

An overview of asset management for the public and private sectors

Kim Bruton, Chief Engineer Wodonga Hospital – Albury Wodonga Health

Presented by - Jason Corneliusen
Relieving Engineer, Wodonga Hospital
Albury Wodonga Health Service

Overview

This presentation is a view of asset management for the typical Hospital Engineer within health sector in order to understand the importance of asset management. It does not purport to be technically correct but does attempt to cover the basic concepts of asset management and the necessary relationships between the differing disciplines.

The question is “Are Hospital Engineers facility, asset or maintenance managers? “

The presentation will cover the following :

- Introduction to asset management
- Concept of ‘Total Asset Management’
- The life cycle
- Facility costs
- Life cycle costs
- Asset performance
- Maintenance planning
- Private Sector Life Cycle Example
- Conclusion

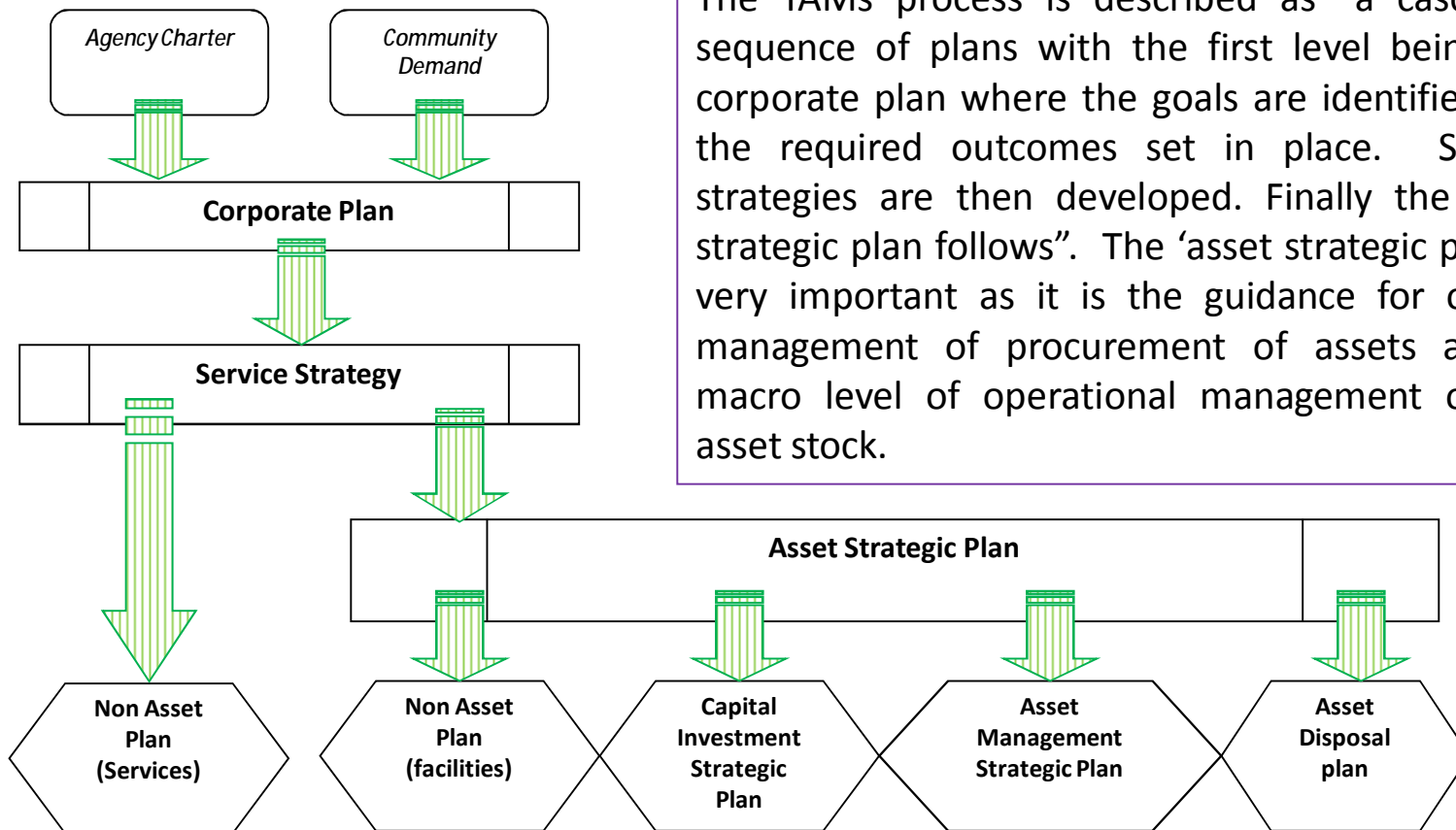
Introduction

The term 'Asset Management' is used across many industries and is perceived in many different ways, consequently multiple approaches when implemented. These perceptions when applied to the role of Hospital Engineering are compounded without training and support from the other disciplines concerned with asset management. This comment is not intended to shift responsibility for poor asset management outcomes, but to express a view that the other disciplines involved also have the same problem understanding 'Asset Management' as a whole.

Asset management is "a systematic approach to the procurement, maintenance, operation, rehabilitation and disposal of one more assets which integrates the utilization of assets and their performance with the business requirements of the owners and users."

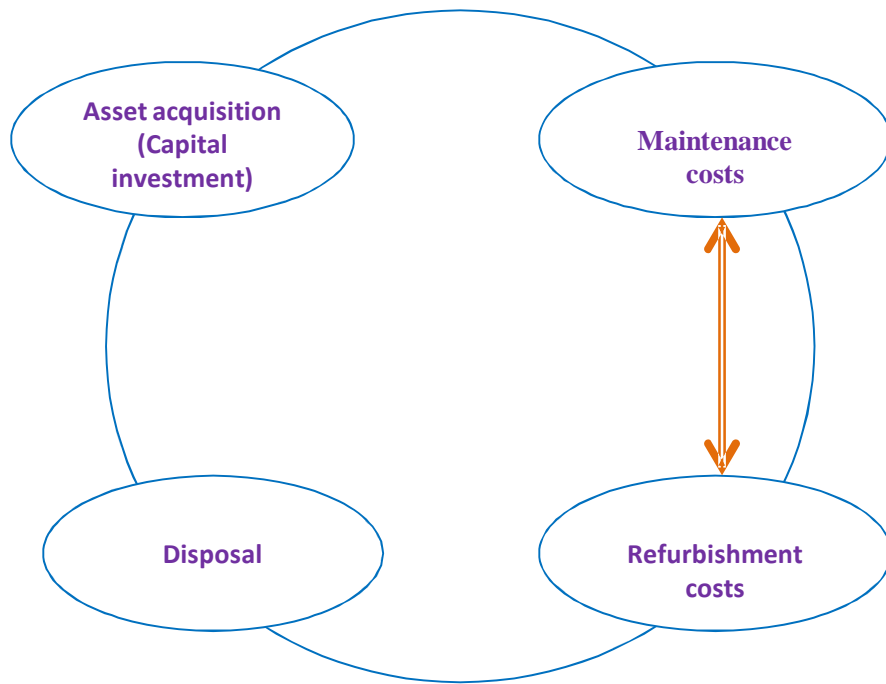
Maintenance is "all actions necessary for retaining an item or asset in, or restoring it to, its original condition."

Total Asset Management



The TAMs process is described as “a cascading sequence of plans with the first level being the corporate plan where the goals are identified and the required outcomes set in place. Service strategies are then developed. Finally the asset strategic plan follows”. The ‘asset strategic plan’ is very important as it is the guidance for overall management of procurement of assets at the macro level of operational management of the asset stock.

Life Cycle



Capital costs, and

Asset acquisition (capital investment)

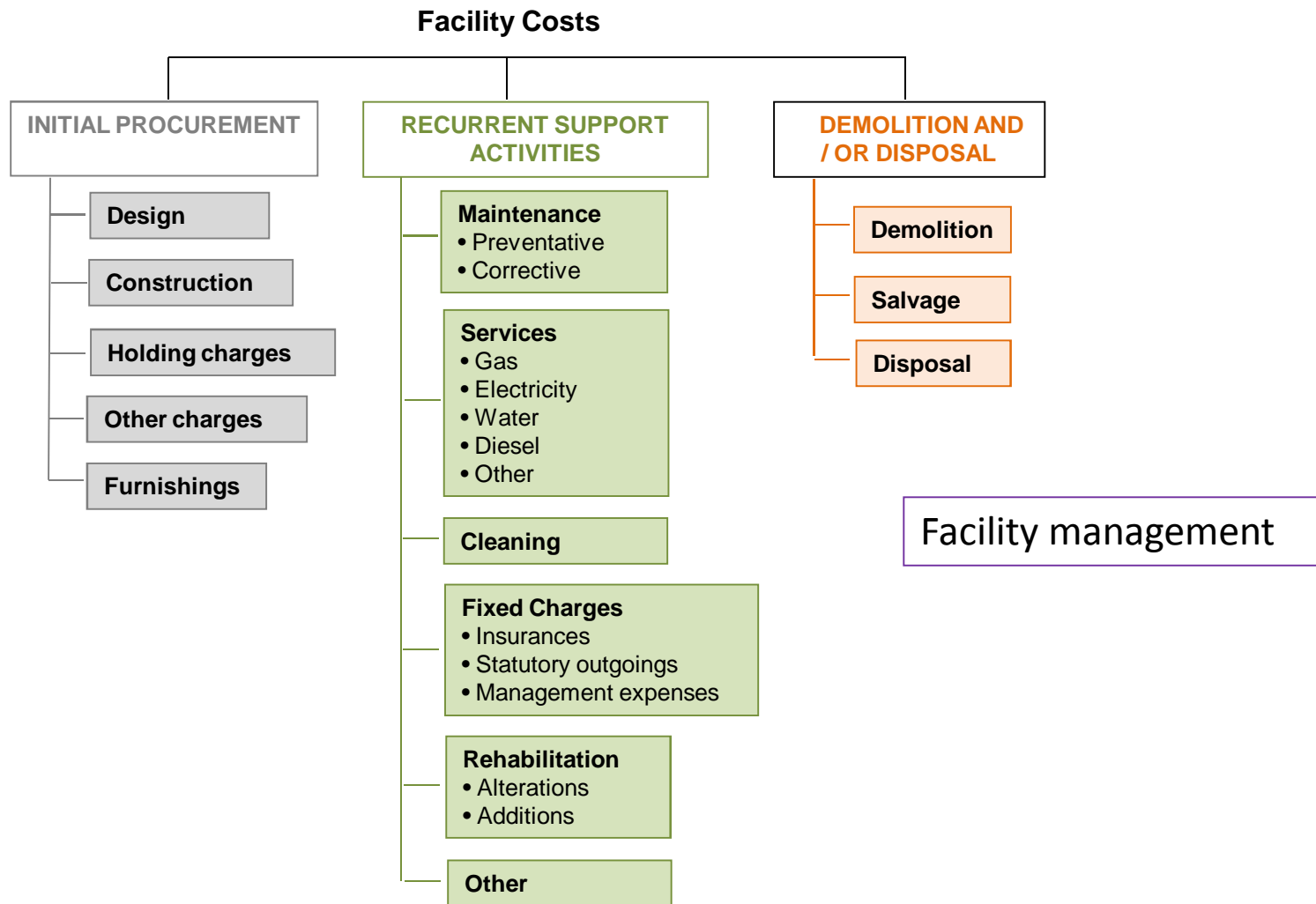
Maintenance costs

Refurbishment costs

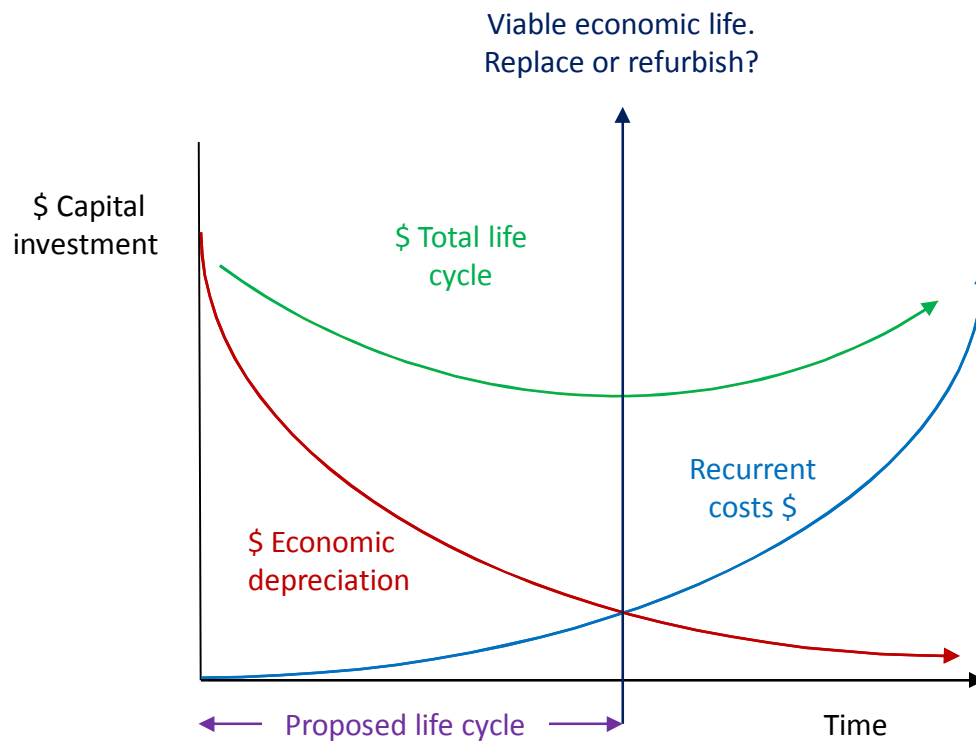
Disposal

Asset replacement value

Facilities Costs



Life cycle costs



Life cycle cost analysis

Chart of accounts

Depreciation

Life cycle cost analysis, put simply, looks at the point where rising costs of the asset intersects the diminishing depreciated value of the asset. This is the optimum point over time to either replace or refurbish the asset and is how the life span can be determined.

Asset Performance

TOTAL FACILITY			
REQUIREMENT SUPPORT ACTIVITIES			
Maintenance		●	\$ per sq.m.
Preventive	●	●	\$ per occupant unit
Corrective	●	●	Operating cost per lift (\$)
Delayed	●	●	Usable floor area per occupant unit
Lifts	●	●	Gross building area per occupant unit
Gas	●		% of total recurrent expenditure
Electricity	●	●	% of total facility expenditure
Oil	●	●	% of C.R.V.
Water	●	●	\$ per hectare
Other	●	●	G J per occupant unit
Fixed charges	●	●	G J per sq.m.
Insurances	●	●	Rental \$ per sq.m.
Security services	●	●	Income \$ per annum
Management expenses	●	●	Total expenses v. gross income (%)
Rehabilitation	●	●	
Alterations	●	●	
Additions	●	●	
Deferred	●	●	
Other support costs	●	●	

Performance measure
Performance indicator
Facilities audit

Minimum measures for total facility

- \$ per sq. m.
- R&M % of CRV

Maintenance Planning

What are the incentives for maintenance planning? Again from the TAMs review some of the following were identified;

- Assets perform at optimum levels, reducing service disruptions and losses due to failure.
- Risks to the health service can be identified and ameliorised (make or become better).
- The costs of ‘asset maintenance’ can be quantified and budgeted with confidence.
- The performance of the asset can be reviewed to suit the service delivery needs.
- The plan provides a foundation for continuous process improvement.
- Funding and executive performance assessment is linked to the presence of a plan.
- User-focused work environment.
- Reduced environmental impact by controlling resource usage.

Contract KPIs

Service provision:

- Periodic testing and maintenance of the Steam boiler will occur every fifth week (as agreed). The work will be performed within the period of two normal working days prior or two days post the agreed date of service.
- Annual testing and maintenance of the steam boilers will occur annually on one of the five weeklies (as agreed). The work will be performed within the period of five normal working days prior or five days post the agreed date of service.
- The bi-annual servicing of the three heating hot water boilers at 6 monthly intervals. The work will be performed within the period of five normal working days prior or five days post the agreed date of service.
- The contractor shall, without delay commence the corrective or emergency maintenance works:
 - (i) not greater than three hours during normal hours, and
 - (ii) after normal hours, four hours unless in agreement with Engineering.

Goods:

- Quality - this relates to the quality of the goods provided including durability and fitting in the existing filter boxes.
- Compliance - this will relate to compliance to the agreed terms and conditions of the final agreement with the successful contractor.
- Response times - this will relate directly to the agreed delivery times of the goods with the successful contractor.

Private Sector Life Cycle example

The Casey Hospital, Melbourne

- Is a public private partnership (PPP) project that has been operational for some years now where the Project Company and FM Provider operate the ongoing maintenance of the facility.
- The whole of life (WOL) analyses requires detailed information from design and includes services, architectural and FF&E to ensure an accurate evaluation of the long term maintenance costs can be established.
- For the 1st five years of the contract, the maintenance budget is 1.5% of the CRV. After this would split so that 0.75% is allocated to life cycle replacement of the assets.

Conclusions

Hospital Engineers play a key role in asset preservation and the quality of infrastructure for health service provision in Australia. In answer to the original question “are Hospital Engineers facility, asset or maintenance managers?”

- Asset Manager - By definition there are few Hospital Engineers in Australia with the responsibilities in their role that aligns with the total asset management process.
- Facility Manager - Many of our peers within larger the health facilities particularly in the private sector do have responsibilities that would align them as facility managers in the true sense.
- Maintenance Manager - But for the majority of Hospital Engineers we are simply maintenance managers. This statement should not be taken in the wrong context. The definition is “all actions necessary for retaining an item or asset in, or restoring it to, its original condition.” This role is equally demanding as the responsibilities of asset and facility managers, but provides many challenges at the micro level and the ultimate reward when the building stock is in reasonable order, all plant and equipment is functioning to the best of its ability. At the coal face you can walk through the facility without being asked at every turn “when are you going to fix?”