LEARNING & DEVELOPMENT

MANAGE YOUR ASSET LIFECYCLE AT ANY STAGE.

Implement and sustain an effective asset management and maintenance programme.

Improving your asset performance and profitability.
ASSET MANAGEMENT AND MAINTENANCE.

The way in which physical assets are acquired and deployed can have a considerable effect on the success, profitability and sustainability of a business.

Industrial businesses, for example, often highly utilise their assets, many of which are critical to their operations and employed over an extended period. These can consume financial resources from the moment that they are acquired or, in some cases, even before they are purchased, and the expenditure can continue for many years.

This is why effective asset management is so important. Asset management is the coordinated activity of a business to realise value from its assets. It is concerned with all stages of the asset lifecycle, considering several factors, including how costly is the asset to replace, how crucial it is to the business, and the overall reliability of the asset in question.

IMechE’s Learning and Development Portfolio

ISO 55000 and its relevance to asset management

ISO 55000 is the international standard for the management of physical assets throughout their whole lifecycle.

Businesses that apply best practice asset management, as defined by the standard, will ensure that they achieve the best financial return on assets (ROA) and return on capital employed (ROCE) by ensuring that assets acquired, deployed, operated and maintained by the company support the objectives of the business by providing the levels of performance, reliability and operating costs required.

By achieving ISO 55000 accreditation, an organisation demonstrates to its shareholders, stakeholders and customers that it acquire, deploys, operates and maintains its physical assets professionally and effectively.

FOUR STAGES OF THE ASSET LIFECYCLE.

An asset lifecycle is the series of stages involved in the management of an asset. It starts with the planning stages when the need for an asset is identified and continues all the way through its useful life and eventual disposal.

• Justifying the purchase of the asset
• Installation and commissioning
• Identifying its functional and operational requirements
• Developing a specification
• Selecting a supplier and procuring the asset.

The final stage, may be required due to:
• The asset reaching the end of its useful life
• The asset being superseded by new technology or processes
• The asset no longer being able to comply with regulatory or statutory requirements.

• Developing and implementing operating methods and procedures
• Training and deploying operators
• Continuously improving processes
• Measuring and monitoring operational effectiveness.

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Manage your Asset Lifecycle at any stage.
HOW OUR MAINTENANCE MANAGEMENT PORTFOLIO CAN HELP AT EVERY STAGE OF THE ASSET LIFECYCLE.

PROBLEM 1
I need to get more maintenance tasks completed but I don’t have enough staff and I don’t know what structure is best?

ACTION
To tackle the challenge of completing more maintenance tasks with limited staffing and uncertain structure, the key action is to enhance your team’s efficiency and productivity directly. A strategic approach involves implementing Maintenance Planning and Scheduling techniques that focus on maximising proactive work to ensure safety, equipment reliability, and overall performance improvements.

PROBLEM 2
I need to understand how to manage the physical assets of my business.

ACTION
Align asset management with organisational goals to prevent misaligned objectives, inefficient lifecycle management, high operating costs, low morale, and poor profitability. An effective asset management strategy, compliant with ISO 55000 best practices, addresses these issues.

PROBLEM 3
I need to apply the very best maintenance approaches, tools and techniques to ensure that my assets are reliable and perform well.

ACTION
To advance your maintenance practices and ensure your assets reach their highest levels of reliability and performance, stepping beyond traditional methods is necessary. Adopting world-class maintenance is a proactive strategy that targets the root causes of unplanned downtime, inefficiency, and the significant expenses tied to suboptimal machinery reliability.

The benefits include:
- Enhances asset reliability and productivity, improving profitability
- Implements effective, proactive maintenance processes
- Organises structure to support and promote proactive maintenance
- Trains a flexible, motivated workforce aligned with business goals
- Optimises maintenance resource use
- Ensures compliance with regulatory standards.

PROBLEM 4
I need to ensure that my maintenance plans and resources are employed effectively, maintaining my assets in the most cost-effective way and reducing business risks.

ACTION
By adopting and implementing Reliability Centred and Risk Based Maintenance (RCM and RBM) methodologies, your organisation can leap ahead in optimising maintenance operations. This strategic move not only streamlines resource allocation and cuts down on unnecessary expenses but also significantly mitigates operational risks, enhancing both reliability and performance.

The benefits include:
- Develops a risk-based maintenance strategy to manage consequences
- Improves machinery reliability and availability through proactive approaches
- Develops asset condition appraisal tools and systems and applies them within your organisation
- Applies the most appropriate tasks to establish optimised maintenance plans
- Inspires your team to embrace risk-based approaches.

The benefits include:
- Develops and implements a strategic plan enhancing business support
- Streamlines asset management processes
- Improves return on capital and reduces lifecycle costs
- Optimises equipment purchasing and installation, enhancing operational readiness
- Improves budgeting for capital and operational expenses, cutting costs
- Ensures compliance with regulatory standards.

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Manage your Asset Lifecycle at any stage.
BUSINESS VALUE, BENEFITS AND DELIVERABLES.

These case studies highlight the successful application of Maintenance Management strategies in fostering cultural change, enhancing performance, and driving profitability across various organisations.

» Enhancing maintenance efficiency at Budweiser UK

Kieran McKeown at Budweiser UK&I led a revamp in maintenance planning and scheduling for can and keg production, introducing a structured approach that improved role clarity and operational efficiency. This initiative resulted in enhanced pre-planning, reduced downtime, and better support for technicians through an online information centre.

» Advancing maintenance reliability at Lenzing Group

Wayne Rowbotham, a Mechanical Engineer at Lenzing Fibers, transformed their maintenance strategies by focusing on reliability and efficient shutdown planning. By employing failure curves, he adjusted maintenance schedules to minimise equipment failures, resulting in savings on spare parts and improving operational efficiency. His strategy promotes a culture of reliability and informed decision-making across the company.

» Transforming maintenance strategy at the Environment Agency

Josh Jordan at the Environment Agency applied RCM and RBM principles to innovate flood defence equipment maintenance. His initiative, including oil sampling, marked a shift towards more efficient, cost-effective, and sustainable practices, challenging conventional schedules and promoting evidence-based resource allocation.

Below are some related organisational positions that we have found benefit the most from each course. There are including but not limited to:

- Maintenance Managers, Engineers, Planner/Schedulers or Supervisors
- Production Supervisors
- Storeroom Managers
- Operation Coordinators
- Plant Engineers
- Reliability Engineers

Creating a complete programme to improve your organisation’s performance and profitability incorporates the engagement and involvement of the work force at all levels.

For guidance on which course would suit your requirements, call our experienced training advisors on +44 (0) 207 304 6907 or email training@imeche.org.
DID YOU KNOW?

Our courses support Continuing Professional Development – our training helps engineers meet the standards required of professionals registered with the Engineering Council.

► Call our experienced training advisors

Get more information and discuss your training needs on
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