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Royal HaskoningDHV
South Africa and Africa
ISO 55 000 Asset Management Implementation Support
Assets???

Asset (ISO 55000) – An asset is an item, thing or entity that has potential or actual value to an organization. The value will vary between different organizations and their stakeholders, and can be tangible or intangible, financial or non-financial.

- Planned as tombs for Pharaohs
- Designed to specific alignment and dimensions 3000+ years ago
- Executed to accuracy which we battle to rival today
- Each took decades to build

Is it still an asset?
What value does it add?
To whom?
How do you manage it?
The period from the creation of an asset to the end of its life is the asset life (see 3.2.2).

An asset’s life does not necessarily coincide with the period over which any one organization holds responsibility for it; instead, an asset can provide potential or actual value to one or more organizations over its asset life, and the value of the asset to an organization can change over its asset life.
Asset management is the coordinated activity of an organization to realize value from assets

- Asset management involves the balancing of costs, opportunities and risks against the desired performance of assets, to achieve the organizational objectives.
- The balancing might need to be considered over different timeframes.

A management system is the set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives

- In this context, the elements of the asset management system should be viewed as a set of tools, including policies, plans, business processes and information systems, which are integrated to give assurance that the asset management activities will be delivered.
Asset management system is used to direct, coordinate and control asset management activities.
Proven benefits of effective Asset Management

a) improved financial performance:
• improving the return on investments
• reducing costs while preserving asset value
• without sacrificing the short or long-term realization of organizational objectives;

b) informed asset investment decisions:
• enabling the organization to effectively balance costs, risks, opportunities and performance;

c) managed risk
• reducing financial losses
• improving health and safety, good will and reputation,
• minimizing environmental and social impact
• reduced liabilities such as insurance premiums, fines and penalties;
Proven benefits of effective Asset Management

d) improved services and outputs

e) demonstrated social responsibility

f) demonstrated compliance

g) enhanced reputation: through improved customer satisfaction

h) improved organizational sustainability

i) improved efficiency and effectiveness
Vision and Mission:
To elevate the status of maintenance and asset management practitioners by raising the professional standard in the industry. We do this by promoting Asset Management as a key contributor to long-term business success.
We execute this by:

- Contributing to the continued development of standards and practices
- Establishing, maintaining and improving common standards
- Encouraging the interchange of information, ideas and knowledge
- Stimulating and promoting education, training and original research
- Building synergistic rapport between companies and industries
- Creating liaison with similar associations local and internationally
Current projects towards achievement of our goals:

AQP
Institute / Professional Body
Become the AQP for Asset management Training in South Africa

SAAMA Diploma and Certificate
Possible Diploma and Certificate
“SAAMA Ticket”

SAAMA Certification
Possible 4 levels of certification
Asset Management Professional

ISO 55001 Auditor Certification
Asset management knowledge
In line with Global Forum for Maintenance and Asset Management recommendations
SAAMA and the GFMAM

Creating liaison with similar associations local and internationally
SAAMA and the GFMAM: Why GFMAM?

Vision:
To be a worldwide community of organizations providing leadership for maintenance & asset management communities
Why does GFMAM exist?

Objectives:

- To bring together, promote and strengthen the Maintenance and Asset Management community worldwide
- To support the establishment and development of associations or institutions whose aims are maintenance and asset management focused
- To facilitate the exchange and alignment of maintenance and asset management knowledge and practices
- To raise the credibility of member organizations by raising the profile of the Global Forum

http://gfmam.org
<table>
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<th>GFMAM members</th>
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<td>Brazilian Maintenance and Asset Management Society (ABRAMAN), Brazil</td>
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<td>Asset Management Council (AMC), Australia</td>
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<td>European Federation of National Maintenance Societies (EFNMS), Europe</td>
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<td>Federación Iberoamericana de Mantenimiento (FIM), Latin Americas, Portugal &amp; Spain</td>
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<td>Gulf Society of Maintenance Professionals (GSMP), Arabian Gulf Region</td>
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<td>Institute of Asset Management (IAM), UK</td>
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<td>Plant Engineering and Maintenance Association of Canada (PEMAC), Canada</td>
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<td>The Society for Maintenance and Reliability Professionals (SMRP), USA</td>
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<tr>
<td>The Southern African Asset Management Association (SAAMa), South Africa</td>
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Benefits of membership

Gain
- exposure to the combined knowledge-base of member associations
- understanding of alternate approaches in other cultures and contexts
- information about trends in the field
- recognition for your international contributions as an association

Contribute
- your association’s strengths to the development of the maintenance and asset management profession
- to the alignment of core concepts and understanding of good practice in the field of maintenance and asset management
- to innovation in the maintenance and asset management field through a multi-disciplinary, multi-cultural approach

Develop
- the leaders of your association
- additional products and services for your members
- meaningful partnerships and networks
ISO 5500X suite of documents

- Promulgated 15 January 2014
- Recommended for acceptance as a South African standard
- SAAMA members assisted in developing the standard
- SAAMA working with the other members of the GFMAM to “unpack” the standard to ensure international consistency in implementation and certification
ISO 5500X suite of documents

- Describes a management system for asset management
- Used in combination with any relevant sector or asset type-specific asset management standards and technical specifications

Intended for use by:
- those considering how to improve the realization of value for their organization from their asset base
- those involved in the establishment, implementation, maintenance and improvement of an asset management system
- those involved in the planning, design, implementation and review of asset management activities; along with service providers.
Full Life Cycle Asset Management ISO 55000

7. Management Review
- Organisational Alignment
- Business Plan Impact & Updates
- Values, Policies, etc.

6. Performance Assessment and improvement
- Condition Monitoring (ON LINE)
- RCM (Reliability Centered)
- Audits (DYNAMIC)
- Compliance Evaluations
- Differentiation
- New technologies (Impacts)
- PMO streamlining (Technology)

5. Asset Management Plans (Implementation)
- Life Cycle Planning
- Maintenance Policy
- Tools, Facilities & Equipment
- PMO and Project Support

4. Asset Management Enablers and Project Performance
- Project Governance and Structures
- Configuration and documentation
- Management of Change
- Training, awareness & competence
- Contingencies
- Management Production Systems
  - Integrated Asset Management
  - GIS and Spatial
  - Drawing Offices
- Information Management
- Risk and Legal

3. Asset Management Strategy
- Master (Investment) Plans
  - Technology Plans
  - Asset types and Life Cycles
  - Programme Management PPSG
- Maintenance (Strategic & Operational)
  - Routine Maintenance
  - Fault Management
  - Replacement Management
- Programme Upgrade Cycles

2. Asset Management Policy
- Asset Investment Policy
- Maintenance Management Policy
- Programme Prioritisation Policy

1. General Requirements
- Business Vision
- Macro-economic Impact
- H/L Transformation Plan

(ISO 5500x)
Master Integrated Asset Management Programme

EAS-14/03-19
www.african-utility-wee
## SAAMAGFMAM Projects

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<th>Knowledge database</th>
<th>Landscape</th>
<th>Accord</th>
<th>Training and Certification</th>
<th>ISO 55001 Auditor and Assessor Requirements</th>
<th>Scope of Maintenance and Asset Management</th>
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<td>Centralised knowledge repository</td>
<td>Framework, content, principles and guidelines for asset management</td>
<td>Identify the basis for all asset management qualifications currently available globally to ensure international consistency in qualification standards</td>
<td>Compare existing training and certification schemes to determine the possibilities for alignment</td>
<td>Requirements to assure the competence of people who audit or assess organisations to ISO55001.</td>
<td>Analysis of the links between maintenance and asset management</td>
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Impact of SIPS

- R800bn in investment in infrastructure
- Weighted average EUL of the infrastructure – assume 50 years
  - Maintenance Requirement – R24 bn p.a.??
  - Replacement provision (depreciation) R16 bn p.a.
Some water related figures

Figure 46: Age profile of assets
Source: Department of Water Affairs (2011)

Figure 50: Water losses and inefficiencies in a typical SA water value chain
Source: Trans-Caledon Tunnel Authority (2011)
Conclusion
Vision and Mission:
To elevate the status of maintenance and asset management practitioners by raising the professional standard in the industry. We do this by promoting Asset Management as a key contributor to long-term business success.

My own interpretation:
To assist in ensuring that all organisations, both private and public, realise the maximum value from their assets by enabling Asset Managers with the knowledge and understanding needed to coordinate the asset related activities within their organization.
It doesn’t matter how many resources you have
if you don’t know how to use them, they will never be enough