Tertiary Education Commission
Te Amorangi Mātauranga Matua

Capital asset management

Improvement plan - exemplar

Executive Summary

The Tertiary Education Commission has facilitated the development of a Capital Asset Management (CAM) Standard for Tertiary Education Institutes (TEIs). The TEC CAM Standard is a tool for TEIs to identify improvements towards implementation of good business practices. TEC has sponsored the external assessment of TEIs against the Standard and the results are summarised in this report. It provides your TEI with a suggested range of potential improvements to further enhance the CAM systems and processes it has in place.

CAM Process

CAM is a cyclical process targeting progressive improvement, and robust decision making at all levels within an organisation. Organisations use assets to deliver outcomes and services. By understanding the cost and quality of existing assets, and identifying current and future asset shortfalls, it is possible to develop an improved programme of capital requirements and to understand associated funding requirements.

A diagrammatical explaination of the CAM process is below.

Figure 1: The CAM process

Your TEI's Achievements

Your TEI has recognised the importance and value of robust capital asset management as a core business process. It has adopted a pragmatic approach to meeting both the central

government CAM requirements and a broader programme of CAM improvements. As a result it is beginning to realise the benefits of the process to improve future capital planning and decision making.

Significantly, it has:

- Long-term objectives and outcomes linked to an overall strategy for the region based on the priorities contained in the Tertiary Education Strategy 2010 – 2015.
- Updated its Strategic Planning Framework covering the period 2009 to 2015.
- Developed an in-house facilities management system which it uses to record and track building maintenance information and planned future capital works.
- An established process to consider non-asset solutions as part of its capital requirements process.
- An informal process in place to assess and prioritise potential projects based on its four key strategies, i.e. meeting the needs of the communities, enhancing the student experience, innovation in teaching and learning, and being an excellent business.
- An established process to identify and document its capital funding requirements and options.
- Produced an Asset Management Plan (AMP) in 2004 and plans to produce an updated AMP based on the NAMS Property approach.
- Demonstrated good organisational commitment to CAM development and improvement.

Summary Assessment

Based on the information available during meetings and site visits, independent consultants conducted an assessment of your TEI's achievements against the TEC CAM Standard. Your TEI was also invited to assess its own performance in each attribute area against an initial set of requirements and questions.

Appendix A provides the outputs from the assessments using a generic scale represented by a five point continuum ranging from Unawareness to Excellence.

The output from the independent assessment is summarised in the following diagram which shows relative performance in twelve CAM attribute areas, with the 'hashed' areas signalling the planned target areas for development over the next Investment Plan cycle.

Table 1: Name of this table please?

Attribute Area	Core				Mod				Adv	
Strategic Objectives and Outcomes										
Managing Demand										
Levels of Service										
Description of Assets										
Current and Future Shortfalls										
Asset and Non-asset Solutions										
Optimised Decision Making										
Financial Forecasts										
Feedback and Improvement										
Planning Assumptions / Confidence Levels										
Risk Management										
Organisational Commitment										

Based on the independent assessment, your TEI is closest to the planned targets in the areas of Strategic Objectives and Outcomes (meets), Managing Demand (meets), Description of Assets, Current and Future Shortfalls, Financial Forecasts, Feedback and Improvement, Planning Assumptions / Confidence Levels, Risk Management and Organisational Commitment (meets).

The areas and specific activities where it can make the most significant gains and the corresponding attributes area are:

- Produce an Asset Management Plan based on the TEC AMP template which is available to download from the TEC website [link please] (Feedback and Improvement).
- Enhance School Academic Plans to define how they will respond to meet the strategic goals and objectives (Strategic Objectives and Outcomes).
- Document the levels of service necessary to meet current and future service requirements (Levels of Service).
- Configure the facilities management system to reflect the NAMS Property approach including the ability to collect, analyse, and report on asset condition, performance, life, criticality, cost and valuation information at a component level. (Description of Assets).

Your TEI should also consider the following additional key improvements:

- Update the facilities management system with asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation and risk (Description of Assets).
- Develop a register of infrastructure assets and identify asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation and risk (Description of Assets).
- Develop a register of significant specialist education assets and identify asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation and risk (Description of Assets).
- Complete a survey (desktop or physical) to collect the associated asset information for each asset type, working progressively from the high value and high criticality assets (Description of Assets).
- Develop and implement a capital funding forecast based on the TEC guidelines and CAM Toolkit (Financial Forecasts).
- Review risk management processes to ensure they are consistent with core requirements (Risk Management).

The recommended improvement activities are likely to generate additional benefits to your TEI CAM systems as a whole including positive shifts across multiple attributes, e.g. more systematic financial forecasting will improve confidence levels for planning assumptions.

Introduction

Your TEI is a metropolitan polytechnic servicing the region, with a main campus in the Central Business District and satellite campuses across the region. It has total assets valued at $258.4 million including $153.2 million associated with buildings, plant and equipment, fixtures and fittings and information technology. It has identified $285.8 million of capital expenditure during the period 2011 – 2021.

Purpose

The purpose of this report is to describe your TEI's capital asset management systems against the established TEC CAM Standard in order to identify a programme of improvement activities.

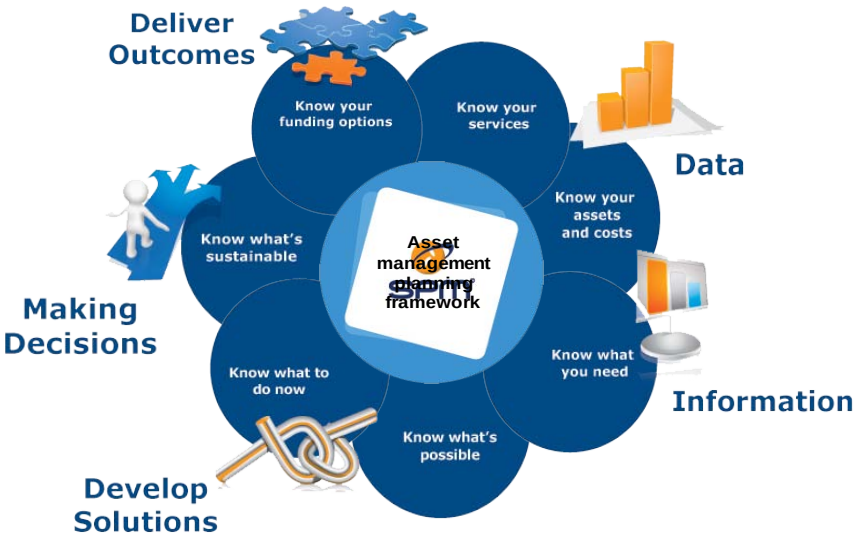
Scope

The scope is to provide an assessment of existing capital asset management information through both documentation and interviews with key members of your TEI management team. It relies on information provided by your TEI or as otherwise freely available through other sources. This assessment includes providing an improvement plan and tools to assist in reaching the standard expected by TEC.

Capital Asset Management

Capital Asset Management is the process that provides the integrity and transparency of capital planning. It provides the evidence and supporting material to demonstrate that projects are delivering strategic objectives, consider external influences and are justified. Capital projects resolve service needs such as change in demand, lifecycle requirements, service delivery and shortfall within the framework of strategic objectives. It also ensures project costs, operational, maintenance and renewal costs are allocated to funding sources to confirm and justify funding requirements.

As the following figure shows, CAM is a cyclical process targeting progressive improvement, and robust decision making at all levels within an organisation. Organisations use assets to deliver outcomes and services. By understanding the cost and quality of existing assets and identifying current and future asset shortfalls, it is possible to develop a programme of capital requirements and to understand associated funding requirements.



Know your services

Organisations own and control physical assets to deliver outcomes and services. The nature, capacity and performance of these assets reflect the needs of the organisation and the desired service levels to be provided. Furthermore these requirements change over time as the needs of users and other stakeholders evolve and mature.

Considering this, organisations must have an agreed and documented understanding of the following factors:

- Strategic objectives and outcomes – what is it that they want to do.
- Service levels and quality – how well they want to do it.
- Network integration – where they are positioned relative to other network providers.

- Community integration – what level of integration they have with the community and other government organisations.

Know your assets and costs

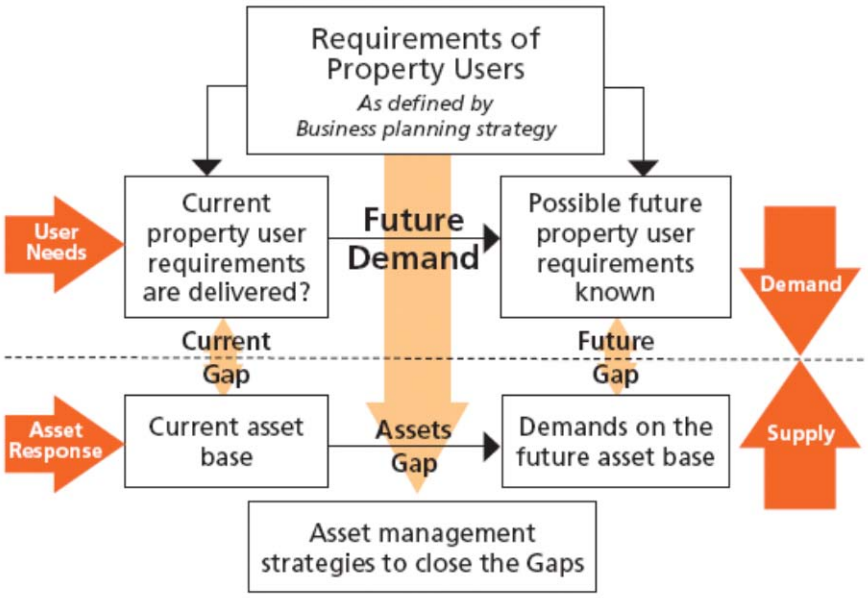
Effective capital asset management requires an understanding of the assets held by the organisation to deliver services. The level of information will reflect the nature and value of the assets, but in broad terms the following aspects are important:

What assets they have to deliver service outcomes and objectives?

- The quality of their assets in terms of condition and performance.
- What is the value of their assets?
- Provisions made for renewal.
- Utilisation of the assets.
- Criticality and risk.
- Historical asset costs and the overall cost of ownership.

Know what you need

As illustrated in the following figure, asset requirements will change over time reflecting the changing needs of the users.



It is therefore important to understand and document the following factors:

- The expected changes in demand for existing assets, i.e.:
    - Changes in the target demographic.
    - Changing needs of the target demographic.
    - Changing needs of academic and support staff.
    - Changing methods of service delivery.
    - Changing needs of the wider community, i.e. local government, hospitals, schools, infrastructure and commercial.
- The required changes in the levels of service to reflect strategic objectives.
- The expected changes in the relationships and links with adjacent network providers.
- The asset renewal requirements given current and future levels of service.
- The performance gaps that will exist given the future asset condition and performance requirements, including technical obsolescence and reaching total capacity.
- Existing gaps in service delivery and capacity.

Know what is possible

Considering the identified current and future asset gaps:

- Consider potential non-asset and non-capital solutions, e.g.:
    - Change the way assets are used.
    - Change the way assets are operated and maintained.
    - Change the service delivery methods (e.g. own versus leased).
    - Change the required service level.
- Scope a range of possible projects to address the remaining shortfalls and minimise the associated risks.

Know what to do now

Considering the range of potential solutions:

- Select the most effective solutions and prioritise according to asset criticality and risk.

- Identify and document the drivers for each project, i.e. like-for-like replacement, additional capacity, additional functionality and allocate funding accordingly.
- The correct balance between capacity and demand given forecast growth and change in demand.
- Determine when and how initiatives and scoped projects will be implemented considering the timing of expenditure and the availability of funding.
- Update asset data and review asset gaps progressively as projects are implemented and update financial models to reflect the associated changes.
- Document the adopted projects within the Asset Management Plan, i.e. all projects should be listed, including their funding sources and cost allocations.

Know what is sustainable

Considering the long term nature of the assets:

- Identify what is affordable over their life given potential funding sources.
- Identify the optimum balance between operation and capital expenditure, e.g. proactive maintenance / capital renewal and energy consumption / capital intervention.
- Identify the environmental, community, and cultural impacts of the assets, particularly how they increase or mitigate risk.
- Know your funding options

Considering the **identified and scoped projects** and the associated drivers:

- Identify the long term funding requirements, i.e. beyond 20 years.
- Identify the available existing funding streams.
- Identify and understand how funding options may change over time, i.e. reflecting policy changes, asset disposals and other initiatives, e.g.:
    - Debt funding
    - Public-private partnerships
    - Energy performance contracts
    - Grants, bequests etc.
- Identify the long term funding requirements in terms of lifecycle analysis including renewal and disposal for existing and future assets.

Methodology

This assessment and improvement plan is the result of a review process based on the following methodology and key reference sources:

- TEC CAM Standard for Institutes of Technology and Polytechnics.
- Interviews with the following people in June 2010:
    - Chief Executive.
    - Chief Financial Officer.
    - Director Facilities Management.
    - Director Finance.
- Review of the following key planning and reference documents:
    - Your TEIs Strategic Planning Framework 2009 – 2015.
    - Business Case for Campuses.
    - Draft Strategy for Tertiary Education Provision.

Assessment against TEC CAM standards

Your TEI is implementing a programme to redevelop its campuses and as a result is well positioned to meet a number of the TEC CAM planning and reporting requirements. It is also undertaking a range of broader CAM improvement activities and is beginning to realise the benefits of the process.

This section describes how the existing CAM processes perform against the TEC CAM Standard for Institutes of Technology and Polytechnics.

Strategic objectives and outcomes

Your TEI's long term objectives and outcomes are linked to an overall strategy for the region defined in your TEI's Strategy for Tertiary Education Provision (currently in draft). This has been developed in conjunction with the other TEIs and addresses the need for high level vocational graduates in the region over the next 20 years. The result is likely to be consolidation of existing campuses, creation of a new shared use campus and the creation of smaller learning centres throughout the region in conjunction with the other two TEIs.

Your TEI has recently updated its Strategic Planning Framework covering the period 2010 to 2015. There are also a range of other strategic planning documents that collectively capture the overarching strategy and the corresponding business case justification. These documents include:

- Business Case for Campuses.
- Campus Structure Plan.
- Preliminary Business Case for Facility.
- Public Infrastructure Partnership Fund.

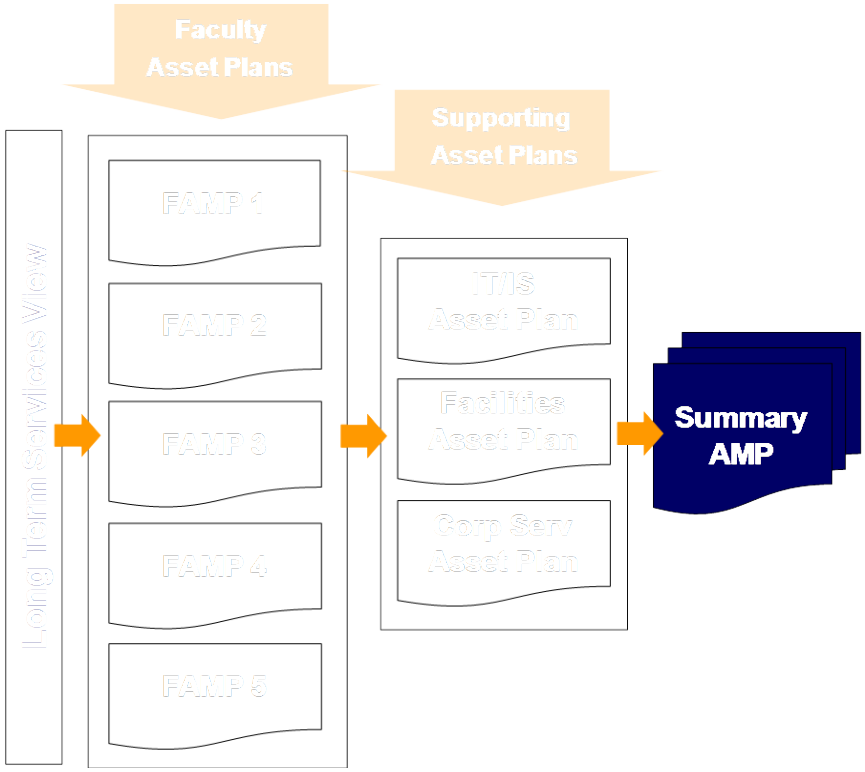
Ideally, your TEI should provide a consolidated strategic plan, linked to the Strategy for Tertiary Education Provision. The document should provide:

- Clear definition of vision and objectives and identify the key planning assumptions and constraints.
- Clear definition of the strategies and tactics necessary to achieve the vision and objectives including links with demand, assets, and the associated expenditure.
- A clear list of the key stakeholders and their requirements including community, other government organisations and adjacent network providers.

Your TEI should also enhance Academic Plans at an individual school or faculty level by describing the link between the organisation wide strategic plan and the school specific requirements and outputs. They should consider the associated nature and demand for each

programme, the likely asset requirements and the associated investment drivers. The resulting documents should collectively inform the development of support asset plans as shown in the adjacent figure, i.e. IT/IS Asset Plans, Facilities Asset Plans, and Corporate Services Asset Plans.

Figure 2: name of figure please



In all cases, the strategic, business and asset plans should ideally consider the longer term requirements, i.e. greater than 20 years. While this may be challenging in some cases, it better reflects the lives and lifecycle requirements of facilities type assets.

Managing demand

Your TEI has access to a range of future planning information describing likely changes in growth and demand, and the associated drivers beyond ten years, e.g. demographics, technology and methods of teaching delivery. This is based on statistical projections and stakeholder engagement across a range of potential planning scenarios, i.e. low, medium, and high growth.

This information exists in a range of documents and should ideally be consolidated and summarised, and used in the strategic and planning documents. There should also be a documented understanding of current and likely future supply capacity and solutions, and analysis of the feasible tactics and strategies available to address changes in demand (refer to examples in the TEC AMP template).

Levels of service

Your TEI has not formally defined the levels of service required to meet the strategic outcomes and objectives although they are generally understood throughout the organisation as “fit for purpose”. The School Academic Plans should define the nature of current and likely future learning needs, particularly in terms of the modern learning environment and the increased focus on blended learning.

It is important to define the levels of service in terms of nature and quantum (size, capacity, quantity, proximity, safety, environment and comfort etc.) because these will drive the needs of current and future capital investment.

Levels of service should also reflect external influences, e.g. TEC, New Zealand Transport Agency, Fire Service, Health & Safety and Building Act (refer to examples in the TEC AMP Template).

Description of assets

Current utilisation is based on timetabling data for the 2011 autumn semester. These data however, only covers 40% of all academic space and is focused on the utilisation of general teaching space. Data is currently not available on department specific academic space, administrative, support and informal space.

Facilities asset information

Your TEI has a wide range of facilities, including heritage buildings, relocatable buildings, several marginal quality buildings and a number of new or recently refurbished buildings. The overall condition of the facilities assets is good considering their age. In a number of cases the existing buildings are not ideal for the provision of education services or to meet the needs of stakeholders, particularly the older heritage buildings, i.e. small and inflexible teaching areas and buildings distributed across the Campus. The long term development plan for the campus will result in consolidation at the southern end of the campus.

Your TEI has developed an in-house facilities management system it uses to record and track building maintenance information and planned future capital works. The underlying building information comes from a condition survey conducted in 2004, but your TEI is also updating it using information from Revit Building Information Modelling system and completed maintenance projects.

From an asset management perspective, your TEI should further develop its facilities management system based on the NAMS Property approach. This should not be a difficult exercise for your TEI given its work to date and the improvements would be around documenting condition and performance at a major component level, and assessing remaining life, criticality, replacement costs and overall value. This approach would add

further confidence to lifecycle plans and financial forecasting used in its business cases and asset management plans.

Infrastructure asset information

Your TEI has recognised the need to increase its knowledge of infrastructure assets, particularly those with high criticalities, e.g. boilers, heating, electrical. There is limited documented information about the condition or performance of the existing infrastructure assets. The proposed consolidation on the southern campus will address some of the risk associated with the older infrastructure, i.e. at the northern end of the campus, but a survey of critical infrastructure assets is recommended.

As with the facilities assets, your TEI should maintain a summary list of infrastructure assets and associated information, including quantities, locations, age, condition, reliability, capacity, and remaining life. This information should support the risk management processes, particularly for assets with high criticality.

Specialist assets

Specialist assets are those assets used by the individual schools to support or deliver academic programmes, e.g. lathes, laboratory equipment and kitchen equipment. This information is held on the fixed asset register and individual schools are responsible for routine maintenance and for identifying future replacement requirements.

Your TEI is planning to conduct an audit and verification of high value and high criticality specialist assets, and will track them as appropriate, e.g. barcodes. As with facilities and infrastructure assets, the list should be held centrally and processes should be established to maintain the information. The information should include identification, major sub-assembly components, cost, life, and operational maintenance programmes.

Asset information improvement

It is important to capture and maintain asset data at an appropriate level of detail to meet business information requirements. This will improve the relevance of the information and improve confidence in projections and requirements.

- Your TEI should identify its business information needs, and develop a programme to progressively gather additional asset data to address any information gaps. This should be conducted in a pragmatic and prioritised manner reflecting the needs of the organisation and the criticality of the information.
- Your TEI should ideally develop and implement a programme to maintain existing asset information through acquisition, operation, maintenance and disposal activities. This includes actual operating and maintenance costs of all assets to support future asset planning.
- Your TEI should develop life cycle plans for all assets, beginning with facilities assets and moving progressively from high to lower value assets. These plans should reflect

whole-of-life costs including those associated with acquisition, operational, maintenance and disposal.

Current and future shortfalls

Your TEI's planning and business case documents identify a range of current and anticipated future asset shortfalls, including:

- Population expected to grow within the region over the next 20 years and the corresponding requirement for increased tertiary education capacity.
- Shortage of trade training capacity in the region.
- High maintenance costs of existing buildings, particularly for the older and heritage buildings.
- Poor quality of existing buildings, particularly in relation to the standard required to provide a modern learning environment.
- Increased reliance on technology in course delivery, including those areas where technology has not been a major driver, e.g. automotive.

Your TEI has developed a series of business cases around addressing the identified shortfalls. These should ideally be consolidated with links back to the strategic objectives and outcomes. They should also consider the factors affecting the demand and supply for courses, asset condition and performance, and the need for current and future assets. There should also be appropriate links to the risk register where the corporate risk process has identified asset related risks and capital investment as part of its response.

Asset and non-asset solutions

Your TEI considers non-asset solutions as part of its capital requirements process. There are several good examples:

- It is sharing facilities and equipment with the District Health Board, e.g. medical imaging and clinical simulation equipment.
- It built a new library and carparking building in conjunction with City Council.
- It has recently completed construction of a new trade training centre for plumbing with industry supplying a range of specialist equipment and materials.
- It is negotiating with a commercial organisation to locate a major operation on its campus and will use a new facility on the northern campus.

Optimised decision making

Your TEI is still working to formalise and document a prioritisation and optimised decision making framework. It nonetheless has an informal process in place based on the four strategies, i.e. meeting the needs of the communities, enhancing the student experience, innovation in teaching and learning, and being an excellent business.

The prioritisation and optimised decision-making process should ideally include:

- Formal options analysis based on the NAMS Property approach, considering asset criticality and risk.
- Clear evidence of stakeholder consultation within the decision making process.
- Detailed record of the drivers for each capital project and the associated whole-of-life funding requirements.
- Detailed record of the capital intentions decision making process including the considerations, decisions and project prioritisation for all projects over the life of the asset.

Financial forecasts

The planning and business case documents show that your TEI has an established process to identify and document its capital funding requirements and options, although it could be more clearly defined and documented.

The capital funding requirement and options process should ideally provide:

- Long term description of capital requirements, i.e. > 20 years.
- Clear understanding and documentation of the links between capital projects, the drivers and the allocation of funding.
- Clear understanding and documentation of the consequential operational expenditure, impact on valuations and affordability.
- Clear understanding and documentation of alternative funding mechanisms and the consideration of the associated risks and risk mitigation initiatives.
- Detailed financial forecasts providing a complete description of funding requirements, funding mechanisms, and the associated drivers.
- Sensitivity of financial assumptions has been analysed and confidence is documented.

Feedback and improvement

Your TEI produced an Asset Management Plan (AMP) in 2004 and plans to produce an updated AMP based on the NAMS Property approach. The AMP should be developed to

reflect the approach described in Section 6.1, i.e. linked to the strategic plan through academic plans. There should also be a focus on the quality of the existing asset information, risk management and mitigation, and a programme to address any information gaps.

The AMP should include a clear programme of improvement activities, listed according to an agreed priority and schedule. Resources should be allocated to each activity, and overall progress should be monitored and reviewed by both your TEI Executive and your TEI Council. Specific tasks should ideally be allocated to individuals or roles and successful completion should be incorporated into individual performance indicators. This approach would increase the likelihood that improvements are implemented in a rigorous and purposeful manner and achieve their objectives.

Planning assumptions and confidence levels

Your TEI's planning and business case documents identify and consider the planning assumptions based on a sound approach overall. It should however present this information in a consolidated form in its strategic plans and academic plans, and link them to asset requirements. It should also implement a programme to systematically improve the quality of its information and knowledge about its facilities, infrastructure and specialist assets based on a pragmatic, and priorities approach, i.e. the high value and most critical assets first.

Your TEI should also continue with its plans to collect and collate asset information in a consolidated way. The focus should be on the longer term planning requirements rather than identifying deferred maintenance, and the level of detail should be sufficiently accurate and detailed to understand the lifecycle costs and risks associated with the major assets. Through analysis of the asset information it would then have the ability to develop detailed maintenance and renewal plans, identify asset upgrades, and understand the potential consequences of deferred investment decisions, e.g. extent of deferred maintenance.

Risk management

Your TEI has an established risk management framework based on industry practices. There is a central risk register that senior management team maintain informally with input from throughout the organisation. The Council Risk and Assurance committee receives a quarterly report.

From a capital asset management perspective the approach to risk management could be further improved by ensuring:

- Corporate risk management processes are an integral part of core business processes and planning.
- There is an active programme to identify and manage risk across the organisation, with links to capital asset planning and decision making.

- Critical assets are identified, and the associated risks and risk management activities identified and documented, including disaster recovery and business continuity plans, maintenance strategies, and replacement strategies.
- There are quarterly reviews of risk and risk management activities at all levels within the organisation and particularly by the Executive and the Council.

Organisational commitment

There is clear evidence of organisational commitment to capital asset management within your TEI:

- The Council has traditionally been active in defining the strategic direction and making key capital asset decisions.
- The strategic planning documents clearly define the future direction, goals and associated requirements.
- There has been consultation with stakeholders and other network providers.
- The Chief Financial Officer is the identified asset management champion for the organisation.
- There are dedicated asset management positions, and the leadership team have key asset management responsibilities linked to performance reviews.
- There is an informal Asset Management Steering Group (AMSG) consisting of the Chief Financial Officer, Director Facilities Management, and Director Strategic Campus Development. The intention is also to include senior academic staff.

Summary assessment

Based on the information available during meetings and site visits, independent consultants conducted an independent assessment of your TEI's achievements against the TEC CAM Standard. The results are summarised in the following table with the 'hashed' areas signalling the planned target areas for development over the next Investment Plan cycle.

Table 2: Name of this table please?

Attribute Area	Core				Mod				Adv	
Strategic Objectives and Outcomes										
Managing Demand										
Levels of Service										
Description of Assets										
Current and Future Shortfalls										
Asset and Non-asset Solutions										
Optimised Decision Making										
Financial Forecasts										
Feedback and Improvement										
Planning Assumptions / Confidence Levels										
Risk Management										
Organisational Commitment										

The link between the Generic CAM Standard used by all government agencies and the five point scale used in the Gap analysis is shown in the following table.

Table 3: name of table please

Generic CAM Standard	TEC CAM Standard
Core	Unawareness
	Awareness
Moderate	Systematic Approach (Knowledge)
	Competent
Advanced	Excellence

Your TEI was invited to assess its own performance in each attribute area against an initial set of requirements and questions. Its self assessment was consistent with the independent assessment in the areas of Asset and Non-asset Solutions, Optimised Decision Making, and Feedback and Improvement. It assessed itself lower than the independent assessment in the remaining areas.

Appendix A provides the outputs from both the independent assessment and your TEI self assessment.

Improvement plan

The Improvement Plan reflects the need to move TEIs towards the 'Moderate' CAM performance level over the next Investment Plan cycle.

Some points have not been included in the improvement plan at this stage as they require preliminary work elsewhere in the improvement plan before they are of value. More detail and justification for the improvements noted is explained in the relevant section in this Improvement Plan and in the TEC CAM Standard.

Priorities are nominally given as A (high), B, C, and D (low) on the basis of our experience. The assignment of priority takes into account not only the importance of the task in terms of the TEC CAM Standard and TEC expectations but also the value of achieving the improvement for your TEI.

Attribute Area	Identified improvement	Interim priority	Suggested Reference
Strategic Objectives and Outcomes	Produce a consolidated strategic plan, linked to the Strategy for Tertiary Education Provision. The document should provide: • Definition of vision and objectives and identify key planning assumptions and constraints. • Definition of the strategies and tactics necessary to achieve the vision and objectives, including links with demand, assets, and the associated expenditure. • A clear list of the key stakeholders and their requirements, including community, other government organisations, and adjacent network providers.	C	IIMM, s2 2006 NAMs Property, s2
	Enhance Academic Plans to define and document how individual schools will respond to meet the strategic goals and objectives, particularly in terms of anticipating further course and qualification requirements, modes of service delivery, and the level of service required to meet the needs of the modern learning environment.	A	IIMM, s2 2006 NAMs Property, s2
Managing Demand	Consolidate and summarise the existing demand forecast information in key strategic planning documents, and describe the supply	C	IIMM, s3.2 2006 NAMs

Attribute Area	Identified improvement	Interim priority	Suggested Reference
	capacity and solutions, and analyse feasible tactics and strategies.		Property, s4
Levels of Service	Document the levels of service necessary to meet current and future service requirements, specifically in terms of response, frequency, appearance, use requirements, availability, safety, cleanliness and quality. Also consider the needs of external agencies, e.g. TEC, New Zealand Transport Agency, Fire Service, Health & Safety and Building Act.	A	IIMM, s3.1 2006 NAMs Property, s4 TEC CAM Toolkit
	Establish service level measures linked to the demand and supply forecasts, particularly in terms of utilisation, condition, capacity and financial performance. Establish a reporting schedule collected regularly at faculty and building level and collated up to organisation wide measures.	C	IIMM, s3.1 2006 NAMs Property, s4 TEC CAM Toolkit
Description of Assets	Configure the facilities management system to reflect the NAMS Property approach including the ability to collect, analyse, and report on asset condition, performance, life, criticality, cost and valuation information at a component level.	A	IIMM, s4 2006 NAMs Property, s3
	Update the facilities management system with asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation and risk. Use this information to provide a long term view of likely capital investment requirements, reflecting asset renewal and upgrade.	B	IIMM, s4 2006 NAMs Property, s3
	Develop a register of Infrastructure assets and identify asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation, and risk. Use this information to provide a long term view of likely capital investment requirements, reflecting asset renewal and upgrade.	B	IIMM, s4 2006 NAMs Property, s3
	Develop a register of significant specialist education assets and identify asset condition, remaining life, performance, replacement cost, importance, criticality, utilisation, and risk. Use this information to provide a long term view of likely capital investment requirements,	B	IIMM, s4 2006 NAMs Property, s3

Attribute Area	Identified improvement	Interim priority	Suggested Reference
	reflecting asset renewal and upgrade.		
	Implement a survey (desktop or physical) to collect any additional asset information for each asset type, working progressively from the high value and high criticality assets.	B	IIMM, s3.3 2006 NAMs Property, s3
	Develop and implement a programme to maintain existing asset information including actual operating and maintenance costs of all assets to support future asset planning.	C	IIMM, s4
Current and Future Shortfalls	Ensure the existing and future business cases document the link between the identified shortfalls and the strategic objectives and the needs. Consider the factors affecting the demand and supply for courses, asset condition and performance, and the need for current and future assets. Ensure there are appropriate links to the risk register and the assessment of non-asset solutions is recorded.	C	2006 NAMs Property, s5
Optimised Decision Making	Continue the work to formalise and document the prioritisation and optimised decision making framework, ensuring it includes: • Formal options analysis based on the NAMS Property approach, considering asset criticality and risk. • Clear evidence of stakeholder consultation within the decision making process. • Detailed record of the drivers for each capital project and the associated whole-of-life funding requirements. • Detailed record of the capital intentions decision making process, including the considerations, decisions, and project prioritisation for all projects over the life of the asset.	C	IIMM, s3.5 2006 NAMs Property, s6
Financial Forecasts	Review existing business cases and capital plans, and ensure all future business cases and capital plans provide the following information: • >20 year description of capital	B	2006 NAMs Property, s6 TEC CAM

Attribute Area	Identified improvement	Interim priority	Suggested Reference
	requirements. • Links between capital projects, the drivers, and the allocation of funding. • Consequential operational expenditure, impact on valuations, and affordability. • Alternative funding mechanisms and the associated risks and risk mitigation initiatives (including PPP/EPC/debt/asset sales). • Detailed financial forecasts providing a complete description of funding requirements, funding mechanisms, and the associated drivers. • Sensitivity analysis of financial assumptions.		Toolkit
Feedback and Improvement	Produce an updated Asset Management Plan based on the approach described in Section 6.1. There should also be a focus on the quality of the existing asset information, risk management and mitigation, and a programme to address any information gaps.	A	2006 NAMs Property, s7 TEC CAM Toolkit
	Establish an asset management system feedback and improvement process that ensures: • Asset and attribute information is maintained. • Levels of confidence in reporting and improvement. • Improvement tasks are scoped, plans are updated, monitored and benchmarking occurs to continually improve.	C	IIMM, s4 2006 NAMs Property, s3 TEC CAM Toolkit
Planning Assumptions and Confidence Levels	Implement a programme to systematically improve its information and knowledge about its facilities, infrastructure and specialist assets based on a pragmatic and priorities approach, i.e. the high value and most critical assets first.	C	As described in previous sections
Risk Management	Review risk management processes to ensure: • Corporate risk management processes are an integral part of core business	B	IIMM, s3.4 2006 NAMs

Attribute Area	Identified improvement	Interim priority	Suggested Reference
	processes and planning. • There is an active programme to identify and manage risk across the organisation, with appropriate links to capital asset planning and decision making. • Critical assets are identified, and the associated risks and risk management activities identified and documented, including disaster recovery and business continuity plans, maintenance strategies, and replacement strategies. • There are regular reviews of risk and risk management activities at all levels within the organisation, and particularly at the Executive and Council level.		Property, s4.3

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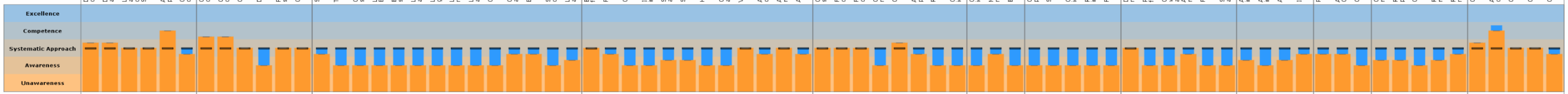
Report Prepared by _____

Report Reviewed b _____

Revision	Revision Date	Details	Authorised	
			Signature	Name and Position

Independent Assessment

Current ■ In a Year ■ Target ■ Max/Min ⌶



Strategic Objectives and Outcom.

	Definition of vision and objectives	Definition of the strategies andtactics.	Linkage between assets andthe vision and objectives.	Stakeholders.	Adjacent network providers	Government and communityorganisations
Target Level	50	50	50	50	50	50
Current Score	56	56	50	50	70	43
In a Year Score	56	56	50	50	70	50
Current Gap	0	0	0	0	0	7
Criticality	3	3	3	3	3	3
Weighted Gap	0	0	0	0	0	21

Managing Demand

	Current and future demand	Current and future supply capacity	Changes in demand	Demand factors	Feasible tactics and strategies	Growth projections
Target Level	50	50	50	50	50	50
Current Score	63	63	50	30	50	50
In a Year Score	63	63	50	50	50	50
Current Gap	0	0	0	20	0	0
Criticality	3	3	3	3	3	3
Weighted Gap	0	0	0	60	0	0

Levels of Service

	Strategic levels of service	Tactical levels of service	Operational levels of service	Level of Service Expenditure	Budgets for level of servicechanges	Level of service measures andreporting	Levels of services and growth	Level of service capacity reporting	Linkage between projects andservice levels	Consultation practices	Customer needs assessment	External levels of service	Support and maintenance contracts	Level of service definition andunderstanding
Target Level	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Current Score	43	30	30	30	30	30	30	30	30	30	43	43	30	36
In a Year Score	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Current Gap	7	20	20	20	20	20	20	20	20	20	7	7	20	14
Criticality	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Weighted Gap	21	60	60	60	60	60	60	60	60	60	21	21	60	42

Description of Assets

	Buildings and their functions	Facilities information	Quality of facilities	Infrastructure asset information	Strategic infrastructure assetplan	Specialist assets	Historical cost information	Quality of specialist assets.	Valuation information.	Asset utilisation, criticality,and risk.	Asset information maintenance.	Asset lifecycle plans.
Target Level	50	50	50	50	50	50	50	50	50	50	50	50
Current Score	50	43	30	30	36	36	30	30	50	43	50	43
In a Year Score	50	50	50	50	50	50	50	50	50	50	50	50
Current Gap	0	7	20	20	14	14	20	20	0	7	0	7
Criticality	3	3	3	3	3	3	3	3	3	3	3	3
Weighted Gap	0	21	60	60	42	42	60	60	0	21	0	21

Current and Future Shortfalls

	Current and future asset shortfalls	Future demographic changes.	Factors affecting the demandand supply	Current and future asset needs	Campus master plan	Asset condition and performanceshortfalls	Risk and criticality	Capital project identification
Target Level	50	50	50	50	50	50	50	50
Current Score	50	50	50	30	56	43	30	30
In a Year Score	50	50	50	50	56	50	50	50
Current Gap	0	0	0	20	0	7	20	20
Criticality	3	3	3	3	3	3	3	3
Weighted Gap	0	0	0	60	0	21	60	60

Asset and Non-.

	Capital projects identificaitonand scoping.	Non-asset and non-capitalsolutions.	Benchmarking
Target Level	50	50	50
Current Score	30	43	30
In a Year Score	50	50	50
Current Gap	20	7	20
Criticality	3	3	3
Weighted Gap	60	21	60

Optimised Decision Making

	Options analysis and projectprioritisation	Stakeholder consultation	Capital project driver identification	Record of the capital intentions	Future proofing
Target Level	50	50	50	50	50
Current Score	30	30	30	30	30
In a Year Score	50	50	50	50	50
Current Gap	20	20	20	20	20
Criticality	3	3	3	3	3
Weighted Gap	60	60	60	60	60

Financial Forecasts

	Description of capital requirements	Projects, drivers, and fundinglinkages.	Consequential opex, valuations,and affordability	Alternative funding mechanisms	Financial forecasts	Sensitivity of financial assumptions.
Target Level	50	50	50	50	50	50
Current Score	50	30	30	43	30	30
In a Year Score	50	50	50	50	50	50
Current Gap	0	20	20	7	20	20
Criticality	3	3	3	3	3	3
Weighted Gap	0	60	60	21	60	60

Feedback and Improv.

	Asset and attribute information	Asset data confidence improvements	Asset Management Plan	Improvement tasks
Target Level	50	50	50	50
Current Score	36	30	36	43
In a Year Score	50	50	50	50
Current Gap	14	20	14	7
Criticality	3	3	3	3
Weighted Gap	42	60	42	21

Planning Assum.

	Planning Assumptions	Assumptions and Constaints	Confidence Levels
Target Level	50	50	50
Current Score	43	43	30
In a Year Score	50	50	50
Current Gap	7	7	20
Criticality	3	3	3
Weighted Gap	21	21	60

Risk Management

	Corporate risk managementprocesses	Risk management programme	Critical assets	Review of risk and risk managementactivities	Risk management resources
Target Level	50	50	50	50	50
Current Score	36	36	30	36	43
In a Year Score	50	50	50	50	50
Current Gap	14	14	20	14	7
Criticality	3	3	3	3	3
Weighted Gap	42	42	60	42	21

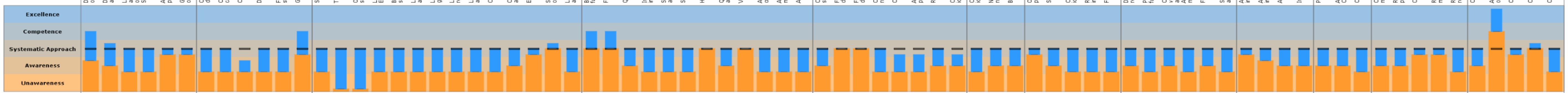
Organisational Commitmen.

	Core business processes	Asset management organisation	Capability and capacity	Council governance	CAM Awareness
Target Level	50	50	50	50	50
Current Score	56	70	50	50	43
In a Year Score	56	76	50	50	50
Current Gap	0	0	0	0	7
Criticality	3	3	3	3	3
Weighted Gap	0	0	0	0	21

Asset Groups(s): ALL
Source(s): (SPM) Unitec New Zealand
Heading(s): ALL
'Target Levels' has been used as the target reference.
No process / review levels found, create one by ticking the review box in one of the source options.

Self Assessment

Current ■ In a Year ■ Target ■ Max/Min ⌶



Strategic Objectives and Outcom.

	Definition of vision and objectives	Definition of the strategies andtactics.	Linkage between assets andthe vision and objectives.	Stakeholders.	Adjacent network providers	Government and communityorganisations
Target Level	50	50	50	50	50	50
Current Score	36	30	23	23	43	43
In a Year Score	70	56	50	50	50	50
Current Gap	14	20	27	27	7	7
Criticality	3	3	3	3	3	3
Weighted Gap	42	60	81	81	21	21

Managing Demand

	Current and future demand	Current and future supply capacity	Changes in demand	Demand factors	Feasible tactics and strategies	Growth projections
Target Level	50	50	50	50	50	50
Current Score	23	23	23	23	23	43
In a Year Score	50	50	36	50	50	70
Current Gap	27	27	27	27	27	7
Criticality	3	3	3	3	3	3
Weighted Gap	81	81	81	81	81	21

Levels of Service

	Strategic levels of service	Tactical levels of service	Operational levels of service	Level of Service Expenditure	Budgets for level of servicechanges	Level of service measures andreporting	Levels of services and growth	Level of service capacity reporting	Linkage between projects andservice levels	Consultation practices	Customer needs assessment	External levels of service	Support and maintenance contracts	Level of service definition andunderstanding
Target Level	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Current Score	23	3	3	23	23	23	23	23	23	23	30	43	50	23
In a Year Score	50	50	50	50	50	50	50	50	50	50	50	50	56	50
Current Gap	27	47	47	27	27	27	27	27	27	27	20	7	0	27
Criticality	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Weighted Gap	81	141	141	81	81	81	81	81	81	81	60	21	0	81

Description of Assets

	Buildings and their functions	Facilities information	Quality of facilities	Infrastructure asset information	Strategic infrastructure assetplan	Specialist assets	Historical cost information	Quality of specialist assets.	Valuation information.	Asset utilisation, criticality,and risk.	Asset information maintenance.	Asset lifecycle plans.
Target Level	50	50	50	50	50	50	50	50	50	50	50	50
Current Score	50	50	30	23	23	23	50	30	50	23	23	23
In a Year Score	70	70	50	50	50	50	50	50	50	50	50	50
Current Gap	0	0	20	27	27	27	0	20	0	27	27	27
Criticality	3	3	3	3	3	3	3	3	3	3	3	3
Weighted Gap	0	0	60	81	81	81	0	60	0	81	81	81

Current and Future Shortfalls

	Current and future asset shortfalls	Future demographic changes.	Factors affecting the demandand supply	Current and future asset needs	Campus master plan	Asset condition and performanceshortfalls	Risk and criticality	Capital project identification
Target Level	50	50	50	50	50	50	50	50
Current Score	30	50	50	23	23	23	30	30
In a Year Score	50	50	50	50	43	43	50	43
Current Gap	20	0	0	27	27	27	20	20
Criticality	3	3	3	3	3	3	3	3
Weighted Gap	60	0	0	81	81	81	60	60

Asset and Non-.

	Capital projects identificaitonand scoping.	Non-asset and non-capitalsolutions.	Benchmarking
Target Level	50	50	50
Current Score	23	30	30
In a Year Score	50	50	50
Current Gap	27	20	20
Criticality	3	3	3
Weighted Gap	81	60	60

Optimised Decision Making

	Options analysis and projectprioritisation	Stakeholder consultation	Capital project driver identification	Record of the capital intentions	Future proofing
Target Level	50	50	50	50	50
Current Score	43	30	23	23	23
In a Year Score	50	50	50	50	50
Current Gap	7	20	27	27	27
Criticality	3	3	3	3	3
Weighted Gap	21	60	81	81	81

Financial Forecasts

	Description of capital requirements	Projects, drivers, and fundinglinkages.	Consequential opex, valuations,and affordability	Alternative funding mechanisms	Financial forecasts	Sensitivity of financial assumptions.
Target Level	50	50	50	50	50	50
Current Score	30	23	30	23	30	23
In a Year Score	50	50	50	50	50	50
Current Gap	20	27	20	27	20	27
Criticality	3	3	3	3	3	3
Weighted Gap	60	81	60	81	60	81

Feedback and Improv.

	Asset and attribute information	Asset data confidence improvements	Asset Management Plan	Improvement tasks
Target Level	50	50	50	50
Current Score	43	36	30	30
In a Year Score	50	50	50	50
Current Gap	7	14	20	20
Criticality	3	3	3	3
Weighted Gap	21	42	60	60

Planning Assum.

	Planning Assumptions	Assumptions and Constaints	Confidence Levels
Target Level	50	50	50
Current Score	30	30	23
In a Year Score	50	50	50
Current Gap	20	20	27
Criticality	3	3	3
Weighted Gap	60	60	81

Risk Management

	Corporate risk managementprocesses	Risk management programme	Critical assets	Review of risk and risk managementactivities	Risk management resources
Target Level	50	50	50	50	50
Current Score	30	30	43	43	23
In a Year Score	50	50	50	50	50
Current Gap	20	20	7	7	27
Criticality	3	3	3	3	3
Weighted Gap	60	60	21	21	81

Organisational Commitmen.

	Core business processes	Asset management organisation	Capability and capacity	Council governance	CAM Awareness
Target Level	50	50	50	50	50
Current Score	30	70	43	50	23
In a Year Score	50	96	50	56	50
Current Gap	20	0	7	0	27
Criticality	3	3	3	3	3
Weighted Gap	60	0	21	0	81

Asset Groups(s): ALL
Source(s): (TEC) Unitec New Zealand
Heading(s): ALL
'Target Levels' has been used as the target reference.
No process / review levels found, create one by ticking the review box in one of the source options.

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