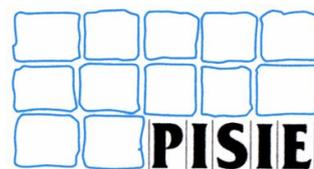
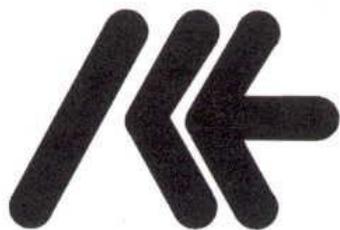


**TRAINING COURSE FOR
TANNING MANAGERS AND ENTREPRENEURS
FROM SYRIA**

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POLITECNICO INTERNAZIONALE PER LO
SVILUPPO INDUSTRIALE ED ECONOMICO

Workshop on “Eco Label Footwear”
(C. Milone)



ECOLABEL

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1. Market Access Requirements: Environmentally sound production

Environmentally sound production

Market access requirements on environmental issues might lead to activities aiming to reduce the damage of production to the environment; i.e. environmentally sound production. Although many requirements are set for the products traded within the EU borders, it still might be necessary to change production processes in order to comply with the products standards. These adaptations can vary from very radical (new technology) to hardly radical (based on the same technology and good-housekeeping). An example of a radical solution is ecodesign. This means that products are redesigned to make them less polluting in the process and easier to recycle in the consumer stage. While starting with environmentally sound production, non-radical measures are preferred. The simple measures often can reduce environmental damage against low costs.

Cleaner production

In respect to environmentally sound production, the term cleaner production is often used. Cleaner production depends only partly on new or alternative technologies. It can also be achieved through improved management techniques, different forms of work organisation and other 'software' approaches to products and processes. Cleaner production is as much about attitudes, approaches and management as it is about technology. That is why it is called cleaner production and not cleaner technology.

Cleaner production focuses on the causes of problems: pollution prevention by eliminating waste and emissions at the source. Ecodesign focuses on redesigning products to make them less polluting and easier to recycle. Both applications are the key to ecologically sustainable development.

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Environmentally sound production requires the continuous application of an integrated preventive environmental strategy to processes and products, with a view to reducing risks to humans and the environment. There are no geographical or economical barriers: it is an objective approach to balancing maximum economic advantages with minimal environmental damage.

In general there are three types of measures to reduce production's impact on the environment:

- source-oriented measures
- process-integrated measures
- end-of-pipe measures

The first two are generally referred to as “cleaner production measures”, and form a preventive approach to reduce pollution and resource inefficiencies. An important feature of this category of environmental measures is that their application not only benefits the environment, but also generates financial gains for the company concerned.

- Source-oriented measures focus on the source of environmental pollution. For instance, by choosing the appropriate chemicals, or avoiding the use of chemicals altogether, environmental problems such as highly contaminated waste water can be prevented.
- Process integrated measures focus on improving production processes with a view to reduce contamination and / or improve resource use efficiency. In the case of good-housekeeping measures, the changes do not require investments, but in many cases technological improvements will have to be made. Examples are water and energy conservation, optimization of the process, and equipment modifications. The economic advantages gained by source-oriented and process-integrated measures are twofold: they reduce both the costs of production and the need for costly waste and pollution control facilities. At the same time, negative health and environmental impacts on workers and the surrounding community are reduced.
- End-of-pipe measures are the last option to be applied. In spite of the potential of the preventive approach to industrial pollution, treatment of waste and emissions will often still be necessary. This type of measure is the so-called end-of-pipe treatment. Important fields for environmental end-of-pipe measures are industrial waste water, air pollution and solid waste.

The importance of environmentally sound production

Industries in developing countries, as well as their European counterparts, will have to respond to ever changing and existing environmental pressures for governments as well as the market itself and therefore may well have to transform their management and production styles. This requires new approaches in companies, ranging from new management and employee awareness and commitment to integrate environmental issues fully into the production process, product development, and research and market strategies of the company.

Many companies are already improving process efficiency, including waste minimisation, and energy, water, and (raw) materials efficiency. The next steps are towards a more integrated approach of cleaner technologies and the production of more environmentally acceptable products.

Companies and sectors may find the need to completely re-orientate their activities, becoming joint manufacturing and service companies, with much greater integration and the development of a new set of sectoral and industrial alliances.

Industrial development through imported technology and concentration of small locally based industries in developing countries, has led to the introduction of uncontrolled and unknown wastes into the environment in liquid, solid and gaseous forms. The countries are facing the dilemma of whether to pursue economic development irrespective of environmental destruction to catch up with the industrialised countries, or to pursue an ecologically sustainable industrial development that combines economy and ecology. It is now widely acknowledged that developing countries are experiencing environmental problems that were unknown 20 to 30 years ago.

Experience in both developed and developing countries shows that environmentally sound production not only results in a cleaner environment, but also in substantial savings for industry and society. Some cleaner production measures do not even cost a single coin! If investments are needed, the savings achieved in terms of material and labour costs are often more than sufficient to offset initial higher investment costs. It is estimated that 70% of all current wastes and emissions from industrial processes can be prevented by the use of technically sound and economically profitable procedures.

Of course the environmentally sound production technologies cannot be transferred uncritically from industrialised countries to developing countries. But the used methods can!

What is needed?

Cleaner production is neither a complex nor a technically involved subject. In fact you may feel that it is too simple to be pursued and some results can be achieved even through a casual approach. However, to realise the full benefits of cleaner production, three important issues have to be taken care of:

Management Commitment

A successful Cleaner Production Programme demands a strong commitment. It would mean direct involvement and supervision and, most important, conviction. Seriousness has to be reflected in programmes and actions and not merely in words.

Operator's involvement

While involvement in decision making and propelling cleaner production activities is essential, ultimately the shop floor work has to be carried out by operators and supervisors. It is important that, right from the stage of formulating and launching a Cleaner Production Programme, the operators are actively involved. The involvement and innovativeness of operators is of great help in identifying and implementing measures for cleaner production. Incentive schemes, bonuses, rewards and other forms of recognition can be introduced to motivate employees and stimulate them to cooperate and participate.

Organised approach

For cleaner production to be effective and sustaining, it is essential that an organised approach is formulated and adopted. Initially it may be alluring to work on piecemeal basis, as the immediate benefits might be more appealing. However, the interest soon drops and long-term sustainable benefits are not realised. If some time and effort are spent to establish the organised approach, it will certainly pay back in the longer run. An organised approach in assigning responsibility, fixing targets, reviewing progress and timely implementation would enable to establish the programme as a continuous activity and develop a culture of 'doing better'. It can also help in drawing assistance from state sponsored schemes.

The benefits

Cleaner production offers several other benefits apart from reducing the requirement of resources as raw material, water and energy. The other benefits that cleaner production offers are:

Improvement of work environment

Cleaner production helps to improve the shop floor environment leading to higher efficiency and better working relations, because:

- o plant appearances are better
- o workers health problems are reduced
- o spillages are reduced

Quality improvement

The importance of quality and cost reduction needs no emphasis. There are many instances where cleaner production has directly led to improvement in quality of processed products.

Image

Cleaner production reflects and improves the overall image of the company. Company's image in the eyes of the public and regulatory bodies is improved. Its image becomes more environmentally sound.

Compliance

Environmental regulations are becoming tighter and often result in increased end-of-pipe treatment costs. Audit schemes also require companies to provide information regarding energy, waste and material use as well as waste and waste water generation. Cleaner production helps to cope with these problems and helps in optimising the production process and meeting the increasing quality demands (especially for export markets), at the lowest possible cost. In the future, more and more products have to be certified as having been produced in an environmentally sound way.

New market opportunities

Environmentally conscious product development is of particularly great economic importance: there is a growing demand for 'green' products in both professional and consumer markets. Moreover, environmental legislation governing both domestic and foreign products has an effect on the competitiveness of trade and industry. The growing demand for green products offers new opportunities to those businesses, which are able to take advantage of this trend through the timely introduction of innovations.

The knowledge and experience gained in the field of environmentally conscious product development can also be exported. This is an attractive financial proposition for industry, research agencies and consultants.

Environmental cost reduction

The effluent streams become smaller and less contaminated and can be treated in simpler and lower cost treatment plants, which results in:

- reduced energy consumption in treating waste
- amount of chemicals required for treating waste are reduced
- reduced manpower and equipment requirements for on-site pollution control and treatment
- area required for waste treatment and disposal is reduced
- waste disposal cost is reduced

2. International management system: ISO 14000 on environmental management

In brief

ISO 14001:2004 (hereafter referred to as ISO 14001) is by far the most widely used environmental management system (EMS) worldwide. It is part of the ISO 14000 series which addresses environmental management; ISO 14001:2004 provides the requirements for an EMS and ISO 14004:2004 gives general EMS guidelines.

The ISO 14001 standard can be implemented in all kinds of companies and organisations, regardless of size, public or private and sector. This broad scope is achievable because of the focus of ISO 14001, which is to provide a framework for a strategic approach to environmental policy, plans and actions, rather than specifying levels of environmental performance which would have to be product specific.

Market impact

The number of companies that are ISO 14001 certified is growing each year. The latest figures made available by ISO are for the year 2006, which show that almost 130 000 certificates had been issued in 140 countries and economies. This represented a growth of 16% compared to the year before.

Want to know more about the market impact in your sector?

Check out the websites of large companies in your sector and see what they do. Most companies report about ISO 14001 and other management systems on their websites. If you can't think of companies in your sector, check out relevant buyer requirements and market surveys in this database!

The certified companies operate in a range of industry sectors and service sectors. In some sectors, ISO 14001 does no longer provide an added value, but has rather become a prerequisite for finding international buyers. In other sectors, ISO 14001 certification could still provide an advantage above competitors.

For more information on the use of ISO 14001, please refer to the ISO survey for the year 2006 which you can find in the external links section.

Content

ISO 14001 provides a framework for introducing an EMS. An essential part is the aim for continuous improvement. It is a tool enabling an organization of any size or type to:

- **identify** and control the environmental impact of its activities, products or services, and to
- **improve** its environmental performance continually, and to
- implement a **systematic approach** to setting environmental objectives and targets, to **achieving** these and to **demonstrating** that they have been achieved.

For more information on ISO 14001, please refer to the ISO website. You can find a link in the external links section.

ISO 14001 can be implemented in combination with other management systems such as ISO 9001 on quality and OHSAS 18001 on occupational health and safety.

Monitoring

ISO does not require external certification, but in order to prove compliance to clients it may still be needed. In this case, the ISO 14001 system has to be certified by an authorised certifying body (such as Lloyd's, Veritas and SGS). A certificate is valid for three years. In order to maintain the certificate, regular audits, both internal (1-2 times per year) and external (2 times per year), are needed.

Costs

The cost of certification varies from one organisation to another, depending on factors such as the size and complexity of the organisation, the actual state of implementation of the EMS, the attitude and commitment of the top management, etc. If you are interested in knowing more about certification costs, it is advisable to contact a certification organisation for more information.

Organisation

ISO, International Organization for Standardization, is a network of national standards institutes from 157 countries. The central secretariat is based in Geneva. Its members are organisations from both the public and the private sector.

3. EU environmental label: eco-label for footwear

In brief

The EU Eco-label Award Scheme is the eco-label of the EU1. The label sets requirements for each product on the basis of a “cradle-to-grave” assessment of the environmental impact of the product group. This means that the complete life-cycle of a product is analysed, starting with the extraction of the raw materials, progressing through the production, distribution and use phases and ending with disposal after use. The label is awarded only to those products with the lowest environmental impact in a product range. Products need certification before they can be labeled with the eco-label.

This document presents an overview of the established environmental requirements of the EU eco-label for footwear. More specific criteria for footwear are given in Decision 1999/179/EC under the footwear category.

When to check the requirements of the eco-label

- Your EU buyer requests this label - so you will have to comply with the criteria and certify your footwear.
- You see a niche market for an eco-labelled product and you decide that eco labelling is a market strategy to follow.
- Your EU buyer prefers suppliers that include environmental issues in their production process. You can use the requirements of this eco-label to check and improve your own environmental performance. Therefore, the requirements can be used for your own business without considering the label and certification. European buyers do not always request certification, but might support the environmental criteria set.

Market impact

Although the EU label could be applied to many products, not so many companies are using the logo. Of the 440 companies awarded with an Eco-label there are 19 that produce footwear. These companies are located in Italy (15), Sweden (3) and Spain (1). However, considering the fact that some EU buyers might be interested in environmental issues, the environmental criteria might still be relevant without certification of the complete eco-label.

Outline of the eco-label criteria

I. Scope

The eco-label for footwear applies to all categories of shoes, including sports shoes, occupational, children's, men and women's town, specialist shoes for cold, casual, fashion and indoor. The environmental criteria of the eco-label require a series of scientific studies to be carried out that evaluate the environmental impact of each phase of the footwear life cycle.

During this analysis of the footwear life cycle all factors that are susceptible to affecting the environment are taken into account, beginning with raw materials that make up the final product, passing through the manufacturing process, distribution, use and final disposal. Energy consumption, natural resources used, emissions, waste, etc. must also be taken into account.

II. Criteria

The ecological criteria are also a result of a broad survey in the European Union Eco-labelling Board (EUEB) integrated by professionals from all the interested parties; Member States, environmental NGO's, consumer and industry associations, trade unions, SME's and commerce.



The flower logo is also accepted and present in those countries, which are signatories to the EEA Agreement (Norway, Iceland and Liechtenstein).

The criteria proposed by the EUEB must be approved by the state members and the European Commission before they can be used as requirements to award the European eco-label.

In the concrete case of footwear, the main objective pursued by the ecological criteria is to encourage limitations in the levels of toxic residues, in the emissions of volatile organic compounds and to encourage the production of more durable products. To summarise it is based on:

1. Residues in the final product

The use of the following substances is limited: chromium (VI), arsenic, cadmium and lead in the final product, as well as the amount of free formaldehyde in textile and leather components. Moreover, the testing methods for these substances are determined as well.

2. Emissions from the production of material

Special requirements for the treatment and disposal of waste water from leather tanning sites and from the textile industries exist.

3. Use of harmful substances (up until purchase)

The use of several harmful substances (pentachlorophenol, tetrachlorophenol, azo dyes that may cleave in certain aromatic amines, N-nitrosamines, chloroalkanes C10-C13) is prohibited.

4. Use of volatile organic compounds (VOCs) during final assembly of shoes

The use of volatile organic compounds (VOCs) is limited.

5. Use of PVC

Prohibiting the use of non-recyclable PVC in footwear. Recyclable PVC, however, can be used in outsoles.

6. Energy Consumption

The applicant is requested on a voluntary basis to provide detailed information on the energy consumption per pair of footwear.

7. Electric components

The use of electric or electronic components in footwear is prohibited.

8. Packaging of the final product

If cardboard boxes are used for the final packaging of footwear, they shall be made from a minimum of 80% recycled material. If plastic bags are used for the final packaging of footwear, they shall be made from recycled material.

9. Information on the packaging

The products should be marked with relevant user information related the EU eco label and its related product groups, the use and maintenance of the product and the recycling and disposal of

the product. The information also should include the following text: “ *for more information visit the EU Eco-label website: <http://europa.eu.int/ecolabel>”.*

10. Information appearing on the eco-label

The eco-label shall contain the following text:

- low air and water pollution,
- harmful substances avoided.

11. Parameters contributing to durability

The durability of a product translates into a lower quantity of waste that has to be properly dealt with for their elimination. Therefore, footwear awarded with the European Eco-label assures consumers that they are using footwear that fulfils certain durability requirements.

Organisation

Each EU Member State has established a Competent Body for the label. An application is done by contacting the EU Competent Body in the country of the origin of the product. If the product originates outside of the EU, such as from developing countries, one should present the application to a Competent Body in any one of the Member States in which the product is to be or has been placed on the market.

Monitoring

The ecological criteria are valid for a period of two to five years. Once this period is completed, the criteria are revised to eventually make them more restrictive, in this case in terms of market evolution and scientific and technological progress, to also improve the ecological efficiency of the product that carries the Eco-label.