

Capital Asset Management at the University of Auckland



Who are We?



- The University is a **Tertiary Educational Institute (TEI)**
- TEI's are required by Government to manage assets well to ensure the efficient use of national resources and must comply with the related statutory processes.



Why is the government interested in the tertiary education sector?



• Tertiary education institutions collectively own and manage the fourth largest asset base across government – approx \$6.7 billion (behind NZTA, HNZC and MOE).

By 2020 asset base is forecast to increase to \$10.0 billion



Why is the TEC interested in Capital Asset Management (CAM)?



- Institutions telling government:
 - Large amounts of deferred maintenance in sector
 - Requirements to upgrade facilities (i.e. not fit-forpurpose, earthquake strengthening etc)
 - Change in demand mainly Auckland
 - Major rebuilds in Christchurch
 - Total cost of future upgrades hard to quantify
- Poor investment and maintenance decisions are <u>major</u> contributors to institutional risk
- Need new information to understand impact of the Christchurch earthquakes including the flow on effects to other TEIs (e.g. meeting revised building code requirements)

Capital Asset Management (CAM) What is this?



- Business process that contributes to organisational efficiencies,
- Improved asset utilisation,
- Reduced operating costs,
- More effective use of capital





In Other Words -Sweat the Assets





Where have we come from?



GROSS FLOOR AREA & AREA PER STUDENT



Where are we today?



- Condition based assessments have identified a considerable backlog maintenance liability at the University
- Approximately 47% of the overall University buildings is assessed as operational but requiring major repair or replacement within 3 to 10 years,
- A significant portion of this will be addressed in time due to the reconfiguration and refurbishment of buildings through the major capital works programme.
- There are considerable differences in building condition by sector





Three areas identified:

- 1. Financial performance (i.e. how much are TEIs spending and on what?)
- 2. Capacity and Capability (i.e. how are assets performing now, and planned to perform in the future?)
- 3. Organisational Asset Management Enablers:
 - CAM Capability (how are assets being managed, how are TEIs doing at linking capital planning to their strategy?)
 - Business Cases (i.e. how are decisions about new high-risk and high-value investments made?)

Where are we heading?



		EFTS Growth 2011 to 2019										
	2011 EFTS Actual	UG & Non- Degree	PGT	PGR	Total G	2019 EFTS						
	EFTS	EFTS	EFTS	EFTS	EFTS	%	EFTS					
Arts	5,890	146	218	123	487	8%	6,377					
Business & Economics	5,655	100	570	182	852	15%	6,507					
Education	3,176	(726)	794	81	149	5%	3,325					
Engineering	2,855	297	118	88	503	18%	3,358					
Law	1,395	43	37	-	80	6%	1,475					
Medicine	3,574	75	7	51	133	4%	3,707					
NICAI	1,760	(63)	50	83	70	4%	1,830					
Science	7,199 151		212	249	612	9%	7,811					
	31,504	23	2,006	857	2,886	8%	36,419					

Maturity by Agency





Sector Self-Assessment







Audit Results



- The results show that the University has:
 - Attained a very high level of lifecycle decision making maturity
 - "UoA is advanced in asset management practices" comment from external auditor.
 - Capital asset management planning has largely become a business as usual process for the University
 - The asset management planning outcomes have been used to inform the financial projections and long term capital plan
 - For demand forecasting, decision making and capital investment strategies the appropriate level of asset management maturity has already been reached

Property Services – IT Systems



ID	Task Name	1998 H1 H2	1999 H1 H2	2000 H1 H2	2001 H1 H2	2002 H1 H2	2003 H1 H2	2004 H1 H2	2005 H1 H2	2006 H1 H2	2007 H1 H2	2008 H1 H2	2009 H1 H	2010 2 H1 H
1	Access Control System													
2	Utility - Check Meter System		1										-	_
3	Building Management System		-											_
4	Asset Management - Maximo System		-										-	
5	Space Management - Insite System	_	-											_
6	As Built Building Information System	_												
7	Utility Metering - Stream													
8	Utility Revenue - EnergyPro System													
9	Web Content Management													
10	Site Services Information													_
11	Key Control System													
12	Security Incident Reporting System						_							
13	Car Parking System													
14	Bookings Management System													
15	CCTV System													
16	Botanical Plant Database													
17	Condition Based Maintenance													
18	Utility Metering - Outpost													
19	Utility Cost Distribution													
20	Building Lighting Control - C-Bus System										_			
21	Safe Zones - Jacques System										_			
22	Building Lease Database											_		
23	Emergency Lighting Monitoring System													
24	Fire Panel Management System	-												

More Complex Buildings





Separate Control Environments

Bridging the Gap





Better Tools Better Results





Data Accuracy Challenges



- Condition Surveys (Engineers/Trades/Contractors)
- As-Built Documents (Project Managers/Contractors)
- Asset Data Updates (Additions <u>and</u> Deletions)
- Space Data Updates (Project Managers)
- Refurbishment Updates (Project Managers)





Conclusions are no better than the data they are based on

Data Quality Improvement





47°

LOW

63°

63°

^{2 MPH} 63°

61°

70°

81°

Versu

S

Cycle of Review & Improvement





Summary



- Three areas have developed as requiring focus
 - Customer levels of service,
 - Documenting business processes,
 - Enhancing the Capital Asset Management plan







Questions?