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# Building environment design — Indoor environment — General principles

Conception de l'environnement des bâtiments — Environnement intérieur — Principes généraux



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## Foreword

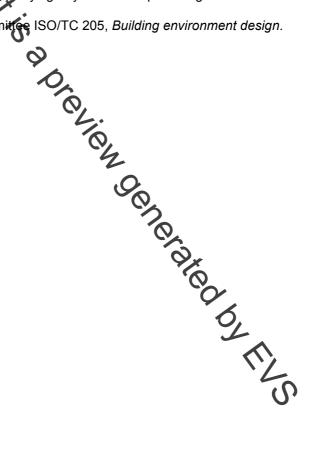
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ISO 16813 was prepared by Technical Committee ISO/TC 205, Building environment design.



## Introduction

This International Standard gives the general principles of building environment design and has been prepared for building designers, i.e. architects, environmental designers and building system designers, as well as building clients, contractors, government officials, and academic staff.

The aim is to assist these groups in applying an effective design process in the pursuit of high-quality indoor environment for the occupants, while also seeking to protect the environment for the future generations. This International Standard provides the framework for sustainability issues to be taken into account in the design constraints from the very early stores of building design and provides the framework for sustainability issues to be taken into account in the design environment for the coupants, while also seeking to protect the environment for the future generations. This international Standard provides the framework for sustainability issues to be taken into account in the design constraints from the very early stages of building design and requires the design drawings and specifications to be evaluated at evely thesign stage according to the criteria provided by other relevant standards.

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## Building environment design — Indoor environment — General principles

## 1 Scope

This International Standard establishes the general principles of building environment design taking into account healthy indoor environment for the occupants, and protecting the environment for future generations. This International Standard promotes an approach in which the various parties involved in building environmental design collaborate with one another to provide a sustainable building environment. The unique features of the design process are articulated by the following aims:

- to provide the constraints concerning sustainability issues from the initial stage of the design process, including building and plant life cycle together with owning and operating costs to be considered at all stages in the design process;
- to assess the proposed design with rational criteria for indoor air quality, thermal comfort, acoustical comfort, visual comfort, energy efficiency and HVAC system controls at every stage of the design process;
- to make iterations between decisions and emutations of the design throughout the design process.

The building environment design involves not only architectural design associated with environmental quality but also environmental system design associated with effective controls. This International Standard is applicable to building environment design for new construction and the retrofit of existing buildings.

## 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 15686-1, Buildings and constructed assets —Service life planning — Part 1: General principles

## 3 Terms and definitions

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

### 3.1

#### acoustic comfort

reaction of occupants to the indoor acoustical environment, described in terms of sound pressure level and audibility

#### 3.2

#### competent person

person who is capable of relating and understanding all the design parameters involved in the design of the building and its associated services