

Changing the change

Design Visions, Proposals and Tools

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FISH BOX IN EPS

Zero impact

Abstract

Today an important objective is the protection of the environment, a new approach, that is fundamental for the processes production and the competitiveness of the enterprises.

Therefore, design assumes a strategic role in the process of innovation of the enterprises in the environmental field.

In fact, the goal of this paper is to demonstrate that an enterprise can be efficient also when the production becomes concerned in the protection of the environment and that this is the key in order to obtain a sustainable development.

In order to obtain this, a company is held to reduce the impact of the products during the entire life cycle of the product (from production to disposal) and to use adequate strategies that aim in reducing the impacts on the environment.

The analysis will consider the field of packaging, considering a Sicilian company, that produces packaging made by Expanded Polystyrene (EPS) and in particular boxes for fish. The company sells the boxes in the entire Sicily and also to foreign countries.

The boxes in EPS destined to transport and conservation of fish are safe from the hygienic point of view because mould does not develop.

In fact, EPS is a material that offers an optimal protection during the carriage, it is resistant to mechanical stresses and humidity, and able to keep the product at low temperature for long times. Further more, it is non toxic, inert, it does not contain CFC_s neither HCFC_s and is waterproof and light .

In practice, the paper will be organized in two phases:

- In the first phase, the production cycle of the EPS boxes will be improved, designing boxes that will be put one on each other, stackable and with a lower weight.

This will imply a better stacking, about forty percent in more than with normal boxes with a consequent saving of energy, resources and therefore a reduction of the environmental impact.

In this phase, the packaging will follow the parameters of ecodesign: redefining of packaging in weight, reuse of the product also for other functions, recycling of the material to introduce in the production cycles as second materials, energy recovery.

- In the second phase, the aim will be the recovery of the boxes to be reutilizes in a new production process in order obtaining zero impact.

This phase will begin with the description of data relative to the amount of the wastes and of the models of collection and reuse of disposal boxes.

After this study the recovery to the logistics and the reuse of the boxes will follow .

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The new methodology will be based on the total recovery of the boxes in the Sicilian territory and the indications for a subsequent reuse.

Therefore, the main objective of the new methodology is to employ the wastes in a new production therefore to obtain an added value.

This new organization will be able to lead to:

- activate new production fields;
- new resources and new actors;
- to produce with zero impact

These will become the starting points for the creation of an integrated system of local production. Therefore, an optimal use of the waste, through the employment of new technologies, will bring returns and benefit to the territory thanks to the zero impact.

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