
Organizacija in digitalizacija informacij v gradbeništvu - Upravljanje informacij z BIM - 2. del: Faza načrtovanja in izvedbe gradbenega projekta (ISO 19650-2:2018)

Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling - Part 2: Delivery phase of the assets (ISO 19650-2:2018)

Organisation von Daten zu Bauwerken - Informationsmanagement mit BIM - Teil 2: Lieferphase der Assets (ISO 19650-2:2018)

Organisation et numérisation des informations relatives aux bâtiments et ouvrages de génie civil, y compris modélisation des informations de la construction (BIM) - Gestion de l'information par modélisation des informations de la construction - Partie 2: Phase de réalisation des actifs (ISO 19650-2:2018)

Ta slovenski standard je istoveten z: EN ISO 19650-2:2018

ICS:

35.240.67	Uporabniške rešitve IT v gradbeništvu	IT applications in building and construction industry
91.010.01	Gradbeništvo na splošno	Construction industry in general

SIST EN ISO 19650-2:2019**en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19650-2:2019

<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

EUROPEAN STANDARD

EN ISO 19650-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2018

ICS 35.240.67; 91.010.01

English Version

Organization and digitization of information about
buildings and civil engineering works, including building
information modelling (BIM) - Information management
using building information modelling - Part 2: Delivery
phase of the assets (ISO 19650-2:2018)

Organisation et numérisation des informations
relatives aux bâtiments et ouvrages de génie civil, y
compris modélisation des informations de la
construction (BIM) - Gestion de l'information par
modélisation des informations de la construction -
Partie 2: Phase de réalisation des actifs (ISO 19650-
2:2018)

Organisation von Daten zu Bauwerken -
Informationsmanagement mit BIM - Teil 2: Lieferphase
der Assets (ISO 19650-2:2018)

ITeh STANDARD PREVIEW

This European Standard was approved by CEN on 24 August 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19650-2:2019
<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

European foreword

This document (EN ISO 19650-2:2018) has been prepared by Technical Committee ISO/TC 59 "Buildings and civil engineering works" in collaboration with Technical Committee CEN/TC 442 "Building Information Modelling (BIM)" the secretariat of which is held by SN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

iTeh STANDARD PREVIEW

The text of ISO 19650-2:2018 has been approved by CEN as EN ISO 19650-2:2018 without any modification.

[SIST EN ISO 19650-2:2019](https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019)

<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19650-2:2019

<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

INTERNATIONAL
STANDARDISO
19650-2First edition
2018-12

**Organization and digitization of
information about buildings and civil
engineering works, including building
information modelling (BIM) —
Information management using
building information modelling —****iTeh STANDARD PREVIEW
Part 2:
(standards.iteh.ai)
Delivery phase of the assets**

SIST EN ISO 19650-2:2019
<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-9816-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

*Organisation et numérisation des informations relatives aux
bâtiments et ouvrages de génie civil, y compris modélisation des
informations de la construction (BIM) — Gestion de l'information par
modélisation des informations de la construction —*

Partie 2: Phase de réalisation des actifsReference number
ISO 19650-2:2018(E)

© ISO 2018

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19650-2:2019

<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

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
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions and symbols	1
3.1 Terms and definitions.....	1
3.1.1 General terms.....	1
3.1.2 Terms related to assets and projects.....	2
3.1.3 Terms related to information management.....	2
3.2 Symbols.....	2
4 Information management during the delivery phase of assets	3
5 Information management process during the delivery phase of assets	3
5.1 Information management process — Assessment and need.....	3
5.1.1 Appoint individuals to undertake the information management function.....	3
5.1.2 Establish the project's information requirements.....	4
5.1.3 Establish the project's information delivery milestones.....	4
5.1.4 Establish the project's information standard.....	4
5.1.5 Establish the project's information production methods and procedures.....	5
5.1.6 Establish the project's reference information and shared resources.....	5
5.1.7 Establish the project's common data environment.....	5
5.1.8 Establish the project's information protocol.....	6
5.1.9 Activities for assessment and need.....	6
5.2 Information management process — Invitation to tender.....	7
5.2.1 Establish the appointing party's exchange information requirements.....	7
5.2.2 Assemble reference information and shared resources.....	8
5.2.3 Establish tender response requirements and evaluation criteria.....	8
5.2.4 Compile invitation to tender information.....	8
5.2.5 Activities for invitation to tender.....	9
5.3 Information management process — Tender response.....	9
5.3.1 Nominate individuals to undertake the information management function.....	9
5.3.2 Establish the delivery team's (pre-appointment) BIM execution plan.....	10
5.3.3 Assess task team capability and capacity.....	10
5.3.4 Establish the delivery team's capability and capacity.....	11
5.3.5 Establish the delivery team's mobilization plan.....	11
5.3.6 Establish the delivery team's risk register.....	12
5.3.7 Compile the delivery team's tender response.....	12
5.3.8 Activities for tender response.....	12
5.4 Information management process — Appointment.....	13
5.4.1 Confirm the delivery team's BIM execution plan.....	13
5.4.2 Establish the delivery team's detailed responsibility matrix.....	13
5.4.3 Establish the lead appointed party's exchange information requirements.....	14
5.4.4 Establish the task information delivery plan(s).....	15
5.4.5 Establish the master information delivery plan.....	15
5.4.6 Complete lead appointed party's appointment documents.....	16
5.4.7 Complete appointed party's appointment documents.....	16
5.4.8 Activities for appointment.....	16
5.5 Information management process — Mobilization.....	17
5.5.1 Mobilize resources.....	17
5.5.2 Mobilize information technology.....	17
5.5.3 Test the project's information production methods and procedures.....	17
5.5.4 Activities for mobilization.....	17
5.6 Information management process — Collaborative production of information.....	18

ISO 19650-2:2018(E)

5.6.1	Check availability of reference information and shared resources.....	18
5.6.2	Generate information.....	18
5.6.3	Undertake quality assurance check.....	19
5.6.4	Review information and approve for sharing.....	19
5.6.5	Information model review.....	20
5.6.6	Activities for collaborative production of information.....	20
5.7	Information management process — Information model delivery.....	20
5.7.1	Submit information model for lead appointed party authorization.....	20
5.7.2	Review and authorize the information model.....	20
5.7.3	Submit information model for appointing party acceptance.....	21
5.7.4	Review and accept the information model.....	21
5.7.5	Activities for information model delivery.....	21
5.8	Information management process — Project close-out.....	22
5.8.1	Archive the project information model.....	22
5.8.2	Capture lessons learned for future projects.....	22
5.8.3	Activities for project close-out.....	22
Annex A (informative) Information management assignment matrix.....		24
Bibliography.....		26

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 19650-2:2019](https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019)

<https://standards.iteh.ai/catalog/standards/sist/aa8b044b-98f6-4859-84a1-61b93efeb8e0/sist-en-iso-19650-2-2019>

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 59, *Buildings and civil engineering works*, Subcommittee SC 13, *Organization and digitalization of information about buildings and civil engineering works, including building information modelling (BIM)*.

A list of all parts in the ISO 19650 series can be found on the ISO website.

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.

ISO 19650-2:2018(E)

Introduction

0.1 Purpose

This document is designed to enable an appointing party to establish their requirements for information during the delivery phase of assets and to provide the right commercial and collaborative environment within which (multiple) appointed parties can produce information in an effective and efficient manner.

This document is applicable to built assets and construction projects of all sizes and all levels of complexity. This includes large estates, infrastructure networks, individual buildings and pieces of infrastructure, and the projects or programmes that deliver them. However, the requirements included in this document should be applied in a way that is proportionate and appropriate to the scale and complexity of the asset or project. In particular, procurement and mobilization of asset or project appointed parties should be integrated as far as possible with documented processes for technical procurement and mobilization.

This document makes wide use of the phrase “shall consider”, particularly in the requirements in [Clause 5](#). This phrase is used to introduce a list of items that the person in question needs to think about carefully in connection with the primary requirement described in the clause. The amount of thought involved, the time taken to complete it and the need for supporting evidence will depend on the complexity of the project, the experience of the person(s) involved and the requirements of any national policy on introducing building information modelling. On a relatively small or straightforward project, it can be possible to complete, or dismiss as not relevant, some of these “shall consider” items very quickly.

One way to help identify which of the “shall consider” statements are relevant, can be to review each statement and create templates for projects of different sizes and complexity.

This document can be used by any appointing party. If the appointing party intends this document to apply to any asset (project) this should be reflected in the appointment.

This document defines the information management process, containing the activities through which delivery teams can collaboratively produce information and minimize wasteful activities.

This document is primarily intended for use by the following (see [Figure 1](#)):

- those involved in the management or production of information during the delivery phase of assets;
- those involved in the definition and procurement of construction projects;
- those involved in the specification of appointments and facilitation of collaborative working;
- those involved in the design, construction, operation, maintenance and decommissioning of assets; and
- those responsible for the realization of value for their organization from their asset base.

This document contains the requirements associated with the management of information during the delivery phase of built assets, which will need to be reviewed and revised on a regular basis until the best practice is established.

**Key**

AIM asset information model

PIM project information model

A start of delivery phase — transfer of relevant information from AIM to PIM

B progressive development of the design intent model into the virtual construction model

C end of delivery phase — transfer of relevant information from PIM to AIM

Figure 1 — Scope of this document**0.2 National annex with relevant national standards**

There are several standards required for the successful implementation of this document, relating to specific regions or countries, that are currently not suitable for inclusion within an international standard. As such, national standards bodies are encouraged to compile and document the standards, relevant to the region or country they represent, within a national annex. National annexes can also provide localised guidance and advice on how to implement this document for projects of varying complexity.

0.3 Relationship with other standards