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QMS/EMS Implementation and Control

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ICT IN TEXTILE AND CLOTHING HIGHER EDUCATION AND BUSINESS

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TRAINING COURSE

INDUSTRIAL ENGINEERING, QUALITY CONTROL AND MANAGEMENT

Course: QMS/EMS Implementation and Control

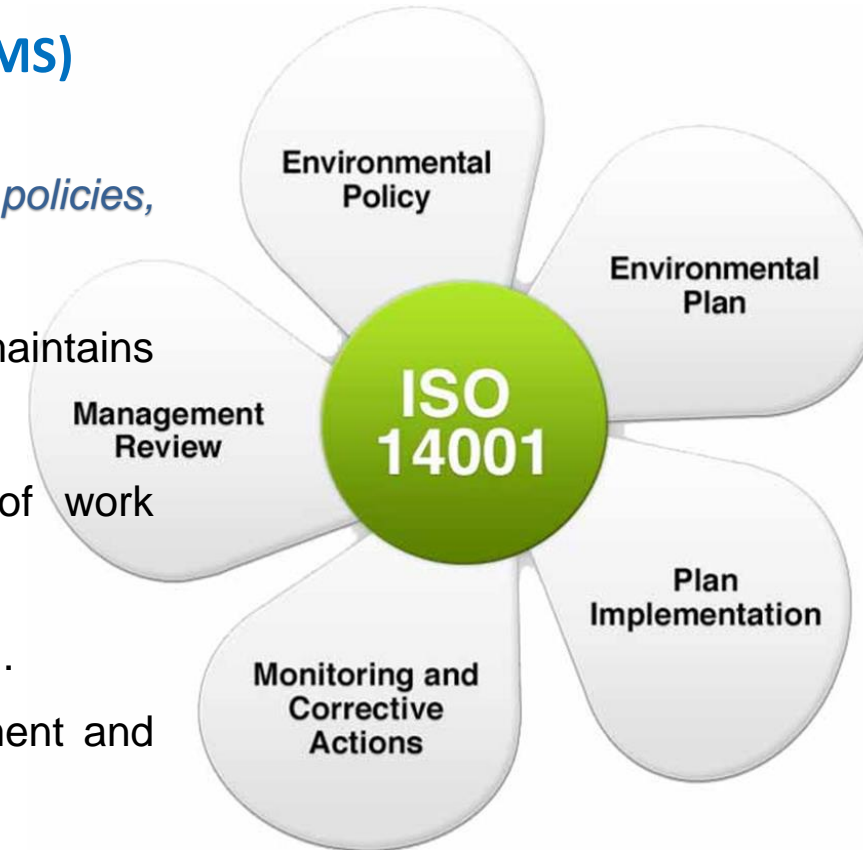
Partner: P4 – University of Zagreb Faculty of Textile Technology

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Lecture plan:

The environmental management system (EMS)

- EMS definition - *is a set of internal rules defined by a collection of policies, processes, procedures, and records.*
- This system defines how a company identifies, evaluates, monitors and maintains interactions with the environment to avoid negative environmental impacts.
- The ISO 14000 series of standards is applicable to various types of work organizations.
- Basic EMS standard ISO 14001 - requirements with guidance on application.
- Top management should set the appropriate policy towards the environment and ensure its implementation.
- The ISO 14001 standard is globally recognized and defined and outlines all the typical policies, processes, procedures and records required for a successful EMS.





Lecture plan:

The environmental management system (EMS)

FEATURES

- The establishment of an environmental management system (EMS) in company today is a ***strategic category of development and good business operations.***
- By meaning - this is a category similar to the management system quality (QMS), but also its upgraded (***"not just successful but good business"***)
- ***Certificate*** of EMS establishment today is *an important indicator good performance, business performance and competence of the company*
- It is an advantage to the competition and a guarantee that the company is able to meet the requirements of all environmental aspects and ***permanent control of emissions was established.***

Lecture plan:

Standardization of the environmental management system

- The need for a unique approach to environmental management, ie. **standardization** - is directly motivated by conclusions of International Conference in Rio de Janeiro in 1992.
- 1993 at ISO organization (in Geneva) was established ⇒ **Technical committee ISO/TC 207 - Environmental Management**

Task:

- *Adopting standards that would help organizations that directly affect the environment, to achieve the idea of sustainable development, ecosystem conservation and protection of the nature.*
- The first standards were adopted in 1996.

Today → series of 8 standards

➤ **standard ISO 14000**

▪ ***General character of standards***

⇒ applicable to different types of work organizations (*similar as ISO 9000*)



Lecture plan:

Benefits of the new version ISO 14001: 2015:

- Greater management involvement
- Better integration with other business activities
- The EMS system becomes part of the strategy
- Encourages strategic consideration of environmental performance and offers an opportunity to create “added value” of effective environmental management
- Knowledge of the business environment (context) and stakeholder expectations
- Risk and opportunity management; reducing the risk of incidents
- Decentralization of the system and distribution of responsibilities for EMS
- More efficient communication



Lecture plan:

Development of the environmental aspect of organization based on PDCA model and implementation steps of EMS

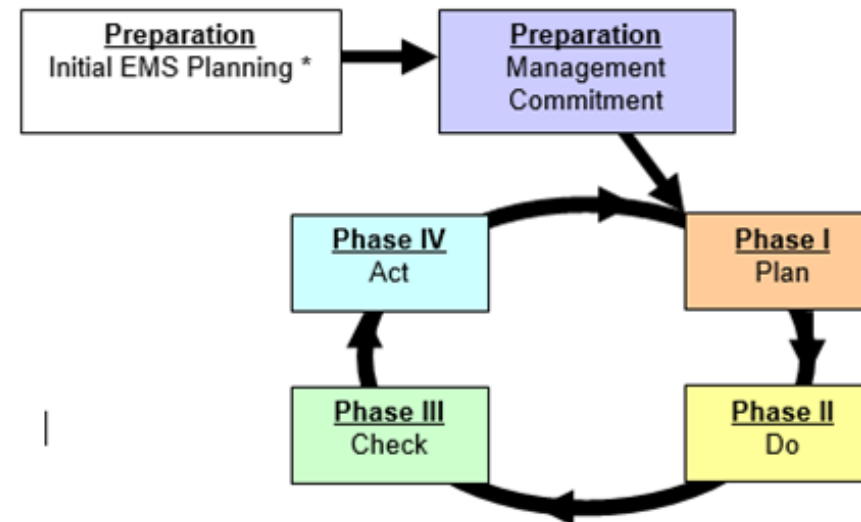
ISO 14001 CERTIFICATION

Organizations will have a three-year transition period to update their environmental management systems to the new standard.

To get started with ISO 14001:2015:

- Review existing quality management system requirements ([ISO 9001:2015](#))
- Purchase [ISO 14001:2015](#)
- Get [ISO 14001 training](#)
- Certify to ISO 14001

- The four-step "PDCA" approach is recommended for implementing a EMS.
- When setting up a EMS for the first time, two additional preparatory steps (initial planning and management commitment) are recommended, as shown in the figure.





Lecture plan:

⇒ *The environmental management system should ensure:*

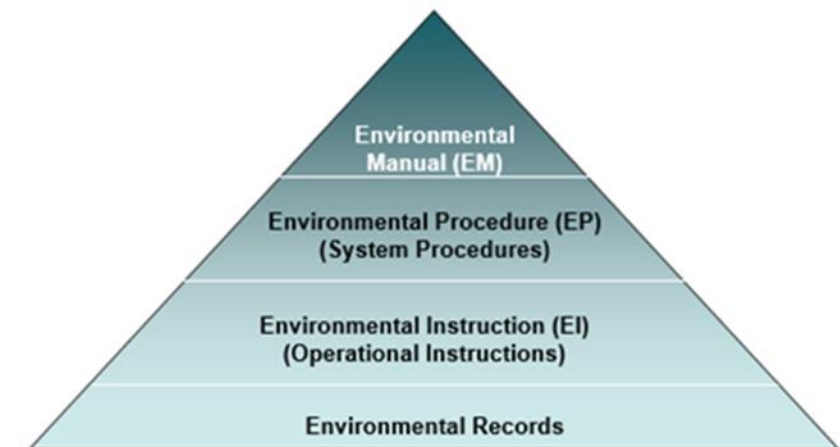
- reducing adverse environmental impacts
- quick response in case of accident or emergency situations
- cost reduction (energy, materials ...)
- harmonization with legal requirements
- a positive image of the company in public
- motivation of employees



Lecture plan:

Development of the environmental aspect of organization based on PDCA model and implementation steps of EMS

- Although these steps are not mandatory requirements under ISO 14001, these steps are useful in facilitating the development and implementation of the EMS under ISO 14001.
- The generic ISO 14001 EMS templates have been developed based on the ISO 14001 standard, using a four-level EMS documentation structure the structure of which is an international practice in line with the implementation of the ISO 9001 Quality Management System (QMS) standards.



Lecture plan:

Implementation of Environmental Management System

How to introduce EMS into practice?

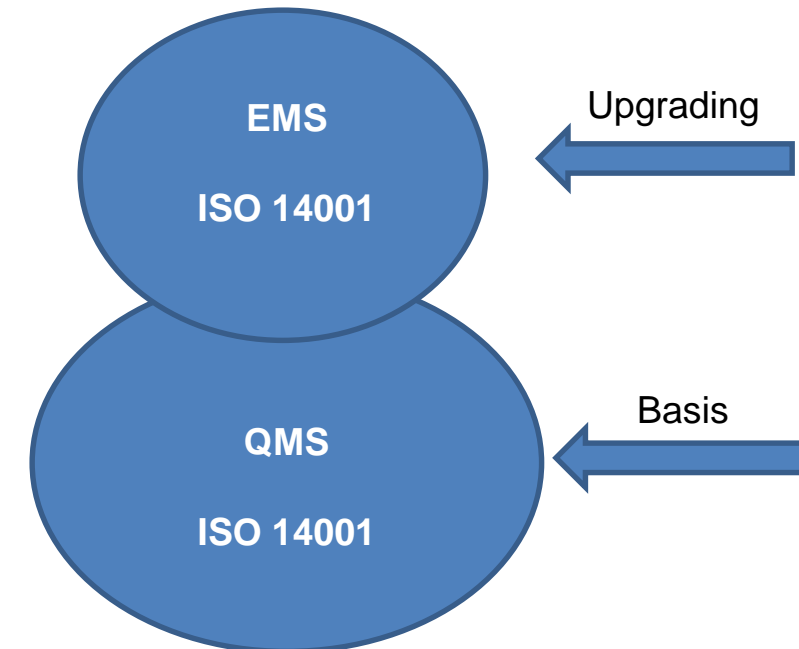
Two approaches:

A) If a company has already been introduced QMS according to ISO 9001, at the existing system is being upgraded by the environmental management system

- ISO 14001 is compatible with ISO 9001 standard and contains the same Principles and System Elements, as:

→ policy and goals, control, education, records, management documentation, internal audits and protective actions.

- All elements and requirements are directed on environmental aspects.



Lecture plan:

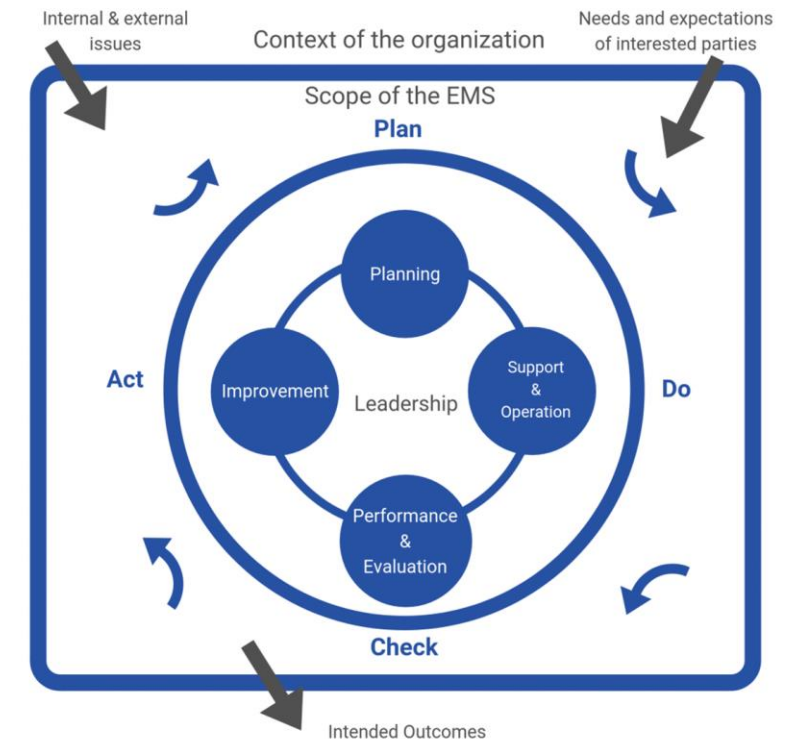
Implementation of Environmental Management System

B) If a company has not been introduced quality management system according to the ISO 9001 standard - since the beginning

Environmental management system is introduced by organizational development structures and elements in accordance with ISO 14001.

The basic approach is PDCA

- Other standards from the ISO 14000 series serve as guidelines and additions instructions for individual elaboration requirements and environmental aspects.





Lecture plan:

PDCA steps for the establishment of the EMS:

1. First express your determination for EMS

- for the prevention of environmental pollution,
- to respect environmental legislation
- for a continuous improvement in such a relation to the environment.
- document it by adopting ***the Environmental Policy***

2. Plan

- assess and determine which ecological issues will be managed within the EMS - methodology;
- identify priorities and most likely risks and objectives for their reduction,
- envisage the necessary alignment with the law, etc.



Lecture plan:

3. Do what is planned - apply the planned measures

- establish the necessary organizational structure and hierarchy of responsibility,
- implement the planned measures and achieve the goals planned methodology and procedures,
- make the methodology effective and document work procedures as internal standards to make EMS as efficient as possible.

4. Check and evaluate

- conducts measurements, tests, permanent monitoring, internal audit
- register the results and analyze it, and evaluate their relationship to the set requirements



Lecture plan:

5. Evaluation (review) and improvement

- Senior Managers carry out the supervision accomplished for the purpose assessing whether EMS is effective, achieving goals set, and how further improvements can be made.

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