



ISO 14001 as an Instrument to Promote the Green Transition in the EU

Presented by: Claudia V. Suarez



CLAUDIA V. SUAREZ

I am a Business Administration student. Two years ago, I had the opportunity to participate in ISO/TC 207 through the ISO Young Professionals Programme, where I was introduced to environmental standardization.

Today, I contribute as an expert through UNE, the Spanish National Standardization Body, supporting the development of ISO 14001. This experience sparked my interest in the role of standards in advancing sustainability and environmental goals.

Session Overview

- Environmental management in the context of the EU Green Transition
- Environmental Management Systems (EMS)
- How ISO 14001 works in practice
- The Plan–Do–Check–Act (PDCA) cycle
- ISO 14001 as a tool for policy implementation
- Practical application and insights
- Discussion and questions

Environmental Management in the context of the EU Green Transition



The European Union has committed to achieving climate neutrality by 2050.

Key priorities include:

- Climate change mitigation and adaptation
- Pollution prevention
- Sustainable use of resources
- Circular economy
- Biodiversity protection
- Sustainable production and consumption



Why Environmental Management matters



Organizations face increasing environmental pressures:

- Resource scarcity
- Pollution
- Climate change
- Rising stakeholder expectations
- Increasing legal requirements

According to ISO, environmental management has become a core responsibility of all organizations



From Environmental Ambition to Environmental Action

Many organizations have environmental commitments



The challenge is **IMPLEMENTATION**

Questions organizations face:

- What are our environmental impacts?
- What are our legal obligations?
- Which risks should we prioritize?
- How can we improve performance?

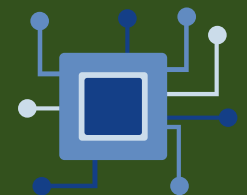
Environmental Management Systems provide a structured answer

What is an Environmental Management System (EMS)?

An EMS is a framework used by organizations to manage their interactions with the environment in a planned and systematic way

It includes:

- Organizational structure
- Roles and responsibilities
- Planning processes
- Operational controls
- Monitoring and evaluation
- Continuous improvement



Benefits of an EMS



Environmental benefits

- Reduced waste
- Improved energy efficiency
- Better resource management
- Reduced environmental impacts



Business benefits

- Cost savings
- Improved operational efficiency
- Better stakeholder relationships
- Enhanced reputation
- Access to new markets

ISO 14001:Environmental Management Systems (EMS)

ISO 14001 is the world's most widely used environmental management standard

Characteristics:

- International standard
- Voluntary
- Applicable to any organization
- Based on continual improvement
- Can be certified by an independent body



ISO 14001 provides a framework rather than environmental performance targets

Why Organizations Implement ISO 14001



Organizations use ISO 14001 to:

- Improve environmental performance
- Meet compliance obligations
- Reduce environmental risks
- Increase efficiency
- Demonstrate environmental commitment
- Improve competitiveness



How ISO 14001 works in practice

The standard follows a management system approach.

Main stages



Understanding the Organizational Context

Internal issues

Culture

Resources

Processes

Capabilities

Understanding the Organizational Context

External issues

Regulations

Market conditions

Environmental
conditions

Stakeholder
conditions

Interested Parties

Organizations must identify relevant interested parties

Some examples:

- Customers
- Regulators
- Employees
- Investors
- Communities
- NGOs

Their expectations may become compliance obligations



Environmental Aspects and Impacts

Environmental aspects are elements of activities that interact with the environment

- Energy consumption
- Water use
- Waste generation
- Air emissions
- Noise

Environmental impacts are the resulting changes to the environment

Risk-Based Thinking



A key innovation of ISO 14001:2015

Organizations must identify:

- Environmental risks
- Compliance risks
- Business risks
- Environmental opportunities

The objective is to protect the environment while improving organizational performance

Environmental Objectives

Organizations establish measurable objectives

Examples:

- Reduce energy consumption by 10%
- Reduce waste generation by 15%
- Reduce water use by 20%

Objectives must be:

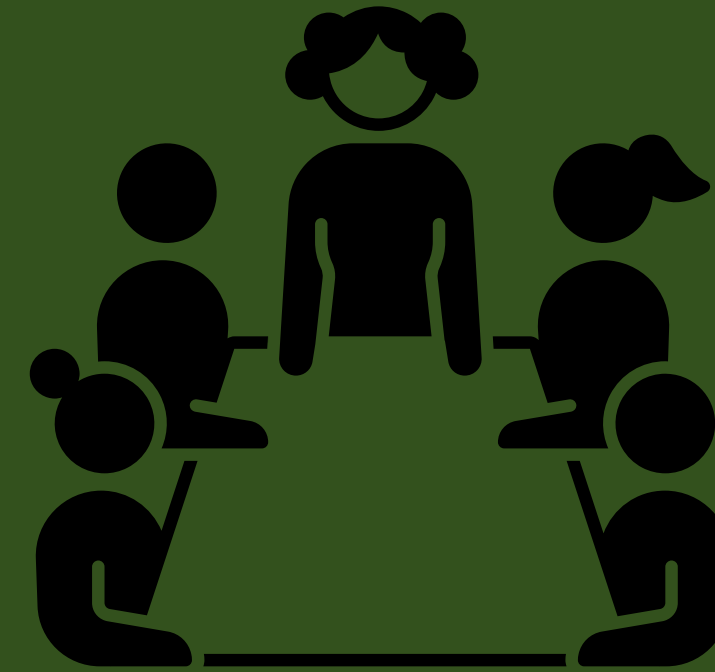
Specific

Measurable

Monitored

Reviewed

Leadership and Commitment



Responsibilities include:

- ➔ Responsibilities include:
- ➔ Providing resources
- ➔ Supporting improvement
- ➔ Integrating EMS into business processes

Top management plays
a central role

Leadership is one of the major changes introduced in ISO 14001:2015

Resources, Competence and Awareness



Environmental performance depends on people as much as on procedures

Organizations must ensure:

- Adequate resources
- Appropriate competence
- Environmental awareness
- Employee engagement



Operational Controls

Organizations establish processes to control activities that may affect the environment



Waste management
procedures



Chemical handling
procedures



Energy management
practices



Emergency
response plans

Monitoring and Measurement



Organizations monitor

- Environmental objectives
- Compliance obligations
- Environmental performance indicators



Typical indicators

- Energy consumption
- Water consumption
- Waste generation
- Emissions

Internal Audits and Management Review



Internal audits verify:

- Conformity
- Effectiveness
- Improvement opportunities



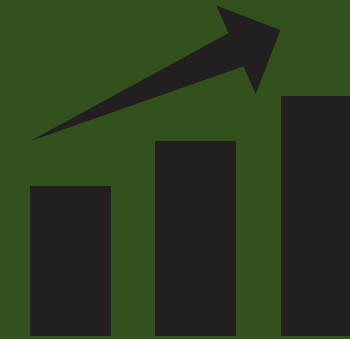
Management reviews evaluate:

- Performance
- Objectives
- Risks
- Resources



Continual Improvement

ISO 14001 is based on continual improvement



Organizations:

- Identify nonconformities
- Implement corrective actions
- Improve processes
- Improve environmental performance

The Plan–Do–Check–Act Cycle

The PDCA cycle provides a systematic approach to environmental management

PLAN → DO → CHECK → ACT

- **Plan**

The only way to achieve objectives is to clearly understand what they are and what steps are needed to reach them

- **Do**

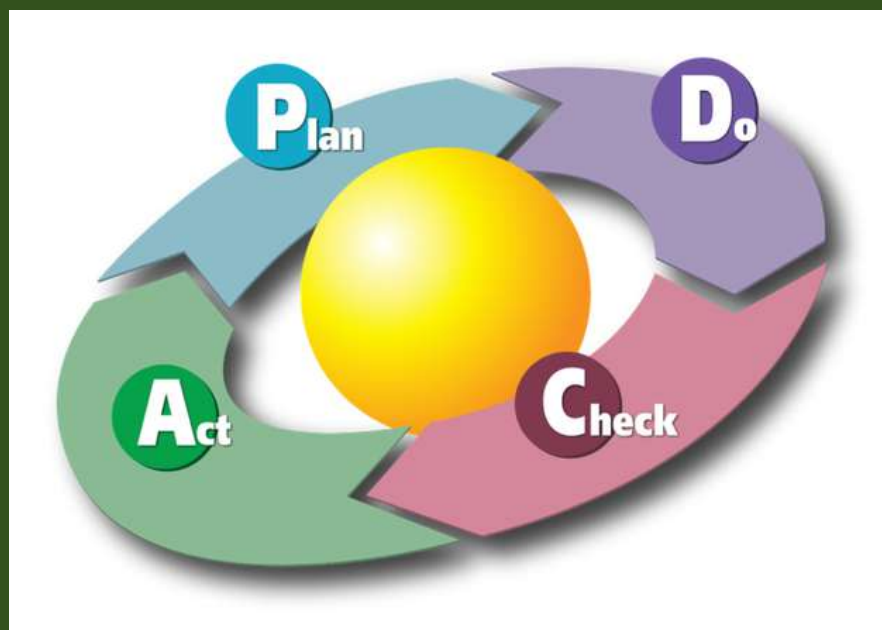
Plans must be put into action. Doing nothing is the surest way to fail

- **Check**

Evaluating what has been done is almost as important as taking action. It allows organisations to identify achievements as well as areas for improvement

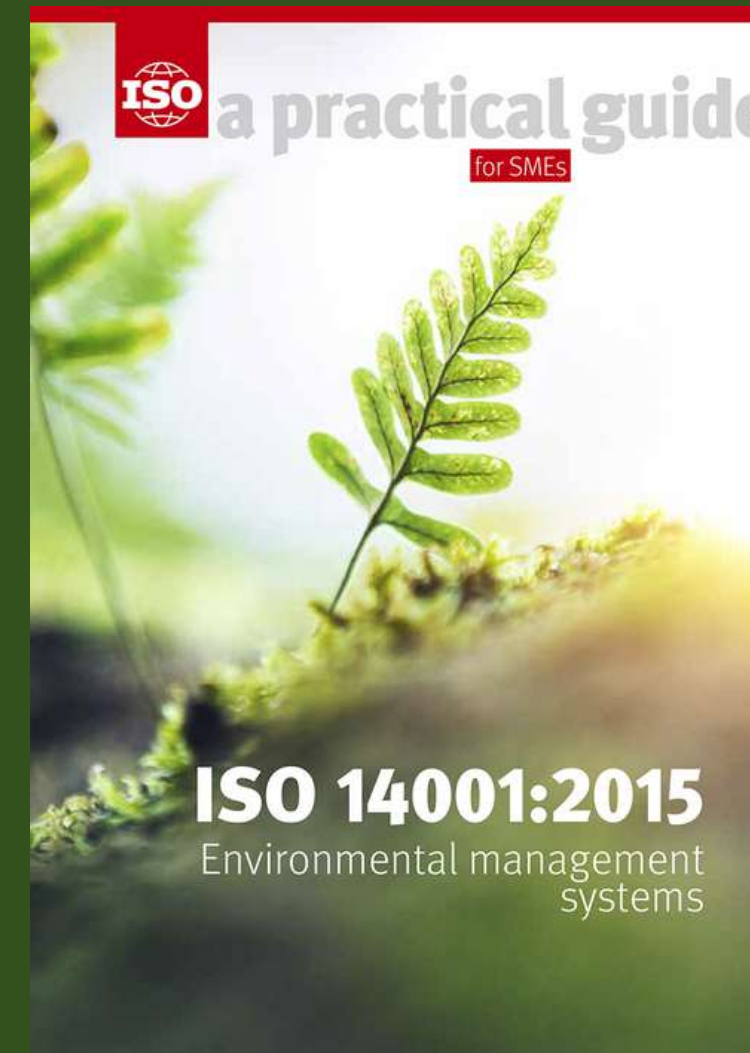
- **Act**

Update processes, correct errors and build on successes to drive continual improvement



ISO 14001 as a Tool for Policy Implementation

- Public policy defines objectives
- Standards provide implementation frameworks
- Organizations deliver action



Policy → Standard → Organization → Environmental Outcomes

Linking EU Policies and ISO 14001

EU Policy Objective	How ISO 14001 Contributes
Climate Neutrality	Identification and reduction of emissions, energy efficiency initiatives
Circular Economy	Resource efficiency, waste reduction and life-cycle thinking
Zero Pollution Ambition	Control of environmental aspects and operational processes
Biodiversity Strategy	Consideration of environmental impacts and protection measures
Sustainable Production	Continuous improvement of environmental performance

The European Union defines environmental goals through policies and legislation. ISO 14001 helps organisations translate those goals into management practices, operational controls, measurable objectives and continuous improvement processes

Practical Case Study:

Implementing ISO 14001 in a Small Manufacturing Company



Initial Situation

Challenges identified:

- High energy consumption
- Noise complaints from neighbouring residents
- Need to improve environmental performance
- Need to ensure compliance with environmental requirements

ISO 14001 Approach

1. Identify environmental aspects

- Energy use
- Noise emissions

2. Establish environmental objectives

- Reduce energy consumption by 10%
- Reduce noise levels to below 60 dB

3. Develop action plans

- Measure environmental performance
- Engage external specialists
- Implement technical improvements
- Monitor results

Practical Case Study:

Implementing ISO 14001 in a Small Manufacturing Company

Results

- ✓ Clear environmental objectives
- ✓ Defined responsibilities
- ✓ Performance indicators
- ✓ Continuous monitoring and improvement

What is interesting about this example is that the company does not start by investing money in technology. It first identifies its environmental aspects, assesses risks, establishes objectives, assigns responsibilities and only then implements technical solutions. This is exactly the logic behind ISO 14001

Lessons Learned from SME Implementation

Standards help bridge the gap between:
Environmental ambition and environmental implementation

**They create a common language for organizations,
regulators and stakeholders**

Key success factors:

- Leadership commitment
- Clear objectives
- Employee involvement
- Monitoring and measurement
- Continuous improvement

Key Takeaways

- 1.The green transition requires effective implementation
- 2.ISO 14001 provides a structured environmental management framework
- 3.The PDCA cycle drives continual improvement
- 4.Standards support the achievement of EU sustainability goals
- 5.ISO 14001 transforms commitments into measurable action



Thank you

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