SLOVENSKI STANDARD
SIST EN 16309:2014

01-julij-2014

Trajnostnost gradbenih objektov - Ocenjevanje družbenih lastnosti stavb - Metodologija računanja

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

Nachhaltigkeit von Bauwerken - Bewertung der sozialen Qualität von Gebäuden - Berechnungsmethoden

Contribution des ouvrages de construction au développement durable - Évaluation de la performance sociale des bâtiments - Méthodes

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ICS:

91.040.01	Stavbe na splošno	Buildings in general

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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

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Foreword

This document (EN 16309:2014) 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of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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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.

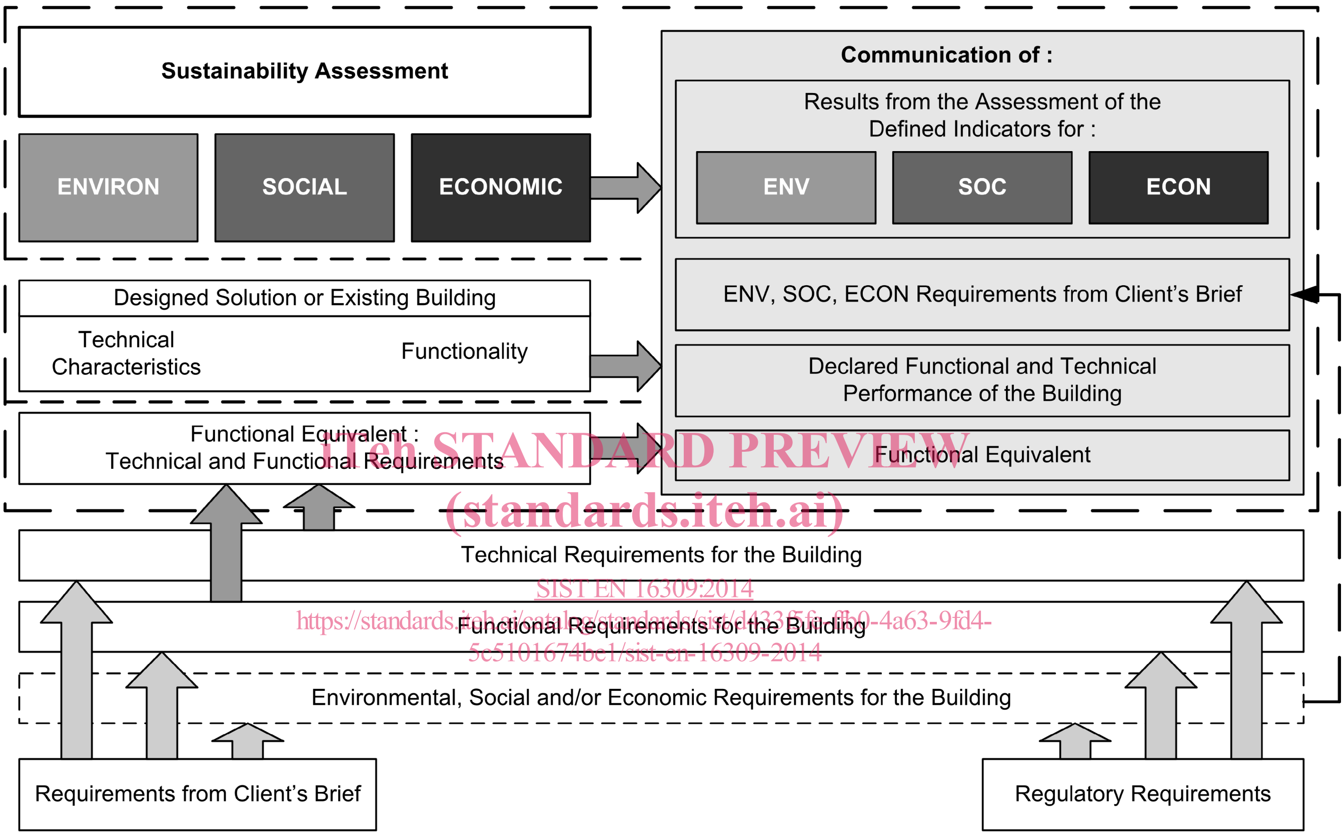
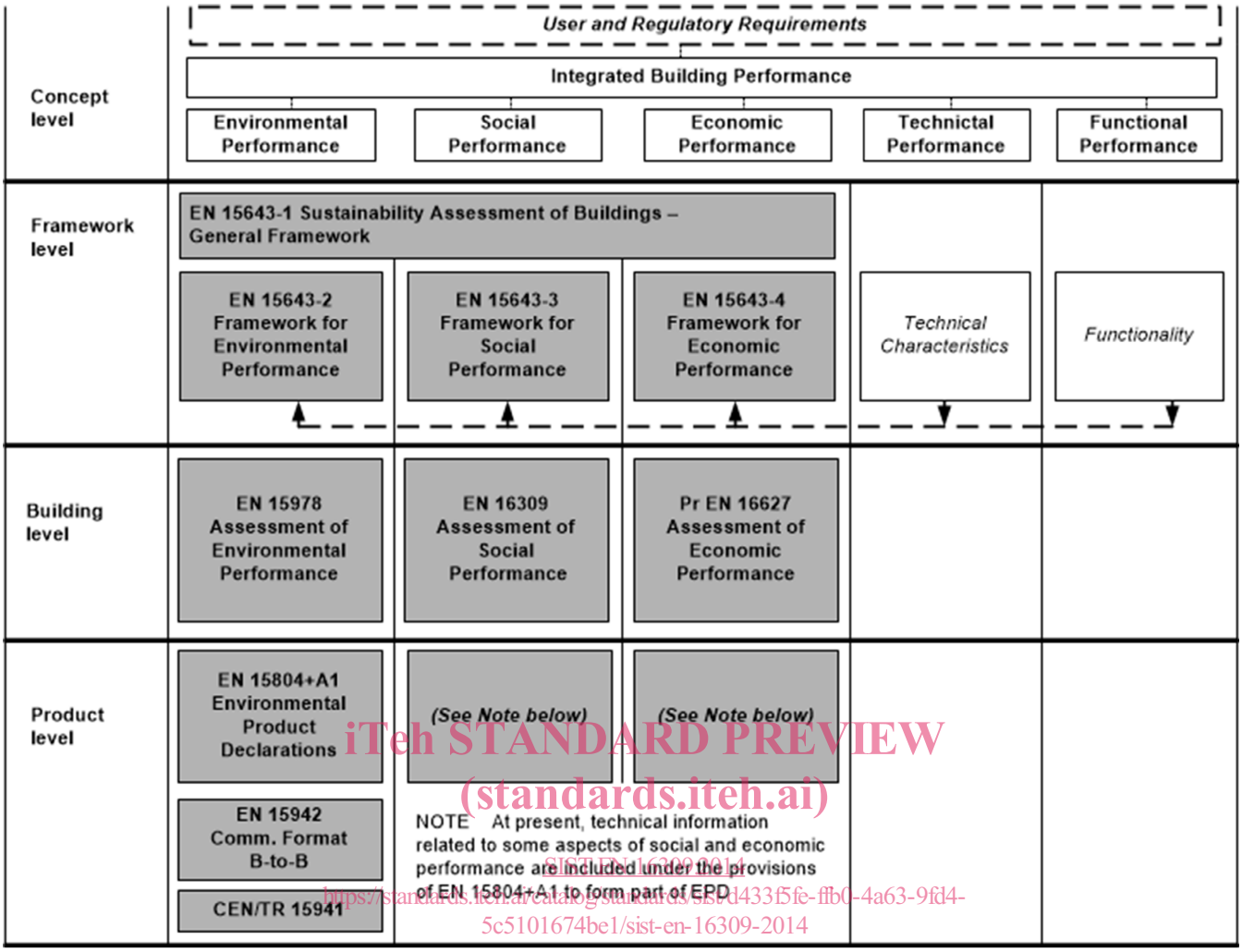


Figure 1 — Concept of sustainability assessment of buildings

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

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):

— accessibility;

— adaptability;

— health and comfort;

— impacts on the neighbourhood;

— maintenance;

— safety and security.

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 description of the object of assessment;

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

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*

3 Terms and definitions

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

3.1
assembled system
part of works
component or a set of components incorporated in the construction works

Note 1 to entry: Adapted from the definitions in the Construction Products Directive, Guidance Paper C and from the definition of construction in ISO 6707-1:2004.

[SOURCE: EN 15643-1:2010, 3.1, modified — Note 1 to entry has been slightly changed.]

3.2
building fabric
all construction products that are fixed to the building in a permanent manner, so that the dismantling of the product changes the performance of the building and the dismantling or replacement of the product constitutes construction operations

[SOURCE: EN 15643-1:2010, 3.4, modified — "All" has been added at the beginning of the definition.]

3.3
building-integrated technical system
installed technical equipment to support operation of a building

Note 1 to entry: This includes technical building systems and other systems for sanitation, security, fire safety, internal transport and building automation and control and IT communications.

[SOURCE: EN 15643-1:2010, 3.5]

3.4
component
construction product manufactured as a distinct unit to serve a specific function or functions

[SOURCE: ISO 6707-1:2004, 6.1.3]

3.5
construction product
item manufactured or processed for incorporation in construction works

[SOURCE: EN 15643-1:2010, 3.11, modified — Two original Notes have been deleted.]

3.6
construction works
everything that is constructed or results from construction operations

Note 1 to entry: This covers both building and civil engineering works, and both structural and non-structural elements.

Note 2 to entry: Adapted from the definition in ISO 6707-1:2004.

[SOURCE: EN 15643-1:2010, 3.13, modified — Note 2 to entry has been changed.]

3.7
design life
service life intended by the designer

[SOURCE: ISO 15686-1:2011, 3.3, modified — the original abbreviation "DL", deprecated meanings and Note 1 to entry have been deleted.]

3.8
estimated service life
service life that a building or an assembled system (part of works) would be expected to have in a set of specific in-use conditions, determined from reference service life data after taking into account any differences from the reference in use conditions

[SOURCE: ISO 15686-1:2011, 3.7]

3.9
functional equivalent
quantified functional requirements and/or technical requirements for a building or an assembled system (part of works) for use as a basis for comparison

Note 1 to entry: Adapted from the definition in ISO 21931-1:2010.

[SOURCE: EN 15643-1:2010, 3.29]

3.10
functional performance
performance related to the functionality of a construction works or an assembled system (part of works), which is required by the users and or by regulations, or both

Note 1 to entry: Adapted from the definition in ISO 15686-10:2010.

[SOURCE: EN 15643-1:2010, 3.30]

3.11
functional requirement
type and level of functionality of a building or assembled system which is required by the users or by regulations, or both

Note 1 to entry: Adapted from the definition in ISO 15686-10:2010.

[SOURCE: EN 15643-1:2010, 3.31]

3.12
functionality
suitability or usefulness for a specific purpose or activity

[SOURCE: ISO 15686-10:2010, 3.13]

3.13
indicator
parameter used to measure or describe social impacts/aspects

3.14
information module
compilation of data from part of the life cycle stage(s) to be used as a basis for the assessment of social performance

[SOURCE: EN 15804:2012, 3.13, modified — The definition itself has been changed.]

3.15
life cycle
consecutive and interlinked stages in the life of the object under consideration

[SOURCE: EN 15643-1:2010, 3.35]

3.16
maintenance
combination of all technical and associated administrative actions during the service life to retain a building or an assembled system (part of works) in a state in which it can perform its required functions

Note 1 to entry: Adapted from the definition in ISO 15686-1:2011 and ISO 6707-1:2004.

[SOURCE: EN 15643-1:2010, 3.41, modified — The current Note 1 to entry has been changed and an original Note 1 to entry has been deleted.]

3.17
reference study period
period over which the time dependent characteristics of the object of assessment are analysed

Note 1 to entry: In some cases, the reference study period may significantly differ from the design life of the building.

[SOURCE: EN 15978:2011, 3.25]

3.18
refurbishment
modification and improvements to an existing building in order to bring it up to an acceptable condition

[SOURCE: ISO 6707-1:2004, 3.8 — modified]

3.19
repair
returning an item to an acceptable condition by the renewal, replacement or mending of worn, damaged or degraded parts

[SOURCE: ISO 6707-1:2004, 7.1.51]

3.20
replacement
substitution of a whole construction product, building element or installation with the same or an equivalent similar product, building element or installation in order to re-establish the required functional and technical performance

3.21
required service life
service life required by the client or through regulations

[SOURCE: EN 15643-1:2010, 3.58]

3.22
scenario
collection of assumptions and information concerning an expected sequence of possible future events

[SOURCE: EN 15643-1:2010, 3.60]

3.23
service life
working life
period of time after installation during which a building or an assembled system (part of works) meets or exceeds the technical requirements and functional requirements

Note 1 to entry: Adapted from the definition in ISO 15686-1:2011.

[SOURCE: EN 15643-1:2010, 3.62, modified — In Note 1 to entry, the reference has been dated.]

3.24
social aspect
aspect of construction works, assembled system (part of works), processes or services related to their life cycle that can cause change to society or quality of life

[SOURCE: ISO 15392:2008, 3.19]

3.25
social impact
change to society or quality of life, whether adverse or beneficial, wholly or partially resulting from social aspects

Note 1 to entry: Derived from the definitions of impact and social impact in ISO 15392:2008.

[SOURCE: EN 15643-1:2010, 3.65]

3.26
social performance
performance related to social impacts and social aspects

3.27
system boundary
interface in the assessment between a building and the environment or other product systems

Note 1 to entry: *System boundary* defines what is included and what is not included in the assessment.

[SOURCE: ISO 21931-1:2010, 3.13]

3.28
technical building system
technical equipment for heating, cooling, ventilation, hot water, lighting or for a combination thereof

Note 1 to entry: Adapted from the definition in the Energy Performance of Buildings Directive (2010/31/EU).

[SOURCE: EN 15643-1:2010, 3.70, modified — Note 1 to entry has been changed.]

3.29
technical performance
performance related to the capability of construction works or an assembled system (part of works) to fulfil its required functions under the intended use conditions

Note 1 to entry: Derived from the definition of “building performance” in ISO 6707-1:2004.

[SOURCE: EN 15643-1:2010, 3.71]

3.30
technical requirement
type and level of technical characteristics of construction works or an assembled system (part of works), which are required or are a consequence of the requirements made either by the clients, users or by regulations

[SOURCE: EN 15643-1:2010, 3.72, modified — The definition has been changed.]

3.31
transparency
open, comprehensive and understandable presentation of information

[SOURCE: EN ISO 14044:2006, 3.7]

4 Purpose of the assessment of social performance of buildings

The purpose of the assessment is defined by the goal, the scope and the intended use of the assessment.

The goal of the assessment is to quantify the social performance of the object of assessment by means of the compilation and application of information relevant to a description of the social quality of the object.

In order to determine the social performance of a building in terms of its social aspects, the scope and intended use of the assessment shall be defined, agreed by the client and documented in accordance with the requirements of this standard before an assessment is carried out.

The extent of an assessment is defined by aspects, selected from those given in Clause 7 (see Figure 4), that are included in the assessment following the steps shown in Figure 3.

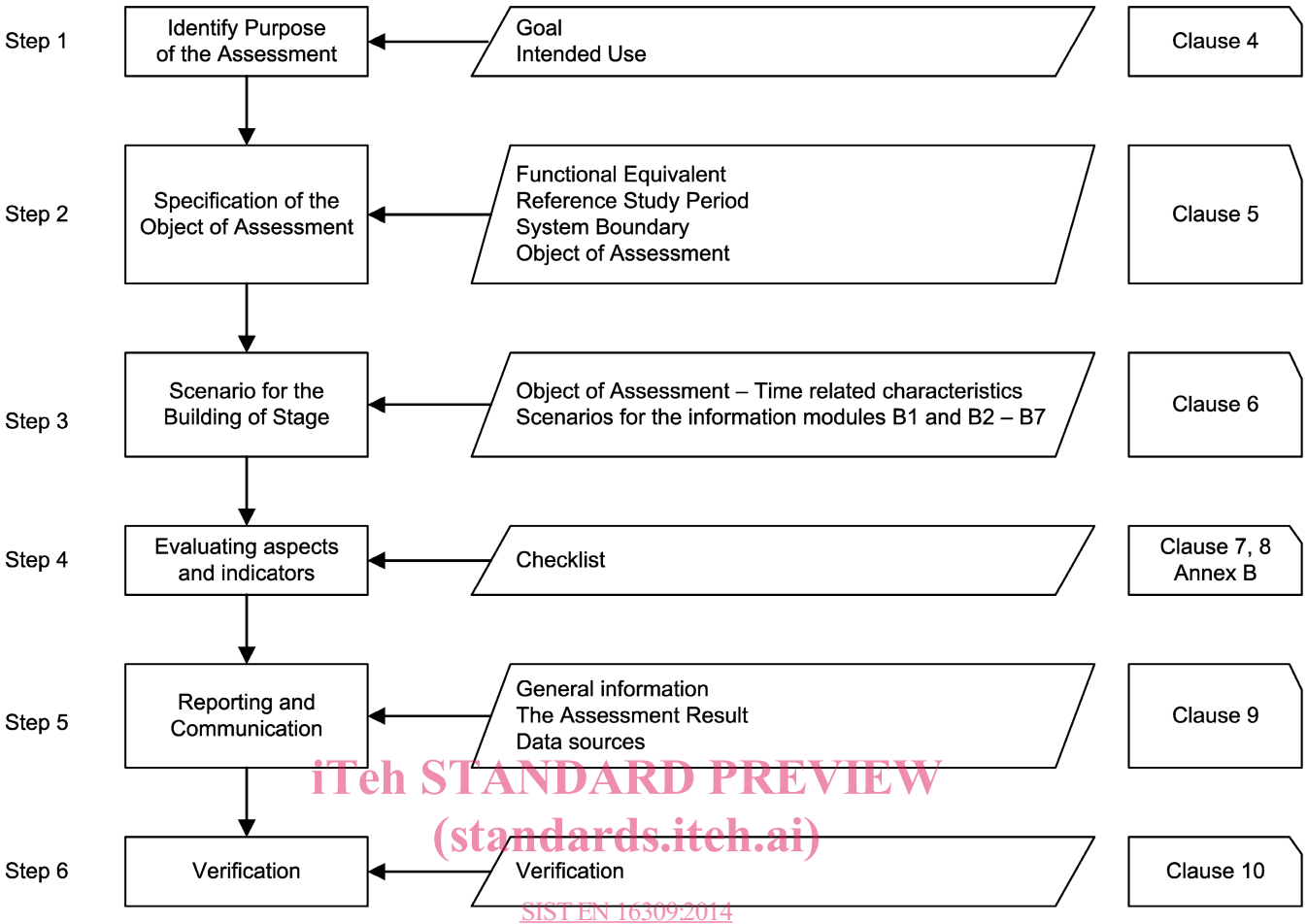


Figure 3 — Steps in the process of assessment

Aspects included in a social performance assessment may be covered by regulation and or legal requirements. Where this is the case, the general principle of this standard is to declare the performance determined, and the extent to which performance improves upon any national or local legal and/or regulatory requirements, in such a way that compliance or improvement over compliance can be assessed. Depending on the context, the intended use of the assessment may include the following:

a) assistance in a decision making process, for example:

   1) comparison of the social performance of different design options;

   2) comparison of the social performance of refurbishment, reconstruction and/or new construction;

   3) identification of the potential for social performance improvements;

b) documenting the social performance of a building for use in, for example:

   1) certification;

   2) declaring social performance;

   3) labelling;

   4) marketing;

c) support for sustainability policy development.