
**Asset management — Guidance
on the alignment of financial and
non-financial functions in asset
management**

*Gestion d'actifs — Orientation sur l'alignement des fonctions
financières et non financières dans la gestion d'actifs*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 55000, ISO 55001 and ISO 55002 asset management standards have raised awareness of the importance of improving alignment between an organization's financial and non-financial functions, and this document provides guidance on how to achieve this. ISO 55001:2014, 7.5 d), states that "the organization shall determine the requirements for alignment of financial and non-financial terminology relevant to asset management throughout the organization".

As used in this document, financial functions refer to processes and activities such as managerial costing and accounting, budgeting, financing and valuation related to the assets. Non-financial functions are the complementary processes and activities, for providing a product or service from the assets.

The definition of "asset" in ISO 55000 differs from that of the generally accepted accounting principles (GAAP) or the International Financial Reporting Standards (IFRS). The term "asset" as primarily used in this document is defined in ISO 55000 and organizations need to be aware of this to avoid any misunderstanding. For the authoritative GAAP or IFRS definitions of asset, refer to the appropriate accounting standards, internal policies and experts.

In many organizations, the financial and non-financial functions of asset management are inadequately aligned. Often the financial accounting functions are predominantly focused on retrospective reporting of accounting/regulatory financial activities. However, there is a growing awareness in organizations of the need to focus on providing a managerial costing approach in order to support decision-making for the future. At the same time, the non-financial functions are recognizing the need to improve their understanding of the financial implications of their activities. These are examples of initial moves towards better alignment of the financial and non-financial functions with the aim of better decision-making and value realization.

Lack of alignment between financial and non-financial functions can be attributed to silos in an organization, including reporting structures, functional/operational business processes, and related technical data. The United States Government's "Government Accountability Office interviews with asset management experts" ^[23] advises that "... silos are necessary to allow for the required level of specialization, but if these silos do not communicate, inefficiencies and errors in asset management result" and that "when asset management implementation fails, it is often because asset management staff and senior management are not in alignment".

Alignment needs to work both "vertically" and "horizontally". Vertical alignment means that financial and non-financial asset-related directives by top management are informed by accurate upward information flows, effectively implemented across the appropriate levels of the organization. Horizontal alignment means that financial and non-financial information that flows between departments (conducting functions such as operations, engineering, plant maintenance, financial accounting, financial management and risk management) uses the same terminology and refers to the assets identified in the same way.

The aim of this document is to encourage organizations to support alignment between these asset management functions and to provide guidance on how such alignment can be achieved. It also promotes the benefits that can be achieved for an organization and its stakeholders by having alignment of these asset management functions better understood, implemented and improved. This enables an organization's functional areas to share information and collaborate to achieve its objectives.

This document can assist users in applying the concepts of ISO 55000 and the requirements of ISO 55001. It provides additional advice and guidance over and above the explanations outlined in ISO 55002 on the benefits to be realized for an organization through alignment.

This document can be applied to all types of assets and by all types and sizes of organizations.

It is intended for use by personnel, at all levels in an organization, who are involved in asset management, including:

- top management and decision-makers, to derive the benefits that are achievable by better alignment between financial and non-financial functions;

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- those in asset-related multidisciplinary functions who provide information to support decision-making or rely on the outcomes of those decisions;
- a wide range of personnel, including those who have responsibility for the technical planning, design, construction, operation, maintenance and performance of the assets and those with financial responsibilities such as accounting, financial planning, budgeting and financial reporting.

Knowledge and understanding of terminology and common language used by financial and non-financial functions can facilitate discussion, communication and exchange of information between these functions. [Clause 3](#) defines relevant terms. [Clauses 4 to 9](#) and related annexes provide a range of information on financial and non-financial functions in asset management, including information on asset management accounting principles.

Details concerning other International Standards and materials on asset management can be found on the ISO website, as well as on the ISO/TC 251 website at: <https://committee.iso.org/home/tc251>.

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Asset management — Guidance on the alignment of financial and non-financial functions in asset management

1 Scope

This document gives guidelines for the alignment between financial and non-financial asset management functions, in order to improve internal control as part of an organization's management system. Alignment of these functions will enable the realization of value derived from the implementation of asset management detailed within ISO 55000, ISO 55001 and ISO 55002, particularly ISO 55002:2018, Annex F.

The guidance in this document is consistent with the requirements of ISO 55001 for an asset management system but does not add new requirements to ISO 55001 or provide interpretations of the requirements of ISO 55001.

For an example of an organization aligning its asset management functions, see [Annex F](#).

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 — Overview, principles and terminology*
ISO/TS 55010:2019

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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 terminological databases for use in standardization at the following addresses:

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

3.1

financial accounting

process of recording, summarizing and reporting the transactions resulting from an organization's operations over a period of time

Note 1 to entry: These transactions are summarized in the preparation of financial statements (including the balance sheet, income statement and cash-flow statement) that communicate the organization's operating performance over a specified period.

3.2

management accounting

accounting to assist management in the formulation and implementation of an organization's strategy

Note 1 to entry: Management accounting usually requires partnering across different functions in an organization for management decision-making, devising planning and performance management systems, and providing expertise in financial reporting and control.

**3.3
managerial costing**

costing used internally by an organization to ensure that information for decisions reflects the characteristics of the organization's resources and operations

Note 1 to entry: For further information on managerial costing, see Reference [19].

**3.4
financial function**

work, or portions of work, that pertain to financial management

Note 1 to entry: Examples include financial reporting, budgeting, financing, *valuation* (3.12), financial planning and analysis, *management accounting* (3.2) and tax accounting.

**3.5
non-financial function**

work, or portions of work, that combine with the organization's *financial functions* (3.4) in delivering its services or products

Note 1 to entry: Examples include asset planning, acquisition, marketing, operations and maintenance.

**3.6
internal control**

process(es) used by an organization's managers to help it achieve its objectives

Note 1 to entry: Internal control helps an organization run its operations efficiently and effectively, report reliable information about its operations and comply with applicable laws and regulations.

Note 2 to entry: Internal control applies to all activities, irrespective of whether they are financial or non-financial.

Note 3 to entry: Internal control supports sound decision-making, taking into account risks to the achievement of objectives and reducing them to acceptable levels through cost-effective controls.

Note 4 to entry: This definition of internal control is derived from the definition provided by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)^[2], which also provides further useful information on this topic.

**3.7
asset register**

record of asset data and information considered worthy of separate identification and accountability

Note 1 to entry: Financial, or accounting asset registers are those databases or systems, which are used to describe and manage the organization's financial accounts and *management accounting* (3.2).

Note 2 to entry: Non-financial asset registers (technical or operational) are databases or systems, in which relevant technical or operational data and information of an asset are kept.

**3.8
capital expenditure
CapEx**

expenditure on acquisitions of, or improvements to, assets

Note 1 to entry: Based upon accounting standards and organization policy, CapEx usually relates to relatively large (material) expenditure, which has benefits that are expected to last for more than 12 months.

**3.9
operational expenditure
OpEx**

recurrent expenditures required to provide a service or product

3.10 total expenditure

TotEx

sum of *capital expenditure* (3.8) and *operational expenditure* (3.9) over a period

3.11 alignment

deliberate arrangement, relationship and mutual understanding of common concerns within a particular activity or among activities

3.12 valuation

process of determining the current value of an asset

Note 1 to entry: Valuation methods and bases are numerous and varied and may be expressed quantitatively and in monetary terms.

Note 2 to entry: Application may be made to a single asset, a group of assets, or an entire enterprise, as determined by various bases and methods.

3.13 book value carrying value

monetary expression at which an asset or group of assets are carried on a balance sheet

3.14 residual value

estimated financial amount that an organization would expect to obtain from disposal of an asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its *useful life* (3.15)

3.15 useful life

period over which an asset or class of assets are expected to be available for use by an organization

Note 1 to entry: Useful life will be determined by factors such as the economic, technological, physical and functional performance of the assets or asset system, which demands an understanding between *financial functions* (3.4) and *non-financial functions* (3.5) depending on the context (e.g. tax, cost recovery, maintenance planning, long-term planning).

Note 2 to entry: The applicable period is dependent on the nature of the asset or asset system and can be elapsed time, operating hours, number of cycles, number of units of production, etc.

3.16 depreciation

systematic allocation of the depreciable amount of an asset over its *useful life* (3.15)

Note 1 to entry: While “depreciation” can be used for both tangible and intangible assets, “amortization” is normally used for intangible assets only.

3.17 fair value

price that would be received to sell an asset, or paid to transfer a *liability* (3.18), in an orderly transaction between market participants at the measurement date

3.18 liability

present obligation of the organization arising from past events, the settlement of which is expected to result in an out-flow of resources from the organization

4 Why alignment between financial and non-financial functions is important

4.1 General

Top management often struggles with many asset-management-related questions because of a lack of alignment due to barriers within the organization, e.g. language/terminology differences, information/data standard quality differences, and poor coordination between the organization's financial and non-financial functions in asset management. Some examples of questions include the following.

- How can I be sure I am getting best value for my stakeholders from my assets?
- How do my assets contribute to the delivery of the organization's strategy and objectives? Which assets are critical for it?
- What are the risks (and opportunities) to the organizational objectives arising from its assets?
- What level of investment do I need to make in assets over both the short and longer term (TotEx) to deliver my organizational objectives and how do I prioritize this investment?
- What is the cost of delivering products or services to meet customer satisfaction and how can I use this to inform my pricing?
- How do I determine the cost impacts of environmental and social changes, and the resilience of my assets to these changes?
- How can I know the total cost of ownership (TCO) of my assets?
- Are we making decisions that provide short-term cost savings but, due to lack of adequate asset management involvement, are leading to higher long-term costs?
- How can I get the necessary funding commitment to ensure the long-term financial sustainability of my assets to be able to continue meeting the objectives of the organization?
- How can I obtain enough information on the asset base for reporting purposes, enable correct and timely decisions, and understand the nature and use of seemingly conflicting information from different sources?
- Are my stakeholders confident about the asset verification/valuation/existence/necessity/impairment tests?
- Do I have the financial information to make evidence-based asset management decisions?
- What assets are not delivering the value expected and what assets are costing more than anticipated?
- What liabilities, and hence cost, are the assets exposing us too?
- Do my financial statements really reflect the state of my asset portfolio including leased assets?
- For my outsourced services, how are the associated costs tracked and managed through an appropriate internal control?
- How can I obtain/maintain competitive advantage through my assets used?

As illustrated in the above questions, all parts of the organization need to work together, to share and utilize information, to provide the transparency, insight and necessary answers, and to support asset management reporting and decision-making. This document provides a general solution to these questions in the form of better alignment across the organization, enabling a realization of the benefits detailed in 4.2. It does not seek to explicitly answer these questions individually but instead guides users to adopt the concepts contained within this document to find their own answers to these and other pertinent questions.

Asset management deals with the challenge of maximizing value derived from the assets. A significant explanation of the value proposition can be found in ISO 55002:2018, Annex A.

The concept of value in asset management is broader than the more constrained specific definition of value in accounting terms, where the various accounting standards deal with value as part of the valuation of assets process. The value in asset management can be expressed in both monetary and non-monetary terms and an aligned understanding of financial and non-financial value is needed to determine decision-making criteria.

Financial planning, decision-making and reporting are crucial to asset management and, conversely, asset management has major impacts on financial aspects. Accordingly, close coordination of financial and accounting functions with the non-financial asset management functions is essential to meeting organizational objectives.

4.2 Benefits of alignment

Alignment and coordination between financial and non-financial functions related to assets and asset management can lead to resolution of many of the issues listed in 4.1, as follows.

- a) Improved expression of asset criticality and risk in financial terms, which would help to implement more robust risk controls.
- b) Integrated and efficient asset investment planning and prioritization for the short- and longer-term timescales.
- c) Improved understanding of longer-term funding needs relating to assets that supports informed decision-making for financing and budgeting, leading to long-term predictable and sustainable funding mechanisms.
- d) Improved options analysis and decision-making on investment projects based on more complete information from both financial and non-financial functions.
- e) Improved decision-making and communication on pricing for the organization's products and services based on sound practices such as managerial costing, and a better understanding of value to customers and stakeholders.
- f) More accurate, complete, transparent and timely registration and reporting of all changes to asset management information affecting the financial functions, including functions of accounting and finance, auditing, regulating, tax and insurance. This includes for accounting purposes when a self-constructed asset is determined to be substantially complete and ready for use, at which time the cost of the capital project is taken from a construction in the progress account and capitalized for depreciation or amortization purposes.
- g) Improved methodology and procedures to enable financial and non-financial staff to efficiently share knowledge and information whereby both financial and non-financial staff use commonly agreed terminology, which can lead to collective understanding.
- h) Maintained or improved competitive advantage.
- i) Improved internal controls as part of the wider management system of the organization.
- j) More efficient measurement of operational performance and the organization's overall performance.
- k) More efficient procedures for capital and operational budgeting processes.
- l) Better alignment of long-term financial planning and asset life cycle planning.
- m) Collaboration across departments to optimize resources and reduce duplication.
- n) Improved depreciation methodology.

- o) Improved teamwork, collaboration, clarity, transparency and availability of information and up-skilling for financial and non-financial staff.
- p) Better understanding of what services can be provided, based on available funding, enabling meaningful trade-off analyses when reviewing service and funding gaps.
- q) More reliable knowledge of cost inputs for pricing, considering all life cycle costs originating from financial and non-financial functions (see [Annex G](#)).

Improved alignment between financial and non-financial functions helps to improve the quality of information used to support an organization's decision-making and value maximization. Such improved alignment also encourages both financial and non-financial practitioners to speak the same language.

5 Enablers for alignment

5.1 General

This clause focuses on how business processes, leadership and governance are key enablers for the alignment of financial and non-financial asset management activities. It provides examples of the data, information, knowledge and capabilities required to support alignment among different levels of the organization.

5.2 Processes, leadership and governance

5.2.1 Processes

Defined processes can be significant enablers for the alignment of financial and non-financial asset management functions. Processes should be properly supported by documented information and opportunities identified to link tasks across different levels, functions and processes. For example, the process used by an asset manager to bring a new asset online (non-financial) should contain a task to capture total installed cost and send/link this to the accounting function where it can be used as the cost basis of the asset (financial). This example of a co-developed process would enable timely and accurate data and information for asset cost, installation date and expected useful life to be captured in both the financial and non-financial asset registers. The processes developed within an organization should use common terminology across the financial and non-financial functions and focus on the end-to-end need rather than being governed solely by function.

5.2.2 Leadership

To achieve alignment between the financial and non-financial asset management functions within the organization, top management should demonstrate leadership and commitment by:

- a) promoting and encouraging collaboration and clarity, transparency and availability of information for financial and non-financial staff;
- b) ensuring alignment between the objectives of the various financial and non-financial functions in conformity with the defined overall organizational objectives;
- c) facilitating training for people involved at intersecting processes, between financial and non-financial asset management disciplines, to promote communication and common understanding of the terminology being applied;
- d) ensuring the availability of adequate resources capable of promoting and implementing cross-functional collaborative teams with a focus on continual improvement;
- e) ensuring both financial and non-financial functions have adequate influence in decision-making processes;
- f) ensuring consistency of the various policies in their intent, language and communication;

- g) ensuring implementation and maintenance of inter-departmental shared granularity to identify how an asset is recorded;
- h) ensuring alignment in risk management of the various financial and non-financial functions in conformity with the overall risk management framework.

5.2.3 Governance

Governance should provide a framework to align financial and non-financial asset management functions. This is demonstrated by a governance process and policies designed to establish alignment relationships between stakeholders that can address any conflicting interests regarding how assets are managed.

Figure 1 suggests key elements of a framework that can be adopted to achieve alignment.

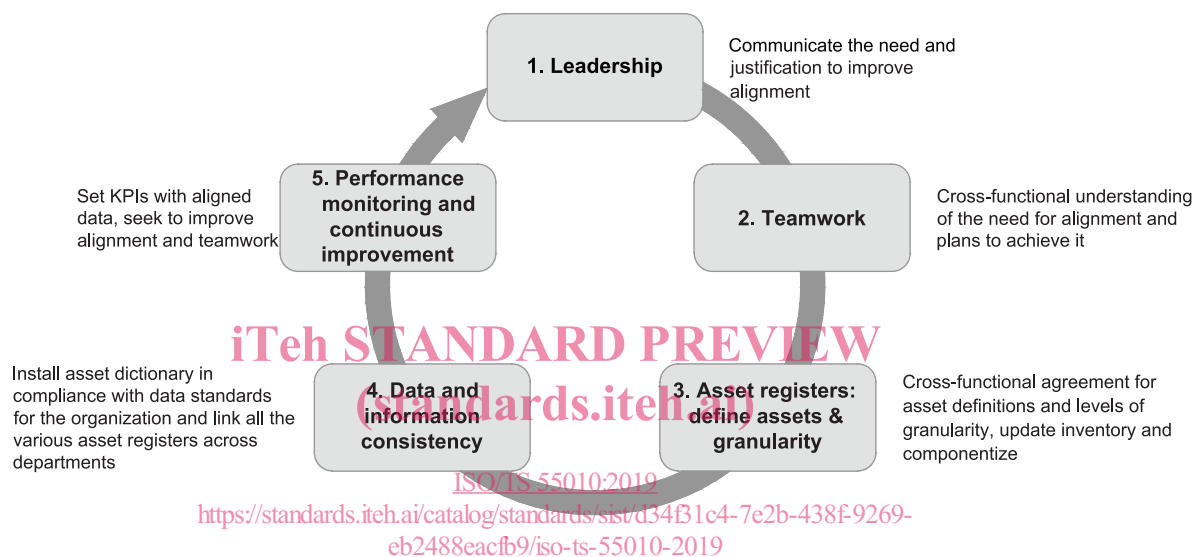


Figure 1 — Key elements of a framework to achieve alignment

It is important that the governance framework addresses the alignment of financial and non-financial functions in relation to risk management (particularly financial risk) within the context of the common overall risk management framework. ISO 55002:2018, Annex E, provides further detail on risk management. Another useful reference on risk management is the COSO framework^[9].

5.3 Policy, strategy, data and information

5.3.1 Asset management policy support

Top management, through the asset management policy, should acknowledge and endorse the role of alignment between the financial and non-financial functions. Top management should provide commitment to the provision of the information, knowledge and capabilities required to achieve, maintain and continually improve alignment. Such information should be available for use within the organization's non-financial decision-making functions, e.g. replacement, renewal, maintenance, training, inspection. This will ensure decisions are informed and balance the financial needs as well as the organization's wider performance requirements.

5.3.2 Strategic asset management plan support

Department/division managers, through the strategic asset management plan (SAMP), should specifically address the high-level requirements needed to capture, store and share the information, knowledge and capabilities required to support alignment between financial and non-financial asset management activities. ISO 55002:2018, Annex C, provides significant guidance on the format and content of a SAMP.