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Asset management — Guidance on people involvement and competence

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Foreword

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This document was prepared by Technical Committee ISO/TC 251, *Asset management*.

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Introduction

0.1 General

The performance of an asset management system and its processes depend on the active involvement of competent people in the organization and their ongoing support and commitment to its operation and continual improvement. In addition, the identification, development and evaluation of the effective involvement of people (including outsourced resources) are critical for an organization's asset management system to achieve outcomes which are consistent and aligned with its strategies and values.

Overall, the involvement of people within an asset management system is enabled by activities and practices associated with leadership, planning, awareness, communication and competence.

0.2 Relationship to asset management system

The guidance given in this document is based on the requirements for an asset management system described in ISO 55001 and more generalized principles presented in ISO 55000. According to ISO 55001:—, 4.1: “The organization shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended result(s) of its asset management system.”

As people are a key component of an asset management system, the correlation between this document and ISO 55001 can facilitate the involvement of people and the development and management of their competence within the asset management system.

Within an asset management context, the need for the commitment of top management to support the asset management system is repeatedly and clearly outlined in ISO 55001. In particular, ISO 55001:—, Clause 5, identifies requirements for specific actions by top management to demonstrate leadership for conformity to ISO 55001. For example, ISO 55001:—, 5.1, highlights the responsibility of top management to demonstrate leadership and commitment with respect to the asset management system by:

- a) ensuring the establishment, use and alignment of asset management decision-making criteria with the organization's objectives;
- b) ensuring that the asset management policy, asset management system scope, strategic asset management plan (SAMP) and asset management objectives are established and are aligned and compatible with the strategic direction of the organization's objectives;
- c) approving the asset management policy, asset management system scope and SAMP;
- d) ensuring the integration of the asset management system requirements into the organization's business processes;
- e) ensuring that the resources needed for the asset management system are available;
- f) communicating the importance of effective asset management and of conforming to the asset management system requirements;
- g) ensuring that the asset management system achieves its intended result(s);
- h) directing, raising awareness of and supporting persons to contribute to the effectiveness of the asset management system;
- i) promoting continual improvement;
- j) supporting other relevant roles to demonstrate their leadership as it applies to their areas of responsibility.

If the vision and organizational strategies are not properly formulated and adjusted, the key leadership and management principles as defined in ISO 55000 are compromised, and the overall effectiveness of the asset management system is reduced.

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Additionally, ISO 55001:— 7.1 and 7.2, establish that the organization is required to ensure sufficient resources and to establish competence requirements and to ensure sufficient resources are available to support the asset management system (including personnel resources). This requires not only determining what types of expertise are required by personnel, but also developing plans around how people can acquire required expertise and demonstrate proficiency.

Moreover, ISO 55001:—, 7.3, highlights that it is important that people working within an organization's asset management system be aware of the asset management policy and how they contribute to the system and the implications of not conforming to the requirements of the system. ISO 55001:—, 7.4, states that the organization is responsible for establishing what information is communicated to internal and external stakeholders with regards to the asset management system. This suggests that effective communication is required to ensure people are adequately aware and informed of their roles and responsibilities. Finally, ISO 55001:—, 7.5, stresses the importance of documented information, and the implication is that this documented information includes aspects leading to a person's awareness within the asset management system.

0.3 People involvement and competence

This document establishes guidance for enhancing the involvement of people within an asset management system, as well as developing their required competencies to participate appropriately in asset management activities. This includes the involvement and competence of top management and other organizational manager, as well as people responsible for executing strategies and plans. Additional key attributes include knowledge and awareness of activities to be completed, as well as the establishment of continual improvement and monitoring through personnel development.

If people involvement and competence are monitored, measured and analysed within the asset management system (including top management), it can produce results which enable top management to make decisions for improvement, thus leading to enhanced overall system performance.

[Annex A](#) provides additional information on aspects of people involvement within an asset management system.

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Asset management — Guidance on people involvement and competence

1 Scope

This document gives guidance on enhancing the involvement and commitment of personnel within an asset management system to improve the overall efficiency of translation of asset management objectives into results. This involves an evaluation of human and cultural factors that influence:

- a) the effectiveness of adoption of operational requirements and policies established by the organization's strategic asset management plan (SAMP) across the organization;
- b) the degree of involvement that personnel have in the development and execution of asset management plans and strategies;
- c) the level of knowledge and awareness that personnel have of required activities established by asset management plans and strategies;
- d) the impact of competence on the ability of personnel to execute these activities;
- e) the process by which establishing development plans drives continual improvements in asset management system efficiency;
- f) the recognition of mutual dependencies in teams that contribute to organizational performance.

These elements apply to the leadership accountable for the overall functioning of the asset management system, as well as to personnel responsible for the development and execution of plans, strategies and activities.

This document is applicable to any organization, regardless of its type or size. Additionally, while asset management is not necessarily conducted within the construct of an asset management system, the principles within the guidance set out in this document can be more broadly applied regardless of the nature of asset management within an organization.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 55000, *Asset management — Vocabulary, overview and principles*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 55000 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

**3.1
involvement**

taking part in an activity, event or situation

Note 1 to entry: Involvement is applicable to both people within an organization and those from external third parties.

Note 2 to entry: Involvement is applicable to both internal and externally provided resources.

[SOURCE: ISO 9000:2015, 3.1.3, modified — Notes to entry added.]

**3.2
commitment**

level of work and dedication given to the asset management system

**3.3
engagement**

involvement (3.1) in, and contribution to, activities to achieve shared objectives

[SOURCE: ISO 9000:2015, 3.1.4]

**3.4
leader**

person who influences a group of people towards the achievement of a goal, and in turn recognizes the contribution of this, and mutual dependency with other groups, in achieving an organizational goal

**3.5
competence**

ability to apply knowledge and skills to achieve intended results

Note 1 to entry: Competence also applies to the collective performance of teams.

[SOURCE: ISO 55000:—, 3.3.11, modified — Note to entry added.]

**3.6
organizational culture**

values, beliefs and practices that influence the conduct and behaviour of people and organizations

[SOURCE: ISO 30400:2022, 3.1.3]

4 Context of the organization

4.1 Considerations

Organizational culture is the collection of values, beliefs and practices that may be held individually or collectively that determine how people and management interact and handle transactions internally and externally to the organization. This is applicable to all organizations, although the level of formalization in terms of defining specific aspects of culture varies in terms of the complexity and size of the organization. The organizational culture may contain formal aspects such as documented policies and procedures, as well as informal aspects such as shared values, communication and communication styles, social norms and social networks. Additionally, it should be expected that the culture adapts over time to the operating context of the organization.

It is important to ensure that personnel throughout the organization are engaged with, committed to and involved in the asset management system. This implies cultivating an organizational culture around the asset management principles and practices described in ISO 55000 and ensuring that all personnel involved are aware of the need for asset management to maximize value (while considering the asset-related costs, risks, opportunities, performance, benefits, and liabilities throughout the asset life cycle) to be achieved, as well as a genuine commitment to the realization of that vision. These form the set of collective beliefs and behaviours to be integrated into the organizational culture.

To establish this culture, top management should have a unified vision for the asset management objectives to be achieved. Top management also should express these concepts effectively using tools such as the asset management policy and the SAMP. People within the organization should know and be engaged with the organization's asset management policy and asset management system scope, be committed to the SAMP and understand how their roles contribute to the achievement of the asset management objectives.

4.2 Actions recommended

When establishing or reviewing an asset management system, the top management should take the following preliminary steps:

- a) define and establish asset management objectives and ensure that they are consistent with the asset management policy (which should be retained as documented information);
- b) integrate references to asset management objectives into the SAMP, such as financial reporting, risk management, information technology, procurement and human resources;
- c) align their behaviour to consistently support the SAMP statements;
- d) have a clear and well-defined organizational structure aligned to its objectives and processes which can help realize the cascade of governance within the organization; in particular, this involves establishing roles, responsibilities and authority for each asset management team;
- e) have effective support (such as information technology, communication plans and management of change processes) to communicate the asset management objectives and policies and to allow for feedback and improvement;
- f) demonstrate how an established asset management culture can support achievement of asset management outcomes.
- g) foster collaboration and co-ordination across groups and individuals engaged in asset management activities; this may include personnel (including external service providers) involved in areas such as engineering, operations, maintenance, finance, procurement, information technology and marketing.

4.3 Potential benefits

An asset management culture which supports people in recognizing and aligning with the organization's vision can improve the organization's performance, motivate people and coordinate their behaviour, which in turn can help achieve the organization's overall asset management objectives.

5 Leadership

5.1 Considerations

For people within the organization, leadership provides a clear focus and enables them to follow a path to achieve the organizational objectives. Since asset management impacts and supports many aspects of an organization and is often not well understood by personnel who are outside of a core asset management team, such leadership expands to include advocating for how asset management and the purposeful implementation of an asset management system (and the use of asset management principles more broadly) can positively support outcomes across the organization.

While top management is responsible for the overall success of the asset management system in contributing towards achieving asset management objectives, the concept of leadership extends beyond top management, to anyone in an organization who is responsible for developing and delivering strategies and plans related to their scope of influence or role.

Top management establishes the strategic direction and objectives of the overall organization, but successive layers of leaders within the organization establish plans for their respective areas of responsibility. These individual plans should all be aligned towards the overall organizational objectives. From an asset

management perspective, this may result in a hierarchy of asset management plans pertinent to various functional groups each with distinct assets (and related management activities) under their control.

Leaders also allocate required resources to achieve objectives and create and maintain an internal environment in which people can be involved. While management focuses on the organization of resources (including labour) to achieve objectives and the monitoring of results of activities, it is distinct from leadership. Successful achievement of organizational objectives requires both effective leadership (to establish direction, to create an enabling environment and culture) and management (to ensure that objectives are efficiently and effectively achieved). Finally, once effective leadership and management are in place, the support and cooperation of personnel results in the execution of required activities.

Since leaders at different levels in the organization have differing perspectives and expertise with regards to service provision and asset management activities, their involvement in the development of these individual plans is critical to ensure context-specific costs, risks, opportunities, performance, benefits and liabilities are considered throughout the asset life cycle. However, during the process of creating these asset management plans, leaders should work together to ensure they are all coordinated with the overall SAMP.

5.2 Attributes of effective leadership

5.2.1 General

To accomplish the aspects of asset management leadership given in ISO 55000, leaders should demonstrate the attributes described in [5.2.2](#) to [5.2.9](#).

5.2.2 Vision

Effective leaders have a clear vision for the organization which they articulate and communicate to all personnel in the organization. This allows personnel throughout the organization to effectively understand organizational priorities.

5.2.3 Commitment

Effective leaders are passionate about their work and are committed to seeing their vision become a reality. As a result, they are active participants in planning and execution of activities and share this enthusiasm with those involved, and this motivation is also a way to achieve greater success.

5.2.4 Integrity

By embracing and advocating for the principles and values that underlie their strategic plans, and in particular by ensuring that their own actions reflect these principles, positive leaders act as important examples to other personnel of the expectations of the organizational culture.

5.2.5 Communicative

Competent leaders know the importance of communicating with relevant people within the organization and they are effective at selecting the appropriate means of communication to maximize understanding and alignment depending on context.

5.2.6 Domain knowledge

Although a leader is not necessarily a technical subject matter expert, they should have sufficient domain knowledge to be able to appropriately evaluate risk and opportunities and ensure that strategies established are operationally correct. For example, with regards to asset management, a leader should understand the principles, benefits and application of asset management in the organization, as well as the nature of the components that comprise an asset management system and how they interrelate.