



TAIEX Workshop, Albania, December 21<sup>th</sup>–22<sup>nd</sup>, 2016



# ISO 14001:2014 to ISO 14001:2015 Summary of Changes



## ISO 14001:2015 - Key perspectives

- Increased prominence of environmental management within the organization's strategic planning processes.
- Understanding the organization's context is useful to identify the opportunities for the benefit of both the organization and the environment.
- Particular focus is on issues or changing circumstances related to the needs and expectations of interested parties (including regulatory requirements) and local, regional or global environmental conditions that can affect, or be affected by, the organization.

## ISO 14001:2015 - Key principles

- *Leadership*

To ensure the success of the system, a new clause has been added that assigns specific responsibilities for those in leadership roles to promote environmental management within the organization.

- *Protecting the environment*

The expectation on organizations has been expanded to commit to proactive initiatives to protect the environment from harm and degradation, consistent with the context of the organization. The revised text does not define 'protect the environment' but it notes that it can include prevention of pollution, sustainable resource use, climate change mitigation and adaptation, protection of biodiversity and ecosystems, etc.

## ISO 14001:2015 - Key principles

- *Environmental performance*

There is a shift in emphasis with regard to continual improvement, from improving the management system to improving environmental performance. Consistent with the organization's policy commitments the organization would, as applicable, reduce emissions, effluents and waste to levels set by the organization.

- *Lifecycle perspective*

In addition to the current requirement to manage environmental aspects associated with procured goods and service, organizations will need to extend its control and influence to the environmental impacts associated with product design and development to address each stage of the life cycle, i.e. acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal. This does not imply a requirement to do a life cycle assessment.

## ISO 14001:2015 - Key principles

- *Outsourced processes*

Organizations need to control or influence outsourced processes.

- *Communication*

The development of a communications strategy with equal emphasis on external and internal communications has been added. This includes a requirement on communicating consistent and reliable information, and establishing mechanisms for persons working under the organization's control to make suggestions on improving the environmental management system. The decision to communicate externally is retained by the organization but the decision needs to take into account information reporting required by regulatory agencies and the expectations of other interested parties.

# ISO 14001:2015 - Key principles

- *Documentation*

Reflecting the evolution of computer and cloud based systems for running management systems, the revision incorporates the term 'documented information', instead of 'documents' and 'records'. To align with ISO 9001, the organization will retain the flexibility to determine when 'procedures' are needed to ensure effective process control.

# ISO 14001:2015 - Structure

## **1 Scope**

## **2 Normative references**

## **3 Terms and definitions**

## **4 Context of the organization**

- 4.1 Understanding the organization and its context
- 4.2 Understanding the needs and expectations of interested parties
- 4.3 Determining the scope of the environmental management system
- 4.4 Environmental management system

## **5 Leadership**

- 5.1 Leadership and commitment
- 5.2 Environmental policy
- 5.3 Organizational roles, responsibilities and authorities

# ISO 14001:2015 - Structure

## **6 Planning**

6.1 Actions to address risks and opportunities

6.1.1 General

6.1.2 Environmental aspects

6.1.3 Compliance obligations

6.1.4 Planning action

6.2 Environmental objectives and planning to achieve them

6.2.1 Environmental objectives

6.2.2 Planning actions to achieve environmental objectives

## **7 Support**

7.1 Resources

7.2 Competence

7.3 Awareness

7.4 Communication

7.4.1 General

7.4.2 Internal communication

7.4.3 External communication

7.5 Documented information

7.5.1 General

7.5.2 Creating and updating

7.5.3 Control of documented information



# ISO 14001:2015 - Structure

## **8 Operation**

- 8.1 Operational planning and control
- 8.2 Emergency preparedness and response

## **9 Performance evaluation**

- 9.1 Monitoring, measurement, analysis and evaluation
  - 9.1.1 General
  - 9.1.2 Evaluation of compliance
- 9.2 Internal audit
  - 9.2.1 General
  - 9.2.2 Internal audit programme
- 9.3 Management review

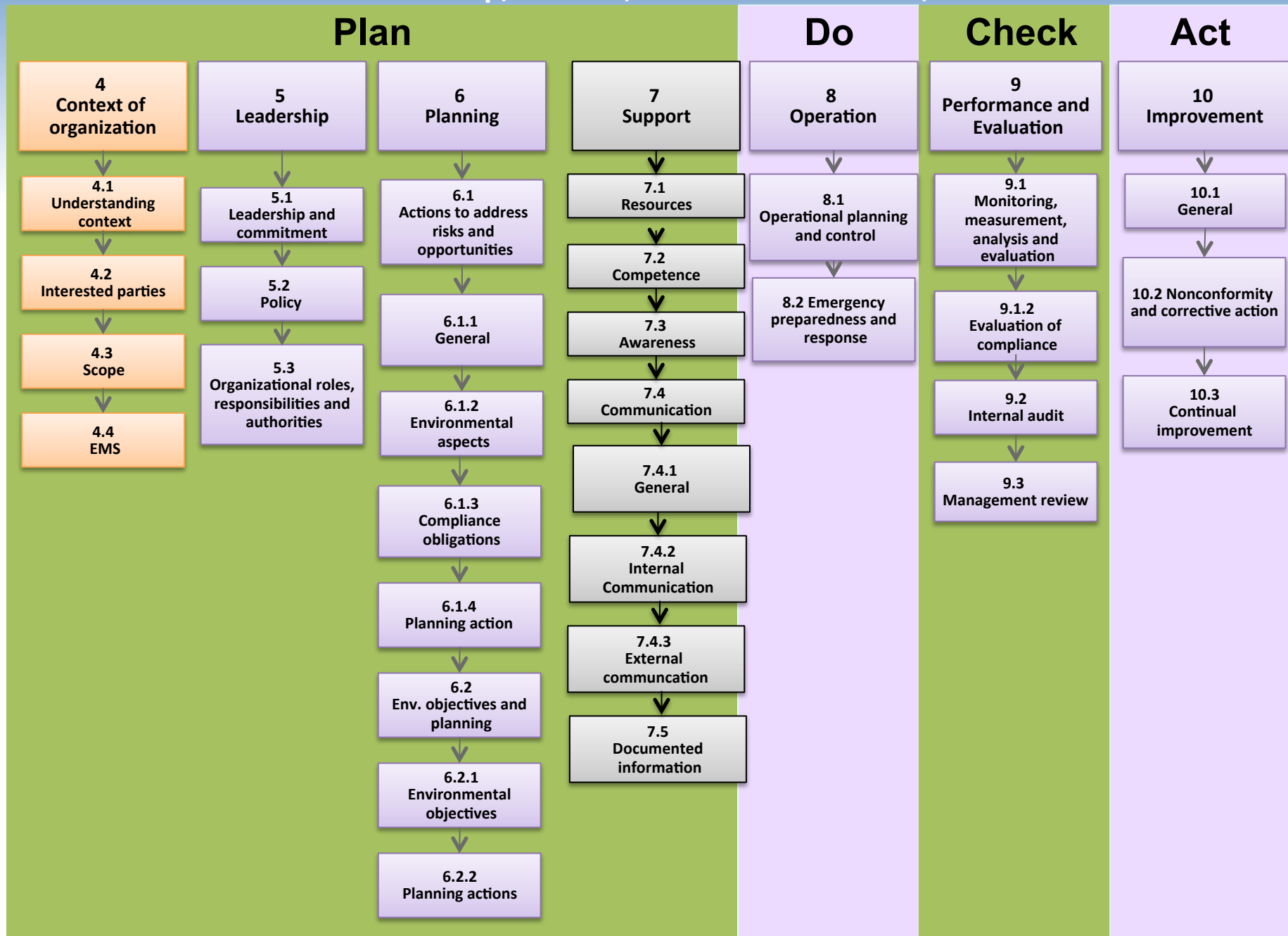
## **10 Improvement**

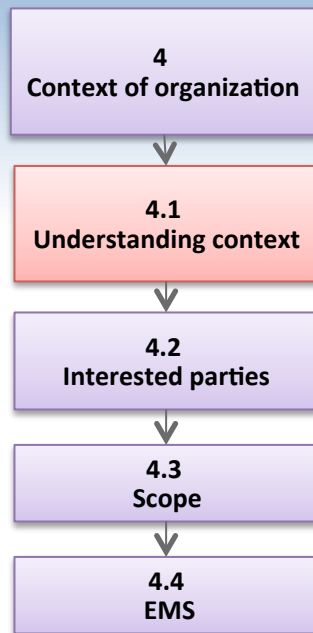
- 10.1 General
- 10.2 Nonconformity and corrective action
- 10.3 Continual improvement

## The common structure and ISO 14001:2015 additions



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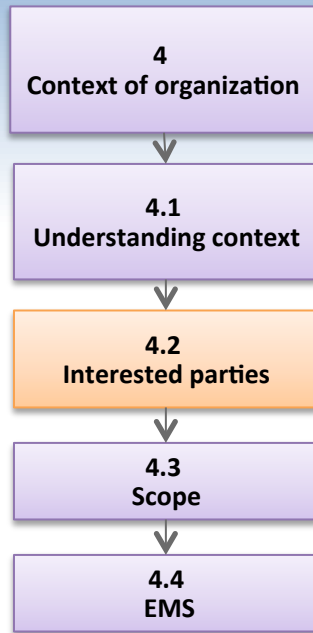




## Clause 4.1

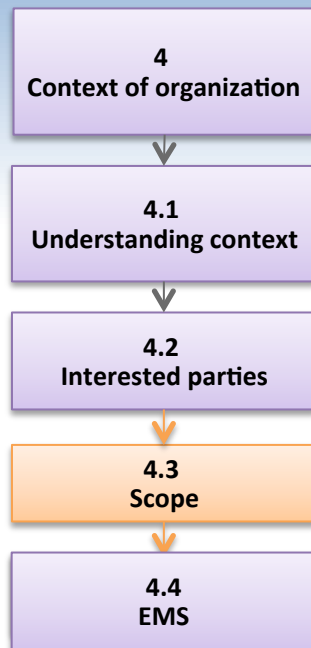
Determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its environmental management system.

Shall include environmental conditions being affected by or capable of affecting the organization.



## Clause 4.2

Identify the relevant interested parties, their relevant requirements and which of these needs and expectations become its compliance obligations



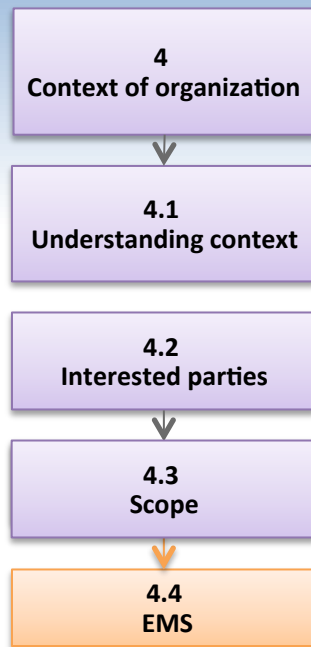
### Clause 4.3

Determine the boundaries and applicability of the environmental management system to establish its scope considering

- a) the external and internal issues referred to in 4.1;
- b) the compliance obligations referred to in 4.2;
- c) its organizational units, functions and physical boundaries;
- d) its activities, products and services;
- e) its authority and ability to exercise control and influence.

Once the scope is defined, all activities, products and services of the organization within that scope need to be included in the environmental management system.

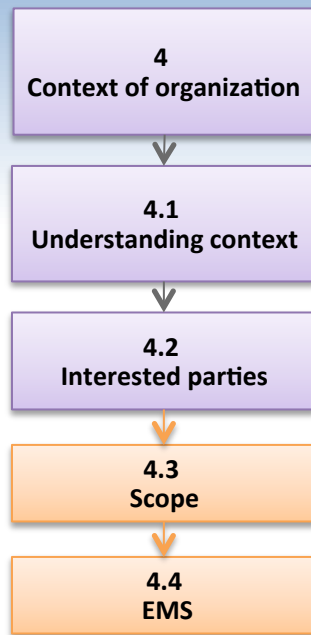
The scope shall be maintained as documented information and be available to interested parties.



### Clause 4.4

To achieve the intended outcomes, including enhancing its environmental performance, the organization shall establish, implement, maintain and continually improve an environmental management system, including the processes needed and their interactions.

The organization shall consider the knowledge gained in 4.1 and 4.2 when establishing and maintaining the environmental management system..



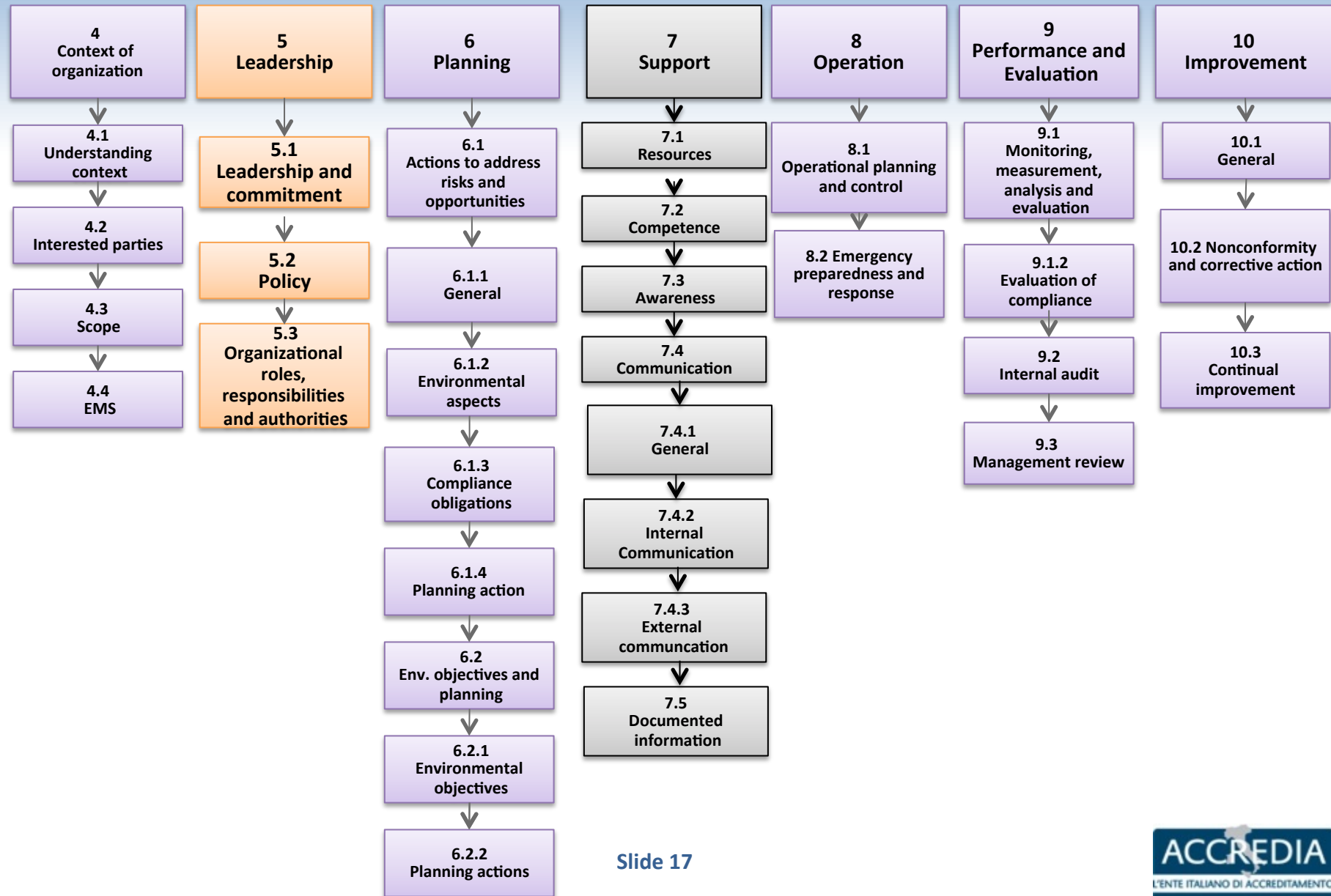
### Example

Identify context, boundaries, interested parties and scope:

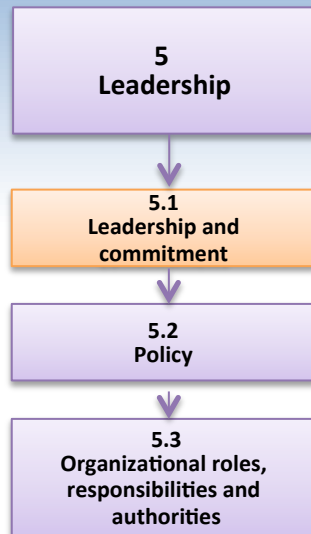
- Fashion company
- Chemical plant
- Family owned company manufacturing wooden buildings



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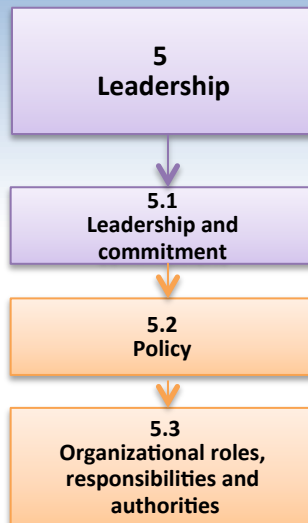
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### Clause 5.1.1

Top management shall demonstrate leadership and commitment with respect to the environmental management system by:

- a) accountability for the effectiveness of the EMS;
- b) established environmental policy and environmental objectives are compatible with the strategic direction and the context of the organization;
- c) integration of the EMS requirements into the organization's business processes;
- d) availability of resources;
- e) Communication of the importance of effective environmental management;
- f) the environmental management system achieves its intended outcomes;
- g) directing and supporting persons to contribute to the effectiveness of the EMS;
- h) continual improvement;
- i) supporting other relevant management roles to demonstrate their leadership and responsibility



## Clause 5.2

Explicit requirement to apply the policy.

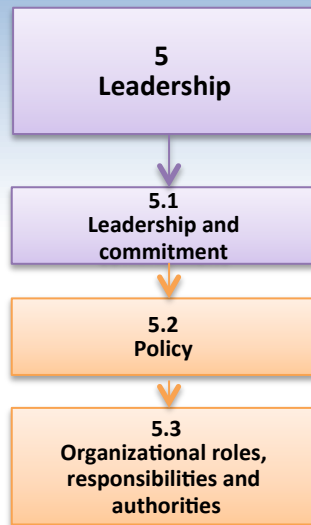
The environmental policy shall:

- be maintained as documented information;
- be communicated within the organization;
- be available to interested parties.

## Clause 5.3

- Explicit requirement for relevant roles to be assigned, communicated and understood
- No requirement for a specific management representative and the responsibility now resides with top management to assign and manage
- Requirement for defining responsibility and authority for ensuring processes are delivering their intended outputs

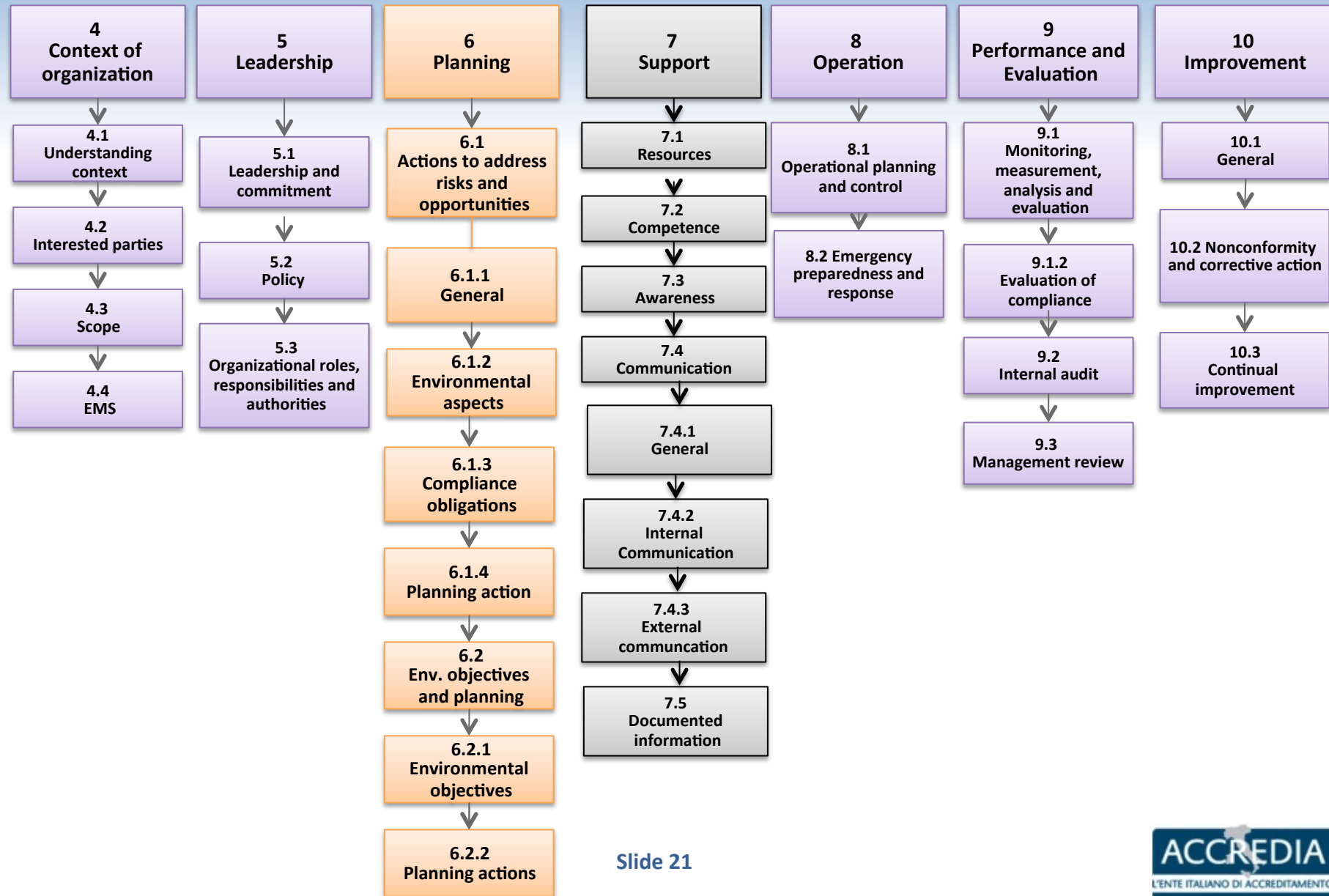
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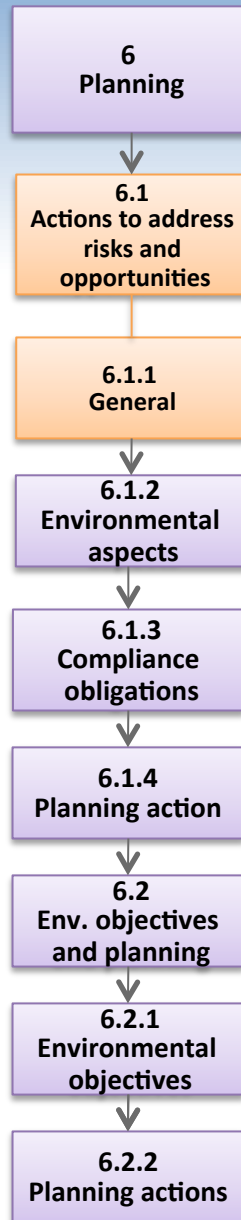
Example

Key roles in EMS

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## Clause 6.1.1

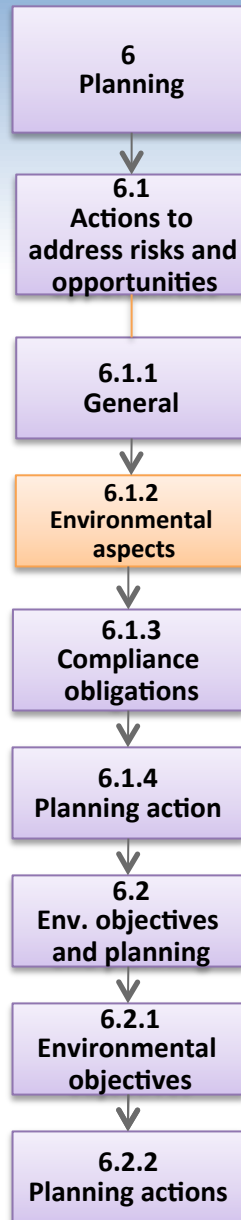
When planning for the environmental management system, the organization shall consider:

- a) the issues related to context;
- b) the requirements of interested parties;
- c) the scope of EMS;

and determine the risks and opportunities, related to its environmental aspects, compliance obligations (see 6.1.3) and other issues and requirements that need to be addressed to:

- give assurance that the environmental management system can achieve its intended outcomes;
- prevent or reduce undesired effects, including the potential for external environmental conditions to affect the organization;
- achieve continual improvement.

Within the scope of the environmental management system, the organization shall determine potential emergency situations, including those that can have an environmental impact.



## Clause 6.1.2

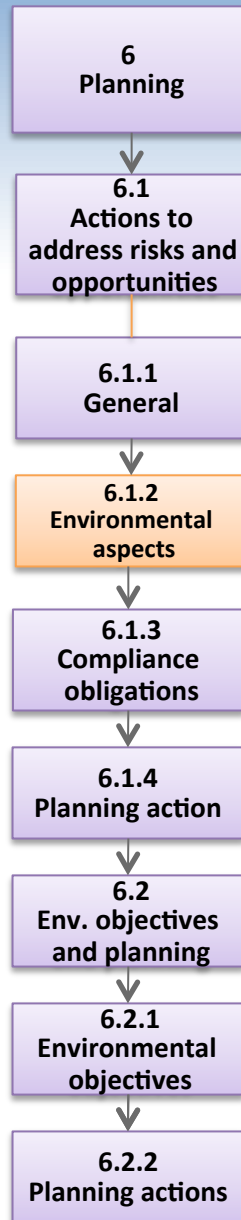
Determine the environmental aspects of its activities, products and services that it can control and those that it can influence, and their associated environmental impacts, considering a life cycle perspective.

When determining environmental aspects, the organization shall take into account:

- a) change, including planned or new developments, and new or modified activities, products and services;
- b) abnormal conditions and reasonably foreseeable emergency situations.

The organization shall determine those aspects that have or can have a significant environmental impact, i.e. significant environmental aspects, by using established criteria.

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



## FOCUS on Life cycle perspective

### Practical help – Life cycle perspective Guidance from ISO 14004

A life cycle perspective includes consideration of the environmental aspects of an organization's activities, products, and services that it can control or influence. Stages in a life cycle include acquisition of raw materials, design, production, transportation/delivery, use, end of life treatment, and final disposal.

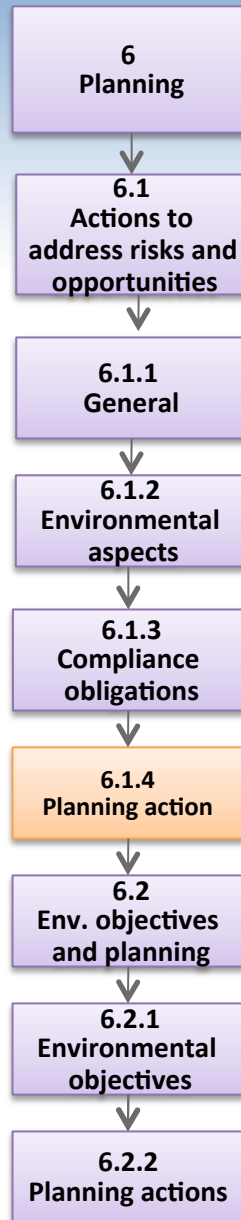
When applying a life cycle perspective to its products and services, the organization should consider the following:

- the stage in the life cycle of the product or service,
- the degree of control it has over the life cycle stages, e.g. a product designer may be responsible for raw material selection, whereas a manufacturer may only be responsible for reducing raw material use and minimizing process waste and the user may only be responsible for use and disposal of the product,
- the degree of influence it has over the life cycle, e.g. the designer may only influence the manufacturers production methods, whereas the manufacturer may also influence the design and the way the product is used or its method of disposal,
- the life of the product,
- the organization's influence on the supply chain,
- the length of the supply chain, and
- the technological complexity of the product.

The organization can consider those stages in the life cycle over which it has the greatest control or influence as these may offer the greatest opportunity to reduce resource use and minimize pollution or waste.

Source ISO





## Clause 6.1.4

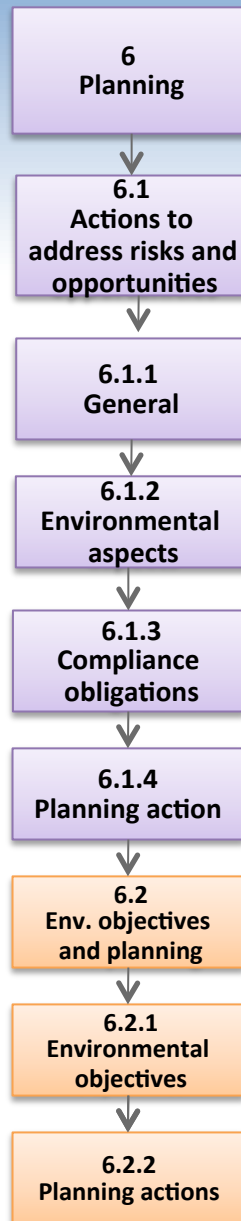
The organization shall plan:

a) to take actions to address its:

- 1) significant environmental aspects;
- 2) compliance obligations;
- 3) risks and opportunities identified in 6.1.1;

b) how to:

- 1) integrate and implement the actions into its environmental management system processes or other business processes;
- 2) evaluate the effectiveness of these actions



## Clause 6.2.1 and 6.2.2

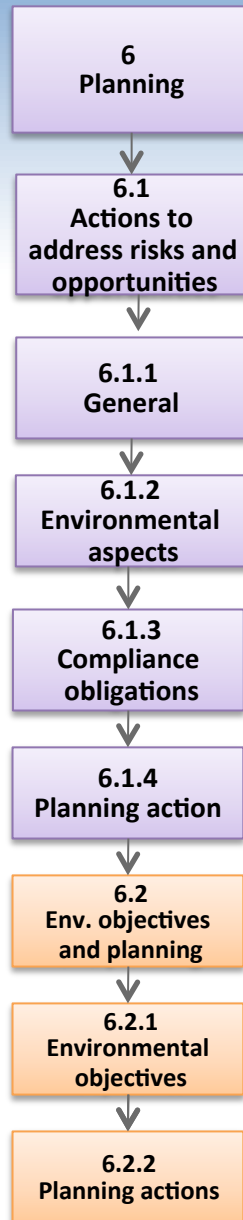
Establish environmental objectives at relevant functions and levels, taking into account:

- environmental aspects and associated compliance obligations,
- risks and opportunities.

Plan how to achieve environmental objectives determining:

- a) what will be done;
- b) what resources will be required;
- c) who will be responsible;
- d) when it will be completed;
- e) how the results will be evaluated, including indicators for monitoring progress toward achievement of its measurable environmental objectives.

The actions to achieve environmental objectives can be integrated into the business processes.

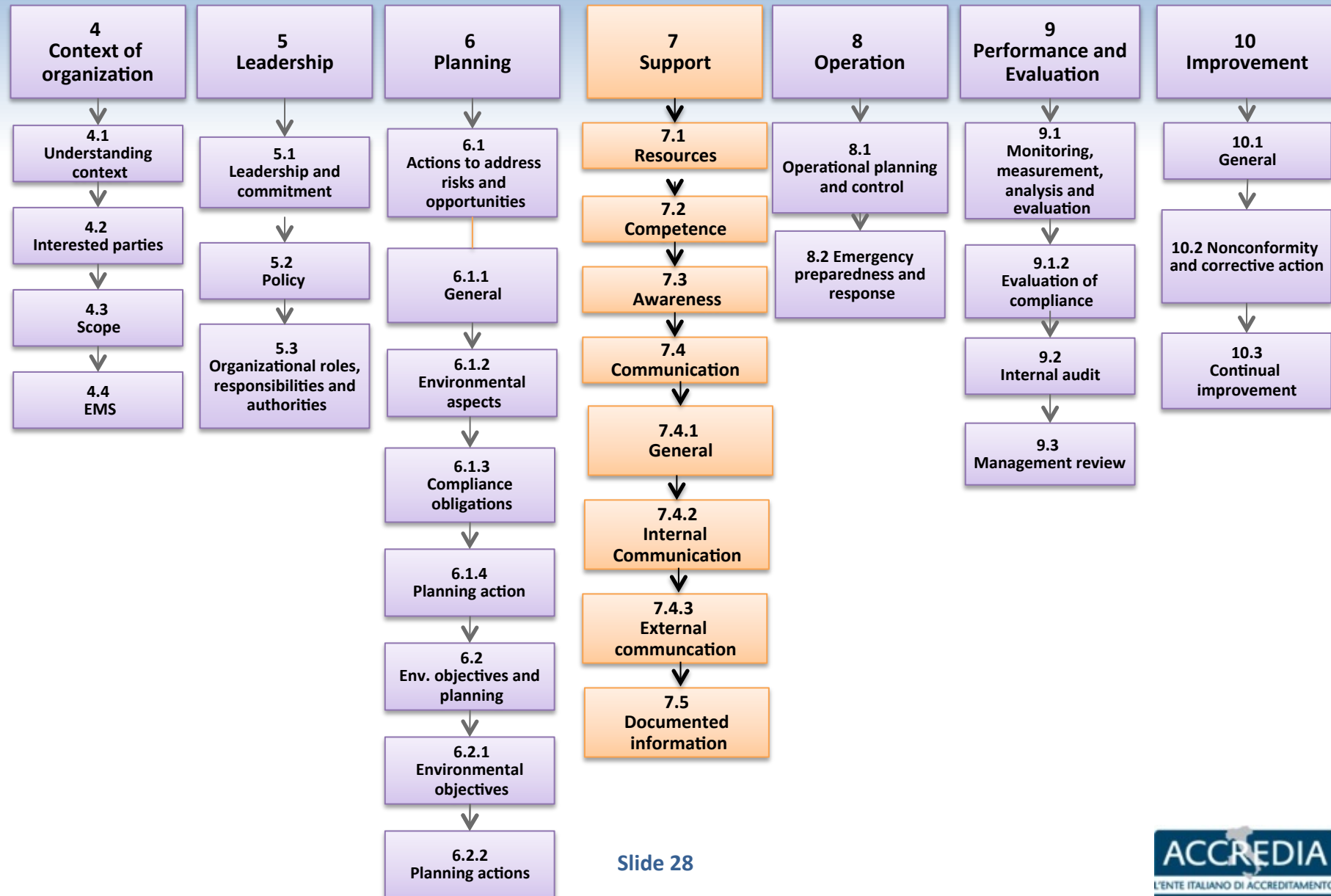


### Example

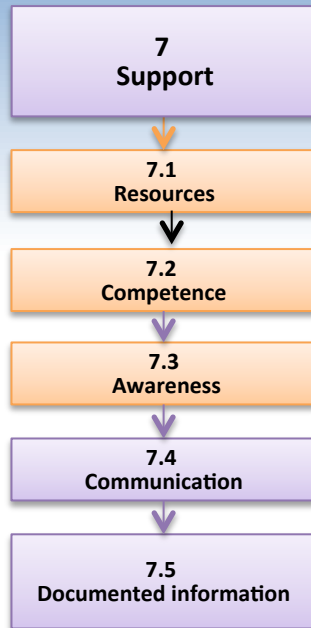
Identify objectives for this organizations:

- Fashion company
- Chemical plant
- Family owned company manufacturing wooden buildings

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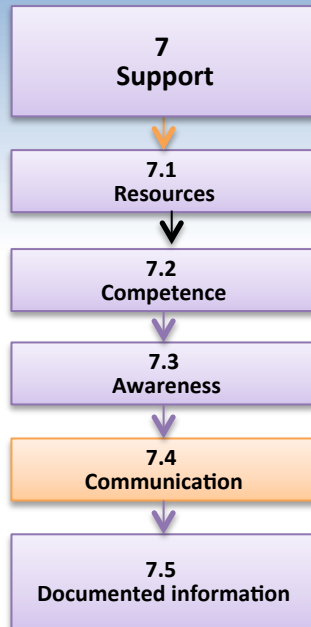
### Clause 7.1 - 7.2 - 7.3

The organization shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the EMS.

Determine the necessary competence of person(s) doing work under its control that affects its environmental performance and its ability to fulfil its compliance obligations;

The persons doing work under the organization's control are aware of:

- environmental policy;
- significant environmental aspects and related actual or potential environmental impacts associated with their work;
- their contribution to the effectiveness of the EMS;
- d) the implications of not conforming with the EMS.



## Clause 7.4

When establishing its communication process(es), the organization shall:

- take into account its compliance obligations;
- ensure that environmental information communicated is consistent with information generated within the environmental management system, and is reliable.

Internally communicate information relevant to the environmental management system among the various levels and functions of the organization.

Externally communicate information relevant to the environmental management system, as established by the organization's communication process(es) and as required by its compliance obligations.



### Clause 7.5.1

Requirements that used to be required for a manual have been enhanced and made more flexible to allow for the use of documented information needed for effectiveness of the EMS.

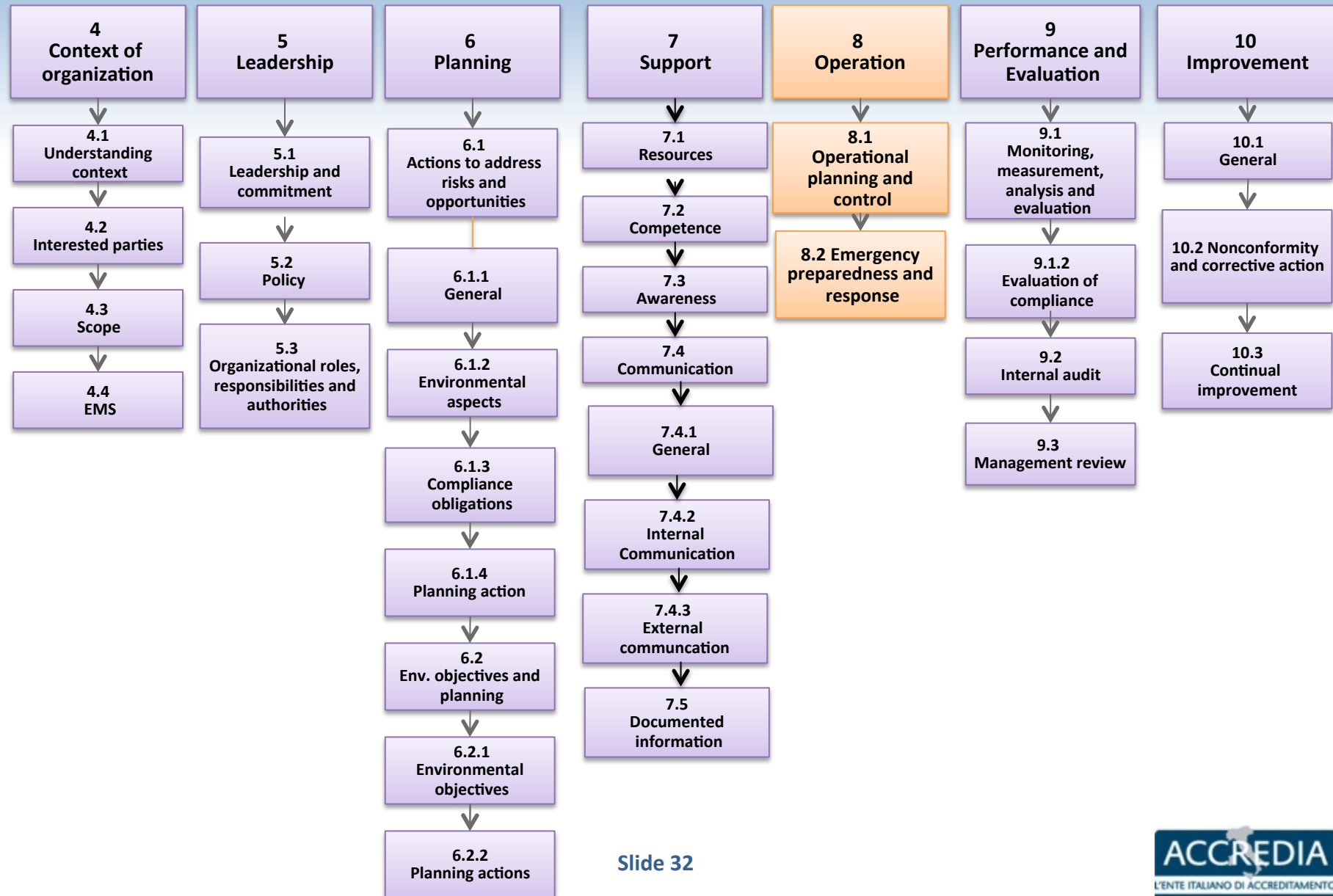
### Clause 7.5.2

Enhanced requirement for the creation and updating of documented information, e.g. description, format & suitability

### Clause 7.5.3

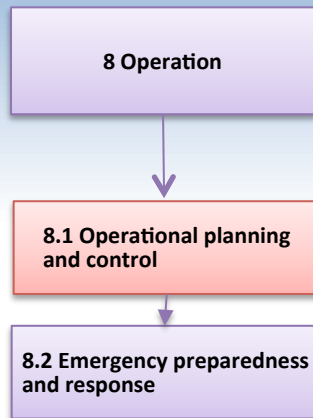
Control of documented information – now explicitly includes confidentiality, integrity and access

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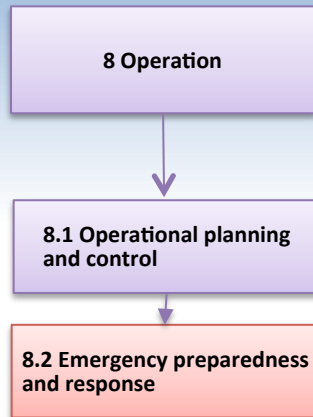
## Clause 8.1

Establish, implement, control and maintain the processes establishing operating criteria.

Outsourced processes are controlled or influenced.

Consistent with a life cycle perspective:

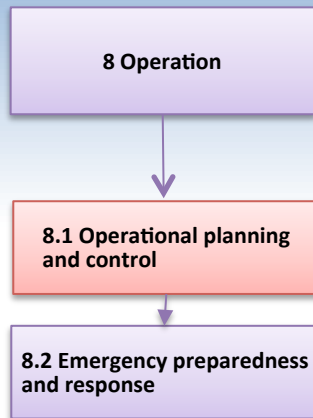
- establish controls, as appropriate, to ensure that environmental requirement(s) is addressed in the design and development process for the product or service, considering each life cycle stage;
- determine its environmental requirement(s) for the procurement of products and services, as appropriate;
- communicate its relevant environmental requirement(s) to external providers, including contractors;
- provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its products and services.



## Clause 8.2

The organization shall establish, implement and maintain the process(es) needed to prepare for and respond to potential emergency situations identified.

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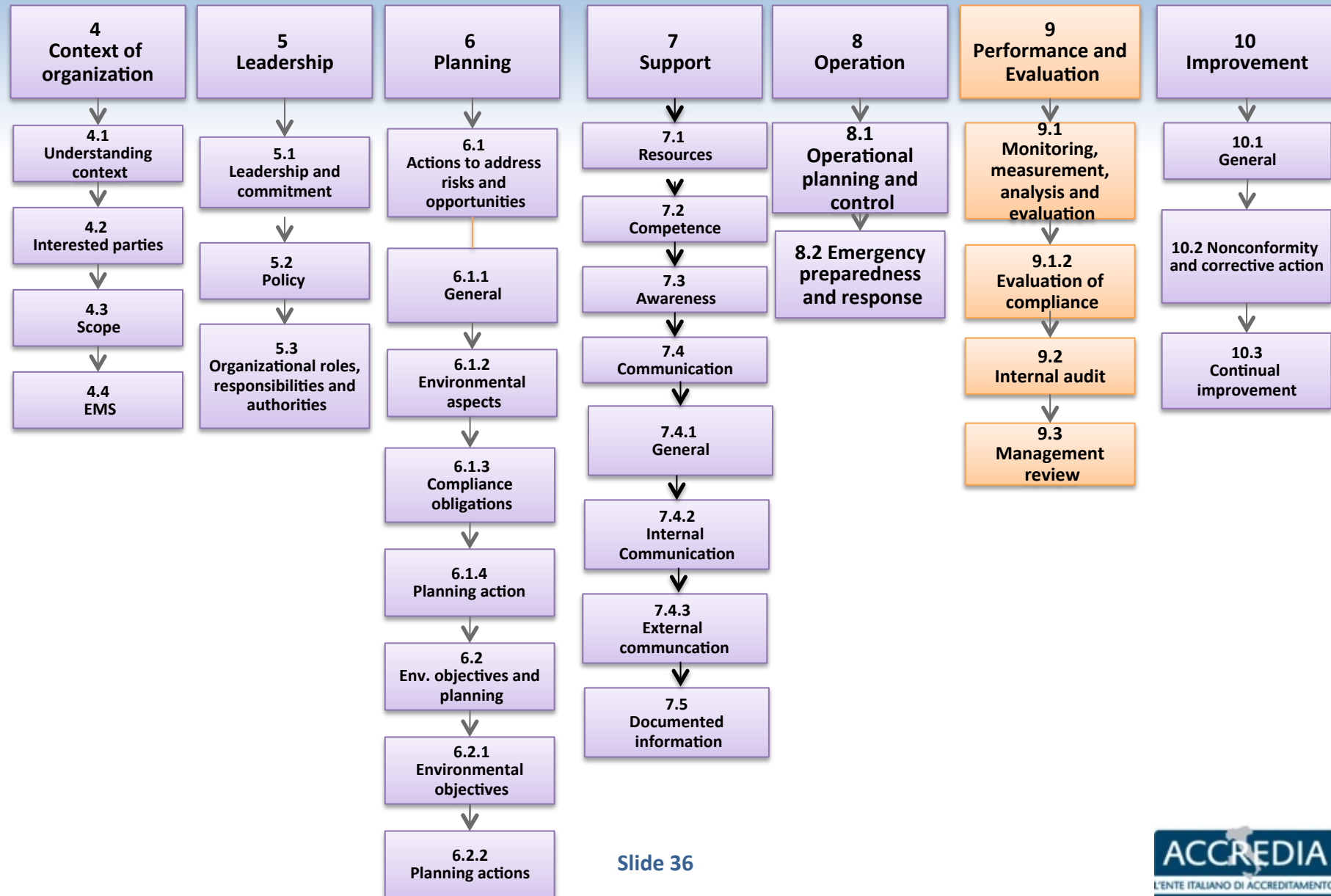


### Example

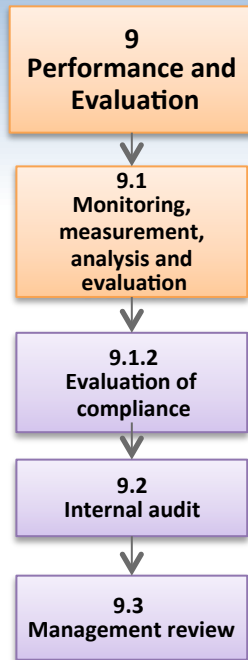
Set up operational criteria for this organizations:

- Fashion company
- Chemical plant
- Family owned company manufacturing wooden buildings

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### Clause 9.1.1

- monitor, measure, analyse and evaluate environmental performance identifying what needs monitoring and measuring, the methods to be used and the criteria to evaluate environmental performance (indicators).

## Summary

- Determining the organizational context enables a more effective implementation of the environmental management system
- Greater emphasis on processes being managed to achieve planned results
- Alignment with strategic direction
- Integration of the EMS into organization's business processes
- Determining risks and opportunities increase the effectiveness of the organization's EMS
- Focus on life cycle perspective
- Specific control on outsourced processes

# ISO 14001:2015 Certification Transition Timeline

