

Ecosign training course: a tool to raise a generation of European Eco-Designers

Designing and producing products responsibly to be safe and sustainable, minimizing the environmental impact of products over their whole life cycle and ensuring that their disposal is the birth of something new, are concepts at the basis of the training course for Eco-Designers developed under the framework of the Ecosign Project, co-funded by Erasmus+ Programme of the European Union, that sees the participation of 12 sectoral organizations, VET providers and Regulatory bodies coming from different consumer product sectors (electrics & electronics, food packaging, textile & clothing) and EU countries (Italia, Romania, Slovenia, Spain).

The aim of the training course is to help professionals and students to be acquainted with the basic concepts of Ecodesign (13 units) and their implementations in food packaging sector (12 units), in the electrical & electronics sector (13 units), in textile & clothing (10 units).

But what exactly are we talking about when we talk about Ecodesign?

When we talk about Ecodesign we have to think of a "systematic incorporation of environmental aspects into product design with the aim to reduce its impact through its entire life cycle".

This means that Ecodesign does not address a substantial change in the traditional stages of the process of product design and development, but provides a new point of view, considering aspects of sustainability as part of the key requirements.

To integrate Ecodesign in a product development throughout the entire businesses there are different tools. The most popular is the Lifecycle Design Strategies (LiDS) Wheel (Brezet and Van Hemel 1997), an approach divided into eight steps that serve as a guide in the design and manufacture of sustainable products:

0. **New concept development:** for example, thinking of new ways to use the product already in the design phase, optimizing the functions and maximizing the use thanks to shared use.
1. **Selection of low-impact materials:** for example, materials produced by ecological processes.
2. **Reduction of material usage:** for example, by designing longer-lasting products with less material and reusing components.
3. **Optimisation of product techniques:** for example, by using alternative production techniques or by reducing energy and water consumption.
4. **Optimisation of distribution systems:** for example, by using lighter and reusable packaging.
5. **Reduction of impact during use:** for example, by reducing the use of disposable consumables or lowering the required maintenance.
6. **Optimisation of initial lifetime:** for example, by offering extended-life products that are easier to maintain and repair.
7. **Optimisation of end-of-life:** for example, use of materials that are easily separated and sorted for reuse, products that can be remanufactured or modernized.

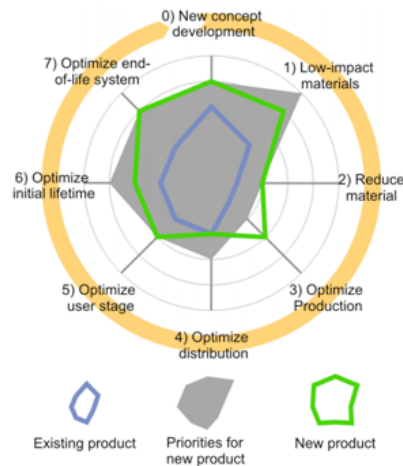
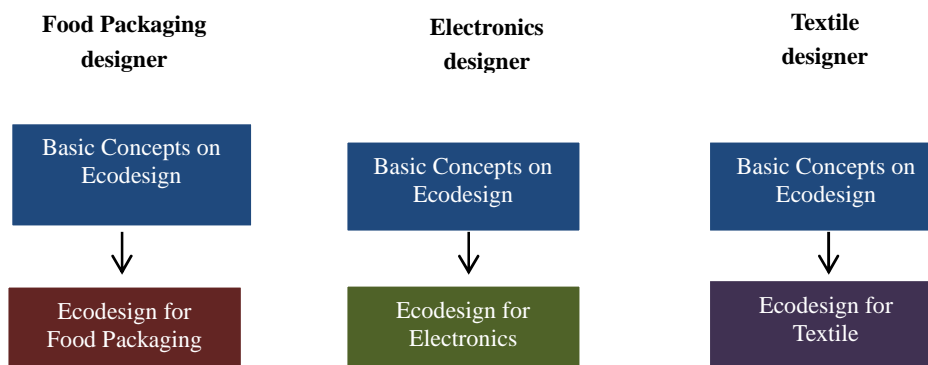


Figura 1: Lifecycle Design Strategies Wheel.
Source: <http://www.matbase.com/guidelines.html>

To reach this goal, in order to implement an Ecodesign strategy, there are many issues to be considered and learnt that will be analysed in the Basic Module of Ecosign course. For example:

- European Legal Framework for Environment and Eco-design in general
- European legislation and general standards for Ecodesign
- Legislation and reference standards of materials and products
- Environmental management systems
- different methodologies to improve the environmental behaviour of products, processes and activities
- different options to communicate the environmental performance of a product (Ecolabel, Environmental Product Declaration)
- identify significant environmental aspects related to an activity
- Benefits of an Ecodesign approach and success stories

As the training units are structured to be complementary to each others, after the completion of the basic Module, users will have access to the specific Modules, introducing Ecodesign principles applied in each specific sector considered: food packaging, electrics & electronics, textile & clothing.





The topics of the whole Ecosign course are listed in Newsletter n. 6 available on Ecosign website www.ecosign-project.eu.

Recent meeting project and activity

The last consortium meeting was held in Yecla (Spain) at CETEM (Technical Research and Training Center of Furniture and Wood of the Region of Murcia) headquarters on 23-24 May 2018 with the main objective to evaluate the first results of the pilot courses that are being carried out in each of the partners' countries where students and workers from the food packaging, electronics and textile sector have been trained with the developed contents of the Ecosign courses.



Figura 2: Yecla Meeting

The responses collected by the participants will be used to improve the content and release the course by the end of the project next October. The course will be available in the following languages: English, Italian, Romanian, Slovenian and Spanish.

At the consortium meeting, the opinions of the different countries about the training materials have been shared, and decisions have been made about how to improve it. In addition, attendees had the opportunity to visit a company operating in the furniture sector and integrating eco-innovation and eco-design in design and production processes.

Partners of the Ecosign Project

