

INTERNATIONAL
STANDARD

ISO
14004

Third edition
2016-03-01

**Environmental management
systems — General guidelines on
implementation**

*Systèmes de management environnemental — Lignes directrices
générales pour la mise en application*



Reference number
ISO 14004:2016(E)

© ISO 2016



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Terms related to organization and leadership.....	2
3.2 Terms related to planning.....	3
3.3 Terms related to support and operation.....	4
3.4 Terms related to performance evaluation and improvement.....	5
4 Context of the organization	6
4.1 Understanding the organization and its context.....	6
4.2 Understanding the needs and expectations of interested parties.....	10
4.2.1 General.....	10
4.2.2 Determining relevant interested parties.....	10
4.2.3 Determining relevant needs and expectations of relevant interested parties.....	10
4.2.4 Determining compliance obligations.....	11
4.2.5 Use and application of the needs and expectations of interested parties.....	11
4.3 Determining the scope of the environmental management system.....	11
4.4 Environmental management system.....	12
4.4.1 General.....	12
4.4.2 Establishing, implementing, maintaining and continually improving an environmental management system.....	13
5 Leadership	14
5.1 Leadership and commitment.....	14
5.2 Environmental policy.....	15
5.3 Organizational roles, responsibilities and authorities.....	18
6 Planning	19
6.1 Actions to address risks and opportunities.....	19
6.1.1 General.....	19
6.1.2 Environmental aspects.....	23
6.1.3 Compliance obligations.....	27
6.1.4 Planning action.....	29
6.2 Environmental objectives and planning to achieve them.....	29
6.2.1 General.....	29
6.2.2 Establishing environmental objectives.....	30
6.2.3 Planning actions to achieve environmental objectives.....	30
6.2.4 Performance indicators.....	31
7 Support	32
7.1 Resources.....	32
7.2 Competence.....	32
7.3 Awareness.....	34
7.4 Communication.....	35
7.4.1 General.....	35
7.4.2 Internal communication.....	36
7.4.3 External communication.....	36
7.5 Documented information.....	37
7.5.1 General.....	37
7.5.2 Creating and updating.....	38
7.5.3 Control of documented information.....	38
8 Operation	39
8.1 Operational planning and control.....	39

8.1.1	General guidance: Operational control.....	39
8.1.2	Identifying needs for operational controls	40
8.1.3	Establishing operational controls.....	41
8.2	Emergency preparedness and response.....	41
9	Performance evaluation	42
9.1	Monitoring, measurement, analysis and evaluation.....	42
9.1.1	General.....	42
9.1.2	Evaluation of compliance	44
9.2	Internal audit.....	45
9.3	Management review.....	46
10	Improvement.....	47
10.1	General.....	47
10.2	Nonconformity and corrective action.....	47
10.3	Continual improvement.....	48
10.3.1	Opportunities for improvement.....	48
10.3.2	Implementation of continual improvement.....	49
Annex A	(informative) Examples of activities, products and services and their associated environmental aspects and environmental impacts, risks and opportunities, and actions.....	50
Annex B	(informative) Phased approach to implementing an environmental management system (based on ISO 14005).....	57
Bibliography	59

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 1, *Environmental management systems*.

This third edition cancels and replaces the second edition (ISO 14004:2004), which has been technically revised.

Introduction

Achieving a balance between the environment, society and the economy is considered essential to meet the needs of the present without compromising the ability of future generations to meet their needs. Sustainable development is a goal achieved by balancing the three pillars of sustainability: the environment, society and the economy.

Organizations, whether public or private, large or small, in developed or in emerging economies, have an impact on the environment and can be affected by the environment in return. There is a growing understanding that human development and well-being are contingent on preserving and conserving our natural resources, upon which all human activity and productivity depend. Achieving sound environmental performance requires organizational commitment to a systematic approach and to continual improvement of an environmental management system.

Societal expectations are driving the need for improved management of the resources necessary to support human development, through greater efficiency, transparency and accountability for all organizations. There are growing pressures on the environment, from climate change, over-consumption of resources and the challenges created by degradation of ecosystems and the loss of biodiversity.

The aim of this International Standard is to provide organizations with guidance for a common framework, in order to establish, implement, maintain and continually improve a system to support better environmental management. This environmental management framework should contribute to the long-term success of the organization and to the overall goal of sustainable development. The framework of a robust, credible and reliable environmental management system is shown in [Figure 1](#). It includes:

- understanding the context in which the organization operates;
- determining and understanding the relevant needs and expectations of interested parties, as they relate to the environmental management system of the organization;
- establishing and implementing an environmental policy and environmental objectives;
- top management taking a leading role in improving environmental performance;
- identifying aspects of the organization's activities, products and services that can result in significant environmental impacts;
- identifying the environmental conditions, including events, that can affect the organization;
- considering the organization's risks and opportunities that need to be addressed in relation to its:
 - environmental aspects;
 - compliance obligations;
 - other issues (see [4.1](#)) and requirements (see [4.2](#));
- increasing awareness of the organization's interaction with the environment;
- establishing operational controls, as appropriate, to manage the organization's significant environmental aspects and compliance obligations, and risks and opportunities that need to be addressed;
- evaluating environmental performance and taking actions, as necessary, for its improvement.

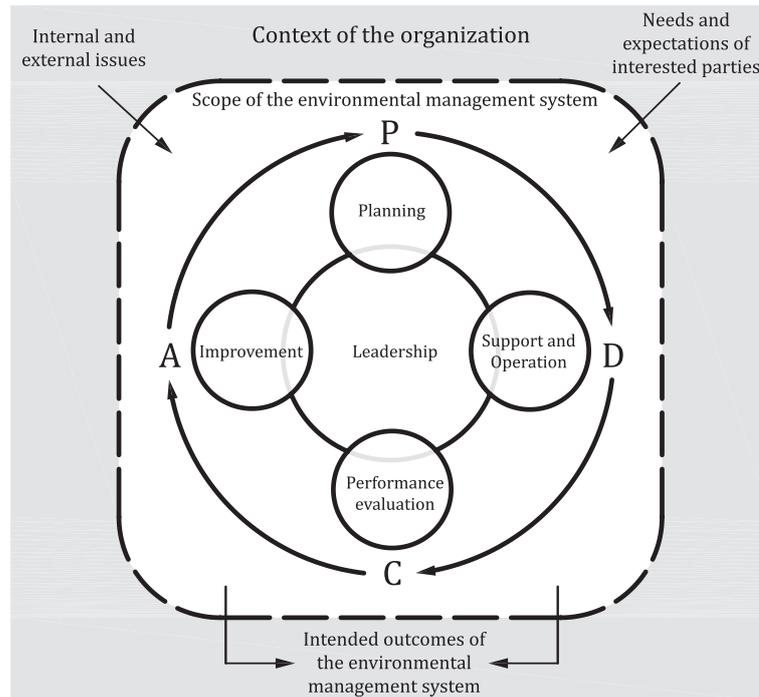


Figure 1 — Environmental management system model for this International Standard

The outcomes of a systematic approach to environmental management can provide top management with quantitative and qualitative data that enables informed business decisions that build long-term success and create options for contributing to sustainable development. The success of the environmental management system depends on commitment from all levels and functions of the organization, led by top management. The opportunities include:

- protecting the environment, including the prevention or reduction of adverse environmental impacts;
- controlling or influencing the way products and services are designed, manufactured, distributed, used and disposed;
- using a life cycle perspective to prevent environmental impacts from being unintentionally shifted elsewhere within the cycle;
- achieving financial and operational benefits that can result from implementing environmentally sound alternatives which strengthen the organization's market position;
- communicating environmental information to relevant interested parties.

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

- assuring customers of the organization's commitment to demonstrable environmental management;
- maintaining good public and community relations;
- satisfying investor criteria and improving access to capital;
- enhancing image and market share;
- improving cost control;
- preventing incidents that result in liability;

ISO 14004:2016(E)

- conserving input materials and energy;
- designing more environmental friendly products;
- facilitating the attainment of permits and authorizations and meeting their requirements;
- promoting environmental awareness among external providers and all persons doing work under the organization's control;
- improving relations between industry and government.

It is possible for an organization to operate an integrated management system that can align with requirements from quality, occupational health and safety and environmental management systems, for example. This approach provides opportunities to reduce duplication and builds in efficiencies.

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. Practical Help Boxes are intended to provide additional information to support the guidance contained within this International Standard.

Environmental management systems — General guidelines on implementation

1 Scope

This International Standard provides guidance for an organization on the establishment, implementation, maintenance and improvement of a robust, credible and reliable environmental management system. The guidance provided is intended for an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

This International Standard helps an organization achieve the intended outcomes of its environmental management system, which provides value for the environment, the organization itself and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include:

- enhancement of environmental performance;
- fulfilment of compliance obligations;
- achievement of environmental objectives.

The guidance in this International Standard can help an organization to enhance its environmental performance, and enables the elements of the environmental management system to be integrated into its core business process.

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

This International Standard is applicable to any organization, regardless of size, type and nature, and applies to the environmental aspects of its activities, products and services that the organization determines it can either control or influence, considering a life cycle perspective.

The guidance in this International Standard can be used in whole or in part to systematically improve environmental management. It serves to provide additional explanation of the concepts and requirements.

While the guidance in this International Standard is consistent with the ISO 14001 environmental management system model, it is not intended to provide interpretations of the requirements of ISO 14001.

2 Normative references

There are no normative references.

3 Terms and definitions

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