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

**Part 6:
Procedures for considering
environmental impacts**

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

Partie 6: Procédés pour la considération d'effets sur l'environnement



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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 15686-6 was prepared by Technical Committee ISO/TC 59, *Building construction*, Subcommittee SC 14, *Design life*.

It is closely related to standards in the ISO 14000 series (environmental management). While it does not conflict with these, it complements them by describing how environmental management standards, especially ISO 14040, may be implemented in the context of ISO 15686.

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

- *Part 1: General principles*
- *Part 2: Service life prediction procedures*
- *Part 3: Performance audits and reviews*
- *Part 5: Whole life costing*
- *Part 6: Procedures for considering environmental impacts*
- *Part 7: Performance evaluation for feedback of service life data from existing construction works*
- *Part 8: Reference service life*

Part 4 is under preparation.

Introduction

Buildings and other constructed assets will require care from the initial proposal through to design, construction, operation, maintenance and disposal if they are to meet the required levels of performance. ISO 15686-1 and ISO 15686-2 explain the principles of service life planning (SLP) for different types of constructed assets, components and assemblies. This part of ISO 15686 defines how and when to include environmental aspects into the design of a constructed asset. It provides a procedure for assessing the relative environmental impacts of design options and it identifies the interface between environmental life cycle assessment (LCA) and SLP. The approach allows for consistent comparisons to be made between two or more design options taking the relevant factors from SLP into account.

The target audience for this part of ISO 15686 includes the client, design professionals and consultants, and the entire decision supply chain represented in the design team. It will also be relevant to stakeholders and specialists providing information on service life and on environmental impacts.

Buildings and constructed assets — Service life planning —

Part 6:

Procedures for considering environmental impacts

1 Scope

This part of ISO 15686 describes how to assess, at the design stage, the potential environmental impacts of alternative designs of a constructed asset. It identifies the interface between environmental life cycle assessment and service life planning (SLP).

NOTE In order to illustrate the context of ISO 15686-6, other performance criteria are referred to, but they are not defined within its scope.

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, *Building and civil engineering — Vocabulary — Part 1: General terms*

ISO/TR 14025, *Environmental labels and declarations — Type III environmental declarations*

ISO 14040, *Environmental management — Life cycle assessment — Principles and framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6707-1, ISO/TR 14025, ISO 14040 and the following apply.

3.1

product

produce of the building sector, from materials through components, elements and systems to entire buildings and constructed assets

3.2

design option

one of several product alternatives that is a candidate for inclusion into the design, including functionality and service provided

3.3

design team

individuals involved in the decision-making process affecting the service life of the constructed asset