

SLOVENSKI STANDARD SIST EN 15643-3:2012

01-marec-2012

Trajnostnost gradbenih objektov - Ocenjevanje stavb - 3. del: Okvir za ocenjevanje družbenega učinka

Sustainability of Construction Works - Assessment of Buildings - Part 3: Framework for the assessment of social performance

Nachhaltigkeit von Bauwerken - Bewertung der Nachhaltigkeit von Gebäuden - Teil 3: Rahmenbedingungen für die Bewertung der sozialen Qualität

(standards.iteh.ai)
Contribution des ouvrages de construction au développement durable - Évaluation des bâtiments - Partie 3: Cadre méthodologique pour l'évaluation de la performance sociale

https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-

Ta slovenski standard je istoveten z: EN 15643-3-2012

ICS:

13.020.20 Okoljevarstvena ekonomika Environmental economics

91.040.01 Stavbe na splošno Buildings in general

SIST EN 15643-3:2012 en,de

SIST EN 15643-3:2012

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 15643-3:2012</u> https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8cbc76c7e182b/sist-en-15643-3-2012

EUROPEAN STANDARD NORME EUROPÉENNE EN 15643-3

EUROPÄISCHE NORM

January 2012

ICS 91.040.01

English Version

Sustainability of construction works - Assessment of buildings - Part 3: Framework for the assessment of social performance

Contribution des ouvrages de construction au développement durable - Évaluation des bâtiments - Partie 3: Cadre méthodologique pour l'évaluation de la performance sociale

Nachhaltigkeit von Bauwerken - Bewertung der Nachhaltigkeit von Gebäuden - Teil 3: Rahmenbedingungen für die Bewertung der sozialen Qualität

This European Standard was approved by CEN on 29 November 2011.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-cbc76c7e182b/sist-en-15643-3-2012



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents Page		Page
Forewo	ord	3
Introduction		4
1	Scope	7
2	Normative references	8
3	Terms and definitions	8
4	Principles	14
4.1	General	14
4.2	Objectives of social performance assessment of the building	
4.3	Relevance of technical and functional requirements	
4.4	Consideration of the building life cycle	
5	Requirements for assessment methods	
5.1 5.2	General Object of assessment and the system boundary	
5.2 5.3	Functional equivalent	
5.4	Type of data and data allocation in the assessment of social performance	
5.4.1	Assignment of data to the building life cycle A.RP.R.R.V	17
5.4.2	Types of data	17
5.4.3	Scenarios Statituar CS-II-CII-2II)	18
5.4.4 5.5	Other informationRequirements for data quality in the assessment of social performance	10 18
5.6	Requirements for verification https://standards.ijeh.avgatalog/standards/stsvdb2b432e-21cc-4e0c-80a8-	18
5.7	Transparency of the assessment methods. Requirements for communication	18
5.8		
5.8.1	General	
5.8.2 5.8.3	The results of the assessments Functional equivalent in communication	
5.8.4	Social performance requirements from client's brief and/or regulations	
5.8.5	Technical and functional performance	
6	Requirements for assessment methods of social performance of buildings	21
6.1	Overview of the methodology for assessment of social performance of buildings	
6.2	Social performance categories, aspects and indicators	
6.2.1 6.2.2	General Categories for social aspects and impacts	
·	·	
	Annex A (informative) Work programme of CEN/TC 350	
A.1	Work programme of CEN/TC 350	
Annex	B (informative) Social Aspects in the Life cycle stages of construction works	26
Bibliog	Bibliography	

Foreword

This document (EN 15643-3:2012) has been prepared by Technical Committee CEN/TC 350 "Sustainability of construction works", the secretariat of which is held by AFNOR.

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 July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 15643-3:2012</u> https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-cbc76c7e182b/sist-en-15643-3-2012

Introduction

This European Standard forms part of a series of the European Standards, written by CEN/TC 350, (see Annex A), providing a system for the sustainability assessment of buildings at the building level using a life cycle approach. The sustainability assessment quantifies aspects and impacts to assess the environmental, social and economic performance of buildings using quantitative and qualitative indicators, both of which are measured without value judgements.

The purpose of this series of standards is to enable comparability of the results of assessments. This series of European Standards does not set benchmarks or levels of performance. This series of standards will allow the sustainability assessment, i.e. the assessment of environmental, social and economic performance of a building, to be made concurrently and on an equal footing, on the basis of the same technical characteristics and functionality of the object of assessment.

The sustainability assessment of buildings uses different types of information. The results of a sustainability assessment of a building provide information on the different type of indicators, the related building scenarios and the life cycle stages included in the assessment.

In carrying out assessments, scenarios and a functional equivalent are determined at the building level. Assessment at the building level means that the descriptive model of the building with the major technical and functional requirements has been defined in the client's brief or in the regulations, as illustrated in Figure 1.

Assessments can be undertaken for the whole building, for parts of the building, which can be used separately, or for elements of the building.

Although the evaluation of technical and functional performance is beyond the scope of this series of standards, the technical performance and functional characteristics are considered within this framework by reference to the functional equivalent. The functional equivalent takes into account the technical and functional requirements and forms a basis for comparisons of the results of the assessment.

Any particular demands for, or related to, the environmental, social and economic performance defined in the client's brief, or in regulations, may be declared and communicated. Figure 1 shows how the functional equivalent, and deviations in the technical and functional characteristics that differ from those required either by client's brief or through regulations, are to be declared and communicated with the results of the assessment.

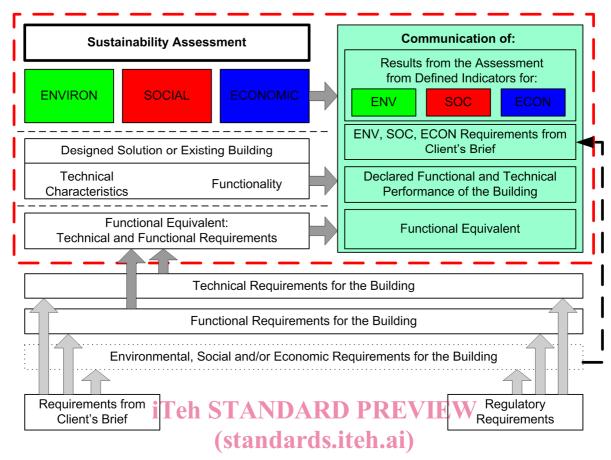
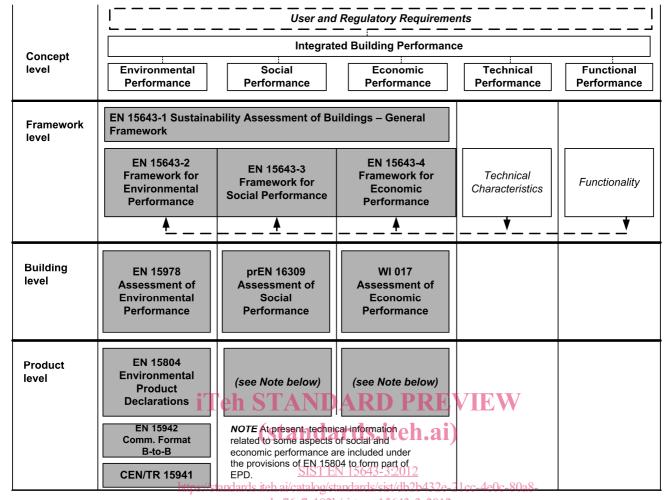


Figure 1 — The concept of sustainability assessment of buildings

NOTE 1 The outer box with the dotted line represents the area standardised by CEN/TC 350. cbc76c7e182b/sist-en-15643-3-2012

In concept, the integrated building performance incorporates environmental, social and economic performance as well as the technical and functional performance, and these are intrinsically related to each other, as illustrated in Figure 2. Although the assessment of technical and functional performance does not form part of this series of standards, their interrelationship with environmental, social and economic performance is prerequisite for an assessment of sustainability performance of buildings, and therefore is taken into account.

It is advisable to carry out an assessment at the earliest opportunity during the conceptual stages of a construction or refurbishment project such as in the sketch plan stage in order to provide a broad estimate of the environmental performance, social performance and economic performance. As the project evolves, the assessment may be periodically reviewed and updated to support decision-making. A final assessment (asbuilt) should be carried out. The results of this final assessment can be used to inform all parties concerned.



cbc76c7e182b/sist-en-15643-3-2012
NOTE 2 The grey boxes represent the current work programme of CEN/TC 350.

Figure 2 — Work programme of CEN/TC 350

This framework is Part 3 of the framework standards for sustainability assessment of buildings shown in Figure 2 above. It focuses on the principles and requirements for the assessment of the social performance of a building at the "framework level".

The first revision of the general framework standard, EN 15643-1, will combine all four parts of the framework of this series of standards into one framework standard. This will ensure simultaneous revision of the interlinked parts of the frameworks within the series of standards.

In the future, the assessment methodologies within this series of standards may be part of an overall assessment of integrated building performance. The assessment methodologies may also be extended to an assessment of the neighbourhoods and the wider built environment.

1 Scope

This European Standard forms one part of a series of European Standards and provides the specific principles and requirements for the assessment of social performance of buildings taking into account technical characteristics and functionality of a building. Assessment of social performance is one aspect of sustainability assessment of buildings under the general framework of EN 15643-1.

The framework applies to all types of buildings, both new and existing, and it is relevant for the assessment of the social performance of new buildings over all stages of their life cycle, and of existing buildings to their end of life.

NOTE 1 Although all stages of the life cycle are considered in this European Standard, the choice of what is practical to cover in the implementation of this framework is the subject of the standard on "Assessment of Social Performance of Buildings -Methods", which is under development. The first version of the Methods standard may limit the application of the framework to fewer than all life-cycle stages, depending on what methods are appropriate for European standardisation at this time. Future revisions of the Methods standard will include the assessment of social performance for other stages of the building life cycle as appropriate methods for measurement are developed and become suitable for European standardisation.

The social dimension of sustainability concentrates on the assessment of aspects and impacts of a building expressed with quantifiable indicators. The social performance measures will be represented through indicators for the following social performance categories:

- accessibility;
- iTeh STANDARD PREVIEW

(standards.iteh.ai)

health and comfort:

adaptability;

loadings on the neighbourhood; SISTEN 19073-3,2012 https://standards.teh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-

cbc76c7e182b/sist-en-15643-3-2012

- maintenance;
- safety / security;
- sourcing of materials and services;
- stakeholder involvement.

The European Standards developed under this framework do not set the rules for how building assessment schemes may provide valuation methods. Nor do they prescribe levels, classes or benchmarks for measuring performance.

Valuation methods, levels, classes or benchmarks may be prescribed in the requirements for environmental, social and economic performance in the client's brief, building regulations, national standards, national codes of practice, building assessment and certification schemes, etc.

The rules for assessment of social aspects of organisations are not included within this framework. However, the consequences of decisions or actions that influence the social performance of the object of assessment are taken into account.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 15804, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

EN 15643-1, Sustainability of construction works — Sustainability assessment of buildings — Part 1: General Framework

EN 15643-2, Sustainability of construction works — Assessment of buildings — Part 2: Framework for the assessment of environmental performance

EN 15643-4, Sustainability of construction works — Assessment of buildings — Part 4: Framework for the assessment of economic performance

prEN 16309, Sustainability of construction works – Assessment of social performance of buildings – Methods

ISO 15392:2008, Sustainability in building construction – General principles

ISO 15686-1:2011, Buildings and constructed assets – Service life planning – Part 1: General principles and framework

ISO 15686-2, Buildings and constructed assets - Service life planning - Part 2: Service life prediction procedures

(standards.iteh.ai)

ISO 15686-7, Buildings and constructed assets – Service life planning – Part 7: Performance evaluation for feedback of service life data from practice

SIST EN 15643-3:2012

https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-ISO 15686-8, Buildings and constructed assets. Service-life planning Part 8: Reference service-life and service life estimation

ISO/TS 15686-9, Buildings and constructed assets – Service-life planning – Part 9: Guidance on assessment of service-life data

3 Terms and definitions

For the purposes of this standard series, the following terms and definitions apply.

3.1

assembled system

part of works

component (3.9) or a set of components incorporated in the construction works (3.12)

NOTE Adapted from the definitions in the Construction Products Directive Guidance Paper C and from the definition of construction in ISO 6707-1.

3.2

brief

written document that states the client's (3.8) requirements for a construction project

[ISO 6707-2:1993]

3.3

building

construction works (3.12) that has the provision of shelter for its occupants or contents as one of its main purposes and is usually enclosed and designed to stand permanently in one place

[ISO 6707-1:2004]

3.4

building fabric

all construction products (3.10) that are fixed to the building (3.3) in a permanent manner, so that the dismantling of the product decreases the performance of the building and the dismantling or replacement of the product constitutes construction operations

3.5

building-integrated technical system

installed technical equipment to support operation of a building

This includes technical building systems (3.42) and other systems for sanitation, security, fire safety, internal transport, building automation and control, and IT communications.

3.6

building site

specified area of land where a building (3.3) is located or is defined to be located and construction work (3.11) of the **building** and associated **external works** (3.21) are undertaken

NOTE Adapted from the definition of site in ISO 6707-1. D PREVIEW

3.7

(standards.iteh.ai) built environment

collection of buildings, external works (3.21) (landscape area), infrastructure and other construction works (3.12) within an area

https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-

NOTE Adapted from the definition of environment in tSO 6707-1-2012

3.8

client

person or organisation that requires a **building** (3.3) to be provided, altered or extended and is responsible for initiating and approving the **brief** (3.2)

[ISO 6707-1:2004]

3.9

component

construction product (3.10) manufactured as a distinct unit to serve a specific function or functions

[ISO 6707-1:2004]

3.10

construction product

item manufactured or processed for incorporation in construction works (3.12)

NOTE 1 Construction products are items supplied by a single responsible body.

NOTE 2 Adapted from the definition in ISO 6707-1 according to the recommendation of ISO/TC59/AHG Terminology.

3.11

construction work

activities of forming construction works (3.12)

[ISO 6707-1:2004]

3.12

construction works

everything that is constructed or results from construction operations

- NOTE 1 This covers both **building** (3.3) and civil engineering works, and both structural and non-structural elements.
- NOTE 2 Adapted from the definition in ISO 6707-1.

3.13

decommissioning

activities of removing **building** (3.3) or an **assembled system (part of works)** (3.1) from operational status to non-operational status

3.14

durability

ability to maintain **technical performance** (3.43) throughout the **service life** (3.34); subject to specified **maintenance** (3.27) under the influence of foreseeable actions

NOTE 1 Foreseeable actions are related to "normal" agents that could be expected to act on the works or parts thereof. Potential degradation factors that can affect the performance of the works include for example, temperature, humidity, water, UV radiation, abrasion, chemical attack, biological attack, corrosion, weathering, frost, freeze-thaw and fatigue.

NOTE 2 Adapted from the definition on CPD Guidance Paper F and in ISO 6707-1.

3.15

SIST EN 15643-3:2012

economic aspect https://standards.iteh.ai/catalog/standards/sist/db2b432e-21cc-4e0c-80a8-

aspect of **construction works** (3.12), **assembled system (part of works)** (3.1), processes or services related to their **life cycle** (3.25) that can cause change to economic conditions

[ISO 15392:2008]

3.16

economic impact

any change to the economic conditions, whether adverse or beneficial, wholly or partially resulting from **economic aspects** (3.15)

NOTE Derived from the definitions of impact and economic impact in ISO 15392.

3.17

economic performance

performance (3.28) related to economic impacts (3.16) and economic aspects (3.15)

[ISO 15392:2008]