Tertiary Education CAM Workshop

Asset Management Plans

17 February 2012

Objective and Overview

Asset Management Plans

The **objective** is to develop an understanding of how Asset Management Plans are produced:

- Purpose, definitions and misconceptions
- Where AMPs fit strategically
- Levels of AMP maturity
- AMP development process
- Typical structure and content

Reference: 2011 International Infrastructure Management Manual

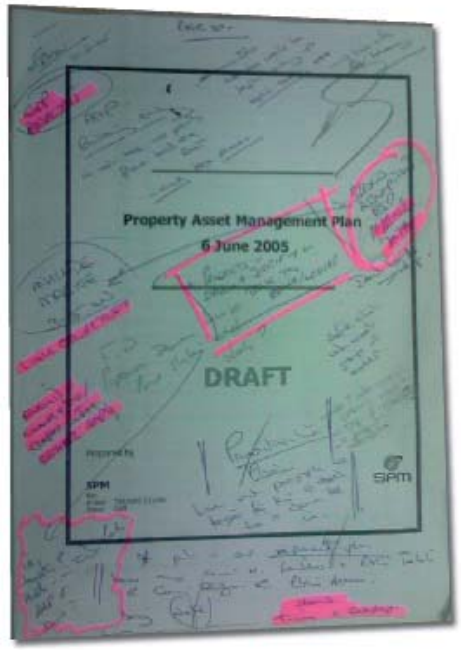
Purpose, Definitions and Misconceptions

Asset Management Plans

- Asset Management Plans provide the means to document and communicate the programmes and resources required to deliver asset based organisational strategies and outcomes.
- Formal definition (2011 IIMM):

*Long term **plans** that outline the **asset** activities and programmes for each service area and **resources** applied to provide a defined **level of service** in the most **cost effective** way.*

- Misconceptions:
  - Asset Management Plan ≠ Capital Asset Management
  - Not the sole outcome from the CAM 'process'
  - Not a list of planned maintenance
  - Not a standalone document
  - *Don't make ideal door-stops*



Link to Strategic and Operational Planning

Asset Management Plans

Figure 1.2.2: Strategic, Tactical and Operational Planning

Asset Management Process

Asset Management Plans

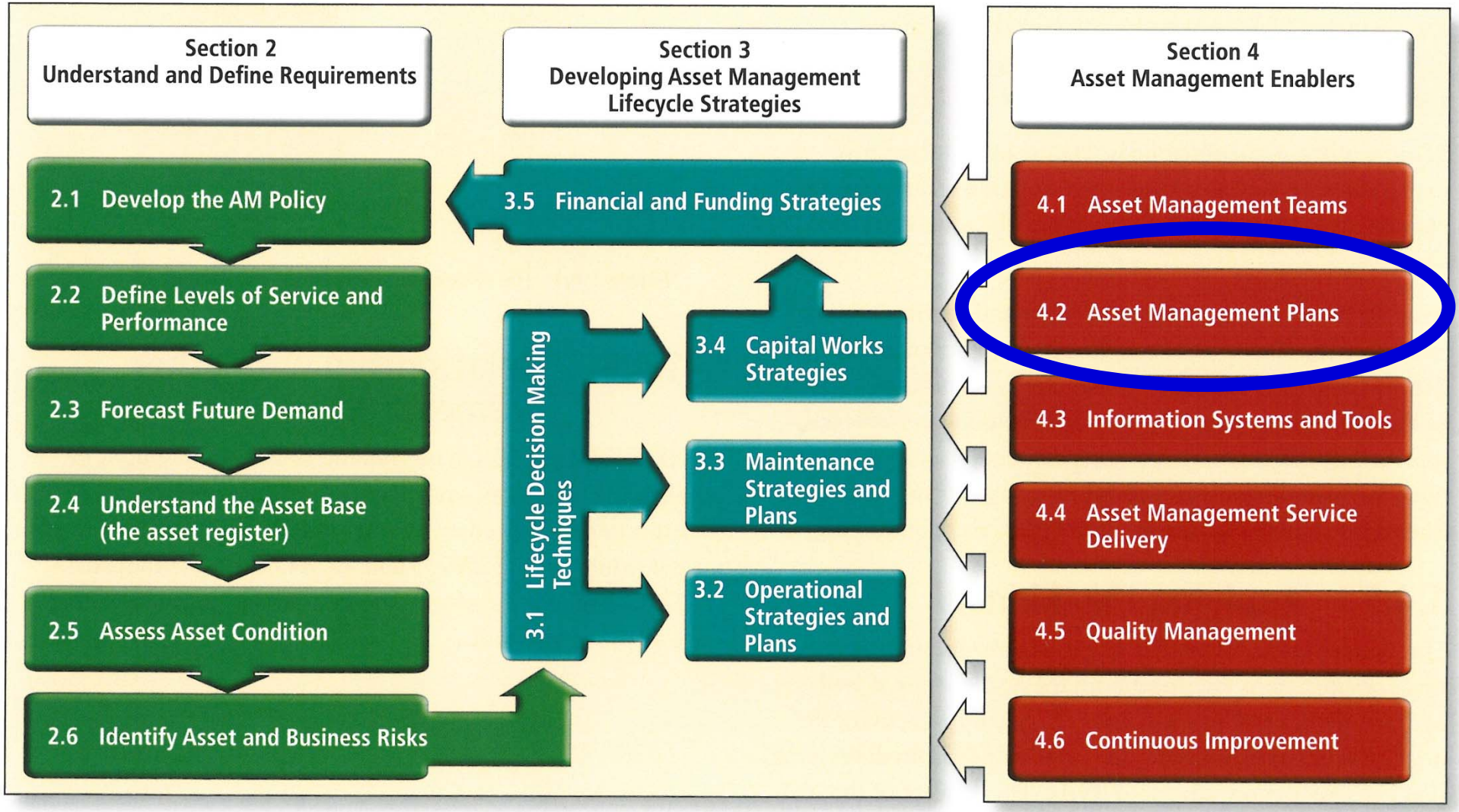
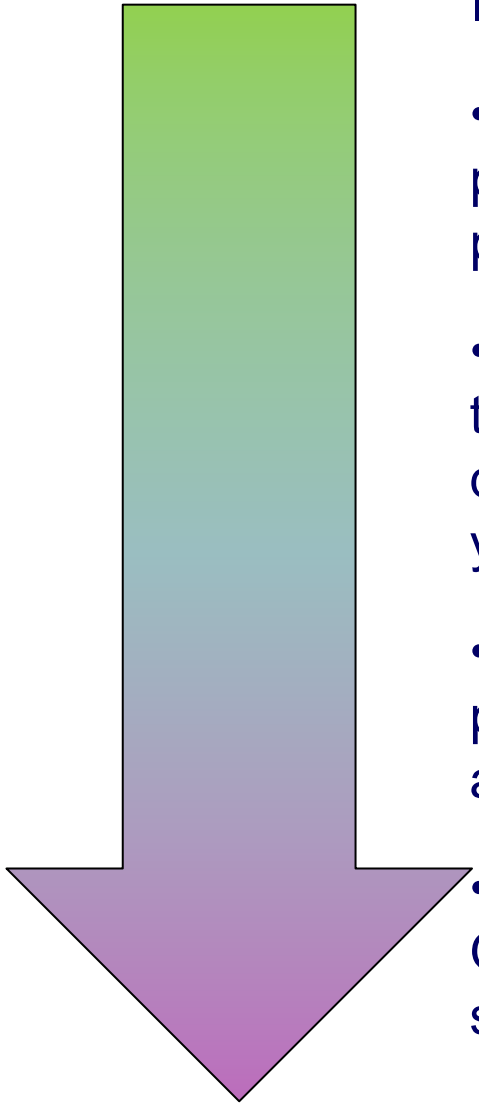


Figure 1.3.1: The Asset Management Process

Levels of Asset Management Plan Maturity

Asset Management Plans



IIMM defines AMP 'maturity' in terms of 4 levels:

- **Minimum**: Basic information on assets, service levels, planned works and financial forecasts (<10 years), and planned future improvements.
- **Core**: … *plus* description of services and critical assets, top-down condition and performance description, future demand forecasts, description of AM processes, and 10 year financial forecasts.
- **Intermediate**: … *plus* analysis of asset condition and performance trends, stakeholder engagement, and ODM and risk techniques applied to major projects.
- **Advanced**: … *plus* evidence of programmes driven by ODM techniques, risk management programmes, and service level trade-off analysis.

Development of the AMP

Asset Management Plans

- Establish the **objectives** of the AMP and the intended **audience**. Agree the level of detail and planning assumptions.
- Decide the **approach** for developing the first AMP. Consider availability and quality of existing information and documents.
- Develop the AMP **template** to provide a logical flow. It should tell a **story** and provide the **glue** to link assets to outcomes.
- Produce the AMP using the **available information**. Recognise the reality of imperfect and incomplete information.
- Review the AMP for consistency and against good practice. Agree areas of targeted **improvement**. Monitor implementation.
- **Maintain** the AMP reflecting approved budgets, changing priorities, and changing asset performance.

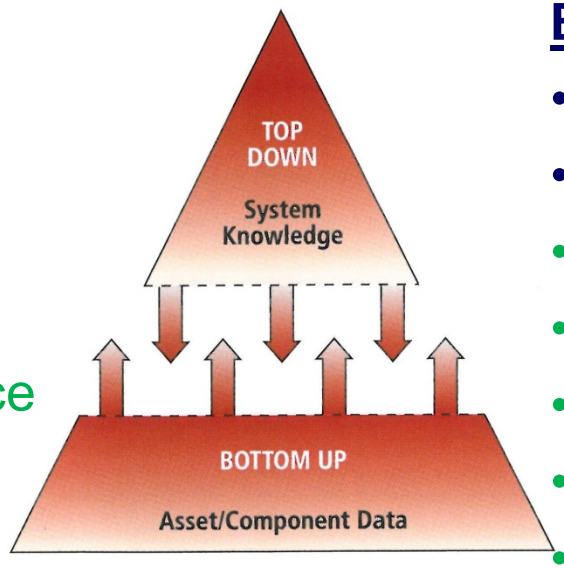
Development of the AMP

Asset Management Plans

The approach will depend on the level of system maturity:

Top – Down Approach

- Typically early AMPs
- Use existing information, experience and judgment
- System level analysis
- Easier and faster to produce
- Early identification of risk areas and improvements
- Judgment based decisions
- Limited options analysis
- Lower confidence levels
- Sub-optimal decisions



Bottom – Up Approach

- Advanced AMPs
- Data and process driven
- Analysis at asset level
- Continuous improvement
- Scenario modeling
- Detailed options analysis
- Evidence based decisions
- Higher level of confidence
- Time and resources intensive
- Risk of becoming data rich and information poor

Gaining organisational engagement:

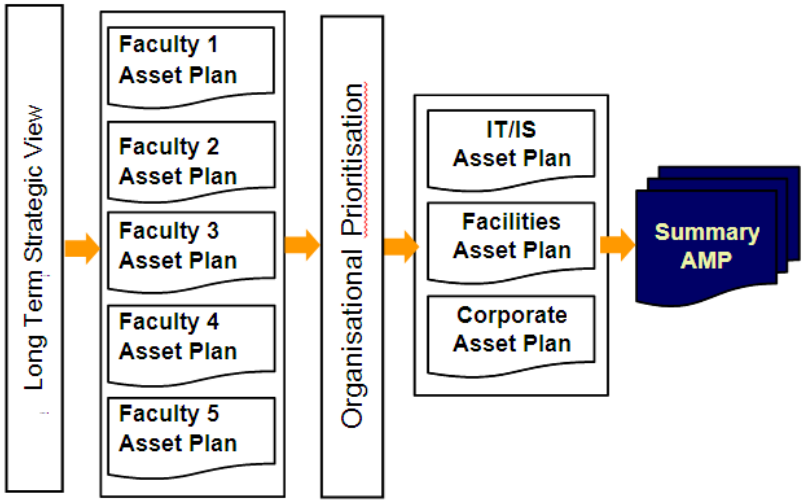
•AMPs are part of the ongoing business process – they are not one-off documents.

•AMPs should be prepared in consultation with key stakeholders, and ideally with input from throughout the organisation.

•They should be produced iteratively and 'socialised' internally.

•AMPs should consider all material assets used in the delivery of organisational outcomes – generally more than facilities.

- Consider developing departmental mini-AMPs to then inform infrastructural and support AMPs.



Typical Structure and Content

Asset Management Plans

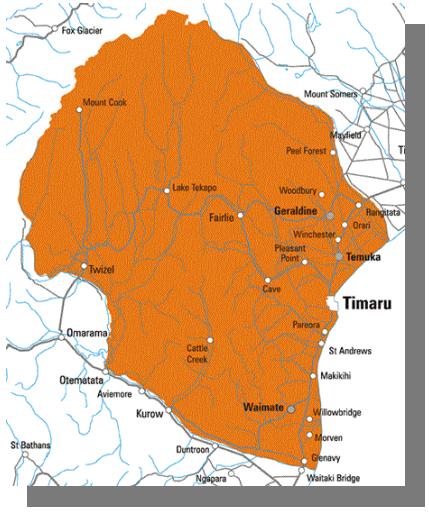
- AMPs should tell a story from the assets' perspective – they provide the glue between assets and outcomes.

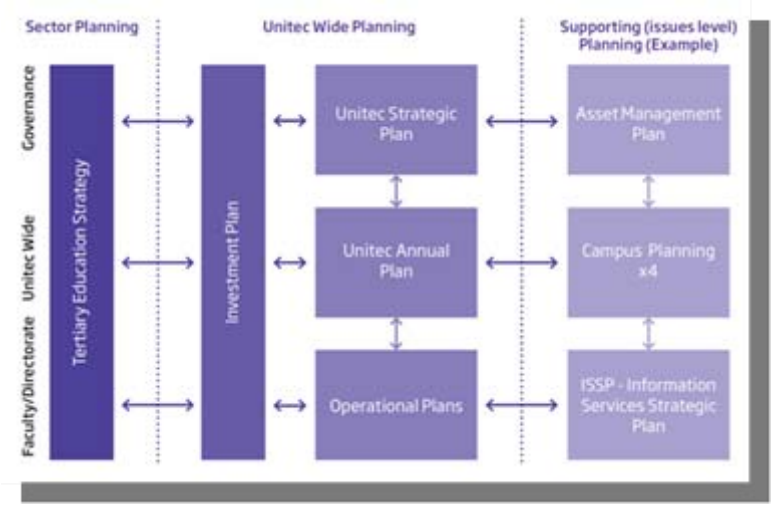
- Typical AMP template:
  - Executive Summary
  - Introduction
  - Levels of Service
  - Future Demand
  - Lifecycle Management Plan
  - Financial Summary
  - Planned Improvements
  - Appendices

AMP - Introduction

Asset Management Plans

- Background and purpose – set the scene
- Relationship with other planning documents
- Summarise and overview of the assets
- Summarise the links to organisation goals and objectives
- Identify the key stakeholders and their areas of need
- Identify the key planning assumptions and limitations
- Describe the level of AMP maturity and resulting confidence

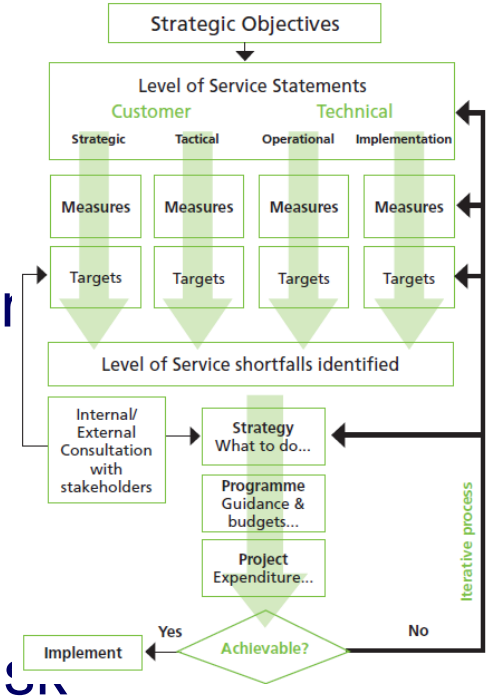




AMP - Levels of Service

Asset Management Plans

- Strategic goals and impacts on the levels of service:
  - Strategic, e.g. location and quality
  - Tactical, e.g. facilities and features
  - Operational, e.g. cleaning and access
  - Consider legislative and regulatory requiremer
  - Consider stakeholder requirements
  - Summarise current levels of service
  - Summarise future levels of service
  - Describe anticipated shortfalls and resulting ris
  - Discuss options and tradeoff available to address shortfalls
  - Summarise the major projects related to Levels of Service

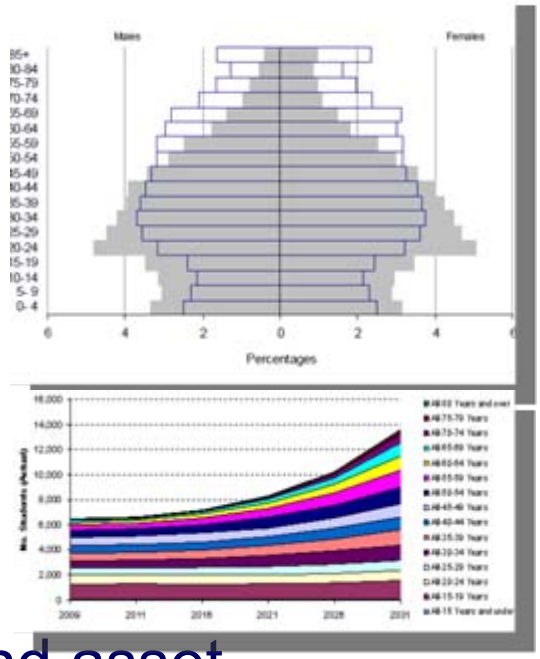


Reference: International Infrastructure Management Manual, Section 2.2

AMP - Demand

Asset Management Plans

- Identify the factors influencing demand:
  - Population and Demographic
  - Customer expectations, e.g. parking, childcare
  - Technology, e.g. remote learning, forestry harvesting
  - Economic and industrial



- Summarise demand forecasts
- Consider potential demand scenarios
- Consider the impact of demand on assets and asset utilisation
- Consider the sensitivity of asset requirements to demand
- Consider asset and non-asset solutions
- Summarise the major projects related to Demand management

Reference: International Infrastructure Management Manual, Section 2.3 and 3.1.4

AMP - Lifecycle Management Plan

Asset Management Plans

- Asset data – summary of existing assets:
  - Type, location, and age
  - Size, capacity and utilisation
  - Condition and performance
  - Valuation and historical costs

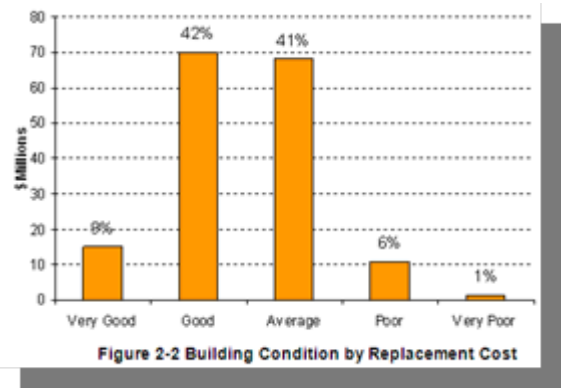


Figure 2-2 Building Condition by Replacement Cost

- Maintenance plan – maintaining existing assets
- Renewals plan – renewing and replacing existing assets
- New asset plan – creating and acquiring new or upgraded assets
- Disposal plan – retiring and disposal surplus assets
- Risk management plan – managing asset related risks
- Summarise the major projects related to Renewals and Disposal

Reference: International Infrastructure Management Manual, Section 3.4

AMP - Financial Summary

Asset Management Plans

Considering the information provided in the previous sections:

- Financial statements and projections
  - Expenditure by service group or department, e.g. faculty or school
  - Expenditure by asset type, e.g. facilities, infrastructure and ICT
  - Expenditure by type, e.g. operation, renewal and new works
- Funding strategies – funding sources and categorisation
- Affordability – future operating, maintaining and financial costs
- Valuation forecasts – replacement, depreciated and depreciation
- Assumptions, scenarios and confidence levels

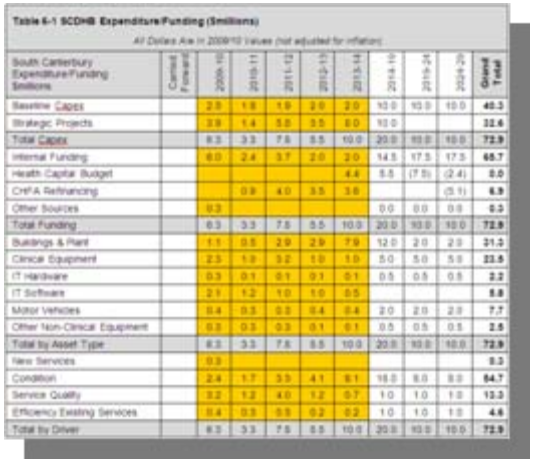


Table 6-1 SCDHB Expenditure/Funding ($millions)

All Dollars Are in 2009/10 Values (not adjusted for inflation)

South Canterbury Expenditure/Funding $millions	Carried Forward	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 to 2016-17	2017-18 to 2021-22	2022-23 to 2031-32	Grand Total
Baseline Capex		2.5	1.8	1.9	2.0	2.0	10.0	10.0	10.0	40.3
Strategic Projects		3.8	1.4	5.6	3.5	8.0	10.0			32.6
Total Capex		6.3	3.3	7.5	5.5	10.0	20.0	10.0	10.0	72.9
Internal Funding		6.0	2.4	3.7	2.0	2.0	14.5	17.5	17.5	65.7
Health Capital Budget						4.4	5.5	(7.5)	(2.4)	0.0
CHFA Refinancing			0.9	4.0	3.5	3.6			(5.1)	6.9
Other Sources		0.3					0.0	0.0	0.0	0.3
Total Funding		6.3	3.3	7.5	5.5	10.0	20.0	10.0	10.0	72.9
Buildings & Plant		1.1	0.5	2.9	2.9	7.9	12.0	2.0	2.0	31.3
Clinical Equipment		2.5	1.9	3.2	1.0	1.0	5.0	5.0	5.0	23.5
IT Hardware		0.3	0.1	0.1	0.1	0.1	0.5	0.5	0.5	2.2
IT Software		2.1	1.2	1.0	1.0	0.5				5.8
Motor Vehicles		0.4	0.5	0.3	0.4	0.4	2.0	2.0	2.0	7.7
Other Non-Clinical Equipment		0.2	0.3	0.2	0.1	0.1	0.5	0.5	0.5	2.5
Total by Asset Type		6.3	3.3	7.5	5.5	10.0	20.0	10.0	10.0	72.9
New Services		0.3								0.3
Condition		2.4	1.7	3.5	4.1	5.1	16.0	8.0	8.0	54.7
Service Quality		3.2	1.2	4.0	1.2	0.7	1.0	1.0	1.0	13.3
Efficiency Existing Services		0.4	0.3	0.5	0.2	0.2	1.0	1.0	1.0	4.6
Total by Driver		6.3	3.3	7.5	5.5	10.0	20.0	10.0	10.0	72.9

Reference: International Infrastructure Management Manual, Section 3.4

AMP - Planned Improvements

Asset Management Plans

- Summary of current and desired AM practices
- Improvements typically categorised in terms of:
  - AM Processes
  - Asset data
  - AM Information systems
  - Capability, i.e. people
- Details of activities, milestones, resources and responsibilities
- Monitoring and review process – internal and external
- Performance measures – measuring and reporting effectiveness

Reference: International Infrastructure Management Manual, Section 4.6

Key Thoughts

Asset Management Plans

- AMPs provide the **glue** that links assets to outcomes
- AMPs should tell the **story** from the assets perspective
- AMPs are a **communication** tool – socialise them
- Level of **detail & maturity** should reflect the organisation's need
- Imperfect and incomplete **information** is a *true-fact*
- Make them graphical and **easy to read**
- Celebrate **achievements** and plan **improvements**
- Don't make ideal door-stops