The table below is a summary of CQUniversity’s documented ICT investment accountabilities at the time of development of the ICT SAMP (August 2017):

<table>
<thead>
<tr>
<th>Level of Accountability</th>
<th>Governance Body</th>
<th>Governance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Governance</td>
<td>University Council Planning and Resources Committee</td>
<td>Investment approval, Capital works program, Corporate alignment, Resource management</td>
</tr>
<tr>
<td>Executive Oversight of ICT</td>
<td>Executive Management Committee</td>
<td>Business case approval, Benefits management, Strategic risk management, Audit &amp; Risk</td>
</tr>
<tr>
<td>Significant Projects (Value above $5M or high strategic risk)</td>
<td>Vice Chancellors Advisory Committee</td>
<td>Assurance oversight, Vendor performance, Benefits realisation, Reporting</td>
</tr>
<tr>
<td>Major Projects</td>
<td>Project Board</td>
<td>Assurance oversight, Financial performance, Project delivery- outcomes versus investment, Vendor performance management, Resource management, Benefits realisation</td>
</tr>
<tr>
<td>Minor Projects</td>
<td>Project Manager</td>
<td>LITE Methodology application</td>
</tr>
<tr>
<td>Directorate (IaTD)</td>
<td>Chief Information and Digital Officer</td>
<td>Provide and manage cost-effective, responsive and reliable ICT services, Effective utilisation, maintenance and eventual disposal of assets, Ongoing performance review to be consistent with higher order University plans, Advise the University’s ICT oversight committee (EMC) on: • Cost of maintaining ICT assets benchmarked against other like organisations or against a best practice model if one exists, • Assessment of risk and return in ICT Investment, and in delivering ICT asset upgrades, retirement or replacement, • ICT asset utilisation and contribution to organisational outcomes, • Cost-benefit analysis of submissions for ICT asset procurement, • Contemporary sourcing options for ICT</td>
</tr>
</tbody>
</table>

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Once PRINTED, this is an UNCONTROLLED DOCUMENT. Refer to Policy Portal for latest version
CQUniversity CRICOS Provider Code: 00219C
Appendix B6. ICT - Review Cycle

The ICT Strategic Asset Management Plan will be reviewed annually at a high level as a matter of course by IaTD, and in detail every five years in line with the major review cycle of the broader CQUniversity Strategic Asset Management Plan. Reviews of all or part of the ICT SAMP will also be triggered by revisions of higher order planning documents such as the University Corporate plan, or when significant policy or budget decisions are made that affect the operation of the Directorate.

The plan should be read in conjunction with these documents and should be continuously assessed against the University's ICT risk management, disaster recovery and business continuity plans and their outputs.
Appendix B7. ICT - Related Strategies, Plans and Policies

Below is a list of a number of important higher and lower level University plans and policies which impact on, and are impacted by the ICT SAMP. Compliance with and alignment between these and with broader legislation will also drive controls over ICT asset management.

<table>
<thead>
<tr>
<th>Artefact</th>
<th>Validity Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Plan 2015 – Strong to Great</td>
<td>Annual</td>
</tr>
<tr>
<td>Strategic Plan 2015-2020 – Strong to Great</td>
<td>5 Yearly</td>
</tr>
<tr>
<td>Strategic Asset Management Plan 2014-2020</td>
<td>5 Yearly</td>
</tr>
<tr>
<td>Purchasing Policy</td>
<td>TBC</td>
</tr>
<tr>
<td>Centralised ICT Procurement Policy</td>
<td>3 Yearly</td>
</tr>
<tr>
<td>Corporate Contracts Register</td>
<td>Continually updated</td>
</tr>
<tr>
<td>ICT Strategic Plan 2015-2018</td>
<td>3 Yearly</td>
</tr>
<tr>
<td>ICT Investment Portfolio</td>
<td>Does not currently exist</td>
</tr>
<tr>
<td>ICT Enterprise Architecture</td>
<td>TBC</td>
</tr>
<tr>
<td>ICT Asset Register - Applications</td>
<td>Continually updated</td>
</tr>
<tr>
<td>ICT Asset Register – Servers</td>
<td>Continually updated</td>
</tr>
<tr>
<td>ICT Asset Register - Desktops</td>
<td>Continually updated</td>
</tr>
<tr>
<td>ICT Building Standards</td>
<td>Annual</td>
</tr>
</tbody>
</table>
## Appendix B8. ICT - Asset Lifecycle & Management Schedule

<table>
<thead>
<tr>
<th>Hardware &amp; Network Infrastructure*</th>
<th>Typical asset life</th>
<th>18 Months or Earlier before End of Life</th>
<th>12 Months before End of Life</th>
<th>6 Months before End of Life</th>
<th>Alternative Option at End of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Phone</td>
<td>Optimised against current plan obligations/ upgrade options</td>
<td>Establish Mobile register and device plan management process</td>
<td>Ongoing Review and cost current plans</td>
<td>Ongoing Review and cost current plans</td>
<td>Centralise plan management</td>
</tr>
<tr>
<td><strong>Desktop PC</strong></td>
<td><strong>Min 3 - Max 4 years</strong></td>
<td>Profile and cost Desktop fleet including operating software. Prepare replacement schedule. Market test for full fleet management 3 x 3. Establish policy position own &amp; operate vs As- a – Service options</td>
<td>Commence lifecycle management program. Budget for Rotational replacement (CapEx) Or transition to service model (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting</td>
<td>As-a-Service</td>
</tr>
<tr>
<td><strong>Laptop PC</strong></td>
<td><strong>Min 2 - Max 4 years</strong></td>
<td>Profile and cost Laptop fleet including operating software. Prepare replacement schedule. Market test for full fleet management 3 x 3. Establish policy position own &amp; operate vs As- a – Service options Develop business case &amp; obtain Board approval.</td>
<td>Commence lifecycle management program. Budget for Rotational replacement (CapEx) Or transition to service model (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting</td>
<td>As-a-Service</td>
</tr>
<tr>
<td><strong>Tablet PC</strong></td>
<td><strong>Min 2 - Max 4 years</strong></td>
<td>Profile and cost Tablet fleet including operating software Establish policy position own &amp; operate vs As- a – Service options Develop business case &amp; obtain Board approval.</td>
<td>Commence lifecycle management program. Budget for Rotational replacement (CapEx) Or transition to service model (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting</td>
<td>As-a-Service</td>
</tr>
<tr>
<td>Hardware &amp; Network Infrastructure*</td>
<td>Typical asset life</td>
<td>18 Months or Earlier before End of Life</td>
<td>12 Months before End of Life</td>
<td>6 Months before End of Life</td>
<td>Alternative Option at End of Life</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------</td>
<td>----------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Printer – including Multi-Function Device</td>
<td>5 years</td>
<td>Establish operating cost including consumables and depreciation. Test Market options. Obtain Packaged lease approval if lease option is selected.</td>
<td>Budget for Rotational replacement (CapEx) Or transition to service model (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting</td>
<td>Rationalise and Lease at end of life</td>
</tr>
<tr>
<td>Printer – Laser</td>
<td>3 years</td>
<td>Establish operating cost including consumables and depreciation. Test Market options. Obtain Packaged lease approval if lease option is selected.</td>
<td>Budget for Rotational replacement (CapEx) Or transition to service model (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting</td>
<td>Rationalise and Lease at end of life</td>
</tr>
<tr>
<td>Physical Server</td>
<td>5 years</td>
<td>Establish Security framework/ BCP requirements/ Virtualisation process or develop server upgrade and swap out plan for board approval via detailed business case. Budget replacement over two complete budget cycles/ Yr 4 and Yr 5</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting &amp; budget for transition to service model (CapEx + Opex) or Schedule replacement upgrade and swap out (Opex)</td>
<td>Implement Quality of service monitoring Establish Benefits management reporting Or Commence transition build and test</td>
<td>As-a-Service</td>
</tr>
<tr>
<td>Hardware &amp; Network Infrastructure*</td>
<td>Typical asset life</td>
<td>18 Months or Earlier before End of Life</td>
<td>12 Months before End of Life</td>
<td>6 Months before End of Life</td>
<td>Alternative Option at End of Life</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>----------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Storage – SAN/NAS</td>
<td>5 years</td>
<td>Review market and cost alternatives to on site storage. Determine agreed policy position- Own – Share – As a Service. Develop business case to support agreed policy position. Cost and schedule expansion if in house management continues. Budget for expansion 2 years from end of life.</td>
<td>Implement Transition plan Monthly transition monitoring Or Continue expansion program.</td>
<td>Implement quality of service monitoring Establish benefits management reporting Complete expansion program</td>
<td>As-a-Service</td>
</tr>
<tr>
<td>Network Router</td>
<td>5 years plus maintenance</td>
<td>Cost benefit analysis as-a-service vs buy and maintain</td>
<td>Budget to replace (Capex) or buy service (Opex)</td>
<td>Monthly transition monitoring</td>
<td>As-a-Service</td>
</tr>
<tr>
<td>Network Switch</td>
<td>5 years plus maintenance</td>
<td>Cost benefit analysis as-a-service vs buy and maintain</td>
<td>Budget to replace (Capex) or buy service (Opex)</td>
<td>Monthly transition monitoring</td>
<td>As-a-Service</td>
</tr>
<tr>
<td>Uninterruptible Power Supply (UPS)*</td>
<td>8 years – Data Centre UPS 5 years – standard 10kVA UPS</td>
<td>Monthly tests – according to DR/BCP Align transition with other Service options</td>
<td>Budget to upgrade/ optimise capacity and replace</td>
<td>Flag replacement in IT work schedule</td>
<td>Consider Managed Service</td>
</tr>
<tr>
<td>Generators</td>
<td>25 years</td>
<td>Scheduled testing with BCP</td>
<td>Scheduled testing with BCP</td>
<td>Scheduled testing with BCP</td>
<td>Consider Managed Service</td>
</tr>
</tbody>
</table>
Notes:

*ICT hardware and network infrastructure generally has a defined life based on warranty period. A decision to extend the maintenance period or pursue in-house maintenance is to be decided at the time of warranty expiration and during operational planning.

Adopting as-a-Service options will impact capital project planning and accounting treatment of the current assets and services. Lifecycle scheduling needs to be updated regularly as policy decisions are taken about these options.

Timing of adoption depends on approach. A preferred option for rapid deployment of as-a-Service may be to transfer existing assets to the managed service provider as part of the contract negotiations.

Understanding Total Cost of Ownership and impact on university budget arrangements is critical.
Appendix B9. ICT - Asset Portfolio Evaluation Framework

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Asset portfolio evaluation framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic significance</td>
<td>- What contribution will an asset or group of assets make to the program delivery requirements?</td>
</tr>
<tr>
<td></td>
<td>- How does this contribution relate back to the strategic and business plans?</td>
</tr>
<tr>
<td>Asset performance</td>
<td>- How well is an asset or group of assets matched to the activities that they support?</td>
</tr>
<tr>
<td>Asset performance</td>
<td>- What dependence does the entity place on the asset or group of assets to meet its program delivery requirements?</td>
</tr>
<tr>
<td>indicators</td>
<td>- Use of the asset</td>
</tr>
<tr>
<td></td>
<td>- What use is expected of the asset?</td>
</tr>
<tr>
<td>Asset risk assessment</td>
<td>- Are there changing circumstances that require risk management strategies to be revised?</td>
</tr>
<tr>
<td>Compliance</td>
<td>- Does the asset or group of assets meet statutory requirements and any policy directives set by the Australian Government?</td>
</tr>
<tr>
<td>Financial metrics</td>
<td>- Does the cost-benefit analysis demonstrate that asset ownership is preferable to other options, such as outsourcing arrangements or non-asset solutions?</td>
</tr>
</tbody>
</table>


**Table 2.2: Performance indicators**

<table>
<thead>
<tr>
<th>Functionality</th>
<th>‘Fitness for purpose’ describes how well a current asset matches the activities it supports.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational importance</td>
<td>Operational importance reflects how heavily the asset user depends upon the asset to meet service delivery needs. In determining an operational importance rating, consideration needs to be given to the immediate availability of alternatives, and the consequences of failure.</td>
</tr>
<tr>
<td>Use</td>
<td>An important part of determining the asset’s relevance to business requirements is how intensively the asset is used.</td>
</tr>
</tbody>
</table>
### Table 2.3: Performance indicators rating scale

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ideal</strong></td>
<td>Ideal indicates that the asset is ideally suited to the operation and is likely to continue to be so in the foreseeable future.</td>
</tr>
<tr>
<td><strong>Satisfactory</strong></td>
<td>This grading applies when the asset, while it may not be ideal, meets the core operational demands placed on it.</td>
</tr>
<tr>
<td><strong>Not suitable</strong></td>
<td>An asset that does not meet operational requirements, for example assets awaiting disposal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational Importance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical</strong></td>
<td>The asset’s function is absolutely essential if the operations are to be continued as intended, for example a financial management information system.</td>
</tr>
<tr>
<td><strong>Operational need</strong></td>
<td>A high level of operational importance to operational needs without being critical, for example fit-out.</td>
</tr>
<tr>
<td><strong>Non-essential</strong></td>
<td>The asset is not considered as an integral part of the operations, for example a kitchen refrigerator.</td>
</tr>
<tr>
<td><strong>Not required</strong></td>
<td>The asset provides no contribution to the entity’s objectives, for example redundant assets or assets awaiting disposal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td>Considered to be the standard level of usage for which the area or asset has been designed, for example leasehold improvements.</td>
</tr>
<tr>
<td><strong>Excessive</strong></td>
<td>This grading describes an asset that is in constant or continuous use that is excessive, for example an asset running above its design specification limits.</td>
</tr>
<tr>
<td><strong>Under-utilised</strong></td>
<td>This asset meets service delivery needs but is not being used to its full extent possible, for example where service capacity of the assets exceeds demand.</td>
</tr>
</tbody>
</table>