ISO/<u>F</u>DIS 55000

ISO/TC 251<mark>/N828</mark> ISO/TC 251/WG 1

Secretariat: BSI

Date: 2024-03-15

Asset management <u>– Overview, – Vocabulary, overview and</u> principles and terminology

FDIS stage

Document Preview

<u>ISO/FDIS 5500</u>

https://standards.iteh.ai/catalog/standards/iso/840ac962-b1f6-4fbc-a108-1c8a1bf99a93/iso-fdis-55000

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: + 41 22 749 01 11 E-mail: copyright@iso.org Website: www.iso.org

Published in Switzerland

iTeh Standards (https://standards.iteh.ai) Document Preview

ISO/FDIS 55000

https://standards.iteh.ai/catalog/standards/iso/840ac962-b1f6-4fbc-a108-1c8a1bf99a93/iso-fdis-55000

© ISO 2024 – All rights reserved

ii

Contents

Foreword iv	
Introduction	
1	Scope
2	Normative references1
3	Terms and definitions1
3.1	Terms relating to assets
3.2	Terms relating to asset management
3.3	Terms relating to asset management system4
4	Overview of asset management
4.1	General
4.2	Principles of asset management
4.2.1	General
4.2.2	Value
4.2.3	Alignment
4.2.4	Alignment
4.3	Outcomes and benefits from asset management
4.4	Relationship between asset management, asset management system and assets
4.5	Asset management improvement and maturity
Bibliography	
Index	

<u>SO/FDIS 55000</u>

https://standards.iteh.ai/catalog/standards/iso/840ac962-b1f6-4fbc-a108-1c8a1bf99a93/iso-fdis-55000

© ISO 2024 - All rights reserved

Edited DIS - MUST BE USED FOR FINAL DRAFT

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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.

This second edition cancels and replaces the first edition (ISO 55000:2014), which has been technically revised.

<u>ISO/FDIS 55000</u>

The main changes are as follows: h.ai/catalog/standards/iso/840ac962-b1f6-4fbc-a108-1c8a1bf99a93/iso-fdis-55000

- <u>the</u> document <u>ishas been</u> restructured to provide <u>an</u> insight and understanding of asset management and its principles, its outcomes and benefits, the <u>relationrelationship</u> between asset management, an asset management system and the assets of an organization, and indicators of asset management maturity. The main changes are as follows;
- <u>the principles of asset management are evolved have been revised</u>;
- <u>the</u>outcomes of asset management arehave been introduced;
- <u>the</u> benefits are have been rephrased and extended;
- the explanation of the elements of an asset management system are removed has been deleted;
- <u>the</u> integration of management systems <u>ishas been</u> introduced;
- <u>the</u> maturity of an asset management organization is has been introduced;
- <u>the</u> annexes are removed have been deleted.

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 <u>www.iso.org/members.html</u>.

iTeh Standards (https://standards.iteh.ai) Document Preview

ISO/FDIS 55000

https://standards.iteh.ai/catalog/standards/iso/840ac962-b1f6-4fbc-a108-1c8a1bf99a93/iso-fdis-55000

© ISO 2024 - All rights reserved

Edited DIS - MUST BE USED FOR FINAL DRAFT

Introduction

0.1 Purpose

The purpose of this This document is to provide provides an overview of asset management, its principles, and the outcomes and expected benefits from adopting asset management, to introduce and introduces the asset management system (AMS) and relevant terminology.

ISO 55000 is This document sets the context for ISO 55001 and ISO 55002, and also later documents within the ISO 55000 suitefamily of standards.

NOTE — For the purposes of ISO 55001, ISO 55002 and this International Standard, the term "asset management system" is used to refer to a management system for asset management.

0.2 Relationship with other standards in the ISO 55000 series family of standards

ISO 55001 definesspecifies requirements for an asset management system <u>(AMS)</u>. ISO 55002 providesgives guidance on the design and application of an AMS.the asset management system.

<u>This document</u>, ISO 55001₇ and ISO 55002 and this document can be used in combination with relevant sectorspecific or asset-type-specific standards and technical specifications to achieve the objectives of asset management.

Other standards in the set of on asset management standards produced developed by ISO/TC251TC 251 can be used in the context established by this standarddocument, ISO 55001 and ISO 55002, including:

The documents developed within this series include:

- ISO<u>/TS</u>55010: <u>Provides</u>, which provides guidance on aligning financial and non-financial functions in asset management, <u>and</u> promoting understanding, implementation, and improvement of this alignment for organizational benefits:
- ISO 55011: Offers, which offers guidance for developing public policy to promote asset management, focusing on the external context of organizations responsible for assets, with the aim of creating an enabling environment through consistent public policy instruments.
- ISO 55012: Focuses, which focuses on people involvement and competence within an <u>AMSasset</u> management system, offering guidance to enhance personnel commitment, effectiveness, knowledge, and awareness, <u>and</u> promoting continual improvement.
- ISO 55013: Provides, which provides guidance on managing data assets, helping organizations increase and sustain the usefulness of data assets to meet asset management and organizational objectives.

0.3 Target audience

This document is primarily intended for use by:

- senior executives who wish to adopt asset management and implement an <u>AMSasset management system</u> in their organization;
- those involved in asset management or intending to become practitioners;
- anyone who would benefit from a short introduction about to asset management.

Asset management <u>— Overview, — Vocabulary, overview and</u> principles and terminology

1 Scope

This document gives guidance on:

asset management, its<u>defines terms and establishes</u> principles and outcomes and terms and definitions; <u>for</u> asset management. It describes:

<u>the</u> benefits of asset management and an asset management system (AMS);;

the relationship between asset management, the <u>AMSasset management system</u> and asset portfolio;

asset management improvement and maturity.

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

NOTE — This document does not provide financial, accounting, human resources or more technical guidance for managing specific asset types.

<u>NOTE</u> For the purposes of this document, ISO 55001 and ISO 55002, the term "asset management system" is used to refer to a management system for asset management.

2 Normative references

There are no normative references forin this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply. FDIS 55000

ISO and IEC maintain terminology databases for use in standardization at the following addresses: -a108-1.88a1b199a93/ISO-fdis-55000

ISO Online browsing platform: available at <u>https://www.iso.org/obp</u>

IEC Electropedia: available at <u>https://www.electropedia.org/</u>

3.1 Terms relating to assets

3.1.1

asset

item, thing or entity that has potential or actual value (3.3.28) to an organization (3.3.1)

Note 1 to entry: Assets can be physical or non-physical.

Note 2 to entry: A grouping of assets referred to as an asset system (3.1.6) can also be considered as an asset.

3.1.2

asset life

period from asset (3.1.1) ideation to asset end of life

Note 1 to entry: "Useful life" is the period over which an asset is capable of fulfilling a purpose to an entity.

Note 2 to entry: Asset life can differ from the period the organization (3.3.1) holds responsibility for the asset.

Note 3 to entry: End-of-life is when the asset can no longer cause any residual obligations.

3.1.3 life cycle stages of an asset (3.1.1) during its life

Note 1 to entry: Each stage identifies different activities and processes (3.3.10).

Note 2 to entry: The naming of the stages and the activities under each stage can vary in different industry sectors and areis determined by the organization (3.3.1). An example of the naming of the stages is: conception of need, design, construct, operate and maintain, renew/replace, dispose, and extinguishment of liabilities.

Note 3 to entry: The contractual liability of an entity can involve less than one or multiple life cycle stages and may be shorter than an asset life (3.1.2).

3.1.4

life cycle management

applying asset management (3.2.1) over the life cycle (3.1.3) of assets (3.1.1)

3.1.5

asset type

grouping of assets [3.1.1(-1)] having common characteristics that distinguish those assets as a group or class

3.1.6

https://standards.iteh.ai) asset system set of assets (3.1.1(-1)) that interact or are interrelated

3.1.7

asset portfolio

assets (3.1.1(-1)) that are within the scope of thean asset management system (3.3.5)

Note 1 to entry: A portfolio is typically established and assigned for managerial control purposes.

3.1.8

critical asset

asset (3.1.1) having the potential to significantly impact on-the achievement of thean organization's (3.3.1) objectives (3.3.7)

Note 1 to entry: Assets can be safety-critical, environment-critical or performance-critical (3.3.14) and can relate to legal, regulatory or statutory requirements (3.3.17).

Note 2 to entry: Critical assets can refer to those assets necessary to provide services to critical customers.

Note 3 to entry: Asset systems (3.1.6) can be distinguished as being critical in a similar manner to individual assets.

3.1.9

object (noun) anything perceivable or conceivable

Note 1 to entry: An object can be physical (e.g. a pump, a bridge, a building), or non-physical (e.g. a project plan, copyright, or software).

3.1.10 data facts about an *object* (3.1.9)

[SOURCE: ISO 9000:2015, 3.8.1-]

3.1.11

information

meaningful result of organizing and processing data (3.1.10)

EXAMPLE Make/model/type of a pump in a specific location_{\hat{r}_k} span of a bridge_{\hat{r}_k} asset (3.1.1)*performance* (3.3.14) indicator_{\hat{r}_k} an asset's current total cost of ownership.

3.2 Terms relating to asset management

3.2.1

asset management

coordinated activity of an *organization* (3.3.1) to realize value from *assets* (3.1.1(-1))

Note 1 to entry: Realization of value normally involves a balancing of costs, *risks* (3.3.8), *opportunities* (3.3.9) and *performance* (3.3.14) benefits.

Note 2 to entry: Activity can also refer to the application of the elements of thean asset management system (3.3.5).

Note 3 to entry: The term "activity" has a broad meaning and can include, for example, the approach, the planning, the and plans, and their implementation.

3.2.2

organizational objective

overarching *objective* (3.3.7) that sets the context and direction for an *organization's* (3.3.1) activities

Note 1 to entry: Organizational objectives are established through the strategic level planning activities of the organization.

<u>ISO/FDIS 55000</u>

organizational plan

documented information (3.3.13) that specifies the plans to achieve the organizational objectives (3.2.2)

3.2.4

management

coordinated activities to direct and control an organization (3.3.1)

Note 1 to entry: Management can include establishing strategies, *policies* (3.3.6) and *objectives* (3.3.7), and *processes* (3.3.10) to achieve those objectives.

Note 2 to entry: Management includes the processes of planning, organizing, directing and controlling <u>[e.g.</u> the outcomes of people, groups or organizations:].

Note 3 to entry: Control can include defining roles, appointing authority, assigning tasks, establishing incentives and rewards, and empowering and engaging people.

Note 4 to entry: The word "management" sometimes refers to people, i.e. a person or group of people with the authority and responsibility for the conduct and control of an organization. When "management" is used in this sense, it should always be used with some form of qualifier, e.g. "top management".

Note 5 to entry: The term "management" can be qualified by a specific domain it addresses. Examples include public health management, environmental management and *risk* (3.3.8) management.

[SOURCE: ISO 9000:2015, 3.3.3, modified — <u>The notes</u>"<u>strategies</u>" <u>added to Note 1</u> to entry<u>have been</u> modified.] Note 2 to entry shortened and renumbered as Note 4 to entry. Notes 2, 3 and 5 to entry added.]

3.2.5

asset management plan

AMP

documented information (3.3.13) that specifies the activities, resources, costs and timescales required for an individual *asset* (3.1.1(-1),), or a grouping of assets, to achieve the<u>an</u> *organization's* (3.3.1)*asset management* (3.2.1)*objectives* (3.3.7)

Note 1 to entry: The grouping of assets may be by *asset type* (3.1.5), asset class, *asset system* (3.1.6) or *asset portfolio* (3.1.7).

Note 2 to entry: An asset management plan is derived from the *strategic asset management plan* (3.2.5).

Note 3 to entry: An asset management plan may be contained in, or may be a subsidiary plan of, the strategic asset management plan.

3.2.6

capability

<u>Measuremeasure</u> of capacity and the ability of an entity (system or *organization* (3.3.1)) to achieve its *objectives* (3.3.7)

Note 1 to entry: *Asset management* (3.2.1) capabilities include *processes* (3.3.10), resources, *competences* (3.3.12) and technologies to enable the effective and efficient development and delivery of *asset management plans* (3.2.5) and *asset life* (3.1.2) activities, and their *continual improvement* (3.3.15).



3.2.7

level of service

parameters, or combination of parameters, which reflect social, political, environmental and economic outcomes that thean organization (3.3.1) delivers

Note 1 to entry: The parameters may include safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost and availability.

3.3 Terms relating to asset management system

3.3.1

organization

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its *objectives* (3.3.7)

Note 1 to entry: The concept of organization includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

Note 2 to entry: If the organization is part of a larger entity, the term "organization" refers only to the part of the larger entity that is within the scope of the *asset management system* (3.3.5).

3.3.2 stakeholder interested party