

The background features a complex geometric design. On the left, there are several 3D rectangular blocks in various shades of blue, green, and teal, arranged in a staggered, overlapping fashion. The top right corner has a blue background with a repeating white pattern of interlocking circles, creating a floral or lattice-like effect. A large white rectangular area in the center-right contains the title text.

SYSTEMS ENGINEERING & ASSET MANAGEMENT



PRESENTATION COVERAGE

What is Asset Management

Where can we connect INCOSE with Asset Management

Aligning SE to AM

ASSET MANAGEMENT — WHAT IS IT AND WHY?

Asset Management - “the coordinated activity of an organization to realise value from assets”

(Clause 3.3.1 of ISO 55000).

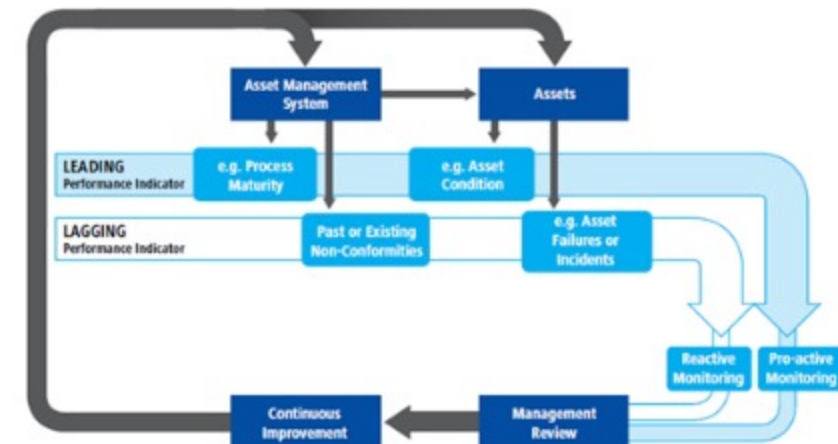
“Asset management is more than doing things to assets - it is about using assets to deliver value and achieve the organisation’s business objectives. It also brings a different approach and way of thinking and a transformation of organisational alignment and culture. Each organisation has to determine what it considers value to be and choose how to manage its assets to derive best total value.”

(The Institute of Asset Management - An Anatomy of Asset Management Ver.3 (2015, December) - p8)

The Institute of Asset Management <https://theiam.org/>

“What’s going to happen is equally as important as what is happening today...”

“We must balance our duty to commission our Assets as swiftly as reasonably practicable with the need to ensure through-life reliability and availability ”



ASSET MANAGEMENT — WHAT IS IT AND WHY?

Asset management is a strategic discipline which gives rigour and accountability to the way organisations decide:

- how, where and in what to invest
- what assets are most critical
- what risks need to be managed
- what demands must be served
- what needs to be known
- how this knowledge should be captured and disseminated how organisations should be structured and led
- what types and teams of people they need how activities should be carried out
- how actual performance should be measured
- that improvements are needed.

OVERALL GOALS OF AM

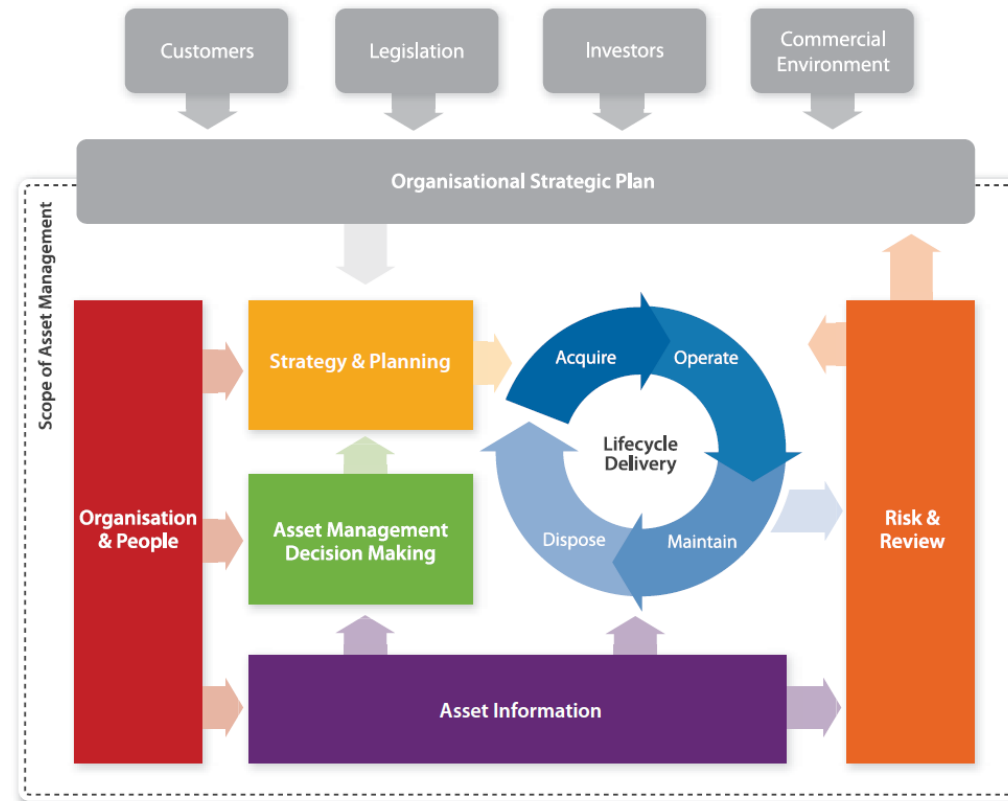
- spending where necessary
- leaving assets in the same state as you would wish to find them
managing risks not resources
- thinking in whole systems not their parts
- applying a whole-life perspective
- everyone reading from the same page
- stakeholders understanding the choices made.

ASSET MANAGEMENT & MANAGING ASSETS – THEY'RE DIFFERENT!

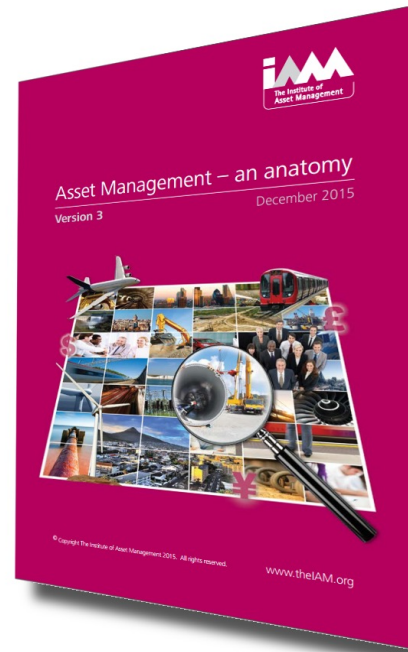
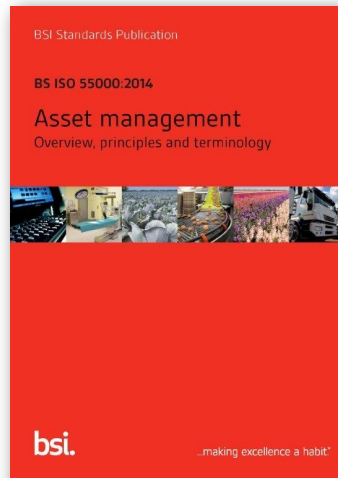
	Managing Assets	Asset Management
Colleague Focus	Asset data, location and condition assessment	Information supported decision making (i.e. with strategic context and related to customer need)
	Current KPIs	Strategies to select and exploit assets over the lifecycles to support business aims
	Department budgets	Collaboration across departments to optimise resources allocated and activities
Stakeholder Focus	Current costs	Triple bottom line and value
	Current performance	Clarity of purpose of the organisation
	Response to failure/ maintain function	Focus on impact of activities of an organisation's objectives
Seniour Focus	Short term gain and loss	Long term value for the organisation
	Departmental/individual performance	Developing competence and capability across workforce
	Savings, especially OPEX	Business risks understood and mitigated
Supplier Focus	Short term contracts and performance	Long term contracts and/or partnering relationships in support of client value and objectives
	Service level agreements focussed on contract specifications	Understanding client strategy and needs in 5-10 years

Table adapted from ISO/TC 251 - Managing Assets in the context of Asset Management – First Edition dated May 2017

ASSET MANAGEMENT SUBJECT GROUPS



ASSET MANAGEMENT PUBLICATIONS



WHERE CAN WE CONNECT SE TO AM



ISO 55000 series



3 Institutions...



ISO 15288

2 ISO's

Common interests?

SSG13 SYSTEMS ENGINEERING

1. About the IAM 2. Introduction to the SSG

These sections outline the underlining purpose of this series of SSG documents and how this document fits in the series. Furthermore, it indicates any sources for further reading and guidance into this subject area.

3. Scope of this SSG

This section defines the scope of this SSG, providing the reader with an overview of how Systems Engineering aligns with the six Asset Management subject groups.

4. What does 'Systems Engineering' mean?

This section provides the reader with an insight into the background of systems engineering and how this SSG intends to outline how it can compliment Asset Management as part of a project and the wider organisation.

5. Concepts, Principles and Key Factors

This section details the concepts & principles of systems engineering and the key factors which must be considered upon application with the Asset Management subject groups and when specialist systems engineers are required and what responsibilities they should undertake.

6. Subject Group 1 – Strategy and Planning 7. Subject Group 2 - Asset Management Decision Making 8. Subject Group 3 - Lifecycle Delivery 9. Subject Group 4 – Asset Information 10. Subject Group 5 – Organisation and people 11. Subject Group 6 – Risk and Review

Theme A – Systems Thinking

Theme B – Requirements Management

Theme C – System Assurance

These sections detail how the Systems Engineering Discipline can be used to compliment each of the 6 subject groups.

Furthermore it builds on the application of the 3 principles (or themes) documented in this guide.

12. Interactions with other Subject areas of the Anatomy

This sections considers how Systems Engineering can be considered against the other subject areas of Asset Management.

Q1: What is the value Systems Engineering can bring to Asset Management?

- Holistic and Systemic Approach
- Engineering, Structured Systematic approach
- Life cycle – support activities from concept to retirement and reuse
- Transdisciplinarity – integration of technical and financial aspects
- Traceability from need to implementation - Digital thread

Q2: What holds Systems Engineering back from providing this value to Asset Management?

- Awareness
- Understanding, misconception
- Legacy
- Language
- Value

Q3: What measures need to be taken to enable Systems Engineering to bring value Asset Management?

- Elaborate the SE and AM synergies
- Provide cases
- Establish Nomenclature
- Integrate across organisational barriers, technical and non-technical
- Reach out

- Send out webinar results to registered participants
- A number of people have expressed interest to contribute
- Possibility to engage across our organizations
- Possible tasks for an initiative

Previous workshop

DEFINITIONS

Asset

“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.”

System

“Combination of interacting elements organized to achieve one or more stated purposes”

ISO 55000



ISO 15288



QUESTIONS FOR THE ROOM

Why is the collaboration important?

What would you like see from this collaboration?

How would you go about this?

PROPOSAL: POSITIONING PAPER

Overview of topic:

AM is a long standing discipline that empowers **Leadership** to focusses on what adds **value** to their organization; ensures **alignment** between investments and goals. The result is an organization that is **sustainable** in the long term; **adaptable** to its changing environment, and provides a level of **assurance** that this will be delivered.

This is a complex and complicated problem space, SE has a proven pedigree in making the complex simple, aswell as providing assurance, and innovation. This paper explores how these domains can coalesce to both bread down language barriers, but also find the potential innovation within.

Relevance of Issue:

IAM, INCOSE, AMC, are invested in supporting organisations achieve significant societal goals, such as sustainability. This paper provides a platform of innovation to foster collaboration, empowerment and enable real change.

Thesis, Objectives & purpose of paper:

The primary objective is to align the three institutions on the cross over of the with Systems Engineering and Asset Management, with all three seeing the importance of this correlation being mapped and the understanding progressed.