

MOED

TRAINING COURSE

Minimisation Opportunities Environmental Diagnosis



MOED

Training course

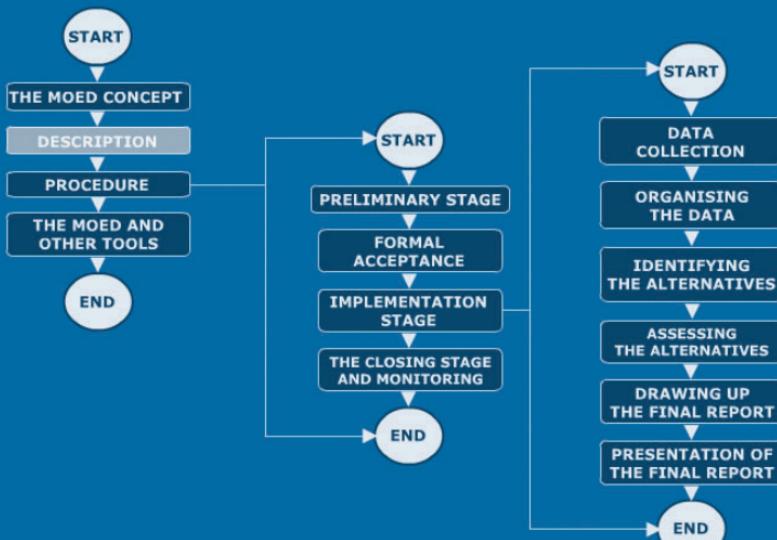
This practical course covering the methodology of the Minimisation Opportunities Environmental Diagnosis (MOED) has been developed by the Regional Activity Centre for Cleaner Production of the Mediterranean Action Plan for specialists and technical personnel involved with environmental management in enterprises and public authorities.

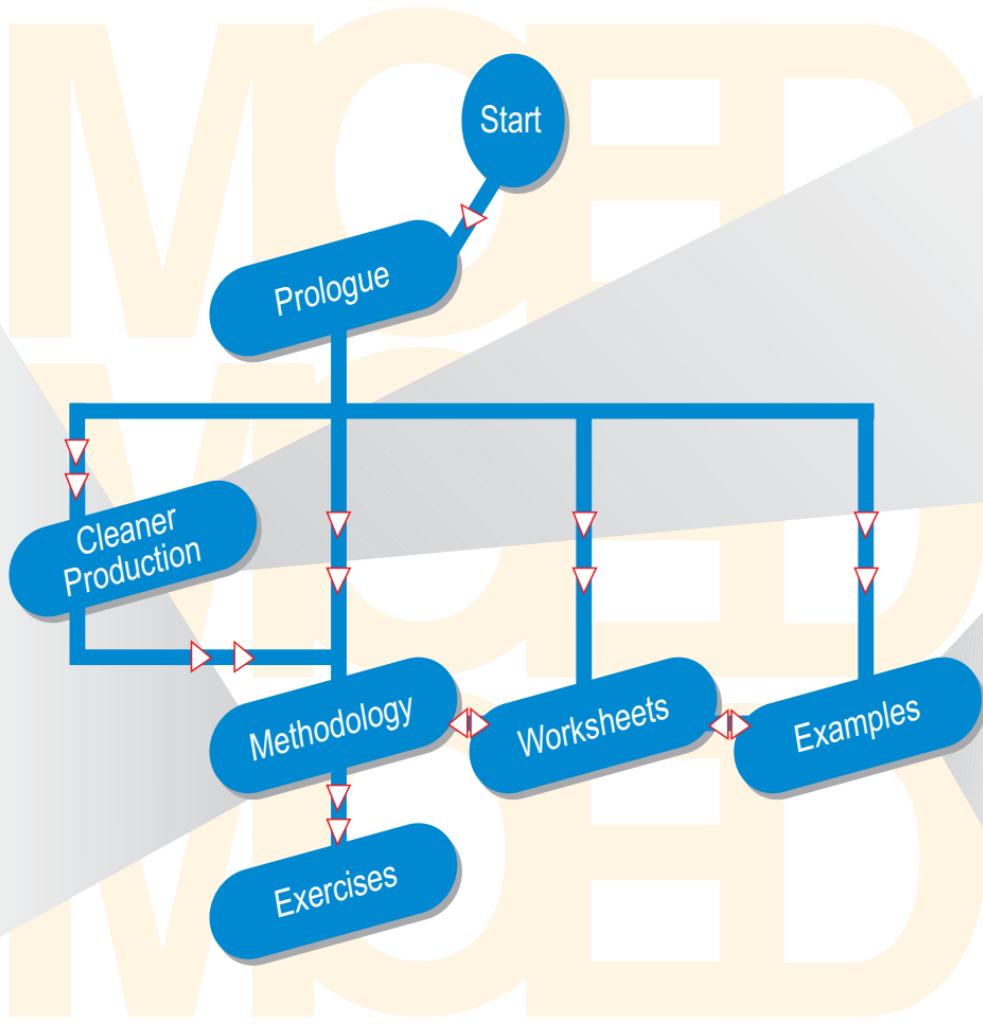
The structure of the course combines theoretical aspects with practical case examples. The fundamental concepts concerning Cleaner Production are gone over at the beginning of the course and the methodology of the MOED follows on from this.

The course is sequential in structure and is organised so that any section or example can be directly accessed.

The course also includes practical exercises that enable the user to work through and assimilate the concepts.

*The theoretical module takes
the user through the
successive stages of carrying
out an MOED.*





Incentives for applying cleaner production

- » Economic
- » Legislative/administrative
- » Technical
- » Organisational/corporate

- Saving in raw materials
- Saving in the management / treatment of waste
 - Water and energy saving
 - Improvements in product quality
 - Ease of obtaining external financing
- Reduced cost of insurance premiums for environmental risk

The purpose of this module is to present the basic concepts of Cleaner Production as a strategy for environmental management, as a way of introduction to the methodology of the MOED.

EXAMPLE: LEATHER INDUSTRY - PELLNETA

EXAMPLE INDEX

Sub Processes : Pickling

Two types of waste flow are generated in this process, a solid waste flow consisting of empty sulphuric acid containers, which are recovered externally, and a liquid waste flow comprised of waste water from the applying of the pickling solution (3m³/process), which is sent to the company's treatment plant.

```

graph TD
    A[HEIDES RENDIDAS ESCORREGUDES] --> B[BATH PREPARATION]
    B --> C[DENSITY CHECK]
    C --> D[FINAL CHECK PICKLING]
    D --> E[PEICKLING PROCESS]
    E --> F[Waste water]
    F --> G[HIDES EMPTIED ONTO WAGONS]
    G --> H[Empty plastic bags]
  
```

Estimated data
 (1) Waste water has a high sodium chloride (8 to 10%) and acid content and is therefore highly acidic (pH 2 - 3.5 Ugi).

No.	Waste flows	Type	Quantity	Management	Cost
1	Empty H2SO4 containers	Solid waste	Solid waste Inducted under plastic containers	External recovery	None
2	Pickling solution	Waste water (L)	5 m³/process *	Physicochemical treatment	0.92 €/m³

The course includes MOED examples and exercises on practical case examples of enterprises.

INSTRUCTIONS

1. The symbol indicates a link within the course itself.

Example: The MOED is not an environmental audit

2. The definition of words inside a yellow rectangle pops up by placing the cursor over the word.

Example:

3. When viewing either worksheets, examples, exercises or vocabulary, one or more windows may be open on top of the main Course window. To return to the course itself, just click on the visible part of the course window. To display other open windows again, press the **ALT** and **TAB** keys at the same time to alternately view windows.

Example:



Where: which represents the MOED TRAINING COURSE

which represents the worksheets, examples and

exercises that are opened in the methodology modul

which represents the examples that are opened in the general outline.

4. The control menu appears throughout the course. The function of each button is explained on the **information toolbar**. The menu buttons in the instructions window can be viewed but are not active.

To view the **METHODOLOGY MAP** and **INSTRUCTIONS** , all you need to do is place the cursor over the button. To access other functions, you need to click on the corresponding button.



Minimum computer requirements

- ✓ Intel Pentium processor or compatible 200 MHz (optimum Intel Pentium II or later)
- ✓ Colour screen (minimum 16 bits) with a minimum 800x600 resolution
- ✓ CD-ROM 24x or faster
- ✓ Windows 95 or later operating system
- ✓ 32 MB RAM (optimum 64 MB or more)
- ✓ Audio outlet with speakers

What is the MOED?

- A methodology available to companies that facilitates decision-making and planning for preventing pollution at source.
- The assessment of an industrial activity by an expert to detect possible opportunities for reducing and recycling pollution at source connected with the production processes, waste flows or the operations of the company as a whole.
- A low-cost process that is carried out in a short period of time.
- An analysis applied to an entire facility or just one part.
- A study of the alternatives available for making reductions at source, analysed from both the technical and economic points of view.
- An appraisal of the environmental and economic improvements that can be achieved by the company.

Advantages

Reductions in:

- costs (environmental management and resource and material consumption).
- the risk of accidents.

Improvements to:

- the environmental situation.
- product quality.
- the legal status of the company.
- relations with government authorities, customers, etc.
- the ability to adapt to change and regulatory requirements.

Enhanced corporate image.

Increased levels of personnel training and satisfaction.

Eco-efficiency is introduced into the industrial processes.

A starting point for developing a pollution prevention programme and/or an environmental management system (EMS).

Mediterranean Action Plan

Regional Activity Centre for Cleaner Production (RAC/CP)

París 184, 3a planta- 08036 Barcelona (Spain)
Tel.: +34 93 415 11 12 - Fax: +34 93 237 02 86
E-mail: : cleanpro@cema-sa.org
www.cema-sa.org

