INTERNATIONAL STANDARD

ISO 14005

Second edition
2019-05

Environmental management systems — Guidelines for a flexible approach to phased implementation

Systèmes de management environnemental — Lignes directrices pour une approche souple de la mise en oeuvre par phases

Reference number
ISO 14005:2019(E)

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

Published in Switzerland

Contents

Page

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 of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document 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 14005:2010), which has been technically revised throughout.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Organizations face a growing number of challenges caused by the deteriorating state of the natural environment due to human activities. For example, pollution is affecting the use of water, air and land; raw materials and energy costs are becoming more volatile because of the inefficient use and scarcity of non-renewable resources; and threats from storms, flooding or droughts are increasing as a result of rising global temperatures and climate change.

These challenges are causing significant effects on business and society. Regulators, consumers, clients, local communities and other interested parties demand assurances from organizations that their interactions with the environment are responsibly managed and that their activities, products and services are not inducing detrimental environmental impacts.

A systematic approach to environmental management provides the means for the management of business risk and demonstrates a high level of environmental commitment. This enables organizations to respond to the needs and expectations of interested parties. Business benefits of a formalized environmental management system (EMS) include more efficient use of resources, reduced negative effects on the environment, better compliance with legal requirements and improved customer relations.

Many organizations already benefit from a formalized EMS. But many more organizations, particularly small and medium-sized enterprises (SMEs), lack a formal system and therefore lose the benefits that an increased formality can bring. A systematic approach to environmental management can provide long-term success and enable sustainable development. This includes protecting the environment, mitigating the potential adverse effects of environmental conditions on organizations, assisting in the fulfilment of compliance obligations, enhancing environmental performance, preventing environmental impacts from being unintentionally shifted elsewhere within the life cycle, achieving financial and operational benefits, and supporting communication with relevant interested parties.

The full implementation of an EMS across the whole organization at the same time, however, might prove difficult and depends on the availability of staff and other resources. A phased approach allows organizations to develop their EMS gradually over time.

A phased approach offers several advantages. Organizations can readily evaluate how the time and money put into an EMS provide a return. They can develop a system that meets their needs, allowing them to implement it at their own pace, depending on the available human and financial resources. This approach can help organizations to see how improvements in environmental management can reduce costs, demonstrate legal compliance, improve community relations and help to fulfil the expectations of interested parties.

This document shows how organizations can implement an EMS, using a phased approach to ultimately meet the requirements of ISO 14001. Each phase incorporates six consecutive stages. The number of phases is flexible. This allows organizations to develop the scope, i.e. the activities, products and services included, and maturity of their EMS, in line with their objectives and available resources.

The phased approach could, for example, start with a project focusing on a specific environmental aspect, such as the use of energy or natural resources. It could also be used to address the needs of a certain interested party, such as a customer requirement, or to manage a specific issue, such as demonstrating legal compliance. The EMS can be expanded over time by progressing through more phases, e.g. to cover more environmental aspects, to systematically address all relevant needs and expectations of interested parties, or to improve environmental performance beyond legal compliance.

The maturity matrix in Annex A is a tool for measuring the progress of EMS implementation. This is useful to track the achievements of an organization's environmental objectives and associated benefits and to ensure the efficient use of financial and human resources.

The structure of the maturity matrix incorporates rows that correspond to the different EMS elements, as defined in the clauses of ISO 14001:2015. The columns represent five maturity levels. Each element

can be developed incrementally from maturity level 1 through to full maturity in level 5. At this point, the element will satisfy the requirements of the respective clause in ISO 14001:2015.

An assessment sheet that supports the maturity matrix can be found on the website of ISO/TC 207/SC 1, https://committee.iso.org/home/tc207sc1. It follows the same structure as the maturity matrix and helps organizations to determine their level of maturity for each element.

The ISO/TC 207/SC 1 website also provides examples, e.g. on how a company developed a full EMS using the phased approach.

Environmental management systems — Guidelines for a flexible approach to phased implementation

1 Scope

This document gives guidelines for a phased approach to establish, implement, maintain and improve an environmental management system (EMS) that organizations, including small and medium-sized enterprises (SMEs), can adopt to enhance their environmental performance.

The phased approach provides flexibility that allows organizations to develop their EMS at their own pace, over a number of phases, according to their own circumstances. Each phase consists of six consecutive stages. The system's maturity at the end of each phase can be characterized using the five-level maturity matrix provided in Annex A.

This document is applicable to any organization regardless of their current environmental performance, the nature of the activities undertaken or the locations at which they occur.

The phased approach enables an organization to develop a system that ultimately satisfies the requirements of ISO 14001.

The guidance does not cover those elements of specific systems that go beyond ISO 14001 and it is not intended to provide interpretations of the requirements of ISO 14001.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1 Terms related to organization and leadership

3.1.1
management system
set of interrelated or interacting elements of an *organization* (3.1.4) to establish policies and *objectives* (3.2.5) and *processes* (3.3.5) to achieve those objectives

Note 1 to entry: A management system can address a single discipline or several disciplines [e.g. quality, *environment* (3.2.1), occupational health and safety, energy, financial management].

Note 2 to entry: The system elements include the organization's structure, roles and responsibilities, planning and operation, performance evaluation and improvement.

Note 3 to entry: The scope of a management system can include the whole of the organization, specific and identified functions of the organization, specific and identified sections of the organization, or one or more functions across a group of organizations.

[SOURCE: ISO 14001:2015, 3.1.1]

3.1.2
environmental management system
EMS
part of the *management system* (3.1.1) used to manage *environmental aspects* (3.2.2), fulfil *compliance obligations* (3.2.9), and address *risks and opportunities* (3.2.11)

[SOURCE: ISO 14001:2015, 3.1.2]

3.1.3
environmental policy
intentions and direction of an *organization* (3.1.4) related to *environmental performance* (3.4.11), as formally expressed by its *top management* (3.1.5)

[SOURCE: ISO 14001:2015, 3.1.3]

3.1.4
organization
person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its *objectives* (3.2.5)

Note 1 to entry: The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

[SOURCE: ISO 14001:2015, 3.1.4]

3.1.5
top management
person or group of people who directs and controls an *organization* (3.1.4) at the highest level

Note 1 to entry: Top management has the power to delegate authority and provide resources within the organization.

Note 2 to entry: If the scope of the *management system* (3.1.1) covers only part of an organization, then top management refers to those who direct and control that part of the organization.

[SOURCE: ISO 14001:2015, 3.1.5]

3.1.6
interested party
person or *organization* (3.1.4) that can affect, be affected by, or perceive itself to be affected by a decision or activity

EXAMPLE Customers, communities, suppliers, regulators, non-governmental organizations, investors and employees.

Note 1 to entry: To "perceive itself to be affected" means the perception has been made known to the organization.

[SOURCE: ISO 14001:2015, 3.1.6]

3.2 Terms related to planning

3.2.1
environment
surroundings in which an *organization* (3.1.4) operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

[SOURCE: ISO 14001:2015, 3.2.1]

3.2.2
environmental aspect
element of an *organization's* (3.1.4) activities or products or services that interacts or can interact with the *environment* (3.2.1)

Note 1 to entry: An environmental aspect can cause (an) *environmental impact(s)* (3.2.4). A significant environmental aspect is one that has or can have one or more significant environmental impact(s).

Note 2 to entry: Significant environmental aspects are determined by the organization applying one or more criteria.

[SOURCE: ISO 14001:2015, 3.2.2]

3.2.3
environmental condition
state or characteristic of the *environment* (3.2.1) as determined at a certain point in time

[SOURCE: ISO 14001:2015, 3.2.3]

3.2.4
environmental impact
change to the *environment* (3.2.1), whether adverse or beneficial, wholly or partially resulting from an *organization's* (3.1.4) *environmental aspects* (3.2.2)

[SOURCE: ISO 14001:2015, 3.2.4]

3.2.5
objective
result to be achieved

Note 1 to entry: An objective can be strategic, tactical or operational.

Note 2 to entry: Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels [such as strategic, organization-wide, project, product, service and *process* (3.3.5)].

Note 3 to entry: An objective can be expressed in other ways, e.g. as an intended outcome, a purpose, an operational criterion, as an *environmental objective* (3.2.6), or by the use of other words with similar meaning (e.g. aim, goal, or target).

[SOURCE: ISO 14001:2015, 3.2.5]

3.2.6
environmental objective
objective (3.2.5) set by the *organization* (3.1.4) consistent with its *environmental policy* (3.1.3)

[SOURCE: ISO 14001:2015, 3.2.6]

3.2.7
prevention of pollution
use of *processes* (3.3.5), 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* (3.2.4)

Note 1 to entry: 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; or treatment.

[SOURCE: ISO 14001:2015, 3.2.7]

3.2.8
requirement
need or expectation that is stated, generally implied or obligatory

Note 1 to entry: "Generally implied" means that it is custom or common practice for the *organization* (3.1.4) and *interested parties* (3.1.6) that the need or expectation under consideration is implied.

Note 2 to entry: A specified requirement is one that is stated, for example in *documented information* (3.3.2).

Note 3 to entry: Requirements other than legal requirements become obligatory when the organization decides to comply with them.

[SOURCE: ISO 14001:2015, 3.2.8]

3.2.9
compliance obligations (preferred term)
legal requirements and other requirements (admitted term)
legal *requirements* (3.2.8) that an *organization* (3.1.4) has to comply with and other requirements that an organization has to or chooses to comply with

Note 1 to entry: Compliance obligations are related to the *environmental management system* (3.1.2).

Note 2 to entry: Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organizational and industry standards, contractual relationships, codes of practice and agreements with community groups or non-governmental organizations.

[SOURCE: ISO 14001:2015, 3.2.9]

3.2.10
risk
effect of uncertainty

Note 1 to entry: An effect is a deviation from the expected — positive or negative.

Note 2 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

Note 3 to entry: Risk is often characterized by reference to potential "events" (as defined in ISO Guide 73:2009, 3.5.1.3) and "consequences" (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

[SOURCE: ISO 14001:2015, 3.2.10]

3.2.11
risks and opportunities
potential adverse effects (threats) and potential beneficial effects (opportunities)

[SOURCE: ISO 14001:2015, 3.2.11]

3.3 Terms related to support and operation

3.3.1
competence
ability to apply knowledge and skills to achieve intended results

[SOURCE: ISO 14001:2015, 3.3.1]

3.3.2
documented information
information required to be controlled and maintained by an *organization* (3.1.4) and the medium on which it is contained

Note 1 to entry: Documented information can be in any format and media, and from any source.

Note 2 to entry: Documented information can refer to:

— the *environmental management system* (3.1.2), including related *processes* (3.3.5);

— information created in order for the organization to operate (can be referred to as documentation);

— evidence of results achieved (can be referred to as records).

[SOURCE: ISO 14001:2015, 3.3.2]

3.3.3
life cycle
consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal

Note 1 to entry: The life cycle stages include acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal.

[SOURCE: ISO 14001:2015, 3.3.3]

3.3.4
outsource, verb
make an arrangement where an external *organization* (3.1.4) performs part of an organization's function or *process* (3.3.5)

Note 1 to entry: An external organization is outside the scope of the *management system* (3.1.1), although the outsourced function or process is within the scope.

[SOURCE: ISO 14001:2015, 3.3.4]

3.3.5
process
set of interrelated or interacting activities which transforms inputs into outputs

Note 1 to entry: A process can be documented or not.

[SOURCE: ISO 14001:2015, 3.3.5]

3.4 Terms related to performance evaluation and improvement

3.4.1
audit
systematic, independent and documented *process* (3.3.5) for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

Note 1 to entry: An internal audit is conducted by the *organization* (3.1.4) itself, or by an external party on its behalf.

Note 2 to entry: An audit can be a combined audit (combining two or more disciplines).

Note 3 to entry: Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest.

Note 4 to entry: "Audit evidence" consists of records, statements of fact or other information which are relevant to the audit criteria and are verifiable; and "audit criteria" are the set of policies, procedures or *requirements* (3.2.8) used as a reference against which audit evidence is compared, as defined in ISO 19011:2018, 3.9 and 3.7, respectively.

[SOURCE: ISO 14001:2015, 3.4.1, modified — The reference to ISO 19011 has been updated to the latest edition.]

3.4.2
conformity
fulfilment of a *requirement* (3.2.8)

[SOURCE: ISO 14001:2015, 3.4.2]

3.4.3
nonconformity
non-fulfilment of a *requirement* (3.2.8)

Note 1 to entry: Nonconformity relates to requirements in this document and additional *environmental management system* (3.1.2) requirements that an *organization* (3.1.4) establishes for itself.

[SOURCE: ISO 14001:2015, 3.4.3]

3.4.4
corrective action
action to eliminate the cause of a *nonconformity* (3.4.3) and to prevent recurrence

Note 1 to entry: There can be more than one cause for a nonconformity.

[SOURCE: ISO 14001:2015, 3.4.4]

3.4.5
continual improvement
recurring activity to enhance *performance* (3.4.10)

Note 1 to entry: Enhancing performance relates to the use of the *environmental management system* (3.1.2) to enhance *environmental performance* (3.4.11) consistent with the *organization's* (3.1.4) *environmental policy* (3.1.3).

Note 2 to entry: The activity need not take place in all areas simultaneously, or without interruption.

[SOURCE: ISO 14001:2015, 3.4.5]

3.4.6
effectiveness
extent to which planned activities are realized and planned results achieved

[SOURCE: ISO 14001:2015, 3.4.6]

3.4.7
indicator
measurable representation of the condition or status of operations, management or conditions

[SOURCE: ISO 14001:2015, 3.4.7]

3.4.8
monitoring
determining the status of a system, a *process* (3.3.5) or an activity

Note 1 to entry: To determine the status, there might be a need to check, supervise or critically observe.

[SOURCE: ISO 14001:2015, 3.4.8]

3.4.9
measurement
process (3.3.5) to determine a value

[SOURCE: ISO 14001:2015, 3.4.9]

3.4.10
performance
measurable result

Note 1 to entry: Performance can relate either to quantitative or qualitative findings.

Note 2 to entry: Performance can relate to the management of activities, *processes* (3.3.5), products (including services), systems or *organizations* (3.1.4).

[SOURCE: ISO 14001:2015, 3.4.10]

3.4.11
environmental performance
performance (3.4.10) related to the management of *environmental aspects* (3.2.2)

Note 1 to entry: For an *environmental management system* (3.1.2), results can be measured against the *organization's* (3.1.4) *environmental policy* (3.1.3), *environmental objectives* (3.2.6) or other criteria, using *indicators* (3.4.7).

[SOURCE: ISO 14001:2015, 3.4.11]

3.5 Other terms

3.5.1
maturity level
level of achievement in the implementation *process* (3.3.5) measured on a scale of maturity for *environmental management system* (3.1.2) elements

Note 1 to entry: The maturity matrix (see Annex A) in this document uses a scale of five maturity levels.

Note 2 to entry: "Element" reflects the *requirements* (3.2.8) in each clause and subclause in ISO 14001:2015, Clauses 4 to 10.

4 Benefits of a flexible, phased approach

The use of a systematic approach to environmental management has a number of benefits for organizations, including:

— meeting the needs and expectations of interested parties, including demonstrating legal compliance and improving relations with local communities;

— delivering cost savings (e.g. reducing the cost of energy, materials and other resources);

— improving their reputation with interested parties.

Using a phased approach to implement the EMS has a number of additional benefits for organizations, particularly SMEs or those with limited resources. The phased approach offers flexibility that allows an organization to:

— develop an EMS at its own pace;

— decide the scope of implementation and expand it to suit its resources;

— decide the number of phases it undertakes and the level of maturity it wants its EMS to achieve;

— start with areas that indicate the greatest potential for environmental improvement and returns on investment;

— prioritize environmental performance improvement (e.g. improvement with respect to material and energy efficiency, or to a specific waste stream);

— stimulate a positive culture towards environmental management;

— expand an existing EMS towards meeting the requirements of ISO 14001.

5 Fundamentals of an environmental management system

5.1 General

A management system is a framework of policies, processes and procedures, which ensures that organizations can fulfil all the tasks required to achieve their objectives.

An EMS is an integral part of an organization's overall management system. It is used to manage an organization's interactions with the environment in a planned and systematic way. An EMS addresses the actual and potential impacts of an organization's activities, products and services on the environment and the relevant needs and expectations of its interested parties. It considers adverse and beneficial effects that the environment might have on an organization. An EMS enables an organization to achieve intended outcomes, including the enhancement of environmental performance, fulfilment of compliance obligations and achievement of environmental objectives.

Organizations should integrate environmental management into existing business processes and structures, and amend these where necessary.

Involving employees and encouraging their participation and contribution in all stages can provide significant benefits and improvements to EMS implementation and outcomes.

An EMS can cover all environmental aspects or a particular set of these, depending on the scope of an organization's activities and priorities.

An effective EMS is founded on the concept of Plan-Do-Check-Act (PDCA). The PDCA model provides an iterative process used by an organization to achieve continual improvement of the system itself and its intended outcomes. It can be applied to the EMS as a whole and to each of its elements individually. The approach can be briefly described as follows.

— Plan: Establish objectives and processes necessary to deliver results in accordance with the organization's overall policy.

— Do: Implement the processes as planned.

— Check: Monitor and measure the effectiveness of processes, considering the organization's policy commitments, planned actions, objectives and operating criteria, and report the results.

— Act: Take actions to continually improve.

ISO 14001 provides a comprehensive framework for environmental management and specifies the elements of an EMS. Figure 1 shows the relationship between PDCA and the framework of ISO 14001.

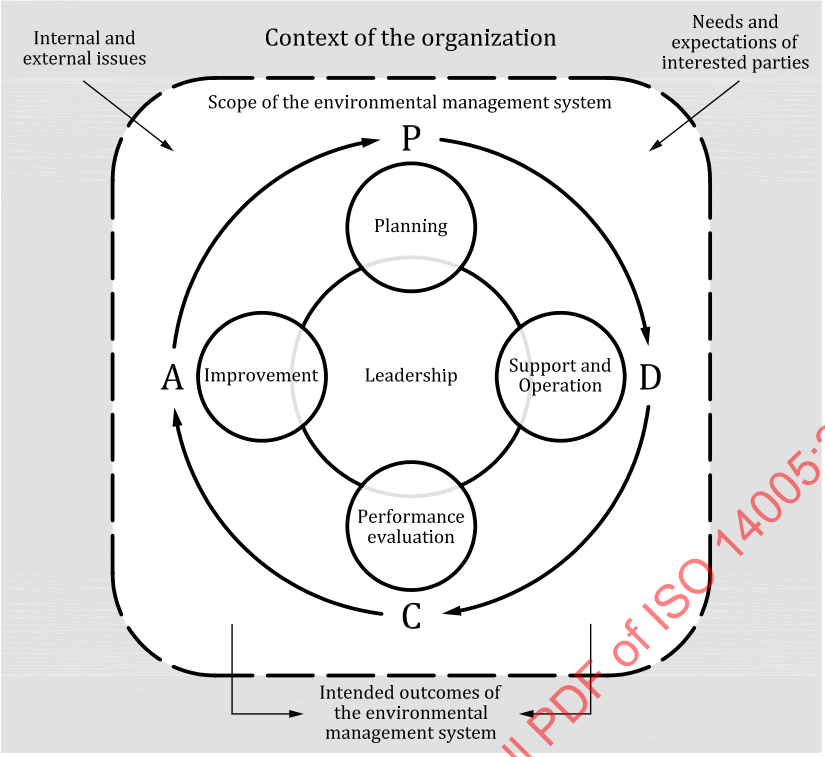


Figure 1 — Relationship between PDCA and the framework of ISO 14001:2015

5.2 Leadership and commitment

Leadership and commitment at all management levels are essential for the effectiveness of an EMS. Leaders can demonstrate commitment by taking responsibility for the system and providing direction, inspiration and motivation. They should ensure that human and financial resources are available, responsibilities and authorities are assigned to relevant personnel, and that appropriate action is taken.

The environmental policy establishes the strategic direction of an organization with respect to environmental management and performance, thus policy commitments are the foundation for the organization's EMS. Top management of an organization should establish the environmental policy and formally communicate, internally and externally, its commitment to protect the environment, fulfil compliance obligations, and continually improve the system to enhance environmental performance.

5.3 Context-based planning

Planning is critical for determining and taking the actions needed to ensure the EMS can achieve its intended outcomes. Planning enables the organization to adequately respond to:

— significant environmental aspects (to improve environmental performance and avoid pollution and other adverse environmental impacts);

— compliance obligations;

— risks and opportunities that need to be addressed.

Planning is an ongoing process, used to establish, implement, maintain and improve the EMS elements. The planning process can help an organization identify, and focus its resources on, those areas that are most important for reducing adverse environmental impacts, and for enhancing beneficial impacts on the environment.

NOTE Significant environmental aspects can result in risks and opportunities associated with either adverse environmental impacts (threats) or beneficial environmental impacts (opportunities).

When planning the implementation, maintenance and improvement of an EMS, an organization should understand the context within which it operates. This includes a review to understand what can affect the organization's ability to meet the intended outcomes of its EMS:

— internal issues, e.g. activities, products and services, and financial and other resources;

— external issues, e.g. regulatory and technological circumstances;

— the needs and expectations of interested parties.

A review can help an organization to identify and address relevant issues and areas for improvement within the scope of its EMS, taking account of associated risks and opportunities. An understanding of the issues relevant to the system includes knowledge of environmental conditions that are affected by an organization's activities, as well as those capable of affecting an organization (e.g. environmental conditions related to climate, air quality, water quality, land use, existing contamination, natural resource availability and biodiversity).

Internal interested parties can include the owner(s), investors and shareholders of the organization, as well as its management, employees and their representatives. External interested parties can include customers, suppliers, business partners, neighbours, communities, governmental authorities, regulatory bodies, professional and trade associations, social partners and NGOs. Information on relevant needs and expectations can come from an interested party actively engaging with the organization or from a dialogue with interested parties initiated by the organization.

Determining the relevant needs and expectations of interested parties is the starting point to determine the compliance obligations of an organization. An organization will typically determine the legal requirements and contractual commitments that are mandatory. It will then consider other relevant needs and expectations of its interested parties and decide if it will adopt them as compliance obligations. Then it will determine how all its compliance obligations are to be addressed by the EMS.

Based on an overall understanding of its context, an organization should carefully determine which elements of its activities, products and services have or can have impact(s) on the environment, and to what extent. These elements are called "environmental aspects". An organization should determine the environmental aspects and impacts related to those activities that it can control or influence, while also considering the life cycle stages of its products and services. When determining environmental aspects and impacts, an organization should consider past, current and future activities as well as normal and abnormal operating conditions, including emergency situations.

An organization should establish criteria to determine which of its environmental aspects are significant. Table 1 provides examples of methods for determining those aspects that have, or can have, significant impact(s) on the environment.

Table 1 — Determining the significance of environmental aspects

Principle of determination	Methods
Criteria	Criteria for significance should be chosen primarily based on environmental considerations, such as scale, severity and duration of the impact or type, size and frequency of an environmental aspect. Other criteria can also be applied, e.g. legal requirements (such as emission and discharge limits in permits or regulations), the concerns of internal and external interested parties (such as those related to organizational values and public image) and community or employee concerns. However, these other criteria should not be applied in a manner that could downgrade an aspect that would otherwise be significant based on environmental impact.
Environmental competence	The organization should involve people who have the ability to apply knowledge and skills to achieve intended results with regard to environmental issues. If competent persons are not available in the organization, it may seek help from professionals and other external entities, such as trade associations, local regulatory agencies, universities, NGOs and other outside competent entities.
Consistent methodology	While complex analysis and measurements may not be necessary for all SMEs (depending on the range of their activities), it is important to use a consistent and repeatable routine.

Significant environmental aspects, compliance obligations and other relevant issues and requirements, identified as part of an organization's context, can result in risks and opportunities that need to be addressed within the EMS. To do this, an organization should establish environmental objectives or plan other appropriate actions, e.g. introduce an operational control. Establishing and reviewing environmental objectives and implementing processes to achieve them provides a basis for the organization to systematically improve environmental performance in some areas, while maintaining its level of environmental performance in others. Environmental objectives should be in line with the environmental policy and be balanced with other organizational goals.

5.4 Operation

Information generated in the planning process is important when determining operations that have to be controlled. Operational control can relate to significant environmental aspects, compliance obligations, and risks and opportunities that need to be addressed. Operational control can also help achieve environmental objectives, which in turn supports the organization's policy commitments.

Operational controls can be applied directly to the processes performed by an organization, as well as across the whole life cycle of its products and services, including the management of external providers and outsourced processes. Site-based processes can include, for example, research and development, product design, sales, marketing, procurement and facility management. Life cycle stages include acquisition of raw materials, product design, production, transportation/delivery, use, reuse, end-of-life treatment and final disposal.

Operational controls can take various forms, such as work instructions, physical controls, use of competent personnel, or any combination of these. Operational controls can be chosen applying the following hierarchy of control:

— eliminate the hazard;

— substitute with less hazardous materials or processes;

— use engineering controls;

— use administrative controls.

Table 2 provides an example application of this hierarchical approach.

Table 2 — Example of operational control

A small company has identified, as one of its significant aspects (occurring in abnormal circumstances), that, during the filling of a tank containing oil to fuel its boiler, oil could overflow through the tank vent. The company examined possible controls and decided that the elimination of oil or substitution with a less hazardous oil would not be feasible in the short term and the most proactive and effective way to rectify this situation would be to use engineering controls by installing a closed-circuit refuelling system with automatic shut-off valves. However, an investigation revealed that the fuel supplier had no such equipment and was using a hand-operated open-circuit system to refuel the tank. The introduction of a closed-circuit system would be very expensive. This left the company to consider a reactive approach to controlling this situation by introducing both engineering and administrative controls, as follows. — The engineering control they decided to use was placing a secondary containment (i.e. building a brick wall with an oil proof coating) around the tank. They had considered installing a float-operated shut-off valve, but were concerned about its reliability and chose to use containment instead. — As an administrative control, they also decided to include a requirement in the fuel supplier's contract that, during the filling process, the nozzle must not be left unattended and the oil level must be monitored by the operator at all times. — As a second administrative control, a caution notice was written and placed adjacent to the fuelling point, reminding operators not to leave the filling point while fuelling was in progress and to visually monitor the oil level in the tank. The company concluded that, despite the implemented control measures, continuing to fuel the boiler with oil would not eliminate the likelihood of pollution. It decided to investigate how water could be heated using alternative energy sources and to set an environmental objective to follow up on this action.

5.5 Performance evaluation

Assessing how well the EMS is performing is critical for determining whether an organization's intended outcomes are being achieved. An organization should monitor, measure, analyse and evaluate the effectiveness of its EMS in delivering improvements of environmental performance.

Performance evaluation includes a review of:

— the effectiveness of the system in supporting actions to address significant environmental aspects, compliance obligations, and risks and opportunities that need to be addressed,

— the status of achieving environmental objectives against appropriate indicators,

NOTE An appropriate indicator could be an environmental performance indicator that provides information related to the organization's management of its significant environmental aspects and demonstrates the results of its environmental management programmes. (Environmental performance indicators are defined in ISO 14031:2013, 3.11.)

— the progress in meeting the organization's compliance obligations,

— the delivery of planned internal audit programmes and whether these provide management with relevant information about how well the EMS is performing, including the identification of improvement opportunities, and

— the periodic assessment of the system's continuing suitability, adequacy and effectiveness, as directed by the organization's top management.

5.6 Improvement

Continual improvement is key to an effective EMS to ensure environmental performance is improved. It can mean achievement of more ambitious environmental objectives or system enhancement. Organizations should strive for improvement, based on the results of the performance evaluation, including the corrective action of nonconformities.

5.7 Supporting activities and processes

EMS-supporting activities and processes include:

— the provision of resources;

— the enhancement of environmental management capabilities through competence, awareness and communication;

— the maintenance, retention or control of relevant documented information.

Appropriate resources should be provided to support establishment, implementation, maintenance and continual improvement. Resources can be internal and external. They can include infrastructure, information systems, competence, technology, financial, human and other resources specific to an organization's activities, products and services.

Persons assigned a role related to the EMS must be competent to perform that role. This includes employees and contractors whose work can affect the organization's environmental performance or compliance obligations. An organization should determine the necessary competence for such a specific role and provide appropriate training and education, taking into account existing experience.

An organization, especially its top management, should raise awareness for the EMS and environmental performance. Awareness enhances knowledge and encourages a proactive environmental approach from persons doing work under the organization's control, which can ultimately contribute to the achievement of environmental objectives and enhanced environmental performance.

Communication is about providing information relevant to an organization's EMS, including environmental commitments, actions and performance, as well as feedback on the adequacy, efficiency and effectiveness of system elements and processes. Internal communication facilitates the coordination of activities, aids problem solving, and enables an organization to celebrate its progress. Communicating with employees and others who work under the control of an organization is important to provide assurance that the EMS requirements are understood and implemented. Proactive and credible external communication can help to build trust and confidence with interested parties. Customers, suppliers, community members, regulatory agencies and investors all have an interest in an organization's practices and environmental performance. It is a good practice to develop an environmental communication strategy; Table 3 shows an example adapted to an SME.

Relevant and appropriately documented information should be developed and controlled by an organization to ensure that its EMS is operating effectively, is understood by persons working under its control and other interested parties, and that processes associated with the system are carried out as planned.

Table 3 — Example of an SME environmental communication strategy

A small engineering company recently implemented an EMS and wants to communicate this news to their various interested parties, but recognizes that each of them can require different types of information as follows.

Internal interested parties

— Board members require information on environmental performance and progress of the system.

— Managers need to know about performance evaluation and future objectives.

— Staff and contractors require detailed work instructions to ensure performance criteria are met and future objectives are recognized.

External interested parties

— Local communities are concerned about noise and light pollution; this information was communicated to site managers.

— Investors and insurers want to know about current compliance obligations, and about all risks associated with the company's activities, products and services or effects from the external environment.

— Clients want information about the EMS and the life cycle impacts associated with various products.

The company considers a variety of communication techniques to communicate the development, including the following:

— a website with details of their environmental policy and performance, which could be compiled into an environmental report (see below);

— an email containing detailed work instructions and related environmental regulations, which could be sent to targeted individuals and contractors;

— posters to explain its commitment to improve environmental performance and why this is important;

— consultation meetings with residents to discuss local concerns and to explain the organization's commitment to environmental protection.

To support its communication strategy, the company also considers producing an environmental report, which could include the following information:

— an explanation of their environmental policy and future strategy;

— an inventory of environmental aspects and related impacts of activities, products and services;

— a list of relevant environmental legislation and regulations;

— data from environmental performance evaluations and related indicators;

— details of those who have responsibility for the EMS and other environmental roles;

— a summary of environmental performance, including
  — progress on meeting policy aims,
  — objectives being met, and
  — outstanding issues, including nonconformity.

An environmental report could be signed by the managing director/owner and published on the company's website.

NOTE An organization can decide to produce an externally validated environmental statement. While this is not a requirement of ISO 14001, it is one example of good communication practice.

6 Phased approach

6.1 General

A phased approach is a structured way of establishing and implementing an EMS that allows organizations to develop their system from different starting points, e.g. based on their maturity level.

A phased approach provides familiarity with the basic elements of an EMS, allows an organization to track legal compliance and experience some of the benefits of managing environmental aspects in a systematic way, and secures management support for implementing it to the full extent.

Once an organization has decided to follow the phased approach it can start, for example, with an environmental performance initiative or an environmental improvement project that focuses on one or more of the following options:

— selected environmental aspects;

— specific EMS elements, such as the fulfilment of compliance obligations (e.g. specific needs and expectations of interested parties) or communication;

— increasing the maturity of certain elements, such as ensuring that the organization's existing environmental policy is taken into account in day-to-day decision making and operations.

Implementation of an EMS does not need to start from scratch, but can build on formal and informal structures already in place.

The phased approach, as described in this document, allows for a series of iterations, with each new phase building on the preceeding phase to achieve a desired level of maturity.

Each phase consists of the following six stages (see Figure 2):

— define intended outcomes of the phase, e.g. characterized by a set of environmental performance indicators;

— assess EMS status;

— select areas for EMS improvement (related to system maturity or scope);

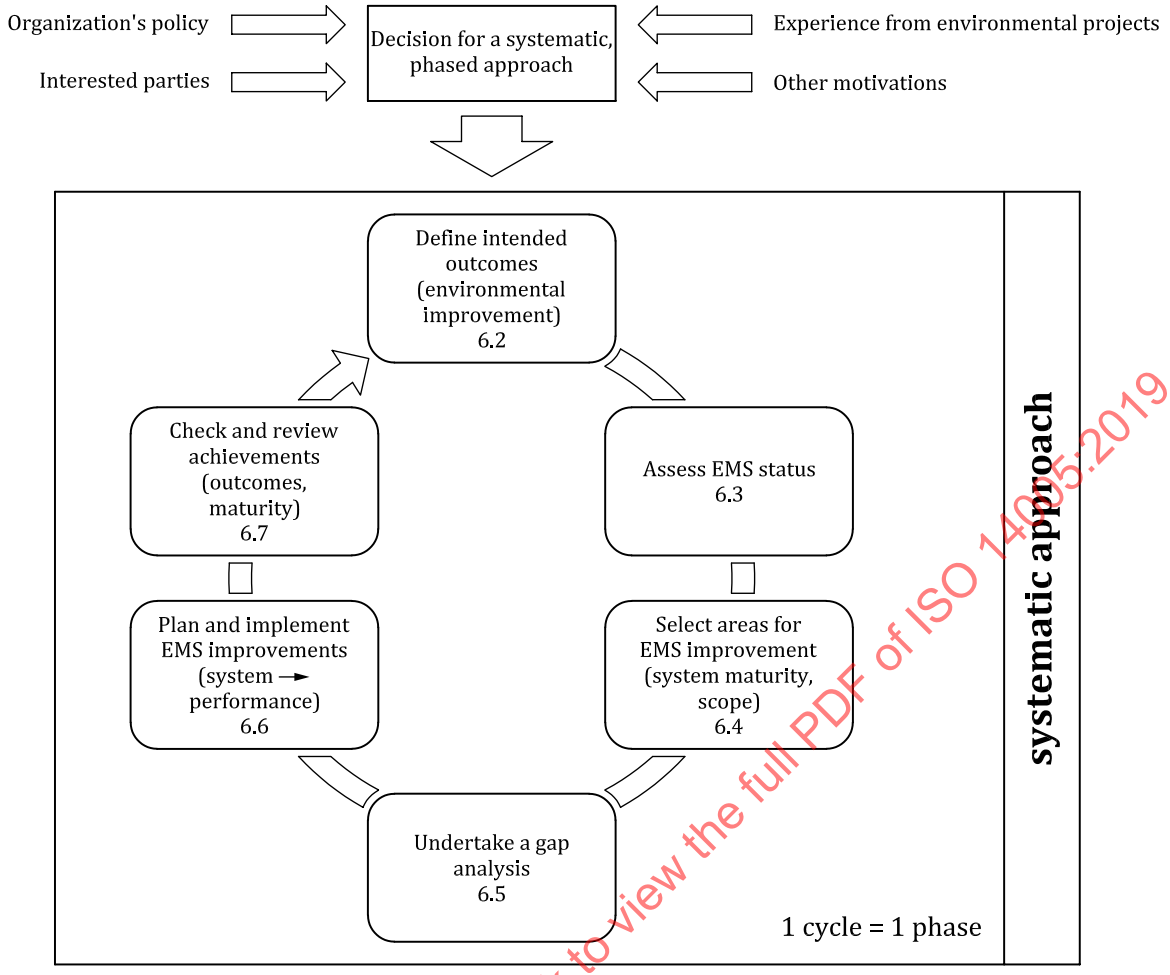
— undertake a gap analysis (as defined in 6.5);

— plan and implement EMS improvements to enhance environmental performance;

— check and review achievements (related to outcomes, maturity).

Each of these stages is described in 6.2 to 6.7.

The overall aim is to enable an organization to fulfil the requirements of ISO 14001, if it so wishes. A phased approach could also be applied to a system going beyond ISO 14001 in certain elements or a single-aspect or single-process EMS.



NOTE Boxes in Figure 2 correspond to stages; one cycle corresponds to one phase.

Figure 2 — Conceptual model for a phase with the different stages

The organization should retain documented information on the implementation process as a basis for planning and implementing improvements, and as evidence of achievements.

6.2 Define intended outcomes of the phase

When starting a phase, an organization typically aims at environmental improvement. This can be directed towards improving environmental performance or responding to internal or external needs and expectations. Improvement related to environmental management includes, for example, improvement related to a specific environmental aspect, improving relations with interested parties or fulfilling compliance obligations. An outcome of a phase will be a defined improvement of at least one of these.

Another motivation for a phased approach can be to identify the status and potential weaknesses of a given EMS, including assessing results of improvement actions. The outcomes of a phase will be the identified gaps and areas where an existing system could be improved to meet the organization's objectives (including meeting the requirements specified in ISO 14001).

Understanding the organization's context, identifying significant environmental aspects and determining environmental compliance obligations will provide input for defining the intended outcomes of the phase.

6.3 Assess EMS status

Organizations should assess whether the scope and maturity of their current EMS is appropriate to achieve the intended outcomes. They should compare existing practices and processes with what would be required to achieve the intended outcomes as defined in 6.2.

Existing practices and processes are assessed using the maturity matrix (see Annex A), in order to determine already implemented EMS elements and to what extent they are in place. The rows in the matrix correspond to the elements, as defined in ISO 14001:2015, and the columns reflect the progressive levels of maturity towards the fulfilment of the respective ISO 14001:2015 requirements. An assessment sheet (see the ISO/TC 207/SC 1 website) supplements the maturity matrix, following the same structure. It helps organizations to determine their level of maturity for each element.

The results of the EMS assessment provide input for selecting areas for improvement (see 6.4).

6.4 Select areas for EMS improvement

The output of the preceding stage enables organizations to determine and select one or several areas for improvement of its EMS.

Those areas could be related to the scope, including expanding the range of environmental aspects, compliance obligations or business processes addressed in the EMS, and/or enhancing the maturity of the system, as described in Table 4 (see examples 1 and 2, respectively).

Table 4 — Examples on areas for improvements

Example 1 Scope	An organization initially has an EMS dealing with energy only and decides to include water consumption. Therefore, it needs to expand the scope to activities, products and services with significant water consumption.
Example 2 Maturity	To effectively manage water consumption, the organization defines the required maturity of certain EMS elements by conducting a gap analysis (see 6.5).

6.5 Undertake a gap analysis

Based on the area(s) an organization has selected to improve, it should assess which maturity level is necessary for each of the EMS elements to achieve the intended outcomes. It should then determine the gap between the required maturity levels and the existing ones, guided by the maturity matrix (see Annex A). The organization will then determine the related actions that it should take to fill that gap.

For example, if an organization has decided to expand the scope (see 6.4), it should assess whether existing environmental management practices and processes need to be expanded in line with the new scope. In this scenario, either the elements covered by the existing EMS would need to be enhanced to cover the broader scope or a different maturity level would need to be implemented. Depending on the choices made, the necessary actions could be derived from the maturity matrix.

NOTE Another application of the maturity matrix can be to conduct a gap analysis of an existing EMS in the wider business, scientific or political context. Business context can mean supplier assessment, due diligence investigations or management of outsourced processes. Scientific or political context can include assessment of other sustainability or environmental management approaches with respect to overlap with ISO 14001 requirements.

6.6 Plan and implement EMS improvements

Actions to achieve the selected system improvements and the intended outcomes should be planned. An action plan includes, as a minimum, the following items:

— select EMS improvements and associated environmental objectives;

— define appropriate environmental performance indicators;

— confirm actions necessary to achieve desired result;

— assign responsibilities for implementation;

— ensure resources are available (human and financial);

— define required competence and adequate training;

— set timescales;

— identify communication needs.

The action plan should be implemented and monitored with regard to timescales, achievement of milestone results and resource use. Appropriate actions should be taken, where necessary, to ensure that the improvement actions progress according to the plan.

6.7 Check and review achievements

At the end of a phase, organizations should undertake a review of the implemented improvement actions.

For each selected improvement action, the organization should check:

— whether planned actions have been adequately implemented;

— what level of environmental performance has been achieved (progress with respect to performance indicators);

— whether resources (financial and human) were adequate to fulfil the action plan;

— whether planned business outcomes have been achieved;

— if there were delays or other deviations from the action plan;

— how roles, responsibilities and performance have been managed;

— any possible consequences for business processes or the organizational structure;

— if there were other costs and benefits related to the project, including possible feedback from interested parties.

The organization should summarize the results for the improvement actions in a concluding evaluation report.

The organization should then decide whether to proceed with the implementation of an EMS that meets the full requirements of ISO 14001. Alternatively, it can decide to undertake another set of improvement actions.

An example of implementation of an EMS by an SME using the phased approach is provided on the ISO/TC 207/SC 1 website.

Annex A
(informative)

Using a maturity matrix to implement an EMS

This annex contains a maturity matrix to assess the level of maturity of an organization's existing EMS and to track the progress during implementation. The maturity matrix in Table A.1 follows the format of the matrix in ISO 14005:2010, but is updated to cover ISO 14001:2015 requirements.

An organization can assess compatibility of its existing management approaches with the requirements of ISO 14001:2015 by comparing the existing level of maturity of its management system elements with the respective EMS requirements in the maturity matrix.

Table A.1 enables an organization to assess the status and level of maturity of its EMS and is used to track improvements and to monitor the efficiency of financial or human resources used.

The rows of the maturity matrix correspond to the EMS elements, as defined in ISO 14001:2015. The five columns represent five maturity levels, where each element corresponding to the relevant clause of ISO 14001:2015 can be developed incrementally. An EMS satisfying maturity level 1 (column 1) through to full maturity at level 5 (column 5) meets the requirements for a particular clause of ISO 14001:2015.

Each cell of the matrix represents only those requirements that are needed to complete that level of maturity for this selected EMS element. For example, a cell representing maturity level 3 explains the requirements needed to complete level 3, provided that requirements in preceding levels 1 and 2 also have been met.

Maturity levels 1 and 5 are clearly defined. Level 1 corresponds to a basic understanding of a particular element. Levels 2 to 4 in the matrix do not reflect any specific characteristic of a management system, but have been set to help the organization progress through the maturity matrix. An organization that meets the requirements at level 5 has achieved the level of maturity that satisfies the requirements for a certain ISO 14001:2015 element.

Having decided to start an environmental improvement project, the organization will first determine which EMS elements it considers to be relevant for the intended outcomes. It will then select a level of maturity for each of the relevant elements. This can be a trial and error process. If the intended outcomes are not achieved, the maturity levels may need to be enhanced, resulting in a modified or new project.

Table A.1 — Maturity matrix

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
Context of the organization (see ISO 14001:2015, Clause 4)					
4.1 **Understanding the organization and its context**	The organization is aware of external and internal issues that are relevant to its purpose. Issues are important topics for the organization, problems for debate and discussion, or changing circumstances.	The organization is aware that the issues can affect its ability to achieve the intended outcomes of its EMS.	The issues include environmental conditions being affected by or capable of affecting the organization's external circumstances and internal conditions.	The organization has implemented a method to determine external and internal issues that are relevant to its purpose, and their influence on achieving intended outcomes. The organization determines which external issues (environmental conditions, other circumstances) could be affected by or affect the organization, and how it can be affected by internal issues (characteristics of the organization including activities, products and services).	The organization determines which of the relevant internal and external issues should be included in the EMS.
4.2 **Understanding the needs and expectations of interested parties**	The organization is aware that persons/groups (internal or external) can be interested in or affected by the activities, products or services of the organization.	The organization has determined the interested parties that are relevant to its EMS. The organization understands the needs and expectations as communicated by relevant persons/groups concerned and who can be affected by the activities, products or services of the organization.	The organization has determined which of the needs and expectations of relevant interested parties should become compliance obligations.	The organization has ensured that mandatory compliance obligations are taken into account when planning the EMS.	The mandatory and the voluntarily adopted compliance obligations are taken into account when planning the EMS.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
4.3 **Determining the scope of the environmental management system**	The organization is aware that, when determining the scope of the EMS, it needs to consider external and internal issues, compliance obligations, organizational and physical boundaries, and the extent of the control or influence it has over its activities, products, and services.	The organization has determined the scope of its EMS. The scope can include selected parts of the organization, its activities, products and services, or its environmental aspects only.	To ensure the scope of the EMS is comprehensive, the organization has considered external and internal issues, compliance obligations, organizational and physical boundaries, and the extent of control or influence over its activities, products and services. Activities, products, services and facilities with significant environmental aspects and compliance obligations that are relevant to the sector of the organization are included in the scope.	When determining the scope of the EMS, the organization has considered a life cycle perspective.	All relevant activities, products and services of the organization are included in the scope of the EMS. The scope is maintained as documented information and is available to interested parties.
4.4 **Environmental management system**	The organization understands the need to have a formal EMS.	The organization has considered the issues and compliance obligations identified in 4.2 of this maturity matrix, when establishing and implementing its EMS.	The organization has included the selected activities, products and services in the scope of its EMS, as determined in 4.3, level 2, of this maturity matrix.	The organization has included all relevant activities, products and services in the scope of its EMS, as determined in 4.3, level 3, of this maturity matrix.	The organization maintains and continuously improves the EMS, including the processes needed and their interactions.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
Leadership (see ISO 14001:2015, Clause 5)					
5.1 **Leadership and commitment**	Top management recognizes that it has overall responsibility for the EMS.	Top management demonstrates leadership and commitment by stating that they are accountable for the effectiveness of the EMS. Top management ensures that the environmental policy and objectives are in line with the strategic direction of the organization as well as the organization's context.	Top management ensures that the EMS requirements are integrated into the organization's business processes and that the necessary resources are available. Top management communicates the importance of effective environmental management and the need for the organization to conform to the EMS requirements, including support for personnel.	Top management ensures that the EMS achieves its intended outcomes and supports other management roles related to their areas of responsibility.	Top management demonstrates leadership and commitment towards continual improvement.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
5.2 **Environmental policy**	Top management recognizes the need for the organization to have an environmental policy.	Top management has established a draft environmental policy, which, according to the scope of the EMS, is suitable for the organization. This means that the policy is relevant to the organization's purpose and context, including the type, magnitude and environmental impacts of its activities, products and services.	Top management has finalized the environmental policy and stated its commitment to implementation. The policy includes the following commitments: — to protect the environment, including the prevention of pollution and other specific commitment(s) relevant to the context of the organization; — to meet the organization's compliance obligations; — to continually improve the EMS to enhance environmental performance.	The environmental policy has been implemented and is communicated internally. The environmental policy is available to interested parties. The environmental policy is maintained as documented information.	The environmental policy is used as a framework to set environmental objectives.
5.3 **Organizational roles, responsibilities and authorities**	Top management is aware that responsibilities and authorities for relevant roles should be assigned and communicated within the organization.	Top management has assigned and communicated the responsibilities and authorities for relevant roles within the organization.	Top management has ensured that those involved in the organization's EMS have a clear understanding of their roles, responsibilities and authorities for conforming to the EMS requirements and achieving the intended outcomes.	Top management has assigned the responsibility and authority for ensuring that the EMS meets the defined EMS requirements.	Top management has assigned the responsibility and authority for reporting back on the performance of the EMS, including environmental performance.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
Planning (see ISO 14001:2015, Clause 6)					
6.1.1 **Actions to address risks and opportunities — General**	The organization is aware that there can be risks (potential adverse effects) associated with the operations, activities, products and services of the organization. The organization is aware there can also be opportunities (potential beneficial effects) associated with the operations, activities, products and services of the organization.	The organization has defined and understands the risks (potential adverse effects) associated with the operations, activities, products and services of the organization. The organization has defined and understands the opportunities (potential beneficial effects) associated with the operations, activities, products and services of the organization.	The organization has established, implemented and maintains processes to manage risks (potential adverse effects) associated with the operations, activities, products and services of the organization, taking into account environmental aspects, compliance obligations and other issues resulting from the organization's context, including emergency situations.	The organization has established, implemented and maintains processes to realize opportunities (potential beneficial effects) associated with the operations, activities, products and services of the organization.	The organization has documented the processes to manage and mitigate risks (potential adverse effects) associated with the operations, activities, products and services of the organization (including external environmental conditions) and the processes to realize opportunities.
6.1.2 **Actions to address risks and opportunities — Environmental aspects**	The organization is aware that its activities, products and services affect or are affected by the environment. It understands that this might imply risks and opportunities.	The organization has developed and implemented a process to identify the organization's environmental aspects. Within the scope of the EMS, it has identified those activities, products and services that interact with the environment. Abnormal conditions and emergency situations, as well as changes, including planned/new/modified developments, activities and processes, have been included. The environmental aspects are documented.	The organization has determined those aspects that have, or can have significant impact(s) on, the environment. A life cycle perspective has been considered.	The organization systematically determines environmental impacts associated with the environmental aspects, and which of those environmental aspects it can influence and control. It documents the environmental impacts and established criteria for determining significance, and determined significant environmental aspects. The methodology and process used and the resulting significant environmental aspects have been documented.	The organization communicates its significant environmental aspects to relevant levels and functions within the organization. It periodically reviews and reassesses environmental aspects, including those resulting from new or modified activities, products or services. It updates documentation as needed.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
6.1.3 Actions to address risks and opportunities — Compliance obligations	The organization recognizes that it is obligated to comply with applicable legal and other requirements related to its environmental aspects.	The organization has identified compliance obligations (relevant legal and other requirements) related to its environmental aspects.	Compliance obligations linked to the various operations and functions within the organization have been determined.	The organization has taken these compliance obligations into account when establishing, implementing and maintaining its EMS.	The organization has taken these compliance obligations into account when continually improving its EMS. Compliance obligations are documented.
6.1.4 Actions to address risks and opportunities — Planning action	The organization has recognized the need to plan how to address its environmental aspects, compliance obligations, and risks and opportunities.	The organization plans to take actions to address its environmental aspects, compliance obligations, and risks and opportunities.	The organization plans how to integrate and implement the actions into its EMS processes or other business processes.	The organization plans how to evaluate the effectiveness of these actions.	When planning actions, the organization considers its technological options and its financial, operational and business requirements.
6.2.1 Environmental objectives and planning to achieve them — Environmental objectives	The organization has recognized the need to establish environmental objectives.	The environmental objectives are established at relevant functions and levels within the organization, taking into account significant aspects and associated compliance obligations, and considering risks and opportunities.	The environmental objectives are consistent with the environmental policy and are measurable (where practicable).	Environmental objectives are monitored. The organization maintains documented information on the environmental objectives.	The organization communicates and periodically updates the environmental objectives, in line with its commitment to improve environmental performance, as appropriate.
6.2.2 Environmental objectives and planning to achieve them — Planning actions to achieve environmental objectives	The organization has recognized the need to plan how to achieve its objectives.	The organization has recognized that it will be required to set up a detailed action plan to achieve its environmental objectives.	When setting up the action plan, the organization determines what will be done, what resources will be required, who will be responsible for each action and when it will be completed.	The organization has determined how results will be evaluated, including environmental performance indicators for monitoring progress towards achieving its measurable environmental objectives.	The organization has considered how actions to achieve its environmental objectives can be integrated into its business processes.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
Support (see ISO 14001:2015, Clause 7)					
7.1 Resources	The organization understands that it is necessary to provide appropriate resources to establish and maintain an EMS.	The organization considers its situation and decides on the resources needed to establish the EMS.	The organization provides the resources needed to implement the EMS.	The organization considers its situation and decides on and provides the resources needed to maintain the EMS.	The organization determines and provides resources needed to ensure continual improvement.
7.2 Competence	The organization understands that specific competence could be needed by employees, those temporarily engaged and others whose work is under the organization's control, including contractors. The organization understands that the EMS will require certain personnel to have specific levels of EMS competence.	The organization determines the necessary competence for those personnel whose work can affect environmental performance and the ability to fulfil compliance obligations.	The needs for education, training, experience and related activities are determined in order to ensure the necessary competence level.	The organization provides necessary training, etc., to reach the competence level needed. The organization retains appropriate documented information as evidence of competence.	The organization evaluates the effectiveness of the actions taken to meet the level of competence required.
7.3 Awareness	The organization understands that persons under the organization's control should be familiar with the EMS and its importance.	All persons under the organization's control are aware of the environmental policy.	All persons under the organization's control are aware of the significant environmental aspects and actual or potential impacts associated with their work.	All persons under the organization's control understand their contribution to the effectiveness of the EMS and the benefits of enhanced environmental performance.	All persons under the control of the organization are aware of the implications of not conforming to the requirements of the EMS, including compliance obligations.

Table A.1 *(continued)*

Subclause of ISO 14001:2015	Maturity level (→)				
	1	2	3	4	5
7.4 **Communication**	The organization understands that internal and external communication is an integral part of an EMS.	The organization understands the need for information about the EMS to be reliable and consistent, taking into account its compliance obligations.	The organization has established, implemented and maintains a policy and the process(es) needed for internal and external communications relevant to the EMS. These processes include deciding what, when, to whom and how to communicate. The organization is committed to respond to relevant communications on its EMS.	The organization has established processes for internal and external communication. Internal communication contains information relevant to the EMS among the various levels and functions and enables persons doing work under the organization's control to contribute to continual improvement. Internal communication includes changes to the EMS, as appropriate. External communication contains EMS information as established by its communication process(es).	The organization's external communication contains EMS information as required by its compliance obligations. Documented information is retained as evidence of its communication, as appropriate.
7.5.1 **Documented information — General**	The organization has recognized the need for documentation relevant to the scope of the EMS.	The organization understands what documentation is required.	The organization has defined what additional documentation can be necessary to support the effectiveness of the EMS.	The organization has decided the documentation needed to meet EMS requirements and to support its effectiveness.	In deciding on its documentation requirements, the organization has considered: — the size and type of the organization; — compliance obligations; — the complexity of processes; — the competence of persons doing work under its control.