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**Buildings and constructed assets —  
Service life planning —**

Part 10:  
**When to assess functional performance**

*Bâtiments et biens immobiliers construits — Prévion de la durée de  
vie —*

*Partie 10: Quand évaluer la performance fonctionnelle*



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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
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**Contents**

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Assessing functional performance in service life planning</b> .....	<b>6</b>
4.1 Phases and stages in the whole life .....	6
4.2 When to compare levels of demand and supply during the whole life .....	6
4.3 Issues that arise at various stages of the whole life .....	15
4.4 Updates and audits of the levels of functionality and serviceability .....	15
<b>5 Estimation of risk and cost consequences due to gaps</b> .....	<b>15</b>
5.1 Terms and concepts .....	15
5.2 During pre-project stages .....	15
5.3 During pre-construction and construction stages .....	15
<b>Annex A (informative) Concepts of functionality and serviceability</b> .....	<b>17</b>
<b>Annex B (informative) Derivation of stages in the service life from other International Standards</b> .....	<b>20</b>
<b>Annex C (informative) Typical actions and functions at each stage of the whole life</b> .....	<b>24</b>
<b>Annex D (informative) Consider change as well as degradation</b> .....	<b>34</b>
<b>Annex E (informative) Tools to prioritize projects and allocate resources</b> .....	<b>36</b>
<b>Bibliography</b> .....	<b>37</b>

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 15686-10 was prepared by Technical Committee ISO/TC 59, *Building construction*, Subcommittee SC 14, *Design life*.

ISO 15686 consists of the following parts, under the general title *Buildings and constructed assets — Service life planning*:

- *Part 1: General principles and framework*
- *Part 2: Service life prediction procedures*
- *Part 3: Performance audits and reviews*
- *Part 5: Life-cycle costing*
- *Part 6: Procedures for considering environmental impacts*
- *Part 7: Performance evaluation for feedback of service life data from practice*
- *Part 8: Reference service life and service-life estimation*
- *Part 9: Guidance on assessment of service-life data* [Technical Specification]
- *Part 10: When to assess functional performance*

Data requirements is to form the subject of a part 4.

# Buildings and constructed assets — Service life planning —

## Part 10:

### When to assess functional performance

#### 1 Scope

This part of ISO 15686 establishes when to specify or verify functional performance requirements during the service life of buildings and building-related facilities, and when to check the capability of buildings and facilities to meet identified requirements.<sup>1)</sup>

This part of ISO 15686 is applicable to any scope of holdings, whether a set (or portfolio) of buildings, a single building (large or small) or a facility which is part of a building (such as one group of spaces, one floor or several floors). It is applicable to the range of roles of stakeholders, from the owners and managers to the occupants, tenants or other users. It is intended to be used with ISO 15686-1, ISO 15686-2, ISO 15686-3, ISO 15686-5, ISO 15686-6, ISO 15686-7, ISO 15686-8 and ISO 15686-9.

NOTE 1 The principles and methods can be applied to a single-family residence, but this part of ISO 15686 calls for greater frequency and extent of assessing demand and supply than is typically appropriate.<sup>2)</sup>

NOTE 2 The application of this part of ISO 15686 can be required by the client or by any entity having authority, including regulatory authority.

NOTE 3 In Table 2, the column entitled "Outputs called for by other parts of ISO 15686" is provided to show how outputs from other parts of ISO 15686 occur at each phase, whether or not this part of ISO 15686 requires action or output.

#### 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.

ISO 6707-1:2004, *Building and civil engineering — Vocabulary — Part 1: General terms*

ISO 15686-1, *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 15686-3:2002, *Buildings and constructed assets — Service life planning — Part 3: Performance audits and reviews*

1) International Standards for the determination of levels of functionality (demand) and levels of serviceability (supply) are the responsibility of ISO/TC 59 SC 3.

2) International Standards for the description of performance of single-family residences for the purposes of specifying performance requirements and performance levels are the responsibility of ISO/TC 59 SC 15. Standardization work related to the performance of single-family detached and semi-detached dwellings is reflected in ISO 15928 (all parts).

ISO 15686-5:2008, *Buildings and constructed assets — Service life planning — Part 5: Life-cycle costing*

ISO 15686-6, *Buildings and constructed assets — Service life planning — Part 6: Procedures for considering environmental impacts*

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

ISO 15686-8:2008, *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 document, the terms and definitions given in ISO 6707-1 and ISO 15686-1 and the following apply.

#### 3.1 asset

whole building, structure or unit of construction works, or a system or component or part thereof

#### 3.2 behaviour in service

how a whole building, structure or unit of construction works, or a system or component or part thereof actually functions in its intended place and use

#### 3.3 client

⟨construction⟩ person or organization responsible for initiating and financing a project and approving the brief

NOTE 1 Adapted from ISO 6707-1:2004, definition 8.3.

NOTE 2 In some countries, the role and qualification of “construction client” is defined by law and regulation, according to the scope and complexity of a project (see Reference [17]).

#### 3.4 degradation

process whereby an action on an item causes a deterioration of one or more properties

NOTE Properties affected may be, for example, physical, mechanical or electrical.

[ISO 15686-8:2008, definition 3.4]

#### 3.5 demand

⟨of a facility⟩ requirement for **functional performance** (3.11)

#### 3.6 disposal

⟨status change⟩ transfer of ownership of, or responsibility for, the object of consideration

#### 3.7 disposal

⟨end of life⟩ transformation of the state of a building or **facility** (3.8) that is no longer of use