

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/15

Obsahuje: EN 16309:2014+A1:2014

Oznámením tejto normy sa ruší STN EN 16309 (73 0903) z októbra 2014 STN EN 16309+A1: 2015

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 16309:2014+A1

August 2014

ICS 91.040.01

Supersedes EN 16309:2014

#### **English Version**

# Sustainability of construction works - Assessment of social performance of buildings - Calculation methodology

Contribution des ouvrages de construction au développement durable - Évaluation de la performance sociale des bâtiments - Méthodes Nachhaltigkeit von Bauwerken - Bewertung der sozialen Qualität von Gebäuden - Berechnungsmethoden

This European Standard was approved by CEN on 23 November 2013 and includes Amendment 1 approved by CEN on 22 July 2014.

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, 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: Avenue Marnix 17, B-1000 Brussels

COIIL	ents P	age
Forewo	ord	4
Introdu	uction	5
1	Scope	7
-	Normative references	
2		
3	Terms and definitions	9
4	Purpose of the assessment of social performance of buildings	13
5	Specification of the object of assessment	15
5.1	General	
5.2	Functional equivalent	
5.3	Reference study period	
5.4	System boundaries	
5.5	Building model	
5.5.1	Purpose and information needed	
5.5.2	Description of the characteristics of the object of assessment	17
6	Scenarios	17
6.1	General	
6.2	Requirements for scenarios	
6.2.1	General	
6.2.2	Climate conditions	
6.3	Rules for specification of scenario per information module	18
6.3.1	General	
6.3.2	Rules for specifying the scenario for use stage (information module B1)	18
6.3.3	Rules for specifying scenarios for maintenance, repair, replacement and refurbishment (information modules B2, B3, B4 and B5)	10
6.3.4	Rules for specifying the scenario for operational energy use (information module B6)	21
6.3.5	Rules for specifying the scenario for the operational water use (information module B7)	21
7	Methods for assessment of social performance	
7.1	General methodological approach	
7.1.1	General	
7.1.2	Lifecycle stages - life cycle modules	
7.2	Accessibility	
7.2.1	General	
7.2.2	Accessibility to building facilities	
7.2.3	Access to building services	
7.3	Adaptability	
7.4	Health and comfort	
7.4.1 7.4.2	General Thermal characteristics	
7.4.2 7.4.3	Characteristics of indoor air quality	
7.4.3 7.4.4	Acoustic characteristics	
7.4. <del>4</del> 7.4.5	Characteristics of visual comfort	
7.4.5 7.4.6	Spatial characteristics	
7.4.0 7.5	Impacts on the neighbourhood	
7.5.1	General	
7.5.2	Noise	
7.5.2 7.5.3	Emissions to outdoors	
7.5.4	Glare/Overshadowing	
7.5.5	Shocks/vibrations	

7.6	Maintenance and maintainability	36
7.7	Safety and security	36
7.7.1	General	
7.7.2	Resistance to consequences of climate change	37
7.7.3	Accidental actions	
7.7.4	Personal safety and security against intruders and vandalism	
7.7.5	Security against interruptions of utility supply	42
8	Data for the assessment	42
8.1	General	42
8.2	Data quality and demands for completeness	42
9	Reporting and communication	42
9.1	General	
9.2	General information on the assessment	43
9.3	General information on the object of assessment	
9.4	Statement of boundaries and scenarios used in the assessment	44
9.5	Data sources	44
9.6	List of aspects used for assessment and expression of results	44
10	Verification of results	44
Annex	A (normative) Assessment procedure	45
<b>A</b> .1	Introduction	
A.2	Assessment table for the information module "B1 - use"	47
A.3	Assessment table "Influence Allocation"	49
<b>A.4</b>	Assessment tables for the information modules B2 to B7	51
Annex	B (informative) Building characteristics used in an assessment	54
	C (informative) Sourcing of materials and services	56
C.1	General	
C.2	Sourcing of materials	
C.3	Sourcing of services	57
Bibliog	graphy	58

#### **Foreword**

This document (EN 16309:2014+A1:2014) 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 February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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.

This document includes Amendment 1 approved by CEN on 22 July 2014.

This document supersedes EN 16309:2014.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Introduction

The purpose of this European Standard is to provide rules for the assessment of the social performance of new and existing buildings.

The social performance of a building is one aspect of the building's sustainability. The environmental performance and economic performance of a building are the other aspects of sustainability that should be assessed as part of a sustainability assessment of the building. Figure 1 illustrates how the assessment of the social performance fits within the concept of the sustainability assessment of a building.

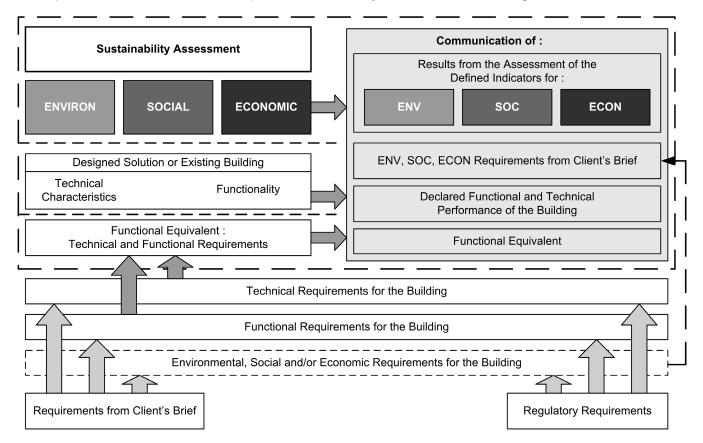
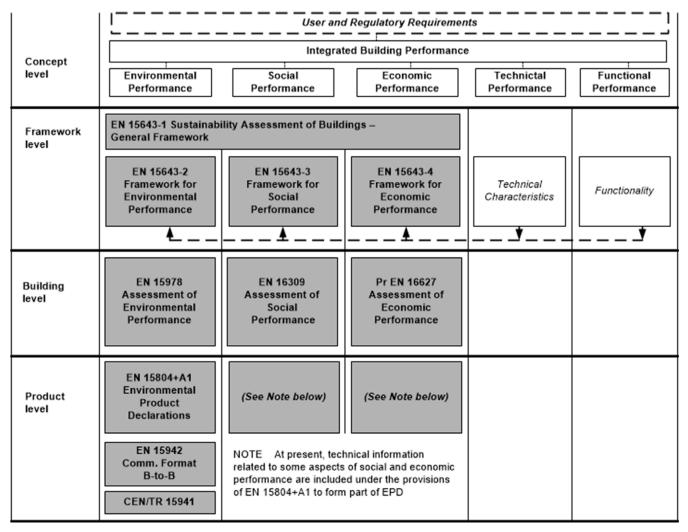


Figure 1 — Concept of sustainability assessment of buildings

This European Standard is intended to support the decision making process and documentation of the assessment of the social performance of a building.

In this European Standard, the method of assessment of the social performance of a building is based on a life cycle approach. The general requirements for sustainability assessment of buildings are described in EN 15643-1 (the General Framework standard). The framework for the assessment of social performance is given in EN 15643-3. Figure 2 shows other standards developed by CEN/TC 350 in this area, and also how they are related to this standard.

The assessment of social performance differs from the assessment of economic and ecological aspects in that it requires both quantitative and descriptive approaches. Where methods leading to a quantitative result are not available for assessment criteria and indicators, a checklist-approach is adopted to make the descriptive approach quantifiable.



NOTE The grey boxes represent the work programme as presented in EN 15643-1.

Figure 2 — Work programme of CEN/TC 350

## 1 Scope

accessibility;

safety and security.

This European Standard is one part of a suite of European Standards. The standard provides the specific methods and requirements for the assessment of social performance of a building while taking into account the building's functionality and technical characteristics.

This European Standard applies to all types of buildings, both new and existing. In this first version of the standard, the social dimension of sustainability concentrates on the assessment of aspects and impacts for the use stage of a building expressed using the following social performance categories (from EN 15643-3):

_	adaptability;
_	health and comfort;
_	impacts on the neighbourhood;
_	maintenance;

NOTE 1 Only impacts and aspects of the above social performance categories are deemed to have an agreed basis for European standardization at this time. Two of the social performance categories included in EN 15643–3 (sourcing of materials and services and stakeholder involvement) are not deemed to be ready for standardization at this time and will be considered for inclusion in future versions of this standard (see informative Annex C).

This standard does not set the rules for how building assessment schemes may provide valuation methods. Nor does it prescribe levels, classes or benchmarks of 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.

NOTE 2 Where National building regulations give minimum requirements and reference to assessment methods on these aspects, the social performance determined by assessment according to this standard can be used to determine the degree to which the building goes beyond the regulatory/legal requirements.

The corporate social responsibility (CSR) of organizations is not covered by this standard.

The standard gives requirements for:

—	the d	lescriptior	of the	object (	of a	ssessme	ent;
---	-------	-------------	--------	----------	------	---------	------

- the system boundary that applies at the building level;
- the list of indicators and procedures for the application of these indicators;
- the presentation of the results in reporting and communication;
- the data necessary for the application of the standard, and
- verification.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1027, Windows and doors — Watertightness — Test method

EN 12208, Windows and doors — Watertightness — Classification

EN 12354-1, Building Acoustics — Estimation of acoustic performance of buildings from the performance of elements — Part 1: Airborne sound insulation between rooms

EN 12354-2, Building acoustics — Estimation of acoustic performance of buildings from the performance of elements — Part 2: Impact sound insulation between rooms

EN 12354-3, Building acoustics — Estimation of acoustic performance of buildings from the performance of elements — Part 3: Airborne sound insulation against outdoor sound

EN 12354-5, Building acoustics — Estimation of acoustic performance of building from the performance of elements — Part 5: Sounds levels due to the service equipment

EN 12354-6, Building acoustics — Estimation of acoustic performance of buildings from the performance of elements — Part 6: Sound absorption in enclosed spaces [A]

EN 12464-1:2011, Light and lighting — Lighting of work places — Part 1: Indoor work places

EN 12865, Hygrothermal performance of building components and building elements — Determination of the resistance of external wall systems to driving rain under pulsating air pressure

EN 15251, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics

EN 15643-3, Sustainability of construction works — Assessment of buildings — Part 3: Framework for the assessment of social performance

CEN/TS 16516, Construction products — Assessment of release of dangerous substances — Determination of emissions into indoor air

♠ EN ISO 717-1, Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1)

EN ISO 717-2, Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation (ISO 717-2)

EN ISO 3382-2, Acoustics — Measurement of room acoustic parameters — Part 2: Reverberation time in ordinary rooms (ISO 3382-2)

EN ISO 3382-3, Acoustics — Measurement of room acoustic parameters — Part 3: Open plan offices (ISO 3382-3)

EN ISO 10140-2, Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation (ISO 10140-2)

EN ISO 10140-3, Acoustics — Laboratory measurement of sound insulation of building elements — Part 3: Measurement of impact sound insulation (ISO 10140-3) [A]

EN ISO 13788, Hygrothermal performance of building components and building elements — Internal surface temperature to avoid critical surface humidity and interstitial condensation — Calculation methods (ISO 13788)

EN ISO 16283-1, Acoustics — Field measurement of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 16283-1) (A)

ISO 2631, Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration

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

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

ISO 15686-8, Buildings and constructed assets — Service-life planning — Part 8: Reference service life and service-life estimation

ISO 16817, Building environment design — Indoor environment — Design process for visual environment

koniec náhľadu – text ďalej pokračuje v platenej verzii STN