Ecodesign

Design now
products
of tomorrow

Ecodesign

Integral designing

Ecodesign is an integral design activity. As a responsible designer or product developer, you are alert to the possible consequences of your design decisions upon the environment. You examine what kind of ecological impact the product may have during the consecutive stages in its lifecycle – from the moment of extraction of the raw materials until the waste phase, the time when the product is finally being discarded.
Ecodesign will change your way of thinking and consequently also your way of designing, with the creation of truly innovative products as a direct result.

Ecodesign

Re-examining a product's lifecycle

You examine the complete lifecycle of a product or process, first paying specific attention to those elements that are most likely to put a burden on the environment. You redesign a product or you study the market and adapt your design to fit the conditions you find there. This will allow you to avoid waste, even before the product actually exists.

An ever-growing necessity

Ecodesign is ever increasingly becoming a 'must' factor. The legislator imposes higher environmental demands, the costs of purchasing raw materials are rising, and the processing of waste products has become more and more expensive. Likewise, competitive pressures force you to pay serious attention to the environmental aspects of your product. And those aspects increasingly determine the **image and the distinctive position** of your product and organisation.

OVAM and Ecodesign

And now: action!

OVAM Ecodesign.link is a meeting point for all those involved in sustainable product innovation. Here, you will find everything about OVAM's **instruments, information and awareness campaigns** related to ecodesign. Through this meeting point, on the one hand, we want to conduct innovative research and launch test projects based on a strong link with the needs of and feedback from designers and companies and, on the other hand, we want to build a network via cooperation agreements. Our free database of examples will inspire you with real-life ecodesign products. A question about sustainable product innovation? Get in touch via

.

www.ovam.be/ecodesignlink

OVAM and Ecodesign

And the winner is …

Young designers play an important role in the future of ecodesign. OVAM appreciates student-designers who already deal with environmental issues during their education. That is why we organise each year the **OVAM Ecodesign Award for students**. This initiative is designed to encourage Flemish designers in spe to design new and innovative products that take full account of the environmental factors. Likewise, professional designers are eager to join the competition for the **Ecodesign Award PRO**. The most successful products are rewarded with stimulating cash prizes, nominations and press attention. All such information can be consulted on **www.ovam.be/ecodesignlink.**

Ecolizer2.0

Handy Ecodesign meter

You wish to analyse the environmental impact of your designs? If so, you have need for a reliable instrument to assist you. For that purpose, we have developed the Ecolizer 2.0, especially for designers.

Environmental impact values

The Ecolizer 2.0 is based on the ReCiPe-method. It consists of cards providing **eco-indicators** (EI). They present a product's anticipated total environmental impact in one single number: from materials, processing methods, transport, energy consumption to recycling and waste processing. The higher the number's value, the bigger the design's environmental impact.

Fast, well-considered, and advantageous

By using the Ecolizer 2.0, the designer can, in a relatively simple and rapid manner, make a scientifically founded estimation of the impact that his product or his product's design is likely to have on the environment.

Eight lifecycle stages

In our analysis we distinguish eight stages in the product's life cycle, based on the LiDS wheel. You can apply useful strategies during each of these life cycle stages.

1. Optimisation of function fulfilment

Consider the need that your product is intended to satisfy and search for an alternative that will fulfil that need even better. For instance, enable your product to integrate a variety of functions. Another way to optimise the function fulfilment is to offer a service instead of a product.

The bike stations, a product-service combination, ideally combined with public transport.

2. Substitute raw materials

Make an inventory of harmful substances and energy-intensive materials that are part of your product. Consider alternatives that do not involve a hazard or risk to people or to the environment, or which require fewer processes and energy consumption to give the product its ultimate form.

The very first wooden radiator on the market with FSC-certified plywood.

3. Save on materials

Ensure that in your designs, the needed general and raw materials are employed in optimal fashion. Check out the areas where you can save on weight and mass: use reinforcement joists, hollow parts, stronger or lighter materials, and avoid excessive sizes... Generally, a light-weight product will score better in many areas.

This stylish suitcase is made from a strong, light-weight thermoplastic composite material. With a material thickness of 1.2 millimetres, this suitcase is about twice as light as other hard suitcases.

4. Improve the processing efficiency

Reduce the number of steps in your production process as much as possible. This will allow you to make optimal use of energy and raw materials and minimize the production of waste and hazardous substances. Keep the quantity of auxiliary materials used during the production process as low and as environmentally justified as you can. For instance, use a solar boiler to heat the water needed for processing.

This chair is made of locally produced beech wood. The legs and back are burnt and the seat is subjected to a yeast and drying treatment.
Result: no treatment with carcinogens and the attractiveness of tropical timber.

5. Optimise the distribution

Are you minimizing the weight of your product and its attendant packaging? In that case, you are also optimizing the mass to be transported. Or you may design and transport products in modular fashion. Select the most appropriate transportation method: transport by train or ship puts the least burden on the environment.

This producer ships its motorcycles completely unpacked thanks to a specially developed clamp system. Result: no return loads and more space in the lorry.

6. Improve product use

Reduce the energy consumption of your product to a minimum, also when in stand-by mode. This reduces costs for the consumer. Use an energy source that will not quickly wear out. Stimulate the use of re-chargeable batteries. Select a user-friendly and intuitive interface: a product accompanied by clear user directions is a good product, but a product that needs no instruction manual is better!

This LED emergency lighting requires an input of only 3 Watts, does not have to be replaced and is equipped with special optical systems that guide the light of the LEDs in the right direction.

7. Extend life span

Often, the technical lifecycle of a product (the time span during which the product functions properly) is longer than its economic lifecycle (the time span that the product is expected to remain on the market). Devices that are still working perfectly wind up prematurely and unnecessarily on the garbage dump. Therefore, avoid products with a short lifecycle that are fashion-sensitive. Ensure that consumers can obtain separate replacements for any fast-wearing components and provide easy repair methods.

The life span of this coffeemaker was extended using standard components. It is easy to disassemble, is less scale-prone and has an ageless design.

8. Optimise product end of life

No matter how long-lasting and durable a product's lifespan, it will eventually end up as waste. Take a discard-process of your product into account from the moment of its design. When you are in the process of designing a product, keep in mind the process of dismantling: for example, use systems that allow easy disassembly.

This chair is part of a take-back system. The chair can be disassembled in 5 minutes and the components reused.

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