



Asset Management

**Understanding the
benefits of an ISO 55001
Asset Management System**

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About ISO/TC 251

We are the ISO Technical Committee for Asset Management Systems responsible for the development of the ISO 55000 family of standards. These standards define good practices in Asset Management and requirements for a management system.

Find out more at committee.iso.org/tc251

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Asset Management - a holistic and systematic approach

People have been caring for **assets** since mankind first invented tools. Over time, organizations have developed disciplines and specialist functions to create, use and care for assets - both tangible and intangible. This is defined as **managing assets** in the article *Managing assets in the context of asset management*.

Over the last 20 years Asset Management ('the coordinated activity of an organization to realize value from assets') has emerged as a holistic approach to integrate these activities. Asset Management aims to maximise the total value created for the organization by asset utilisation throughout the assets' lives, while understanding and managing related risks. Asset Management connects the organization's goals and objectives with the assets that enable their achievement.

An **Asset Management System** (AMS) supports asset management with systematic coordination of these connections and supports assurance, individual and organizational learning and continual improvement. It provides a systematic approach to perform asset management effectively and derive the value needed from assets to achieve organizational objectives. An AMS is used to realize organizational benefits through well-coordinated strategies and plans based on observed performance and (potential) changes in the organization's environment.

Does your organization need an Asset Management System?

Everyone is talking about ISO 55001 and the benefits it brings. ISO 55001 is a set of requirements for an Asset Management System. So what is an AMS? How does an AMS contribute to delivering good asset management and ultimately help you to derive value from your asset base?

What is an Asset Management System?

ISO 55000 defines an AMS as 'a set of interrelated or interacting elements of an organization to establish policies and objectives for asset management and processes to achieve those objectives'. An AMS is a management system for managing the asset management activity (i.e. not directly managing the assets); it does so systematically focused on value, alignment of action, leadership, and assurance.

An effective AMS:

- Facilitates an organization's achievement of its purpose, mission and strategic goals;
- Ensures the organization can do asset management, which means that decision makers and stakeholders are aware of and able to proactively make risk, cost and performance trade-offs;
- Demonstrates to internal and external stakeholders (employees, customers, regulators, insurers etc.) the organization's intention and capability to do asset management properly (i.e. managing the assets' performance in coordination with the associated risks and costs over their lifecycle, improving overall organizational performance).

An organization can gain more value more consistently by using ISO 55001 to establish its AMS.

An analogy

Think about gardening as a simple analogy to help explain the relationship between asset management and the asset management system. The activities of choosing and acquiring plants, installing them, caring for them and deriving value from them (enjoyment, produce, shade, compost etc.) represent **asset management**. The processes associated with gardening such as understanding what we want and checking that we have achieved those objectives competently and efficiently are the **Asset Management System**. This would include having processes to make sure our gardeners are competent and using the right tools/techniques/seeds/fertilisers etc. The asset management system provides assurance that the activities are coordinated – no walking through flower beds that are recently sown to tend to the vegetables – and produce maximum value – which combination of vegetation best fits the purpose of the garden? The actual activities of digging, planting, pruning etcetera would be the equivalent of **Managing Assets**.

EXAMPLE: A ROAD NETWORK

Consider an organisation managing a road network. Designing, building and maintaining the roads are ‘managing assets’ activities.

‘Asset management’ is the coordination of these activities such that the roads network can consistently pass traffic at acceptable costs without unacceptable risk of for example traffic jams or unsafe road conditions.

The ‘asset management system’ processes include: understanding road users’ current and future transportation needs, assuring and checking that these needs are met and making improvements where necessary. The AMS includes processes to ensure the organisation’s personnel are competent and use the right tools, techniques and materials. The AMS provides assurance that the activities are coordinated to generate the desired value at acceptable cost and risk.

EXAMPLE: A CHEESE FACTORY

Consider a factory producing cheese. The activities of acquiring the factory’s machines, installing them and maintaining them are ‘managing assets’ (in this case, the factory’s machines). When those activities are coordinated so as to consistently produce the quantity and types of cheese wanted by customers at competitive prices and with acceptable business risks, this can be called asset management.

The AMS is the processes associated with this, such as understanding what the customers and other stakeholders want, assuring and checking that this is achieved and driving improvement where necessary. The AMS includes processes to make sure the factory’s personnel are competent and use the right tools, techniques and materials. The AMS provides assurance that the activities are coordinated, for example, carefully planning and installing new equipment to make sure the factory is ready to produce new types of cheese in the necessary volumes in time for product launch, so the factory provides maximum value.

What an Asset Management System does

Using an ISO 55001 compliant AMS supports the following activities, all of which are essential for good asset management:

- Analysis and understanding of the organization’s context and the needs and expectations of its stakeholders, to translate the stakeholders’ perception of value into an asset management policy, objectives and a Strategic Asset Management Plan (SAMP) guiding asset management decision-making;
- Assurance of adequate support for effective asset management including resources, competence, awareness, communication and information;
- Ensuring the organization’s structure, people, processes, supporting technology and IT systems are coordinated with each other and in alignment with operating requirements;

- Monitoring, measuring and evaluating the performance of the asset management system as well as the asset portfolio to ensure value is derived and organizational objectives are achieved consistently;
- Coordination and control of change management and associated risks and opportunities;
- Systematic learning and continual improvement of products, services, resources, methods and processes based on experience and feedback from internal and external stakeholders;
- Integration with other management systems such as Quality Management and performance improvement techniques (e.g. Lean, Operational Readiness, Performance Excellence etc.).

Principal benefits of an effective Asset Management System

The principal benefits of an effective AMS are:

- A common language for the organization to enable effective communication;
- Collaborative behaviours - breaking down silos internally, externally and in the supply chain;
- Greater understanding and alignment of risk and assurance that it is appropriately managed;
- Awareness and understanding of how the assets support business objectives;
- Structured decision-making that balances performance, risk and cost and helps align short- and long-term business objectives;
- Assurance of performance, learning, and continual improvement;
- Enhanced internal and external stakeholder confidence in the organisation's capabilities and future performance;
- Significantly improved financial performance resulting from all of the above.

Different benefits to different stakeholder groups

COLLEAGUES

Your colleagues will be interested in how the AMS benefits them. It can help them improve their performance and prospects in the organization through:

- Better collaboration with other departments;
- Strategic decision-making that is more closely related to stakeholders' needs;
- Development of processes for exploitation and care of assets that are visibly aligned with organisation objectives and thus the delivery of stakeholder value;
- Continual improvement of policies, processes, future decisions and performance.

EXTERNAL STAKEHOLDERS

Your external stakeholders (customers, investors, regulators) are sensitive to changes in organizational performance and will be appreciative of performance improvements. The AMS benefits them through:

- Predictable delivery of the organization's objectives with 'no surprises' through better risk management;
- Consistency of policies, processes, decisions and activities across the organization and over time;
- Deriving greater value from assets.

TOP MANAGEMENT

Your top management wants to know that it has the right assets in place to achieve the organizational objectives and that assets are functioning efficiently and effectively. The AMS provides confidence that the organization:

- Has developed value-generating behaviours across its workforce and supply chains;

- Possesses appropriate capabilities, competencies and resources;
- Has the means to measure, assure and improve asset related performance;
- Understands, monitors and maintains effective and efficient asset related risk controls.

SUPPLIERS

Your suppliers are likely to want to move away from short-term and restrictive contracts to longer term relationships and partnerships to provide more added value. Your organisation's AMS will aid this aspiration by helping them:

- Understand your organisation's policies, strategies and expectations;
- Effectively and efficiently interface their processes with your organisation's processes;
- Receive timely feedback from your organization to improve the services or products they supply;
- Provide collaborative learning and improvement opportunities in their value delivery.

The ISO 55000 suite of standards

These International Standards (ISO 55000; 55001; 55002) provide an overview of Asset Management, its principles and terminology and the expected benefits from adopting asset management and implementing an Asset Management System. They explain the common concepts, elements and language for good Asset Management (ISO 55000), provide the requirements for an Asset Management System (ISO 55001) and guidance on the interpretation of the requirements (ISO 55002).

In doing so, they address the activities performed directly on the assets (**Managing Assets**), the organization's strategies and plans to derive value from those assets (**Asset Management**) and the way the organization coordinates, assures, learns and improves its approach and behaviours (the **Asset Management System**). For more resources, please visit committee.iso.org/tc251.