

# ILNAS

Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN ISO 19650-1:2018

### **Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) -**

Organisation und Digitalisierung von  
Informationen zu Bauwerken und  
Ingenieurleistungen, einschließlich  
Bauwerksinformationsmodellierung

Organisation et numérisation des  
informations relatives aux bâtiments et  
ouvrages de génie civil, y compris  
modélisation des informations de la

12/2018



## National Foreword

This European Standard EN ISO 19650-1:2018 was adopted as Luxembourgish Standard ILNAS-EN ISO 19650-1:2018.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

### **THIS PUBLICATION IS COPYRIGHT PROTECTED**

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

ILNAS-EN ISO 19650-1:2018

EUROPEAN STANDARD **EN ISO 19650-1**

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 1: Concepts  
and principles (ISO 19650-1:2018)**

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 la  
modélisation des informations de la construction -  
Partie 1: Concepts et principes (ISO 19650-1:2018)

Organisation von Daten zu Bauwerken -  
Informationsmanagement mit BIM - Teil 1: Konzepte  
und Grundsätze (ISO 19650-1:2018)

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**

ILNAS-EN ISO 19650-1:2018 - Preview only Copy via ILNAS e-Shop

## European foreword

This document (EN ISO 19650-1:2018) 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

The text of ISO 19650-1:2018 has been approved by CEN as EN ISO 19650-1:2018 without any modification.

---

---

**Organization and digitization of  
information about buildings and civil  
engineering works, including building  
information modelling (BIM) —  
Information management using  
building information modelling —**

**Part 1:  
Concepts and principles**

*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  
la modélisation des informations de la construction —*

*Partie 1: Concepts et principes*



**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](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
3.1 General terms.....	1
3.2 Terms related to assets and projects.....	2
3.3 Terms related to information management.....	3
<b>4 Asset and project information, perspectives and collaborative working</b> .....	<b>6</b>
4.1 Principles.....	6
4.2 Information management according to the ISO 19650 series.....	6
4.3 Information management perspectives.....	7
<b>5 Definition of information requirements and resulting information models</b> .....	<b>8</b>
5.1 Principles.....	8
5.2 Organizational information requirements (OIR).....	10
5.3 Asset information requirements (AIR).....	10
5.4 Project information requirements (PIR).....	10
5.5 Exchange information requirements (EIR).....	10
5.6 Asset information model (AIM).....	11
5.7 Project information model (PIM).....	11
<b>6 The information delivery cycle</b> .....	<b>11</b>
6.1 Principles.....	11
6.2 Alignment with the asset life cycle.....	11
6.3 Setting information requirements and planning for information delivery.....	13
6.3.1 General principles.....	13
6.3.2 Delivery team provides information for asset owner/operator or client decisions.....	15
6.3.3 Information verification and validation at start and end of project stages.....	15
6.3.4 Information is drawn from the whole delivery team.....	16
6.3.5 Summary of information delivery from project and asset delivery teams.....	17
<b>7 Project and asset information management functions</b> .....	<b>18</b>
7.1 Principles.....	18
7.2 Asset information management functions.....	19
7.3 Project information management functions.....	19
7.4 Task information management functions.....	19
<b>8 Delivery team capability and capacity</b> .....	<b>20</b>
8.1 Principles.....	20
8.2 Extent of capability and capacity review.....	20
<b>9 Information container-based collaborative working</b> .....	<b>20</b>
<b>10 Information delivery planning</b> .....	<b>21</b>
10.1 Principles.....	21
10.2 Timing of information delivery.....	21
10.3 Responsibility matrix.....	22
10.4 Defining the federation strategy and breakdown structure for information containers.....	22
<b>11 Managing the collaborative production of information</b> .....	<b>23</b>
11.1 Principles.....	23
11.2 Level of information need.....	23
11.3 Information quality.....	23
<b>12 Common data environment (CDE) solution and workflow</b> .....	<b>24</b>