ISO 55000 and AM Landscape
A framework for embedding asset management excellence

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IAM Faculty & Knowledge Committee

UIC Global Asset Management Conference
3-4 October 2013, Paris
Outline of the Presentation

- ISO 55000 Standards
  - The Journey
  - Status and timescales
  - Key requirements
  - Relationship with PAS 55
  - Relationship with UIC Asset Management Guidance

- GFMAM Asset Management Landscape
  - Background
  - AM Landscape

- IAM – Enabling organizations and individuals
  - Organizational Maturity Journey
  - Individual learning journey
  - Key IAM publications

- Summary
AM Systems - The Journey

PAS55:2004 – Sponsors and review panel of 23 organisations predominantly from the UK

PAS55:2008 – Review panel of 49 organisations 15 Industries 10 Countries

49 organisations from 15 industries in 10 countries
Uptake of PAS 55

UK:
- Rail, Elec T&D, Gas T&D, Pwr Gen, Water, Oil & Gas, Food and Brewing, Property Management, Facility Management

Asia:
- Rail, Elec T&D, Gas T&D, Pwr Gen, Oil & Gas, Mining

Europe:
- Rail, Elec T&D, Water, Gas T&D, Pwr Gen

Middle East:
- Elec T&D, Pwr Gen, Gas

Americas:
- Transport, Elec T&D, Gas T&D, Water, Pwr Gen, Oil & Gas

Australia:
- Rail, Elec T&D, Pwr Gen, Mining, Water
RCD1
Change the world image
Rhys; 08/05/2012
ISO PC 251 Committee was set up to develop ISO 5500x standards

ISO PC 251: Asset Management

Working Group 1
Working Group 2

Working Groups Develop Draft Standards

Navil Shetty is the Convenor of WG-1
Rhys Davies is the Chair of PC251

NMGs Review and Ballot on Draft Standards

Some 320 Organisations

A Total of 75 National Experts

National Experts
National Experts
National Experts

National Mirror Group
National Mirror Group
National Mirror Group

National Experts
National Experts
National Experts

National Mirror Group
National Mirror Group
National Mirror Group
The Programme – 3 years

Melbourne
Mar 2011

Washington
Oct 2011

Pretoria
Feb 2012

Prague
Jun 2012

Calgary
April 2013

Publication
Feb 2014

Month
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36

Stage
Working Drafts
Cttee Drafts
DIS
Comments Resolution
FDIS

Stage steps:
- Jun 2011: Distribute WD2
- Sep 2011: WD2 Comments RCVD
- CD2 For Ballot
- DIS
- CD1 For Comment
- FDIS

Drafts commented and balloted by 159 ISO member countries
The International Standards Organisation has set up a project committee PC 251 to develop an ISO standard on asset management.

Three standards are being produced:

- **ISO 55000** – Asset management – Overview, principles and terminology
- **ISO 55001** – Asset management – Management systems – Requirements
- **ISO 55002** – Asset management – Management systems – Guidelines for the application of ISO 55001

The standards are due to be published in Feb/Mar 2014.

Some 36 countries around the world have participated in the development.

The ISO 5500x standards are applicable to all types of asset (tangible and intangible) across any industry sector.
ISO 55000 definitions

ISO 55000 Asset Management Overview, Principles and Definitions (FDIS)

Asset item, thing or entity that has potential or actual value to an organization

Asset Management coordinated activity of an organization to realise value from assets

Asset Management System set of interrelated or interacting elements of an organization to establish asset management policy and objectives; and processes* to achieve those objectives

*processes include people, resources, processes, information and technology
Asset Management Fundamentals

a) **Value** - Assets exist to provide value to the organization and its stakeholders.

b) **Alignment** - Asset management translates the organizational objectives into technical and financial decisions, plans and activities.

c) **Leadership** - Leadership and workplace culture are determinants of realization of value.

d) **Assurance** - Asset management assures that assets will fulfill their required purpose.
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<th>Clause</th>
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Relationship of ISO 55001 with UIC Asset Management Guidance
Key Differences between ISO 5500x and PAS 55

1. Applies to all asset types NOT just ‘physical’ assets
2. Significant changes to terminology
3. Based on the standard ISO template for all future Management System Standards
4. Different structure of requirements; but broadly cover the same areas as PAS 55
5. Distinguishes between ‘asset management’ and ‘management system’ requirements
6. AM principles in PAS 55 replaced by four ‘AM fundamentals’
7. Introduces concepts of ‘asset life’, ‘life cycle’ and ‘period of responsibility’
8. Strong emphasis on understanding the context of the organization, engagement with stakeholders and leadership accountability
9. ‘Asset Management Strategy’ broadly replaced by ‘Strategic Asset Management Plan’
GFMAM Asset Management Landscape
39 Asset Management Subjects

The IAM Asset Management Anatomy explains the 39 subjects
Institute of Asset Management

Enabling organizations and individuals on their asset management journey
The Institute of Asset Management (IAM)

The IAM exists to:-

- Advance for the public benefit the science and practice of asset management
- Promote and recognise high standards of practice and professional competence
- Generate widespread awareness and understanding of the discipline.
IAM Asset Management Toolkit

Competences Framework

Asset Management Training

Conceptual Model

Asset Management Subjects

Knowledge Centre Content

An Assessment Methodology

ISO describes Asset Management System Requirements
Current IAM Initiatives

- Contribution to ISO 55000 development
- Leading the GFMAM Asset Management Landscape
- IAM Asset Management Anatomy – being revised
- Subject Specific Guidance – for 39 subjects in phases
- AM Maturity Assessment Tool – will be ready in Feb 2014
- IAM Certificate and Diploma – launched in June 2013
- Knowledge Centre - maturing
- Endorsed Trainer & Endorsed Assessor Schemes – in place
- Asset Management Competency Framework – completed
AM Competences Framework

Key Purpose:
To Optimise the delivery and performance of physical assets

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IAM Asset Management Qualifications

<table>
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<tr>
<th>IAM Certificate</th>
<th>IAM Diploma</th>
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<tr>
<td>• Designed for people who are new, or relatively new, to asset management</td>
<td>• Designed for people with knowledge and experience and will help to prepare them for more specialised or managerial roles</td>
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<tr>
<td>• Involves 5 mandatory modules</td>
<td>• 12 modules – 6 mandatory and 4 optional</td>
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<td>• Expected 150 hours of learning, of which 50% would be taught and 50% personal study</td>
<td>• Expected 350 hours of notional learning, of which 30% is expected to be taught, 30% taken up with assignments and a project and 40% by personal study</td>
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<td>• The modules are aligned with the IAM Competency Framework, PAS 55, ISO 55000 and the IAM Anatomy</td>
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<td>• Assessment for the qualifications will be through an examination set by the IAM</td>
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<td>• The training providers will be endorsed by the IAM</td>
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<td>• The Qualifications will have international recognition under an accord reached by the members of the Global Forum for Maintenance and Asset Management</td>
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http://theiam.org/products-and-services/iam-qualifications
Measuring Asset Management Maturity

Assessment methodology and tool being developed to assess maturity against the ISO 55001 requirements and the 39 subjects in the AM Landscape.
Summary

- The ISO 5500x standards provide a sound management system framework for embedding asset management in an organization.
- The ISO 5500x standards represent a consensus view of 36 countries and more than 300 organizations from different sectors.
- The GFMAM AM Landscape defines 39 subjects (or capabilities) constituting Asset Management which is accepted worldwide.
- The IAM is developing a suite of guidance documents, competency frameworks, qualifications and quality assurance frameworks to help organizations and individuals to progress on their AM maturity journey.
- IAM would be pleased to collaborate with UIC and its members to embed good asset management practice into the railway sector.
Navil is a specialist in asset management and risk management of infrastructure assets with experience in oil & gas, railways, and highways sectors. Navil is co-author of the PAS 55:2008 standard on asset management. He is also a convenor of one of the two international expert groups developing the ISO 55000 standards on asset management.

Navil has served on the Council of the Institute of Asset Management for six years and currently serves on the IAM Knowledge Committee and IAM Faculty. He is contributing to the IAM Asset Management Maturity Assessment and GFMAM Asset Management Landscape projects.

Navil is employed with Atkins Management Consultants as Director and Technical Chair for Asset Management with responsibility for promoting best practice in asset management across the Atkins Group worldwide.