









# Basic Concepts on Ecodesign

UNIT 2: Traditional design versus Ecodesign.

## Objectives of the unit

- To be able to stablish the relationship between traditional design versus Ecodesign
- To know the Ecodesign evolution.

## 2.1 Evolution of Ecodesign.

"Sustainable development" is an expression that was firstly used in 1987 by the World Commission on Environment and Development, a commission within the framework of the United Nations.

- Is an expression that was first used in 1987 by the World Commission on Environment and Development
- The arrival of this new concept highlighted an important change in the conception of ideas that had been present until the decade of the sixties.
  - > Resources are no longer inexhaustible
  - Concern about the atmospheric layer and its state
  - Awarenes about water reserves and their depletion
  - Our planet is not able to absorb all the pollution we generate

In the 1970s and 1980s, it began to "feel" a greater sensitivity and began to legislate in the more developed countries



## 2.1 Evolution of Ecodesign.

During the next decade, the 1990s, the first results of the new approach began to materialize and to be seen

■ The way to carry this regulation out was through directives, which allowed the regulation of many activities, even leaving free way to each country to define them.

In 1992, in Rio de Janeiro, the the first United Nations Conference on Environment and Development was held .

In 2002, in Johannesburg, South Africa, the World Summit on Sustainable Development was held.

where was made a review of the commitments made in Rio

It is recognized that sustainable development is much more than an environmental problem, including other factors that are integrated in three main pillars: Society, Economy and Environment

## 2.1.1 The European Union and its environmental policy.

In 1986 the Single European Act was incorporated into the Treaty of the European Union "Maastricht Treaty"

Within the Treaty, the achievement of key objectives are specified:

- conservation, protection and improvement of the quality of the environment
- protection of human health
- prudent and rational use of natural resources
- the promotion of measures at international level to deal with regional or global environmental problems.

This new approach clearly affects organizations and companies, as the program seeks to establish new relationships between agents involved in the process of developing products or services

Strategic concepts arise as: Corporate Social Responsibility



## 2.1.1 The European Union and its environmental policy.

The Declaration of Principles for Sustainable Development (June 2005) claims that sustainable development must lead to the development of a democratic society that:

- creates equal opportunities
- combats discrimination,
- generates an eco-efficient economy,
- breaks the links between growth and environmental degradation
- leads the international coordination towards a global process of sustainable development.

## 2.1.2 Population and their environmental awareness.

In the second half of the decade 80's the "green consciousness" became fashionable among minority groups of designers, who first tried to "convince" the political parties and then, to the general public.

- But it was in the early 1990s that design came up with a third wave of environmental ideas, with Ecodesign becoming a common trend in many European countries
- XXI century started with a greater environmental awareness from the part of designers
- Environmental catastrophes that happened in the 2000s raised public awareness.

## 2.2 Relationship between traditional design and Ecodesign.

The differences between traditional design and Ecodesign processes are presented in the following figure

## Docian Stone

	Design Steps						
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	
TRADITIONAL DESIGN	Strategic planning	Information and analysis	Definition of requirements	Conceptual design	Detailed design	Verification and Planning of production and marketing	
ECODEDIGN	Motivating factors, Ecodesign team and reference product	Information and environmental assessment	Ecobriefing	Generation of ideas for environmental improvement	Definition of environmental improvements	Quantification and communication of environmental improvements	

## 2.2.1 Step 1.

## TRADITIONAL DESIGN

#### **STRATEGIC PLANNING:**

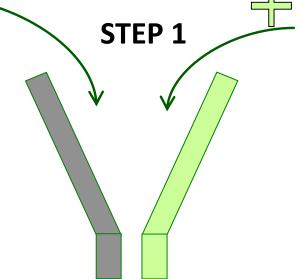
- Purpose of the design
- Need to satisfy
- Participants in the design and development process
- Project phases and schedules

#### **ECODESIGN**



Determination of:

- Motivating factors, internal and external
- Ecodesign team
- Reference product selection





## 2.2.2 Step 2.

TRADITIONAL DESIGN

#### **ANALYSIS AND INFORMATION:**

Company information:
 Determination of strengths and weaknesses (against competition)
 Offer
 User needs/ Wishes

State of the Art

Product normative

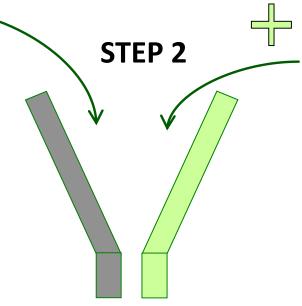
Similar products / spare parts

- Information analysis



# INFORMATION AND ENVIRONMENTAL ASSESSMENT:

- Environmental information (from both the company and the reference product)
- Environmental analysis →
  Detection of life cycle stages with
  the higher environmental impact
  and Ecodesign strategics for
  improvement





## 2.2.3 Step 3.

# REQUIREMENTS DEFINITION "BRIEFING"

- Edit a document which establishes: Product requirements

TRADITIONAL DESIGN

Aspects to consider

Context

Goals

Conditioners

**Expected results** 

Deliverables: Technical documentation,

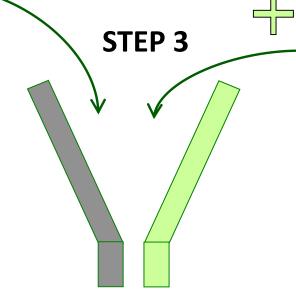
models, prototypes, etc.)



# REQUIREMENTS DEFINITION "BRIEFING"

 Edit the document from Initial environmental analysis
 Aspects to minimize and in which stages Internal environmental requirements from the company policy and success stories

Internal environmental requirements (restrictions, regulations, competition, technology, etc.)

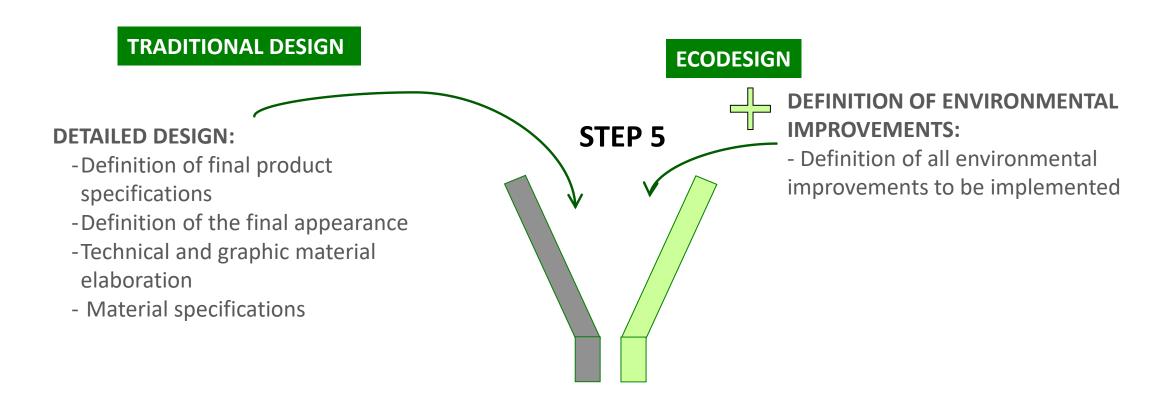


## 2.2.4 Step 4.

# CONCEPTUAL DESIGN: creative proccess to generate: - Alternatives or concepts of the future products - Analysis to select the most promising/viable ECODESIGN GENERATION OF IDEAS OF ENVIRONMENTAL IMPROVEMENT: - Incorporation of proposal for environmental improvement (arising from Ecobriefing)



## 2.2.5 Step 5.





## 2.2.6 Step 6.

## VERIFICATION AND PLANNING OF

PRODUCTION AND MARKETING:

TRADITIONAL DESIGN

- Check that we are in compliance with all phases carried out in steps 4 and 5 meet the requirements set out in step 3.
- Production planning: Feasibility study, materials, production, technology, transport.
- Marketing, distribution and sale.
- Communication.

### **ECODESIGN**



#### **Environmental improvements.**

- Assessment and documentation of the new product.
- Carry out a new environment assessment.
- Evaluation of the improvements obtained.
- Environmental communication



STEP 6



## **Thanks**

# Basic Concepts on Eco-Design

UNIT 2: Traditional design versus Eco-Design.

