# INTERNATIONAL STANDARD

# ISO
# 14004

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# Environmental management systems — General guidelines on principles, systems and support techniques

*Systèmes de management environnemental — Lignes directrices générales concernant les principes, les systèmes et les techniques de mise en œuvre*

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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 14004 was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 1, *Environmental management systems*.

This second edition cancels and replaces the first edition (ISO 14004:1996), which has been technically revised.

# Introduction

As concern grows for continually improving the quality of the environment, organizations of all types and sizes are increasingly turning their attention to the environmental impacts of their activities, products and services. The environmental performance of an organization is of importance to internal and external interested parties. Achieving sound environmental performance requires organizational commitment to a systematic approach and to continual improvement of an environmental management system (EMS).

The general purpose of this International Standard is to provide assistance to organizations that wish to implement or improve an environmental management system and thereby improve their environmental performance. This International Standard is consistent with the concept of sustainable development and compatible with diverse cultural, social and organizational frameworks and systems of management.

This International Standard can be used by organizations of all types, sizes and levels of maturity, and in all sectors and geographic locations. The special needs of small and medium-sized enterprises (SMEs) are incorporated, and this International Standard accommodates their needs and promotes their use of an environmental management system.

This International Standard is part of the series of environmental management standards established by ISO/TC 207. In this series, only ISO 14001 contains requirements that may be objectively audited for certification/registration purposes or for self-declaration purposes. This International Standard includes examples, descriptions and options that aid both in the implementation of an environmental management system and in strengthening its relation to the overall management of an organization. While the guidelines in this International Standard are consistent with the ISO 14001 environmental management system model, they are not intended to provide interpretations of the requirements of ISO 14001. For ease of use, the subclauses of Clause 4 of ISO 14001 have the same numbering as in ISO 14004. However, the latter has extra subclauses (e.g. 4.3.1.1 or 4.3.3.3), where detailed or additional guidance for an effective environmental management system implementation is considered useful. Apart from this International Standard and ISO 14001, there are numerous other environmental management standards in the series of International Standards established by ISO/TC 207. A reference to and description of these International Standards can be found in the ISO publication *The ISO 14000 Family of International Standards*.

This International Standard describes the elements of an environmental management system and provides organizations with guidance on how to establish, implement, maintain or improve an environmental management system. Such a system can substantially enhance an organization's ability to anticipate, identify and manage its interactions with the environment, meet its environmental objectives and ensure ongoing compliance with applicable legal requirements and with other requirements to which the organization subscribes.

Examples and approaches are presented throughout this International Standard for illustrative purposes. They are not intended to represent the only possibilities, nor are they necessarily suitable for every organization. In designing and implementing or improving an environmental management system, organizations should select approaches that are appropriate to their own circumstances. Environmental management is an integral part of an organization's overall management system. The design of an environmental management system is an ongoing and interactive process. The structure, responsibilities, practices, procedures, processes and resources for implementing environmental policies, objectives and targets can be coordinated with existing efforts in other areas (e.g. operations, finance, quality, occupational health and safety).

For ease of reading and understanding this International Standard, practical help and general guidance have been separated out and are shown as boxed text.

Key tasks for managers establishing, implementing, maintaining or improving an environmental management system include the need to

— recognize that environmental management is among the highest organizational priorities,

— establish and maintain communication and constructive relations with internal and external interested parties,

— identify the environmental aspects of the organization's activities, products and services,

— identify the legal requirements and other requirements to which the organization subscribes, that relate to the organization's environmental aspects,

— ensure the commitment of management and all persons working for or on behalf of the organization to the protection of the environment, with clear assignment of accountability and responsibility,

— encourage environmental planning throughout the product or service life cycle,

— establish a process for achieving environmental objectives and targets,

— provide appropriate and sufficient resources, including training, to comply with applicable legal requirements and with other requirements to which the organization subscribes, and to achieve environmental objectives and targets on an ongoing basis,

— evaluate environmental performance against the organization's environmental policy, objectives and targets and seek improvement where appropriate,

— establish a management process to audit and review the environmental management system and to identify opportunities for improvement of the system and resulting environmental performance, and

— encourage contractors and suppliers to establish an environmental management system.

Organizations may use this International Standard, or related ISO documents, in various ways, including

— as guidance to establish, implement, maintain or improve its environmental management system, knowing that this International Standard is not intended for self-declaration or other conformity assessment purposes, and

— in support of the implementation or improvement of its environmental management system.

The choice will depend on factors such as

— an organization's goals,

— the maturity of an organization's management systems (i.e. whether the organization has a management system in place that is capable of supporting the inclusion of environmental concerns),

— possible advantages and disadvantages, as determined by such factors as an organization's current and desired market position, reputation, external relations and the views of interested parties, and

— the size of an organization.

An effective environmental management system helps an organization to avoid, reduce or control the adverse environmental impacts of its activities, products and services, achieve compliance with applicable legal and requirements and with other requirements to which the organization subscribes and assist in continually improving environmental performance.

Having an environmental management system can help an organization assure interested parties that

— a management commitment exists to meet the provisions of its policy, objectives, and targets,

— emphasis is placed on prevention,

— evidence of reasonable care and regulatory compliance can be provided, and

— the system's design incorporates the process of continual improvement.

Economic benefits can be gained from implementing an environmental management system. An organization whose management system incorporates an environmental management system has a framework to balance and integrate economic and environmental interests. Economic benefits can also be identified to demonstrate

to interested parties the value to the organization of sound environmental management. It also provides the organization with the opportunity to link environmental objectives and targets with specific financial outcomes and thus to ensure that resources are made available where they provide the most benefit in both financial and environmental terms. An organization that has implemented an environmental management system can achieve significant competitive advantages.

In addition to improved environmental performance, the potential benefits associated with an effective environmental management system include

— assuring customers of commitment to demonstrable environmental management,

— maintaining good public/community relations,

— satisfying investor criteria and improving access to capital,

— obtaining insurance at reasonable cost,

— enhancing image and market share,

— improving cost control,

— reducing incidents that result in liability,

— conserving input materials and energy,

— facilitating the attainment of permits and authorizations and meeting their requirements,

— promoting environmental awareness among suppliers, contractors and all persons working for or on behalf of the organization,

— fostering development and sharing of solutions to environmental problems, and

— improving industry-government relations.

# Environmental management systems — General guidelines on principles, systems and support techniques

## 1  Scope

This International Standard provides guidance on the establishment, implementation, maintenance and improvement of an environmental management system and its coordination with other management systems.

NOTE   While the system is not intended to manage occupational health and safety issues, they may be included when an organization seeks to implement an integrated environmental and occupational health and safety management system.

The guidelines in this International Standard are applicable to any organization, regardless of its size, type, location or level of maturity.

While the guidelines in this International Standard are consistent with the ISO 14001 environmental management system model, they are not intended to provide interpretations of the requirements of ISO 14001.

## 2  Normative references

No normative references are cited. This clause is included in order to retain clause numbering identical with the previous edition (ISO 14004:1996).

## 3  Terms and definitions

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

**3.1**
**auditor**
person with the competence to conduct an audit

[ISO 9000:2000, 3.9.9]

**3.2**
**continual improvement**
recurring process of enhancing the **environmental management system** (3.9) in order to achieve improvements in overall **environmental performance** (3.11) consistent with the **organization's** (3.20) **environmental policy** (3.13)

NOTE   The process need not take place in all areas of activity simultaneously.

[ISO 14001:2004, 3.2]

**3.3**
**correction**
action taken to eliminate a detected **nonconformity** (3.18)

NOTE   Adapted from ISO 9000:2000, 3.6.6.

**3.4**
**corrective action**
action to eliminate the cause of a detected **nonconformity** (3.18)

[ISO 14001:2004, 3.3]

**3.5**
**document**
information and its supporting medium

NOTE 1   The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.

NOTE 2   Adapted from ISO 9000:2000, 3.7.2.

[ISO 14001:2004, 3.4]

**3.6**
**environment**
surroundings in which an **organization** (3.20) operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation

NOTE   Surroundings in this context extend from within an **organization** (3.20) to the global system.

[ISO 14001:2004, 3.5]

**3.7**
**environmental aspect**
element of an **organization's** (3.20) activities or products or services that can interact with the **environment** (3.6)

NOTE   A significant environmental aspect has or can have a significant **environmental impact** (3.8).

[ISO 14001:2004, 3.6]

**3.8**
**environmental impact**
any change to the **environment** (3.6), whether adverse or beneficial, wholly or partially resulting from an **organization's** (3.20) **environmental aspects** (3.7)

[ISO 14001:2004, 3.7]

**3.9**
**environmental management system**
**EMS**
part of an **organization's** (3.20) management system used to develop and implement its **environmental policy** (3.13) and manage its **environmental aspects** (3.7)

NOTE 1   A management system is a set of interrelated elements used to establish policy and objectives and to achieve those objectives.

NOTE 2 A management system includes organizational structure, planning activities, responsibilities, practices, **procedures** (3.23), processes and resources.

[ISO 14001:2004, 3.8]

**3.10**
**environmental objective**
overall environmental goal, consistent with the **environmental policy** (3.13), that an **organization** (3.20) sets itself to achieve

[ISO 14001:2004, 3.9]

**3.11**
**environmental performance**
measurable results of an **organization's** (3.20) management of its **environmental aspects** (3.7)

NOTE   In the context of **environmental management systems** (3.9), results can be measured against the **organization's** (3.20) **environmental policy** (3.13), **environmental objectives** (3.10), **environmental targets** (3.14) and other environmental performance requirements.

[ISO 14001:2004, 3.10]

**3.12**
**environmental performance indicator**
**EPI**
specific expression that provides information about an **organization's** (3.20) **environmental performance** (3.11)

[ISO 14031:1999, 2.10]

**3.13**
**environmental policy**
overall intentions and direction of an **organization** (3.20) related to its **environmental performance** (3.11) as formally expressed by top management

NOTE   The environmental policy provides a framework for action and for the setting of **environmental objectives** (3.10) and **environmental targets** (3.14).

[ISO 14001:2004, 3.11]

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**3.14**
**environmental target**
detailed performance requirement, applicable to the **organization** (3.20) or parts thereof, that arises from the **environmental objectives** (3.10) and that needs to be set and met in order to achieve those objectives

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[ISO 14001:2004, 3.12]

**3.15**
**interested party**
person or group concerned with or affected by the **environmental performance** (3.11) of an **organization** (3.20)

[ISO 14001:2004, 3.13]

**3.16**
**internal audit**
systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the environmental management system audit criteria set by the **organization** (3.20) are fulfilled

NOTE   In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.

[ISO 14001:2004, 3.14]

**3.17**
**management performance indicator**
**MPI**
**environmental performance indicator** (3.12) that provides information about the management efforts to influence an **organization's** (3.20) **environmental performance**  (3.11)

[ISO 14031:1999, 2.10.1]

**3.18**
**nonconformity**
non-fulfilment of a requirement

[ISO 9000:2000, 3.6.2]

**3.19**
**operational performance indicator**
**OPI**
**environmental performance indicator** (3.12) that provides information about the **environmental performance** (3.11) of an **organization's** (3.20) operations

[ISO 14031:1999, 2.10.2]

**3.20**
**organization**
company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration

NOTE   For organizations with more than one operating unit, a single operating unit may be defined as an organization.

[ISO 14001:2004, 3.16]

**3.21**
**preventive action**
action to eliminate the cause of a potential **nonconformity** (3.18)

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[ISO 14001:2004, 3.17]

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**3.22**
**prevention of pollution**
use of processes, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission, or discharge of any type of pollutant or waste, in order to reduce adverse **environmental impacts** (3.8)

NOTE   Prevention of pollution can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment.

[ISO 14001:2004, 3.18]

**3.23**
**procedure**
specified way to carry out an activity or a process

NOTE 1   Procedures can be documented or not.

NOTE 2   Adapted from ISO 9000:2000, 3.4.5.

[ISO 14001:2004, 3.19]

**3.24**
**record**
**document** (3.5) stating results achieved or providing evidence of activities performed

NOTE   Adapted from ISO 9000:2000, 3.7.6.

[ISO 14001:2004, 3.20]

# 4 Environmental management system elements

## 4.1 General

### 4.1.1 The environmental management system model

The environmental management system detailed in this International Standard follows a "Plan-Do-Check-Act" (PDCA) management model. The environmental management system model and the ongoing process of continual improvement are illustrated in Figure 1. For more information on the PDCA model, see *Practical help — The environmental management system model.*
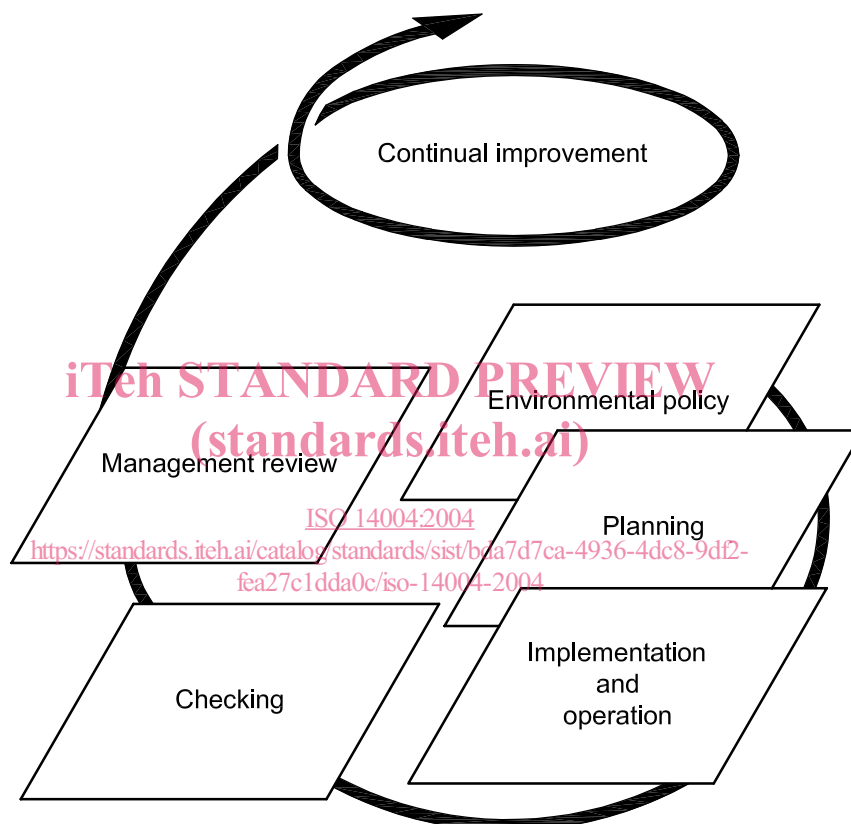
**Figure 1 — Environmental management system model for this International Standard**

An environmental management system is best viewed as an organizing framework that should be continually monitored and periodically reviewed to provide effective direction for an organization's environmental management in response to changing internal and external factors. All levels in the organization should accept responsibility for working to achieve environmental improvements, as applicable.

When first establishing an environmental management system an organization should begin where there is obvious benefit, for example by focusing on immediate cost savings or regulatory compliance mainly related to its significant environmental aspects. As the environmental management system takes shape, procedures, programmes and technologies can be put in place to further improve environmental performance. As the environmental management system matures, environmental considerations can be integrated into all business decisions.