Asset Management

Update on ISO 55000 and its consequences

UIC Asset Management
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AGENDA

▪ The Emergence of Asset Management
  ▪ Why a new discipline?
  ▪ Why a new international standard?
  ▪ Rail specificities face the AM performance challenges
▪ Brief history and updates
  ▪ PAS 55 and then ISO 55000
  ▪ ISO / PC 251 and then ISO / TC 251
  ▪ ISO 55000 - Which organization, products and results
▪ How Asset Management & ISO 55000 meet the Rail challenges
  ▪ Steps to invest, operate and maintain the rail infrastructure sustainable
▪ Conclusions
Why a new discipline?

Because:

- The increase in demand makes the assets and their operations more complex
- Efficient performance improvement has to be done over the asset life cycle and not in the isolated phases
- The management of the risks has a significant weight alongside the dominant management of resources and the costs

So, we need put the focus in:

Extracting value from assets…

..Throughout the asset life cycle

..Thanks to more objective decision-making processes

ASSET MANAGEMENT & ISO 55000
Why a new international standard?

Context of the organization
- What are company fundamentals? Ex.: Vision, mission, objectives, stakeholders, etc.

Values & Benefits
- What values and benefits are obtained by the company from its assets?

Assets
- Which assets to acquire / maintain and for which phases of their life cycle?

Asset Management
- How to quantify and maximize the added value from their assets?

Asset Management System – ISO 55000
- How to implement, systematize and make reproducible asset management practices?

Source: ISO/PC 251 - 2011
Rail specificities face AM performance challenges

**BUSINESS**
- Capital intensive companies
- High compliance required by the regulator
- High RAV and backlog in renewals (accounted in billions)
- Asset Portfolios historically owned by states shifted now to private concession models
- Global and local demand increase

**OPERATIONAL**
- The passenger flow takes part of delivery service
- Urban Rail sector works with two daily typical peaks in demand
- Linear assets have own logistic constraints
  - Operational monitoring requirements, risk anticipations and hampered reactivity
Rail specificities face AM performance challenges

Need:

- Better financial planning of the operational life of the assets (i.e. end-of-life assets)
- Better translation of operational performance into value for stakeholders
- Operational risk analyzes as important as cost priority
- Reduce the overall cost of the life cycle rather than buying the cheapest CAPEX.
ISO 55000: Brief History

BSI PAS 55:2008

ISO 55000:2014
ISO/PC 251 and then ISO/TC 251

- ISO/PC 251 - Established in 2010 to develop ISO 55000/1/2
- ISO/TC 251 - Established in 2015 to manage ISO 55000/1/2 and create new ones.
- 31 member countries
- 14 observer countries
ISO/TC 251 Structure

- AHG 1: Spanish translations
- AHG 2: “Value” workgroup (ended)
- CAG: Chairman’s advisory group
- WG 3: Communications
- WG 4: Product improvement
- WG 5: Finance
- WG 6: Revision of ISO 55002 / Next revision of ISO 55001
- WG 7: Development of ISO 55011

Website: committee.iso.org/tc251
The New ISO 55002:2018 - Key Updates

- Provides much clearer **guidance** to **successfully** implement ISO 55001
- Incorporates the **experience** of 31 countries spanning four years in implementing asset management systems
- Based on the **actual journeys**, challenges and experiences of successful early adopters of the standard

Website: [committee.iso.org/tc251](http://committee.iso.org/tc251)
General Improvements

• **Expanded detailed guidance** for every clause of the 55001 requirements document

• **Clarification** of the contribution of each requirement to the four ‘fundamentals’ of asset management:
  – Value
  – Alignment
  – Leadership
  – Assurance

• How to apply the requirements of ISO 55001 to the **key domains** of asset management:
  – Asset Portfolio
  – Asset Management System
  – Asset Management activities
ISO 55001 Certifications

Organizations per Sector

- Electrical Utility
- Facility Management
- Government
- Infrastructure
- Mining
- Ports & Airports
- Water & Wastewater
- Engineering/Construction
- Gas Utility
- Health
- Manufacturing, Process, Pharma
- Oil & Gas
- Oil & Gas
- Transportation

Source: committee.iso.org/tc251
ISO 55001 Certifications

Known Certifications per Country/Region

Known certified organizations (March 2019): 221

Source: committee.iso.org/tc251
How Asset Management & ISO 55000 meet the Rail challenges

Assign a Champion for AM Implementation Program

Review infrastructure management to identify poor performers related to best practices

Support asset management vision
Sustainability and mitigation of Capex delays

Investment
Operation & Maintenance
Renewal

Failure Rate
Cash Flows
CAPEX
OPEX
Age

Risks

Costs

Source: ASSETSMAN
How Asset Management & ISO 55000 meet the Rail challenges

- By fully understanding how and when the asset base is well performing (Cost/Risk trade-offs)
- By prioritizing targeted investments and Capex sustaining projects (Capex/Opex trade-offs)
- By focusing on lifecycle cost, risk and performance analysis as a basis for decision-making
- By developing new competencies of engineers for better understanding the business impacts
- …
Conclusions

- Standards provide guidelines for asset management system
- The asset management journey in organizations are enabling best practices and better results
- Most rail companies should grow at maturity
- End of life is one of the topics with the biggest gap in terms of policy and strategy in Rails sector today
- Asset Management originality (risk monetization, life cycle costing, ...) offers more objectivity in decision-making processes
- Participate in ISO/TC 251 and help us spread our information and feedback website

www.**committee.iso.org/tc251**
Thank you!

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