



**SLOVENSKI STANDARD**  
**oSIST ISO/DIS 55013:2023**

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**Obvladovanje premoženja - Napotki za upravljanje podatkovnih sredstev**

Asset management - Guidance on the management of data assets

iTeh STANDARD PREVIEW  
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Gestion d'actifs — Orientation sur la gestion d'actifs de données

**Ta slovenski standard je istoveten z: ISO/DIS 55013**

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**ICS:**

03.100.10      Nabava. Dobava. Logistika      Purchasing. Procurement.  
Logistics

**oSIST ISO/DIS 55013:2023**

**en**



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## ISO/DIS 55013

ISO/TC 251

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## Asset management - Guidance on the management of data assets

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## ISO/DIS 55013:2023(E)

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## 44 Foreword

45 ISO (the International Organization for Standardization) is a worldwide federation of national  
46 standards bodies (ISO member bodies). The work of preparing International Standards is normally  
47 carried out through ISO technical committees. Each member body interested in a subject for which a  
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52 The procedure used to develop this document and those intended for its further maintenance are  
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55 editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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59 on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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

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

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

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**ISO/DIS 55013:2023(E)****67 Introduction****68 0.1 General**

69 This document provides guidelines for the management of data when applying asset management  
70 principles or requirements for an “asset management system”. These principles and requirements are  
71 described in ISO 55000 and ISO 55001, respectively. Much of asset management involves decision-  
72 making with decisions being reliant on data, particularly for larger and more complex contexts.

73 This document is intended to facilitate organizations in their management of data in the context of asset  
74 management. Asset management is generally underpinned by the management of data relevant to asset  
75 management. Organizations can manage the data as an asset to support their organizational  
76 management. This document covers management of data both for supporting asset management and  
77 for handling the data as an asset.

78 This document provides guidance for those who:

- 79 a) are identifying the usefulness or fitness-for-purpose of data for achieving the asset management  
80 objectives of the organization including fulfilling its accountability;
- 81 b) are involved in the establishment, implementation, maintenance, stewardship, and improvement of  
82 data in the context of asset management;
- 83 c) are involved in the planning, designing, implementation, and review of data based on asset  
84 management activities along with service providers;
- 85 d) are asset owners, asset managers, information managers, service providers, maintainers, partners,  
86 auditors, regulators, and investors;
- 87 e) are the internal and external stakeholders such as those who affect or are affected (positively or  
88 negatively) by the management of data in the context of asset management.

89 Management of data can play a critical role in other management systems as well as in an asset  
90 management system. Meanwhile, there can be many benefits for organizations to integrate and  
91 implement multiple management systems. The achievement of mutual alignments to other management  
92 systems requires an approach based on an appropriate cross-functional data exchange and analysis  
93 within the organization.

**94 0.2 Context of this document**

95 Against a background of advances in information technologies (IT) and diversifying stakeholder  
96 demands, how data should be managed in the context of asset management is now seen as a pressing  
97 issue for many organizations. As organizations get larger and tend to become more complex, the need  
98 for reliable data to support sound decision making becomes increasingly important. Data acquisition  
99 and maintenance is a cost to an organization, with only potential value, until it is used. The value of data  
100 is diminished if it is unreliable, out of date, and/or applied incorrectly.

101 Accordingly, the role of data is changing. Data is turning from being a resource that supports  
102 management activities to a non-physical asset from which value is generated by being managed  
103 systematically, just like any other tangible or intangible asset.

104 Data in the context of asset management has its own characteristics as follows:

- 105 a) like physical assets, asset data follows a sequence of life cycle stages. it can be used many times  
106 though the usefulness of data may change as it moves along its life cycle;



- 107 b) data can be stolen if not protected appropriately; such data theft does not bring data loss and could  
108 therefore not be immediately evident to an organization yet create sustained negative impacts;
- 109 c) data is easy to copy, transport and even corrupt, but it can be difficult or impossible to reproduce if  
110 it is lost, destroyed or corrupted;
- 111 d) data can be used for multiple purposes; the same data can even be used by multiple people at the  
112 same time; similarly, many people and processes can be adding or updating data simultaneously;
- 113 e) data can generate new value when combined with other assets;
- 114 f) many uses of data often lead to more data to handle as a result; most organizations manage  
115 increasing volumes of data and the relationships between data sets;
- 116 g) data and information are essential in conducting business within an organization and/or between  
117 two functions or divisions; most business decisions from the strategic to the operational level  
118 generally involve the sharing of data.

119 While some are similar to other assets, these characteristics as a whole are different in nature to the  
120 characteristics of other asset types, so will require different approaches to ensure that the management  
121 of data supports its objectives in the context of asset management.

122 Different data sets may be treated as assets which can be critical to the success of the organization. In  
123 such situations, organizations may treat such collections of asset data as data assets. It is advisable that  
124 the principles of asset management described in ISO 55000 should be applied to the management of  
125 data assets.

### 126 **0.3 Relationship to ISO 55000 and ISO 55001**

127 ISO 55000 is the foundation for implementing asset management, and therefore the prerequisite to  
128 understand this document.

129 ISO 55001 should be applied by organizations to establish and implement asset management systems.  
130 This also applies to asset management systems for data assets. On the other hand, since an  
131 organization's asset management system is supported by decision making based on information or data  
132 and its analysis, the process of determining decision-making criteria in an asset management system  
133 that meets the requirements of ISO 55001 generally includes the process of managing data. As such, this  
134 document facilitates organizations to apply ISO 55001 to their asset management systems.

### 135 **0.4 Further information about ISO/TC 251 and on asset management**

136 ISO/TC 251 maintains a website that provides additional information about asset management and on  
137 the documents it produces. This can be found at: <https://committee.iso.org/home/tc251>

# Asset management - Guidance on data for asset management

## 1. Scope

This document gives guidelines for managing data to support an organization in meeting its asset management objectives and by extension its organizational objectives.

This document is applicable to any organization, regardless of its type or size.

NOTE 1 For the purposes of this document, the terms “asset data” is used to refer to data about assets and “data asset” is used to refer to collections of asset data and potentially other data requiring management as an asset.

NOTE 2 This document does not provide methodologies to derive or appraise value for data assets.

NOTE 3 This document does not provide methodologies to derive financial values for data assets.

NOTE 4 This document does not provide direction to organizations on the need (or not) for calculating financial values for asset data.

## 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 55001, Asset management — Asset management systems — Requirements

## 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 database for use in standardization at the following addresses:

—ISO online browsing platform: available at <http://www.iso.org/obp>

—IEC electrical encyclopedia: available at <http://www.electropedia.org/>

### 3.1 data

facts about an object

EXAMPLE: An object is an item, entity, product, service, process, person, organization, system, resource.

Note 1 to entry: Objects can be physical (e.g. a pump, a bridge, a building), non-physical (e.g., a project plan, copyright, software), or imagined (e.g. the future state of the organization)

[SOURCE: ISO 9000: 2015, - modified. The example and Note have been added.]

### 3.2 asset data

170 *data* (3.1) that lists and describes an asset

171 Note 1 to entry: Asset data can exist in a number of formats such as structured data, documented information,  
172 sensor data etc. requiring different approaches to their management.

173 Note 2 to entry: Data supporting asset management decision-making can be considered as asset data.

### 174 **3.3** 175 **data asset**

176 collection of *asset data* (3.2) that has the properties of an asset

177 Note 1 to entry: Data assets should be managed as an asset according to ISO 55001.

178 Note 2 to entry: Asset data can be part of more than one data asset. Data assets can have relationships between  
179 each other.

### 180 **3.4** 181 **data type**

182 named category of data characterized by a set of values, a syntax for denoting these values, and a set of  
183 operations that interpret, manipulate, or store the values

184 [SOURCE: ISO/IEC 1539-1:2018, 3.147]

### 185 **3.5** 186 **metadata**

187 data that defines and describes other data

188 [SOURCE: ISO 24531:2013, 4.32] [oSIST ISO/DIS 55013:2023](https://standards.iteh.ai/catalog/standards/sist/1605a8f2-c272-430c-b9ef-be8d0c47bbac/osist-iso-dis-55013-2023)  
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### 189 **3.6** 190 **data quality**

191 degree to which a set of inherent characteristics of data (3.1) fulfils requirements

192 [SOURCE: ISO 8000-2: 2020, 3.8.1 – modified. The Note to entry has been deleted]

### 193 **3.7** 194 **interoperability**

195 capability of two or more entities to exchange items in accordance with a set of rules and mechanisms  
196 implemented by an interface in each entity, in order to perform their specified tasks

197 Note 1 to entry: Examples of entities include devices, equipment, machines, people, processes, applications,  
198 computer firmware and application software units, data exchange systems and enterprises.

199 Note 2 to entry: Examples of items include services, information, material in standards, design documents and  
200 drawings, improvement projects, energy reduction programs, control activities, asset description and ideas.

201 Note 3 to entry: In this context, entities provide items to, and accept items from, other entities, and they use the  
202 items exchanged in this way to enable them to operate effectively together.

203 [SOURCE: ISO 18435-1:2009, 3.12 - modified. Note 2 to entry has been expanded and Note 3 to entry  
204 added]

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205 **3.8**  
206 **governing function**

207 function responsible for the strategic guidance of the data governance programme

208 Note 1 to entry: The governing function will be responsible for prioritization of the data governance projects and  
209 initiatives, approval of organization-wide data policies and standards, as well as enabling ongoing support,  
210 understanding and awareness of the data governance programme.

211 Note 2 to entry: Depending on the culture of the organization, a governing body may be known by other names  
212 such as the data governance committee, data governance steering council/ committee/ group, data governance  
213 advisory council/ committee/ group, data stewardship council/ committee, data owners' council/ committee.

214 **4. Managing asset data**

215 **4.1 General**

216 Asset management enables an organization to realize value from its assets in the achievement of its  
217 asset management objectives and by extension its organizational objectives. What constitutes value will  
218 depend on these objectives, the nature and purpose of the organization and the needs and expectations  
219 of its stakeholders (see ISO 55000).

220 Many asset management activities rely on effective decision-making which in turn relies on data and  
221 documented information. The asset data used by an organization to inform decision-making in turn  
222 requires effective management to ensure usefulness to the organization within the required timescales.  
223 Suitable accountability and management of this asset data is required to ensure and maintain  
224 usefulness.

225 Asset data can be created, acquired or generated at all stages of the asset lifecycle. Asset data  
226 supporting asset management activities is generally required for at least as long as the asset itself  
227 exists. Asset data that conformed with the requirements of the organization at the time it was acquired  
228 could no longer comply with current organizational requirements.

229 The configuration or nature of the asset can constrain or prevent data acquisition activities and also  
230 make it difficult to check or improve incorrect or missing asset data. Asset interventions occur at a  
231 discrete period, therefore subsequent checking or improvement of asset data arising from these  
232 interventions will require additional data sources.

233 Documented information can fulfil many purposes within an organization including recording and  
234 explaining the asset management system, providing narrative descriptions of how to maintain an asset,  
235 and providing test certificates are a key part of asset management. Like asset data, documented  
236 information can experience many similar problems and requires active management.

237 **4.2 Asset data**

238 **4.2.1 Data requirements**

239 The organization should determine its data requirements and manage its data across its life cycle to  
240 support the scope of its asset management system to achieve both its asset management and  
241 organizational objectives (see ISO 55001, 7.6, which also deals with requirements related both to the  
242 data themselves and to their alignment across the organization's functions).

243 In addition, the organization should determine:

244 a) **legal requirements:** the legal requirements of holding, managing, and transferring asset data;