Increasing customer value with improved asset management

Don't open the lolly cupboard to early!

State Government Victoria

FUJITSU - Melbourne Water

AMIS-

About us

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  Melbourne Water GM Asset Planning

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Melbourne Water takes a "whole of life" approach to asset management.

Critical to implementation of this approach is implementation of an effective asset management information system (AMIS)

Asset management at Melbourne Water is underpinned by the following five guiding principles:

1. Levels of service are driven by customer needs

2. Asset performance and condition are regularly assessed

3. Decisions are made based on risk and value

4. All risks are managed by defined hierarchy of controls

5. Ensure decisions are flexible and adaptable

The AMIS supports management of:

- $10B assets
  - Built
  - Natural Assets
- 50,000 work activities per annum
- $100M per annum
- 500 users -MW and Service Providers
- Informs major investment decisions

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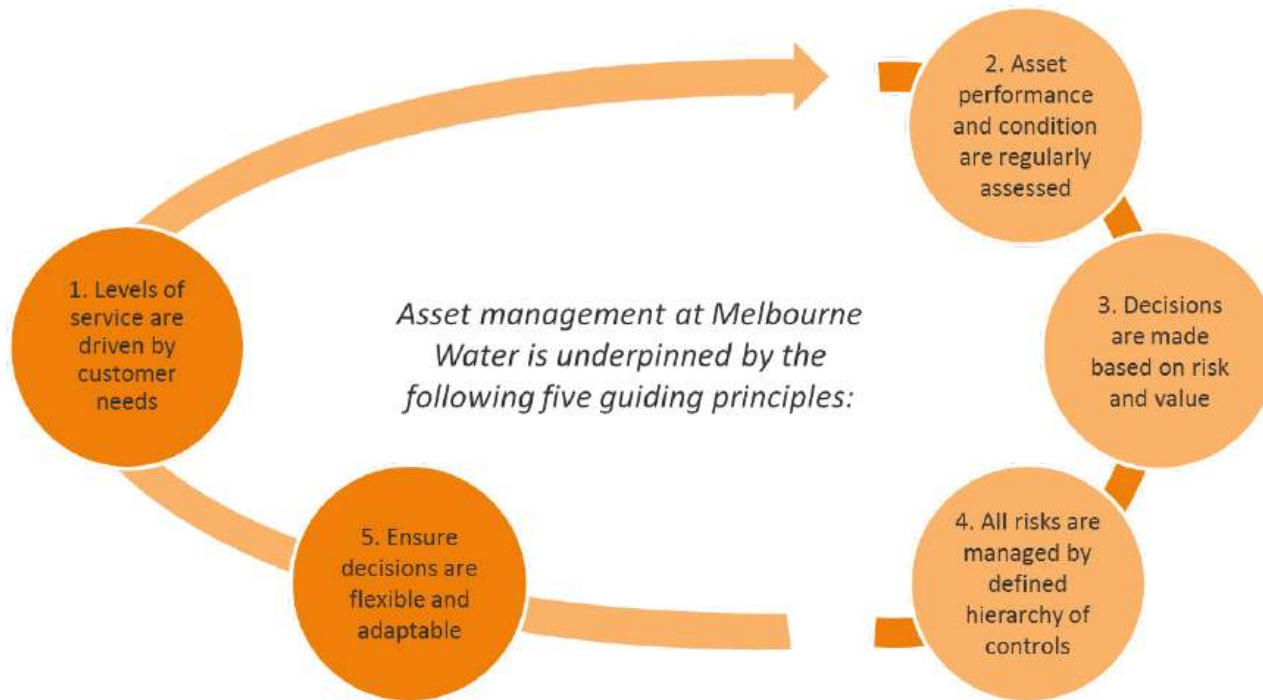
Decision options

Decision Context:

- Customers seeking increased service offering

- Pricing pressures

- Significant asset base – can we adapt and optimise?

  - Our system is 15 years old (Hansen V7)

  - No ongoing incremental upgrade path

  - Significant investment to move to Hansen V8

Options

- Invest in a substantial version upgrade,

- Go to market for a replacement system, or ☑

- Do nothing?

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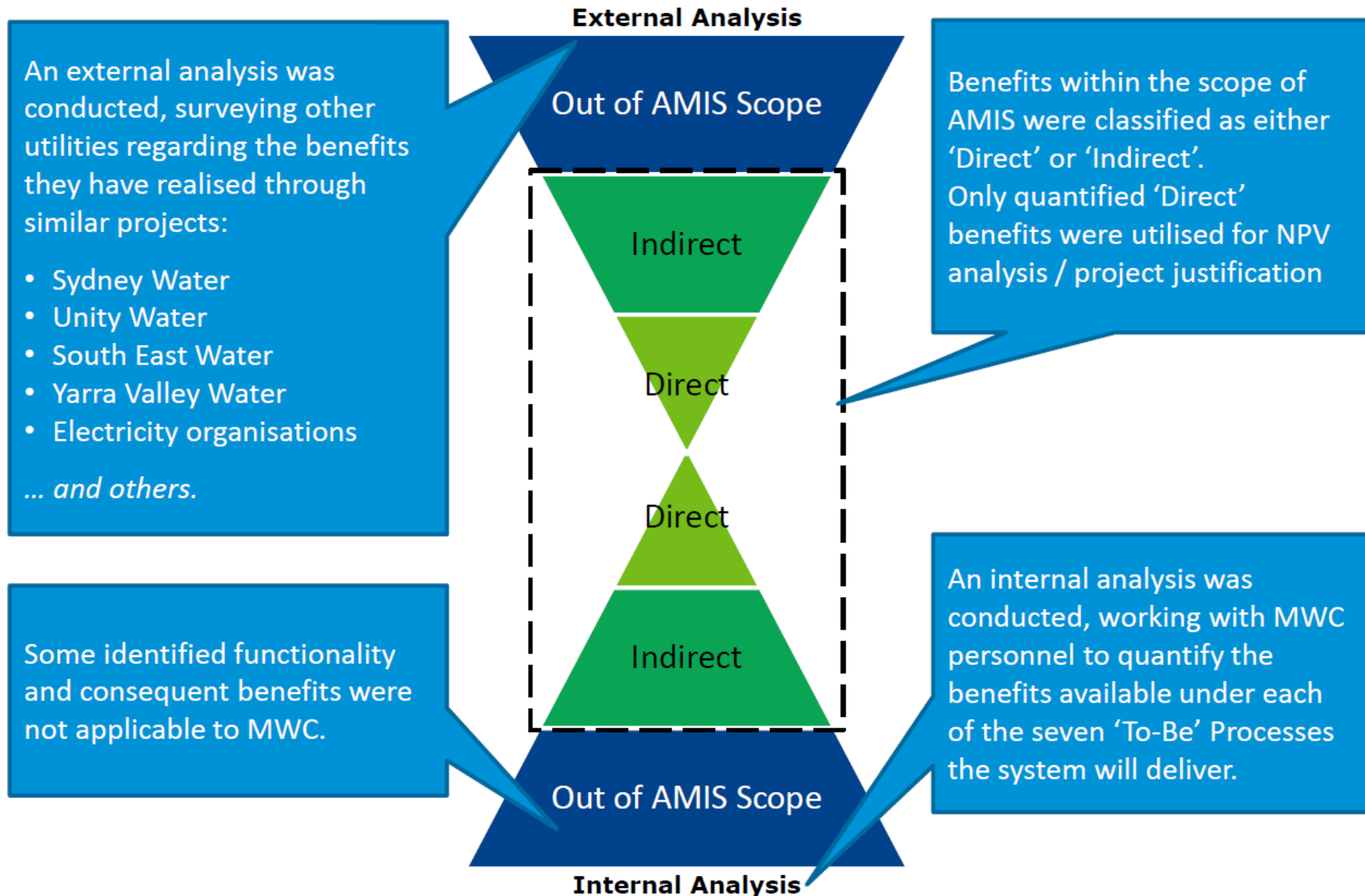
People and Process before Technology
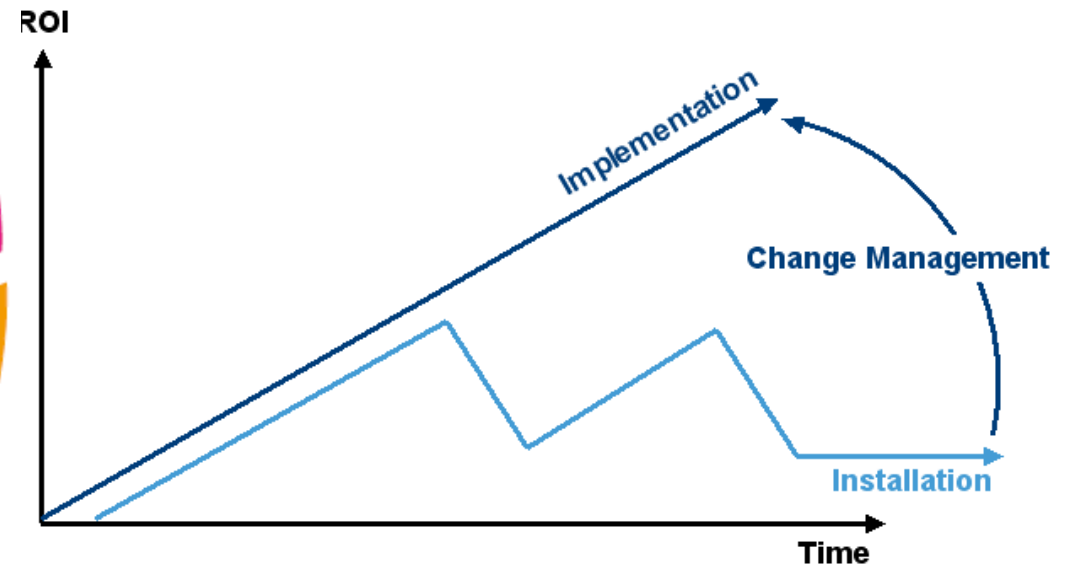
People and Process before Technology

The result was:

- Process Improvements - related to 7 core AM processes
- Non-Process Improvements - related to org structure, role descriptions, practices , etc.
- System Improvements - related to support of improved processes
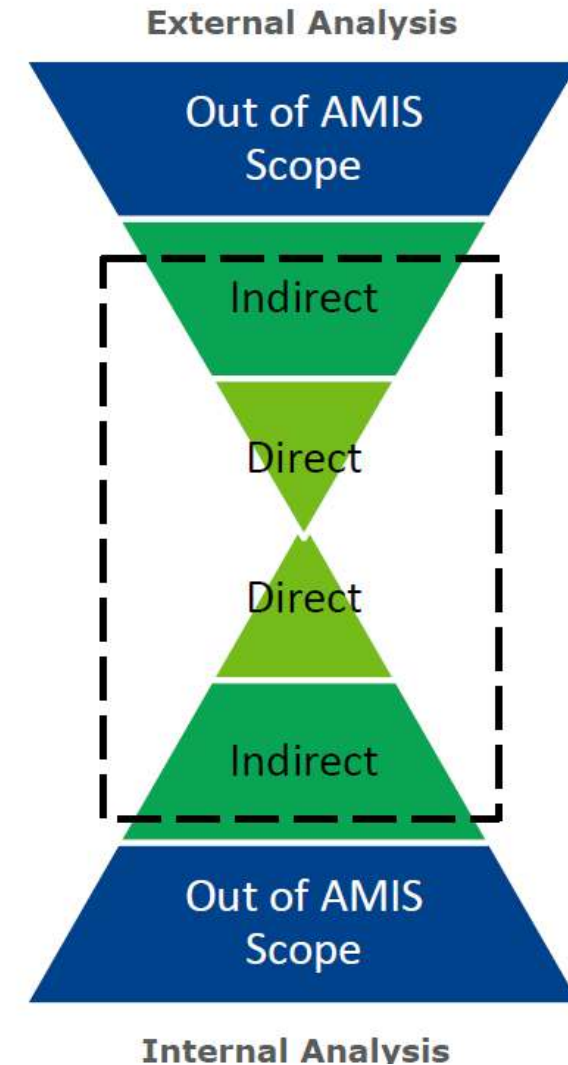
The Melbourne Water Assessment

External Analysis

Out of AMIS Scope

Indirect

Direct

Direct

Indirect

Out of AMIS Scope

Internal Analysis

An external analysis was conducted, surveying other utilities regarding the benefits they have realised through similar projects:

- Sydney Water
- Unity Water
- South East Water
- Yarra Valley Water
- Electricity organisations

... and others.

Some identified functionality and consequent benefits were not applicable to MWC.

Benefits within the scope of AMIS were classified as either 'Direct' or 'Indirect'.
Only quantified 'Direct' benefits were utilised for NPV analysis / project justification

An internal analysis was conducted, working with MWC personnel to quantify the benefits available under each of the seven 'To-Be' Processes the system will deliver.

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Don't open the lolly cupboard to early

What we want or desire vs. **What we need!**
(show me the tool!)

External Analysis

Out of AMIS Scope

Indirect

Direct

Direct

Indirect

Out of AMIS Scope

Internal Analysis

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Why Maximo?

- Met all the criteria to implement Melbourne Water's 7 core processes.

- Clearly demonstrated the functionality to grow and adapt with Melbourne Water's future Asset Management goals and objectives (15 year strategy).

- Considered to be a robust and well supported technology already well utilised within the broader water industry.

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Why Fujitsu?

- Fujitsu provided confidence that they could deliver successful outcomes demonstrating sound method, process and industry knowledge

- Melbourne Water was looking for a business partner to promote and realise value to both parties throughout project development and delivery.

- Understood Melbourne Water's preparedness for change and had capacity to challenge assumptions.

- Ensure that the EAM (Maximo) is introduced and implemented as an enabler of the new business processes

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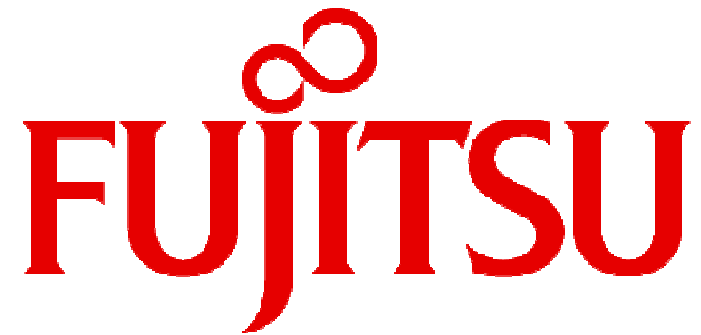
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shaping tomorrow with you

What Fujitsu brings

A Partnership approach to join with Melbourne Water in their AMIS journey bringing:

- Experience in large scale SI Projects
- Pragmatic and proven EAM methods for establishing a single enterprise Asset Management system with Maximo
- Partnering with Certus
- Informed Change agent advice
- Functionality landscape advice
- Strong knowledge and experience with Enterprise Integration
- Strong IBM Partnership

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Delivering on the Vision - Fujitsu approach

- Large Maximo projects are firstly large SI projects

- Project approach that follows Melbourne Waters vision

- Developing a single solution for many different types on asset Management Business

  - Mechanical & Electrical

  - Civil Asset and Network

  - Waterways and River Health

- Resulting in a very diverse set of Assets and Locations

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Delivering on the Vision – Setting the Baseline

To Be Processes

Current Systems

Requirement

Traceability Matrix

Requirements Use Cases

Workshop

Maximo

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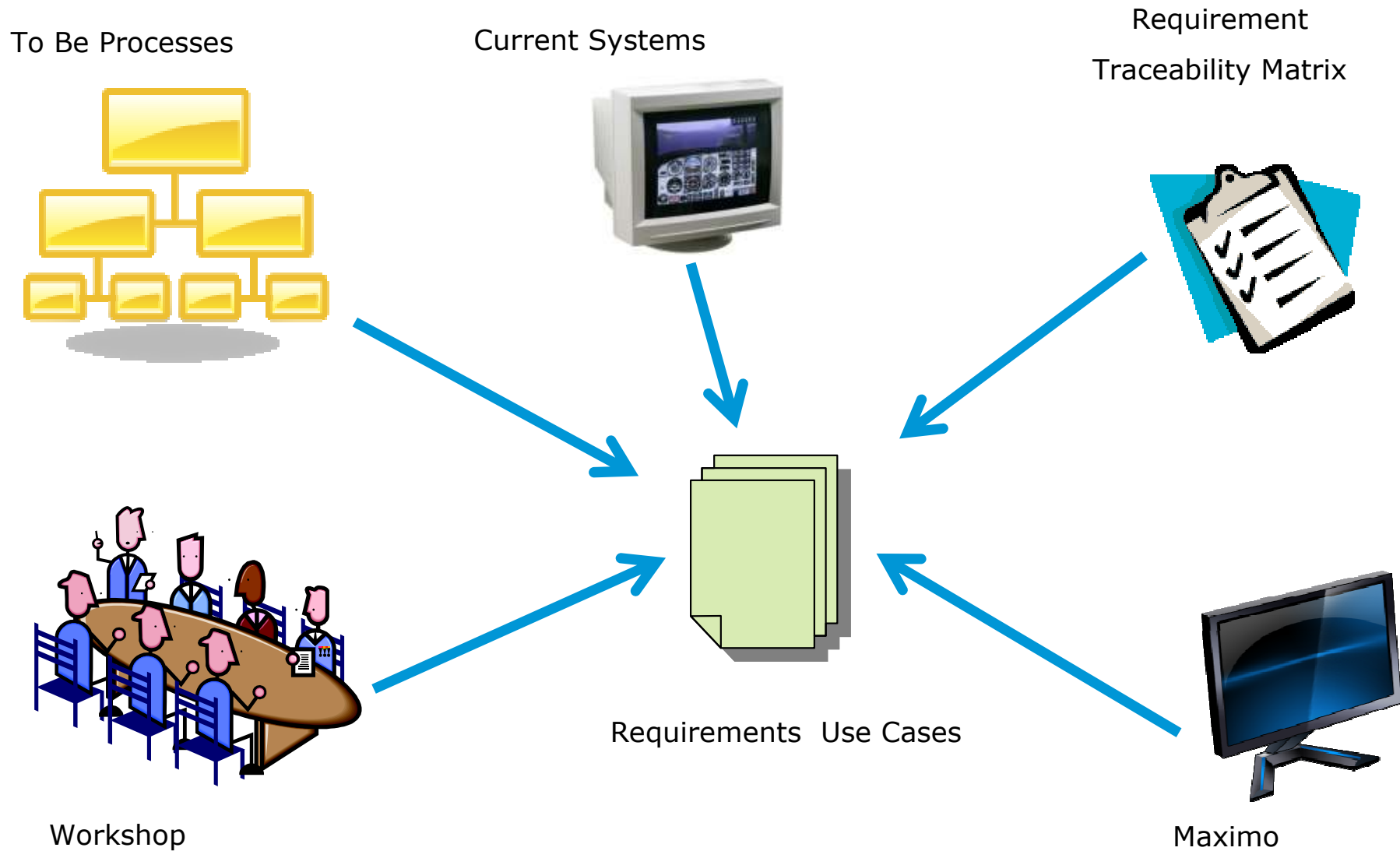
Differing requirements and features - examples

- ## Waterways and Riverways
  - ### Asset Managers and Planners are GIS Users
    - Dropping in and out of Maximo is not intuitive
    - Solution: Use GIS as the client for Maximo
    - But still use same Maximo processes and data
  - ### Condition Ratings is very complex
    - Many linked meters with targets
    - Formulae to generate condition rating from meters
    - Monitoring points on condition ratings
  - ### Work Areas are complex (river banks, catchments)
    - Work Area polygons defined in GIS
    - Locations for repeated work
    - Linked with PM's or Work Orders
    - Spatial work done by GIS

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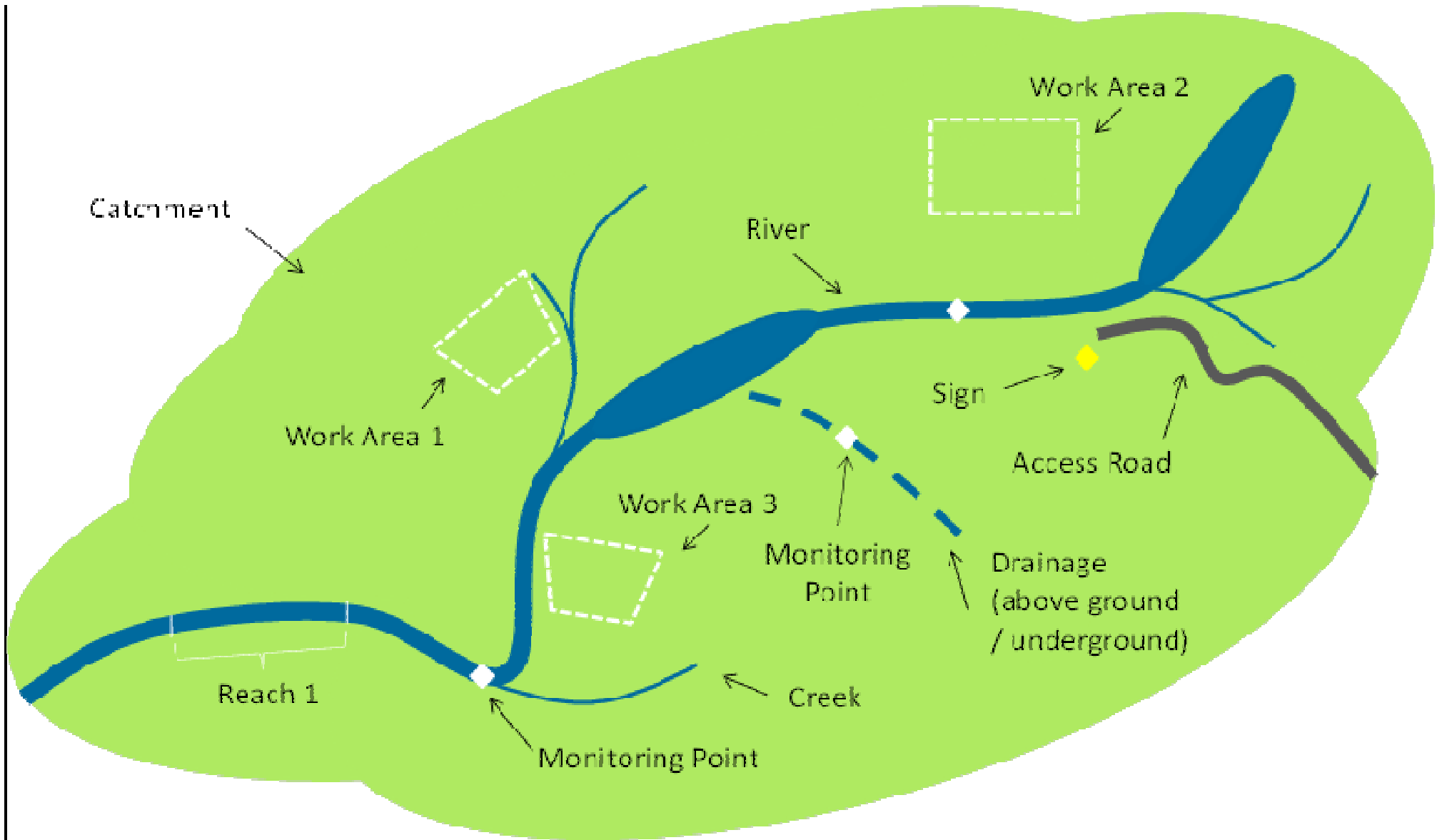
Differing requirements and features - examples

- ## Types of Locations, Assets and Work Orders
  - ### Spatial/Polygon, Linear, Point
    - Maximo Linear Assets perfect for pipes lines etc.
    - Hybrid solution required for rivers, creeks and drains
    - Work Order polygons created in GIS and integrated
  - ### Asset Data Conversion has many patterns
  - ### Requires a GIS synchronisation

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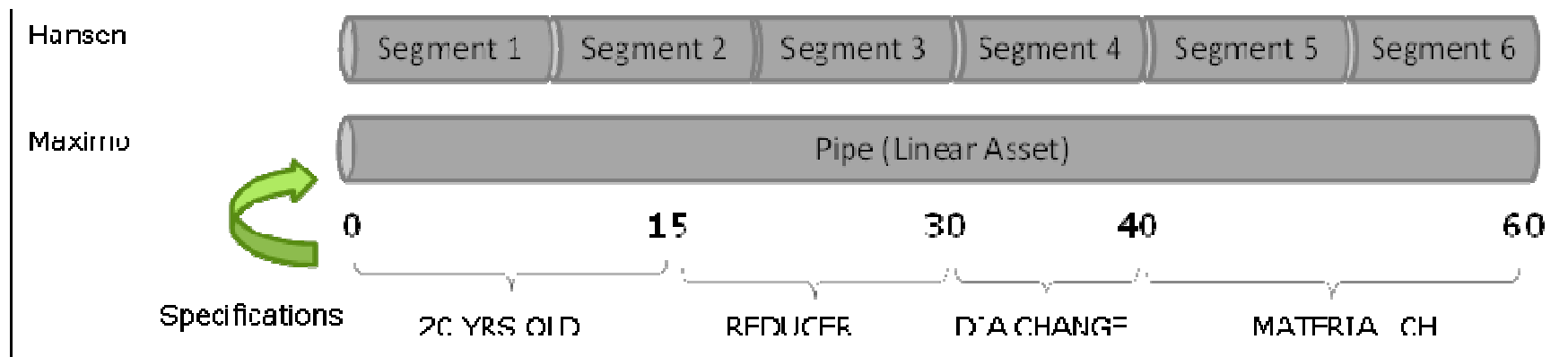
Delivering on the Vision – Solution Architecture
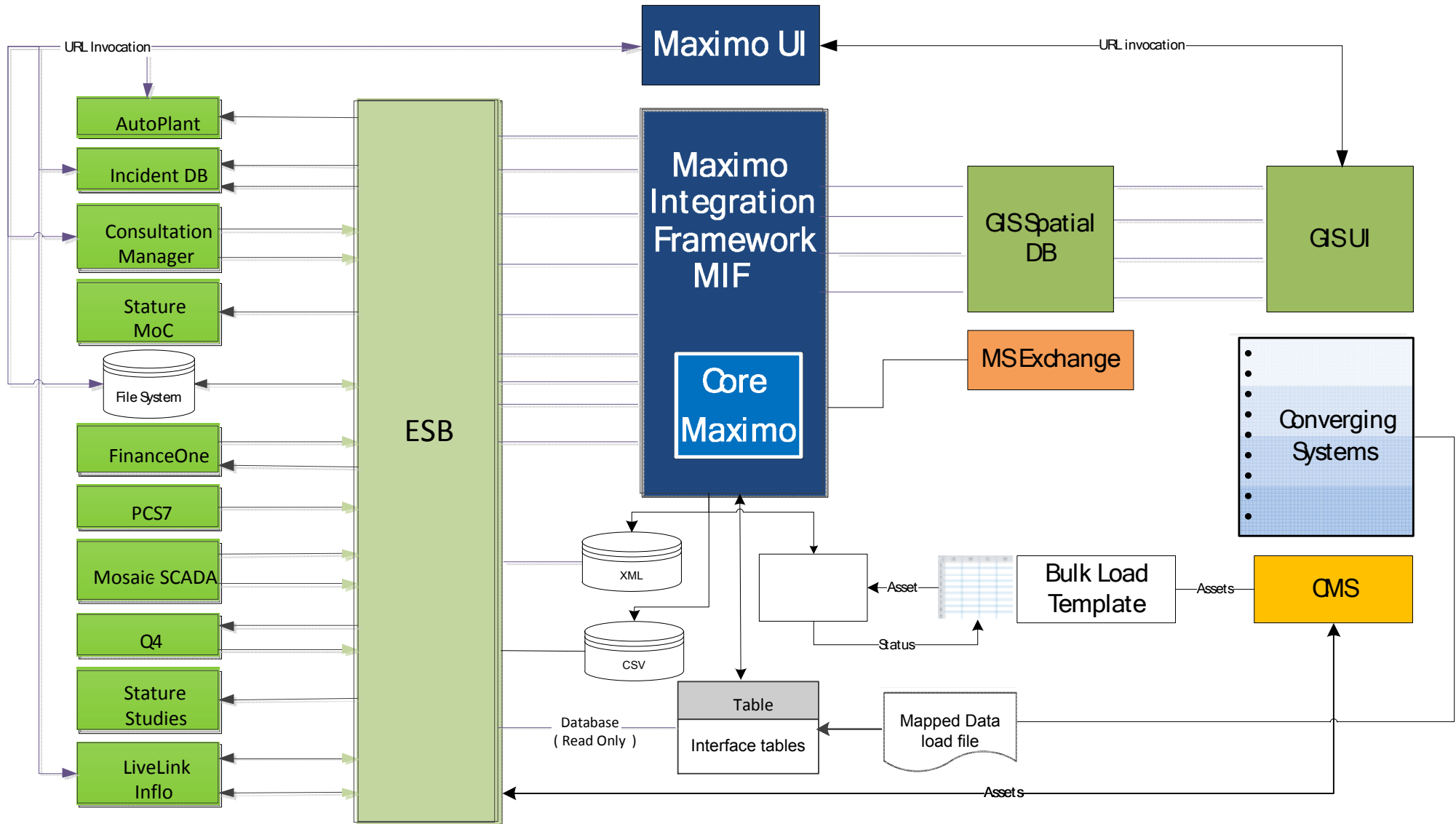
Delivering on the Vision – Maximo Modules

- Linear Asset Management

- Scheduler for better resource management

- Health and Safety

- Calibration

- Utility

- Maximo integration flexibility for the enterprise

  - GIS

  - Finance

  - SCADA

  - Incident Management

  - Online Permit Request

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The challenges of change

- Another Partnership for Change

- Building on Melbourne Water's current drive rationalisation and change

- Still recognising the capacity of the current organisation

- Focusing on the key determinants of success

- Project focus on a business value based scope

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Building a learning organisation for AMIS

- Challenges:
  - People and Process before Technology
  - Focus on business improvement opportunities
  - Maintain governance

- EAM business improvement journey
  - Fujitsu has kicked-off the project and will support Melbourne water on this journey
  - Maximo as EAM
  - Melbourne Water ownership
  - Benefit realisation management

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Questions?