The impact, value and quantifiable benefits of AM.

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Content

• Background on IAM & Me
• What benefit is on offer
• Case study analysis
• Findings
• Summary
The Institute of Asset Management

• The IAM is *Learned Society*
• Individual & Corporate Members
• It develops & shares *knowledge, training* and *good practice* world-wide.
• BSI PAS 55:2008 / Competency Framework /The Anatomy of Asset Management
My Experience

• Chartered Civil Engineer

• 20 Years in Water Industry, Including Head of Asset Management for the provider of River and Coastal Flood Defences in England and Wales.

• Past 7 years working within Network Rail, UK provider of Railway Infrastructure, managing 30,000 bridges, 30,000km track, Signals, Electrification, Stations ...30,000 employees.

• Past 5 years ‘Head of Asset Management Strategy for Network Rail, increasingly focussed on maximising benefits from Asset Management and supporting the required ‘Business Changes’

• Past 5 years member of IAM council, past 3 years member of the IAM faculty. Led ‘Big Picture’ and work on ‘benefits’
Benefits – The basics

• A benefit is "an outcome of change which is perceived as positive by stakeholders“

• Benefits should be:
  – Aligned to business objectives
  – Of value to the business
  – SMART (Specific, Measurable, Actionable, Realistic and Timed)

• Disbenefits should be identified and tracked in the same way as benefits to minimise their impact
Which benefits?

<table>
<thead>
<tr>
<th>ISO 55000, Clause 2.2 - Benefits of asset management</th>
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<tr>
<td><strong>A</strong> improved financial performance</td>
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<td><strong>B</strong> informed asset investment decisions</td>
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<td><strong>C</strong> managed risk:</td>
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<td><strong>D</strong> improved services and outputs</td>
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<td><strong>E</strong> demonstrated social responsibility</td>
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<td><strong>F</strong> demonstrated compliance</td>
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<td><strong>G</strong> enhanced reputation</td>
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<td><strong>H</strong> improved organizational sustainability</td>
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<td><strong>I</strong> improved efficiency and effectiveness</td>
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ISO55000. Activity Phases.

- Organisational Plans and Objectives
- Strategic Asset Management Plan & AM Objectives
- Asset Management Plans
- Work Implementation
- Performance Evaluation & Improvements

- Asset Portfolio
- Asset Management Policy
- Plans for developing asset management system & relevant support
- Asset management system & relevant support elements
### Some reasons why benefits are on offer

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<tr>
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<th>Organsational Objectives</th>
<th>Strategic Asset Management Plan</th>
<th>Asset Management Plan</th>
<th>Delivery</th>
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<td>1</td>
<td>Poor Information</td>
<td>HIGH</td>
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<td>2</td>
<td>Misalignment</td>
<td></td>
<td>HIGH</td>
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<td>3</td>
<td>Culture</td>
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<td>4</td>
<td>Changed Priority</td>
<td>HIGH</td>
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<td>5</td>
<td>Lack of Review</td>
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<td>6</td>
<td>Competency</td>
<td>HIGH</td>
<td>HIGH</td>
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<tr>
<td>7</td>
<td>Stakeholders</td>
<td>HIGH</td>
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Opportunities to improve ‘Value’.

Potential further ‘Lifecycle’ Value from Asset Management
Case Studies - Source evidence used.

- Case studies & evidence available to IAM
- Past conference papers / workshop outputs…
- Web search
- Available text books
Consistent Shortcomings

• Benefits are presented in different ways
  – OPEX / CAPEX or TOTEX
  – Whole Life Cycle to very short term
  – Currency or %
  – Reduced future investment requirement
  – Increased Availability or Asset Life or Reliability
  – Increased customer satisfaction
  – Reduced incidents

• Is there a real understanding of ‘differential risk’ cost ?
• Most are forecasts , rather than actuals
• Few describe a ‘robust’ baseline,
• most don’t describe the full costs to implement
The minimum whole life cost – source IAM Anatomy

- Reliability risk emerges before we have the knowledge to treat these costs effectively
- Medium to long term cost bow wave to meet short term cost target

Diagram:
- Annual Average Cost vs. Frequency (Frequent, Interventions, Infrequent)
- Minimum cost point
- “Risk Cost”
- Maintenance & Renewal Cost
Case 1. WLCC TOTEX Impacts

Annual Average Cost vs. Replacement interval

- Total cost exposure
- Minimum
- “Performance Penalty & Risk Cost”
- Maintenance Cost
- Renewal Cost

The minimum whole life cost
Case 2. Future ‘Cost Avoided’

Is the benefit

a) The difference from where we thought we were
b) The difference from the restated risk position
c) The difference in direct cost
£ Findings

• Case A
  – Initial 5 Year CAPEX Reduction 20%
  – WLCC TOTEX savings (discounted) 8%
  – No increase in performance / risk exposure

• Case B
  – Initial 5 Year CAPEX ‘Increase’ 50%
  – WLCC TOTEX savings (discounted) 0 % (Todays TOTEX)
  – Significant reduction performance / risk exposure (5% to 10%)

• Issues
  – Revealing of more realistic corporate risk levels
  – Required up front investment
  – Largest benefits me prove to be beyond tenure of CEO !
  – Differences in future business ‘agility’
Potential benefits of ISO 55000 & beyond – sourced from 20 case studies…

Observed range 1% to 8%

Financial benefits, context dependent.

Potential Lifecycle Saving

0%

Loose Management System

ISO 55000 compliant

Optimised
Several benefits are precursors to others

B. Improved asset investment decisions (and plan)

Looking to evaluate and measure benefits requires careful realisation planning, monitoring & review.
Summary

- Better guidance on benefits is coming.....Late 2015...
- This will contain ‘prima facie’ evidence on the quantification of financial benefits....
- Further work is necessary, the evidence will grow over time
- Further case studies are required – with greater numerate evidence

What can you do to help ???