



Welcome to MCF –
Marine Corrosion Forum
/ ICorr – Institute of
Corrosion 2020
Webinars.



MARINE 
CORROSION

FORUM

FOR ALL WET CORROSION ISSUES

- **Webinars 27th April – 1st May inc.**
- **"A Presentation a Day, Keeps Corrosion at Bay"**
- **As a result of the COVID19 pandemic we are opening the virtual doors for all MCF / ICorr members and guests to attend our webinars **FREE OF CHARGE!****
- **All you need to do is register!**



- **Webinars 12.00 – 13.00 Daily**
- **Event 1: The Six Core Elements of Asset Management.** 27 April 2020. Adam Lea-Bischinger | CEng CMgr MEng CMRP Eur. Ing of the Institute of Asset Management (IAM)
- **Event 2: Corrosion under Insulation Online Monitoring With Electro-Magnetic Guided Radar (EMGR).** 28 April 2020. Prafull Sharma | Inventor, Chief Technology Officer | CorrosionRADAR Ltd
- **Event 3: Hot Topic: Cold Bonding, Using Epoxy Adhesives in Place of Hot Metal Welding.** 29 April 2020. Henry Smith | UK Technical Supervisor | Belzona Polymerics Ltd.
- **Event 4: Marine Alloys, Their Corrosion Behaviour and How to Avoid It.** 30 April 2020. Carol Powell | Nickel Institute
- **Event 5: Exploring High Pressure CO2 Annular Corrosion in Flexible Pipes.** 1 May 2020. Maria-Eleni Mitzithra | Senior Project Leader-Corrosion | TWI Ltd.



Institute of Corrosion partnering with
Adam Lea-Bischinger
of the Institute of Asset Management
(IAM)

27th April 2020

“Asset Management and how it can deliver value to your Organisation”

Overview



Definitions



Brief history of IAM and ISO 55000



Core elements of Asset Management



Challenges with Asset Management



First Steps towards an Asset Management framework

About Me

- **15 years working in Maintenance, reliability, Asset Management and Inspection**
- Major oil and gas projects – also power, mining and infrastructure
- Worked for EPIC, Operators and supply companies
- Working in Middle East, North America, Europe and Australia
- **Masters Degree in Engineering, Materials and Corrosion**
- Post graduate training in Inspection, IoT and NDT

- CMRP – Certified Maintenance and Reliability Professional
- Certified Reliability Leader (Association of Asset Management Professionals)
- Certificate & Diploma in Asset Management – Institute of Asset Management
- Chartered Manager (Chartered Management Institute)
- Chartered Engineer CEng – Member of the Energy Institute
- European Engineer EurEng



Definitions



Asset(s) single item of a group of physical items

(fixed, mobile and linear)



Organisation = not just businesses – Governments and non-for-profits



Value = not just money – secondary benefits

Reputation improvements
Customer satisfaction
Risk reduction



Stakeholders = anyone directly and indirectly involved

Staff, Contractors, suppliers, governments, NGO's etc


History of the Institute of Asset Management

- Established in 1994
 - A not-for-profit, professional body
 - Owned and controlled by our members and committed
 - Remain independent from commercial and trade associations
 - Over 2,700 members and a network of over 30,000 people globally
 - Exist to advance the discipline of asset management, for people and organisations
 - Chapters – Countries
 - Branches – local in each country
- Abz Branch established 2018

Chapters and Branches Worldwide


Canada

[Visit Chapter Microsite >](#)

9 Branches 


Germany

[Visit Chapter Microsite >](#)

3 Branches 


Ireland

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2 Branches 


Netherlands

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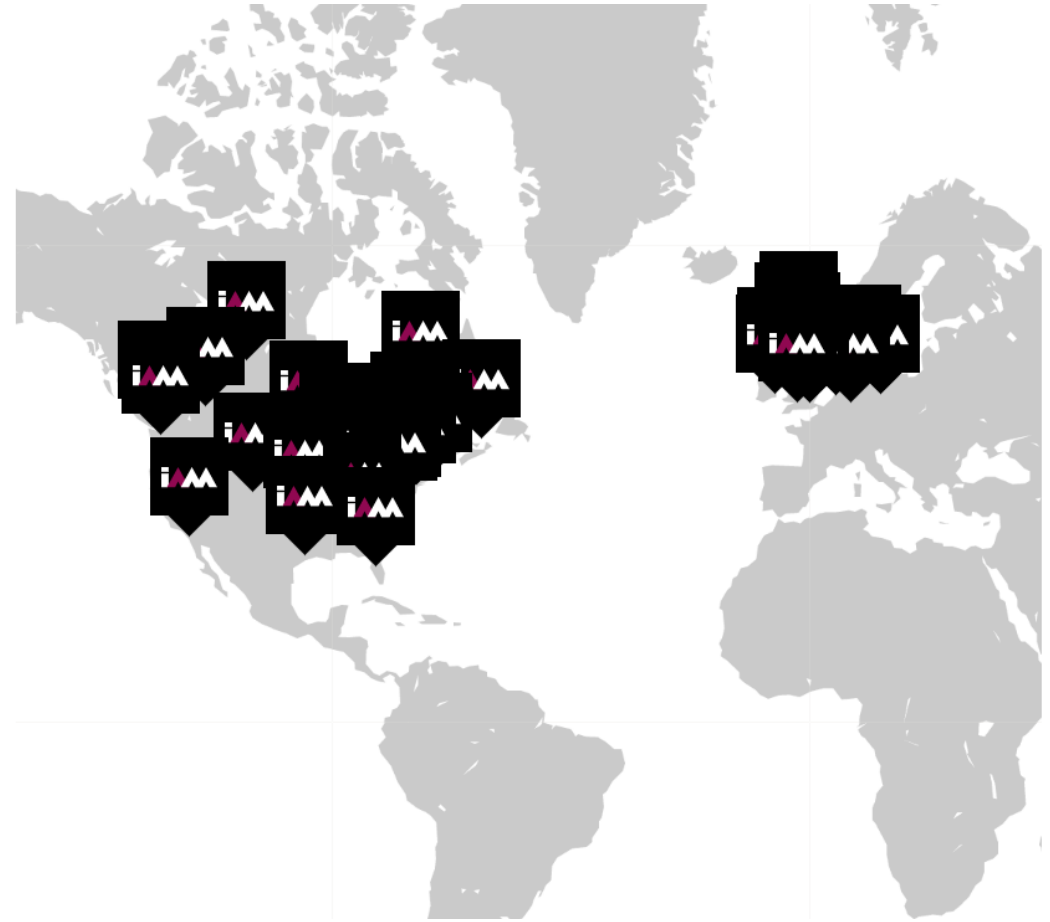
1 Branches 

United Kingdom

[Visit Chapter Microsite >](#)

9 Branches 

USA



Body of Knowledge and Publications

- IAM have been coordinating the development and publication of detailed guidance notes
- IAM have developed exams and education
 - IAM certificate
 - IAM Diploma
- Working towards their Chartered Status with the Engineering Council



SSG 31 - Risk Assessment and Management (PDF)

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SSG 1, 2 & 5 - Asset Management Policy, Strategy and Plans PDF

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£30.00 (Non members)
£15.00 (Corporate members)

[More Details](#)

Membership



Profiles of Asset Management Professionals



Engineering

Mechanical, Chemical, corrosion, maintenance, Systems, Electrical, materials etc



Finance



Computer science, Data and analytics



Legal



Business Management

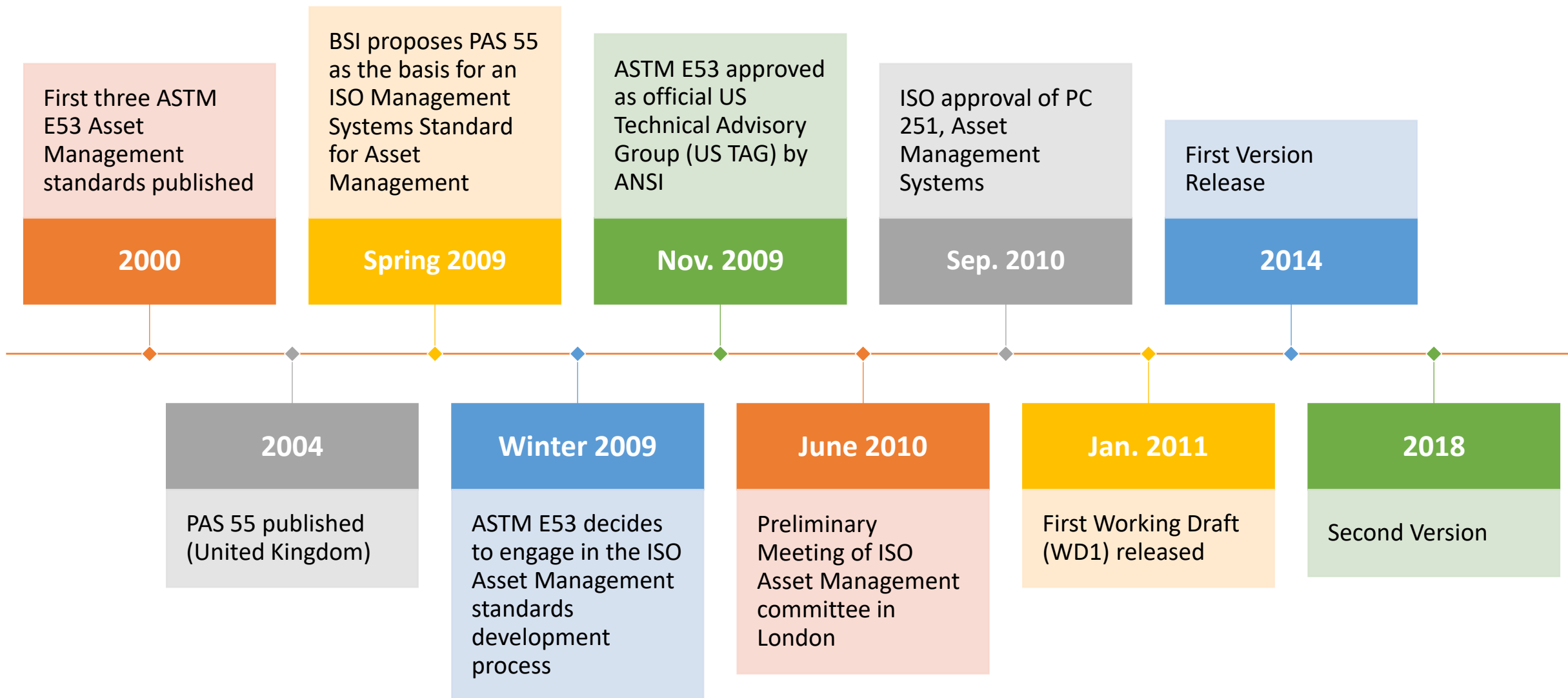


Psychology / Sociology



Asset
Management
and
ISO 55000
History





ISO 5500X

- Three main documents
 - ISO 55000
 - ISO 55001
 - ISO 55002
 - Overview of terminology
 - Requirements
 - Application of the standards
- Similar in structure to ISO 9000 series

INTERNATIONAL STANDARD ISO 55002

First edition
2014-01-15

Asset management — Management systems — Guidelines for the application of ISO 55001

Gestion d'actifs — Systèmes de management — Lignes directrices relatives à l'application de l'ISO 55001

INTERNATIONAL STANDARD ISO 55001

First edition
2014-01-15

Asset management — Management systems — Requirements

Gestion d'actifs — Systèmes de management — Exigences

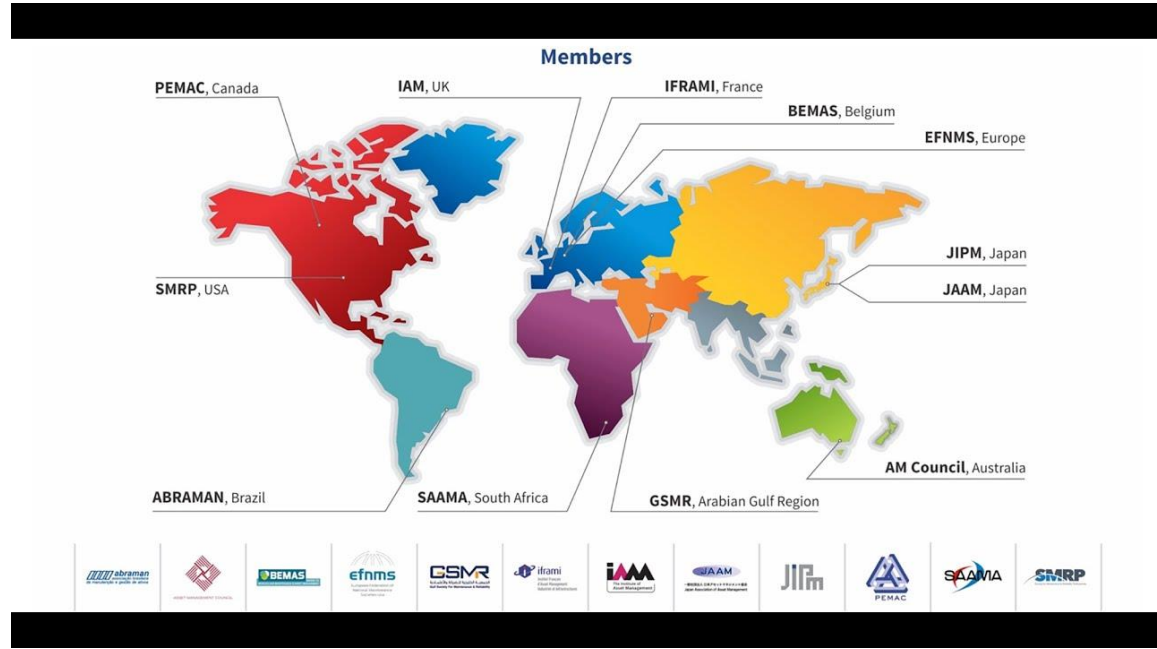
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2 Normative reference	1
3 Terms and definitions	1
4 Context of the organization	1
4.1 Understanding the organization and its context	1
4.2 Understanding the needs and expectations of stakeholders	1
4.3 Determining the scope of the asset management system	2
4.4 Asset management system	2
5 Leadership	2
5.1 Leadership and commitment	2
5.2 Policy	3
5.3 Organizational roles, responsibilities and authorities	3
6 Planning	3
6.1 Actions to address risks and opportunities for the asset management system	3
6.2 Asset management objectives and planning to achieve them	4
7 Support	5
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7.2 Competence	5
7.3 Awareness	6
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INTERNATIONAL STANDARD ISO 55000

First edition
2014-01-15

Asset management — Overview, principles and terminology

Gestion d'actifs — Aperçu général, principes et terminologie

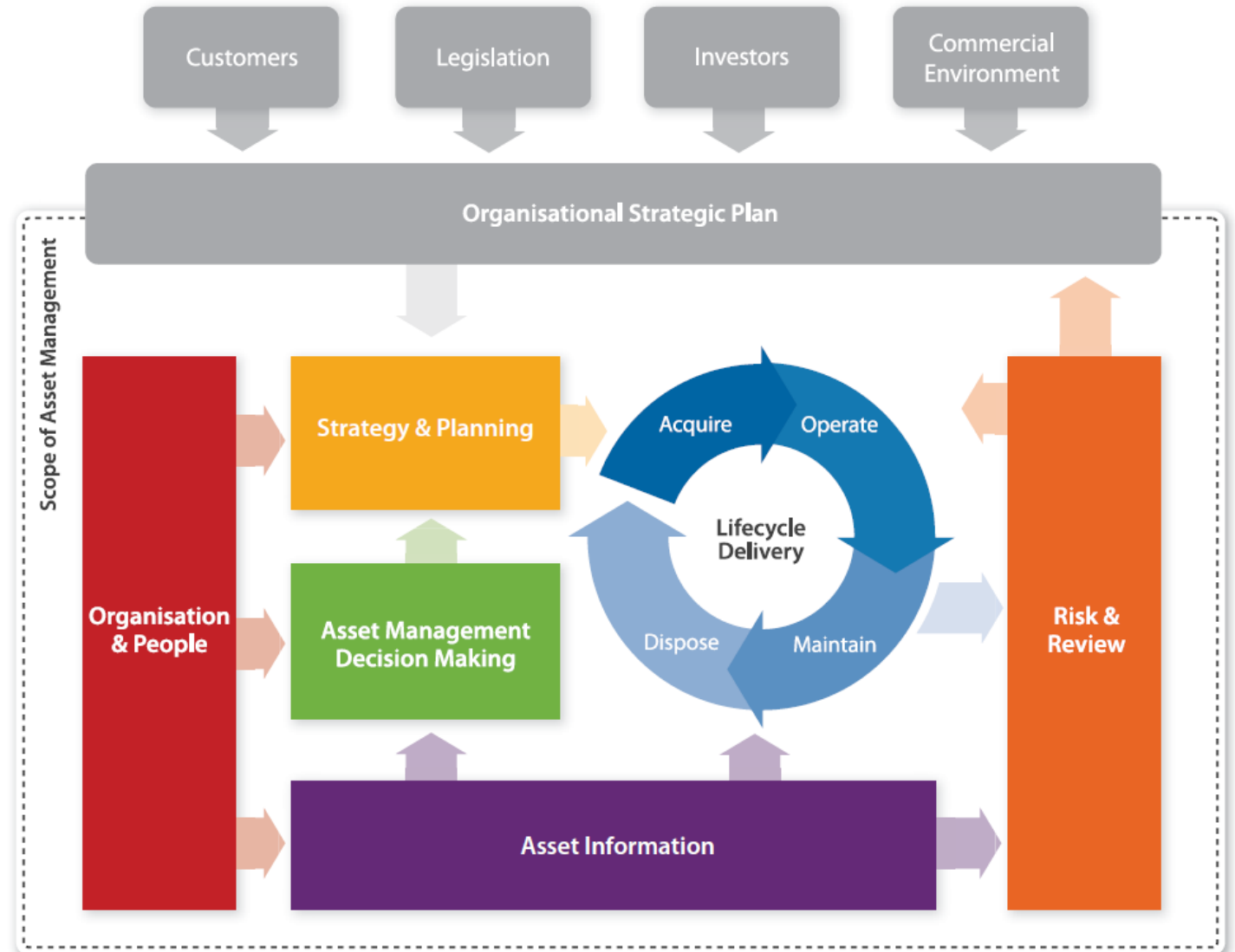


GFMAM
 Global Forum on Maintenance
 & Asset Management

Global Forum on Maintenance and Asset Management

IAM Conceptual Model

- Developed by the IAM to show the core elements of the ISO 55000 series standard
- Shows 6 main Groups
 - Under each group are multiple subjects



The 39 Subjects

Strategy & Planning

- Asset Management Policy
- Demand Analysis
- Strategic Planning
- Asset Management Planning

Organisation & People

- Procurement & Supply Chain Management
- Asset Management Leadership
- Organisational Structure
- Organisational Culture
- Competence Management

Asset Information

- Asset Information Strategy
- Asset Information Standards
- Asset Information Systems
- Data & Information Management

Decision Making

- Capital Investment Decision Making
- Operations & Maintenance Decision Making
- Lifecycle Value Realisation
- Resourcing Strategy
- Shutdown/Outage Strategy

Lifecycle Delivery

- Technical Standards
- Asset Creation/Acquisition
- Systems Engineering
- Configuration Management
- Maintenance Delivery
- Reliability Engineering
- Asset Operations
- Resource Management
- Shutdown/Outage Management
- Fault & Incident Response
- Asset Disposal

Risk & Review

- Risk Management
- Contingency Planning
- Sustainable Development
- Management of Change
- Asset Health Monitoring
- AM System Monitoring
- Management Review
- Asset Costing & Valuation
- Stakeholder Engagement

Support From Numerous Organisations



ASSET MANAGEMENT COUNCIL



PEMAC Asset Management Association of Canada




Southern African Asset Management Association
Striving towards Asset Management Excellence!



Japan Association of Asset Management



ORCA HUB
Offshore Robotics for Certification of Assets
Remote Safety and Integrity



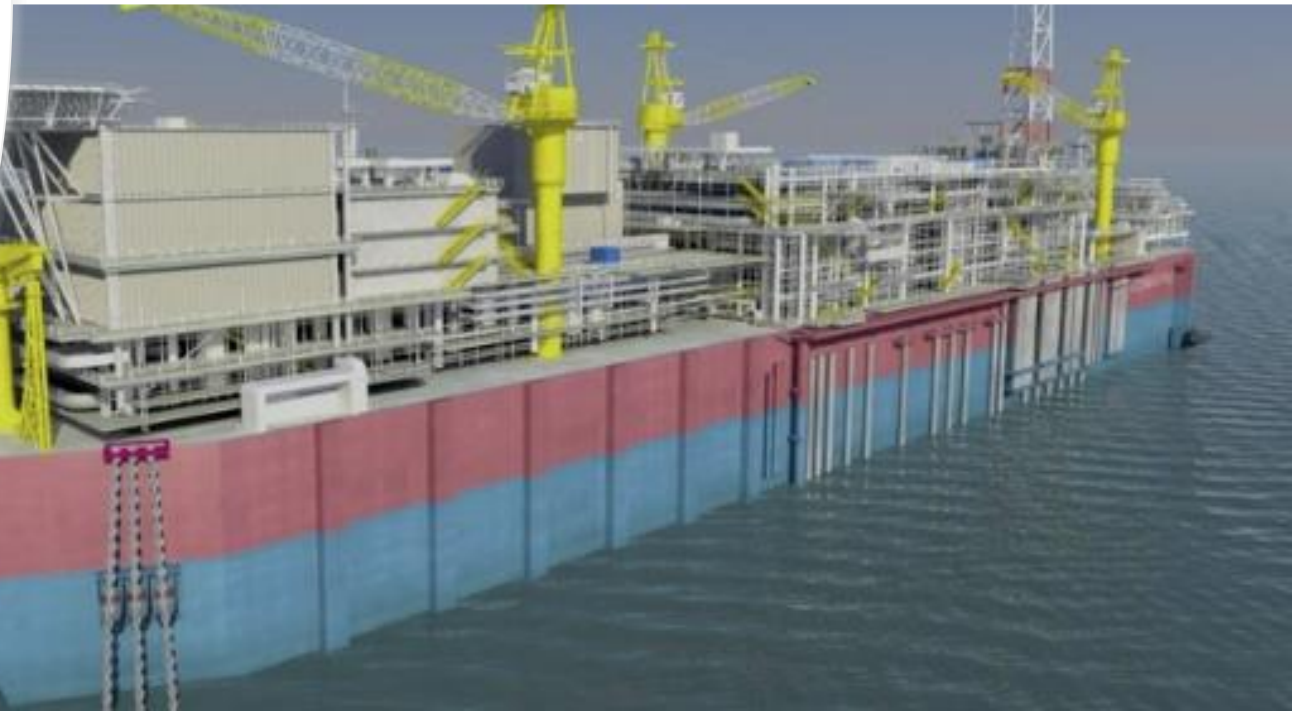
Asset Management
Throughout the Asset
Lifecycle

An aerial photograph of a massive construction site, likely for a stadium or arena. The central focus is a large, circular concrete structure under construction, surrounded by a complex network of steel reinforcement and scaffolding. Numerous tower cranes are positioned around the site, their long jibs extending into the sky. The ground is a mix of concrete slabs, rebar, and construction equipment. The overall scene is one of intense industrial activity.

Asset Management During Construction

3D Models

- 3D CAD models for construction
- Building Information Management (BIM) in construction industry
- Used for project progress
- Future Digital Twin
- Supplier management
- Information / documentation management
- Operations familiarisation





Operations and Maintenance

- Mobile tablet computing
- Wireless condition monitoring sensors
- Hands-free heads up display
- The connected worker



Decommissioning



Asset Management – Decision Making



Robust AM allows for monitoring of value and costs



Supports decision making over the asset life cycle



Helps with strategic planning

Managing risks

liabilities

costs

rewards



Repurposing



Asset Management in Oil and Gas

- We have / undertake many of the 39 elements
 - Inspection
 - Maintenance
 - Risk reviews / SCE / PS
 - Data and information
 - Decision making
 - Capital investments
 - Shutdowns and Turnarounds
 - Training / skills management
- But not necessarily coordinated and coherent

Key Challenges with Asset Management



It's a relatively new subject



Common Understanding



Communication



Co-ordination



Forever changing



Different perceptions of value



External stakeholder values change



Who owns the assets / who operates the assets

How Asset Management Currently Looks

Silos

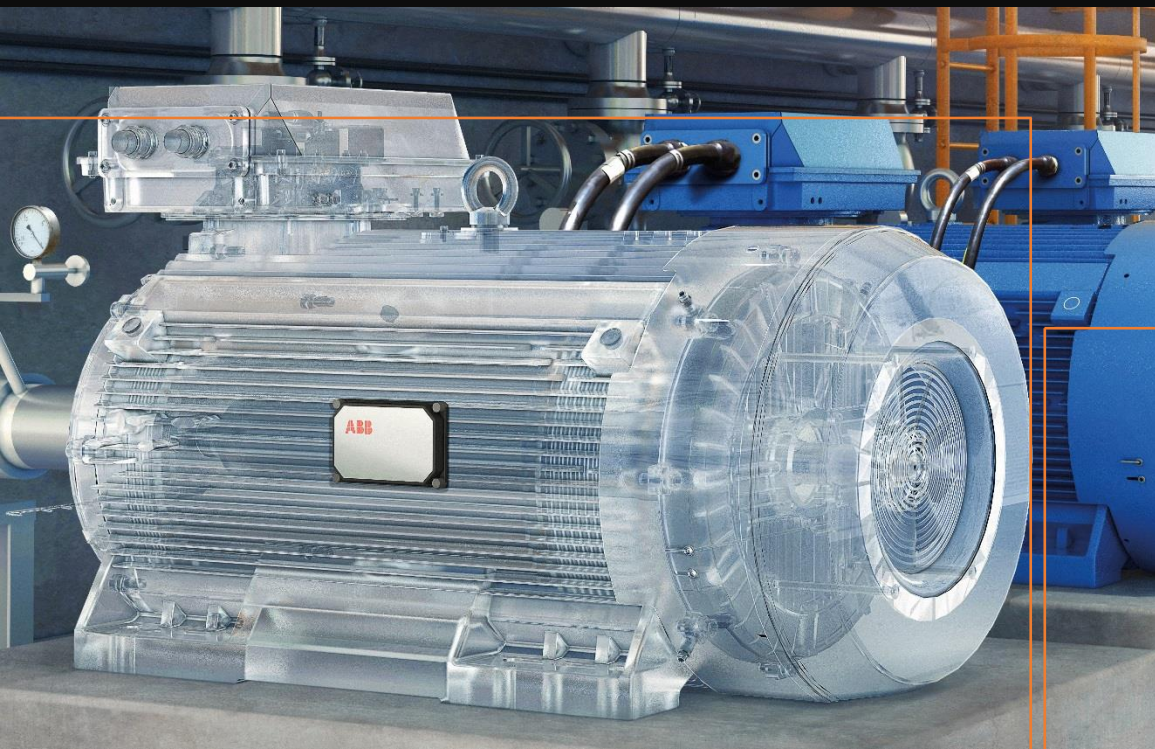
- Teams working in isolation
- Not always coordinated across departments
- Competing for smaller budgets
- Short term thinking – not long term planning
- Outsourcing key elements
- Old / legacy digital / software systems
- Incomplete / incorrect data
- Misalignment between leadership and operations
- Not learning from past mistakes
- Focused on costs not value
- External factors not being considered

What Asset Management Can Look Like





- Clear planning and aligned targets
- Embracing new technology
- Accurate data to make informed decisions
- Engaged skilled workforce
- Prepared for external challenges
- Continuity planning and resilience



Delivered Benefits



Long term planning



More engaged and motivated workforce



Stakeholders identified and value better understood



Cost reductions



Improved asset availability



Improved contingency and risk management



Better use of data to support organisational objectives



Learning and development plans for personnel

Where to start?



Maintenance review and spares optimisation



We know our SCE's and PS



We do RBI



We have a corrosion management strategy



I've defined the corrosion loops



My drawings are correct

Asset Management is a Cultural Change



That's why it's so difficult



It's about working across departments



Who's going to coordinate all this?



Need to bring together Technical,
Financial, Organisational & leadership

Asset Management Starts with Leadership



Set

The tone
The vision
The mission
The strategy



Commit to AM as a
competitive advantage



Not a program – it's a new
business model / way of
working

A close-up, low-angle shot of a mechanical watch movement, showing various gears, screws, and components. The image is heavily shadowed and has a dark blue color cast. The text "Your Organisation Already has Many of the Parts" is overlaid in white, centered on the image. The text is arranged in two lines: "Your Organisation Already" on the top line and "has Many of the Parts" on the bottom line. The font is a clean, sans-serif typeface.

Your Organisation Already
has Many of the Parts

Action Plan

Get

Get leadership / management engages / support

Develop

Develop / form a team with knowledge / understanding around AM principles – internal or external

Map out

Map out the parts you have and what you need

Business Case

Develop business plan for each project – cost, time and deliverables

Produce

Develop a set of KPI to monitor and measure improvements

Companies
with
ISO 55001
Accreditation

Southampton Airport	Ports & Airports	UK	Link
London Underground	Transport	UK	Link
NATS	Transport	UK	Link
Nottingham Express Transit	Transport	UK	Link
National Grid Gas Distribution	Gas	UK	Link
Northern Gas Networks	Gas	UK	Link
SGN	Gas	UK	Link
Wales & West Gas Networks	Gas	UK	Link
Ausdrill NorthWest	Oil & Gas	Australia	Link
Easternwell	Oil & Gas	Australia	Link
Wallis Drilling	Oil & Gas	Australia	Link

Material to Support Your Learning & Development

- Free online content
 - Reliability web
 - IAM anatomy
- GFMAM material
- AMC Australia
- The University of Aberdeen



The screenshot shows a course page for 'Introduction to Asset Management' on the University of Aberdeen website. The page features a background image of a robotic arm in a factory setting. The course is categorized as a 'Short course' and is part of the 'ON-DEMAND LEARNING' program. The page includes a 'Key info' section with details on learning mode, study level, credits, duration, time commitment, and start date. A 'COST' section indicates that the cost is 'To be confirmed'. A note at the bottom states that the course is not currently open for applications and that future dates will be added in due course. A yellow button with a star icon and the text 'Add to My List' is located at the bottom of the page.

On-demand Learning < Courses

☆

Short course

Introduction to Asset Management

Boost your knowledge and skills in physical asset management. Learn how to apply ISO 55000 to deliver value and operational efficiency for your organisation.

ON-DEMAND LEARNING

Key info

Learning mode	Online
Study level	Postgraduate
Credits	15 What are credits?
Duration	12 weeks
Time commitment	10 - 15 hours per week
Start date	To be confirmed

COST To be confirmed

This course is not currently open for applications. Future dates will be added in due course.

☆ Add to My List

Summary



AM is sector / industry agnostic

Stakeholders and values vary



ISO 5500X series provides an overview and outline of the key elements to include



ISO 5500x will not tell you how to do Asset Management



Asset Management is not a software system – it's an overarching management system



Your Organisation will already do many elements, but need to join them together = more value



AM is a business improvement process – ongoing – not one time effort

THANK YOU FOR ATTENDING

This Webinar was brought to you by MCF working in partnership with ICorr and IAM.