Railway Interpretation of ISO 550001

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Asset Management Consulting Limited

Session II – Monday 12th October 2015
Agenda

1. Introduction to AMCL
2. Introduction to ISO 55001
3. Railway Interpretation of ISO 55001
4. Current Status and Next Steps
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### Implementation
- Strategic Consulting
- IAM Endorsed face-to-face Training
- Web based eLearning
- P4A Whole Life Cost Modeling
- Asset Information Services

### Diagnostic
- Asset Management maturity assessments using the AMCL Asset Management Excellence Model™

### Roadmapping
- Fast Track Plans, delivering quick wins
- Strategic Plans, delivering sustainable value

### Benefits Realisation & Assurance
- IAM Endorsed PAS55 Gap Analysis and Certification
- IAM Endorsed ISO55001 Gap Analysis and Certification
- Monitoring levels of Capex, Opex and Risk
- Benchmarking and Continuous Improvement using the AMCL Asset Management Excellence Model™
ISO 55000 Series

• Three parts:
  – 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

• First ISO standard to apply the Joint Technical Coordination Group’s (JTCG’s) ‘Annex SL’ (a common structure and text for management system standards)

• Still basically a PDCA management system — but this structure is no longer explicitly acknowledged or evident

• Key themes remain: line of sight, whole life-cycle approach, risk-based decision-making and enablers
Managing the Organisation

Asset Management

Asset Management System

Asset Portfolio

Coordinated activity of an organisation to **realise value** from assets

Set of **interrelated or interacting elements** to establish AM Policy, AM objectives and processes to achieve those objectives

Assets that are within the scope of the asset management system
<table>
<thead>
<tr>
<th>ISO 55001 Clause</th>
<th>Element / clause title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Context of the organization</td>
</tr>
<tr>
<td>5</td>
<td>Leadership</td>
</tr>
<tr>
<td>6</td>
<td>Planning</td>
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<td>7</td>
<td>Support</td>
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<tr>
<td>8</td>
<td>Operation</td>
</tr>
<tr>
<td>9</td>
<td>Performance evaluation</td>
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<td>10</td>
<td>Improvement</td>
</tr>
</tbody>
</table>
The ISO 55001 ‘Asset Management System’

• Includes all activities of build, operate, maintain and dispose

• Includes stakeholder engagement, people, processes, data, systems, governance, assurance, regulation and outsourcing

• Aimed at creating transparency and making better decisions across the whole asset base
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Convergence to a joined-up, managed system for Asset Management

Divergence best appropriate practices (context-dependent)

Innocent  Aware  Developing  Competent  Optimizing  Excellent

Putting the basics in place (Initial Gap Analysis)
Development & integration (‘Roadmap’)
Competent Asset Management (to independently certifiable standard: ie. ISO 55001)
Optimisation and further integration

1. Understand the context
2. Identify relevant leading practices
3. Innovate & stretch the limits
4. Cost Benefit of Improvement
5. Roadmap & implement
6. Review & repeat
Project Objective

“Work with UIC Asset Management Working Group (AMWG) to produce an interpretation of the ISO 55000 documents in order to provide specific guidance on their implementation to railway infrastructure managers.”
Project Deliverables

1. Migration of AMWG Asset Management framework to the framework aligned to ISO55000
2. Mapping of AMWG components to equivalent ISO55000 components
3. Addressing gaps not currently covered by AMWG framework
4. Consistency check of guidelines against other Asset Management frameworks
5. Producing a compliant document that provides an interpretation of all necessary ISO55000 requirements
6. Review of existing AMWG maturity model and provide outline specification for further development
Mobilisation
- Project Kick-off Meeting
- Documentation & Maturity Model Review

Mapping
- ISO 55001
- Mapping
- AMWG Framework

Addressing the Gaps
- Gaps to AMWG
- ISO 55002
- Gaps to ISO
- Draft A UIC Guidelines

Validation
- IAM Anatomy v2
- Draft B UIC Guidelines
- AM Landscape Second Edition

Documentation
- Version 1 UIC Guidelines

Specification
- Maturity Model Outline Specification
Structure of Document

1. Purpose
2. Structure of Guidelines
3. Context of the ISO 55000 Series
4. Implementation Guide
5. Certification and Audit Guide
6. Requirements of an Asset Management System
ISO 55001 Requirements

ISO Clause/sub-clause number (e.g. 4.1 – Understanding the organisation and its context)

**Text:** If required to explain statement context

ISO Sub clause number – Shall Statement no. – Description (e.g. Shall No. 1 – Issues etc.)

**Text:** Description of what this statement means to a rail operator.

**Evidence and/or artefacts that an auditor may seek to view to assess compliance with ISO 55001.**

**Example:** Case study examples from UIC AMWG members.
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## Network Objectives

### Route Strategies

<table>
<thead>
<tr>
<th>Asset Strategy</th>
<th>Operational Strategy</th>
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</thead>
<tbody>
<tr>
<td>Route Asset Plans</td>
<td>Route operational plans</td>
</tr>
<tr>
<td>Route Delivery Plans</td>
<td>Timetable and access Planning</td>
</tr>
<tr>
<td>Execution of Work</td>
<td>Network Operation</td>
</tr>
</tbody>
</table>

### Enabling mechanisms

- Asset information
- Risk management
- LCC tools
- Business processes
- Competencies
- Supply chain management

### Core decision and activities.

### Reviewing mechanisms.

- Audits
- KPIs
- Management reviews
- Corrective actions
**Workshop 1 - Kick-off**
- 3rd July

**Workshop 2 - Draft A**
- 10th September

**Workshop 3 - Draft B Review**
- 10th December