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FÁBRICA NIESSEN

COMUNICACIÓN A LOS AGENTES INVOLUCRADOS EN EL CICLO DE VIDA
COMMUNICATION TO THE AGENTS INVOLVED IN THE LIFE CYCLE

Microswitch Hospitality

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LCA

Communication to the agents

Microswitch Hospitality

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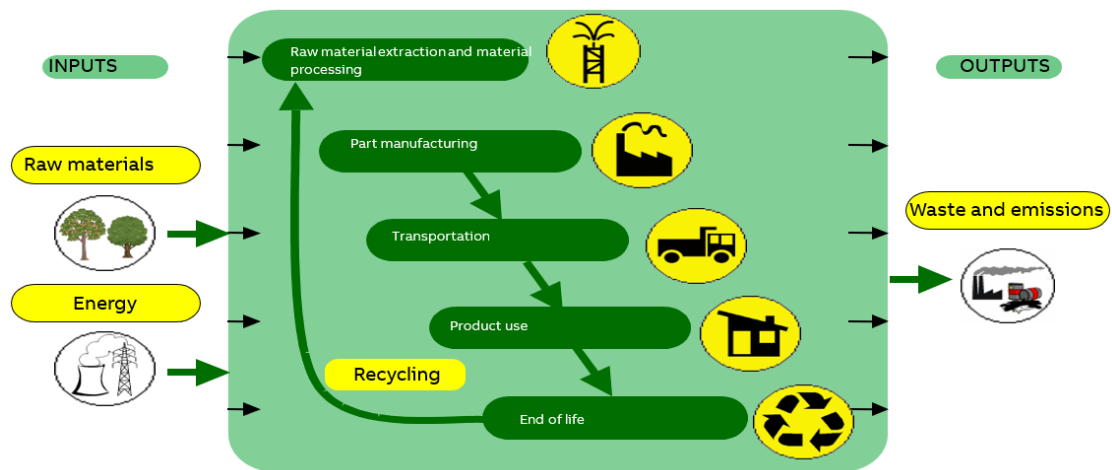
1. Introduction

1.1. Quality and environmental management

Our policy of continuous improvement also requires a demanding and responsible work, which has led to the implementation of the UNE-EN-ISO 14006: Environmental management systems Guidelines for incorporating eco-design in our Quality Management System and Environment.

Eco-design is understood as a process integrated within the design and development that aims to reduce environmental impacts and continually to improve the environmental performance of the products, throughout their life cycle from raw material extraction to end of life.

In order to be of benefit to our organization and to ensure that we achieve our environmental objectives, we carry out eco-design as an integral part of the business operations of our organization.



So, in 2007 Asea Brown Boveri, S.A. NIESSEN factory, certify the Environmental Management Design and Development process according to UNE 150301. To subsequently adapt the system to the international standard UNE EN ISO 14006.



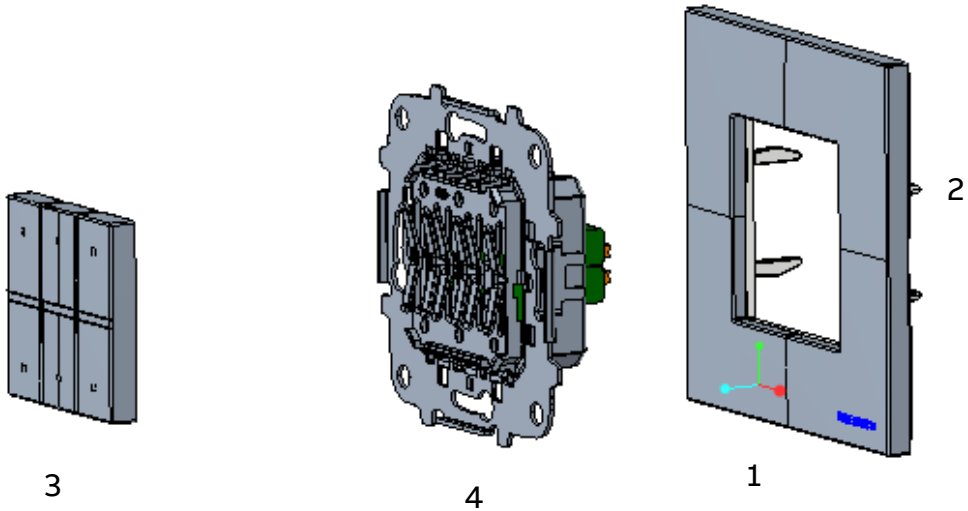
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1.2. Purpose of the study

In this study the microswitches of Hospitality have been environmentally analyzed to seek for an improvement, and it has been compared with a rocker from ZENIT KNX to check the reduction in its environmental impact.

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1.3. Eco-designed product



Part	Name	Material
1	Frame	PC
2	Support	PC
3	Buttons	PC
4	Mechanism	-

1.4. Raw materials used

For this product it has been used polycarbonate, a tough thermoplastic with high impact resistance frequently used in electronic components due to it's high electrical insulation and heat-resistant and flame-retardant properties.

2. Considerations of the eco designed products

2.1. Usage considerations

- Make strong electrical connections; this will prevent heat loss in connections, and unnecessary energy consumption.

2.2. Recyclability considerations

-The cardboard packaging is recycled
-The plastics are recyclable, and they include a marking inside (indicating the material they are made of) so they can be disassembled.

2.3. Environmental improvements

-Elimination of use of halogenated flame retardants, by using halogen-free materials.
-Minimum cardboard for recyclable packaging
-Minimum number of components, thereby savings in energy and raw materials in manufacturing processes.
-Use of water-based paints, avoiding the use of solvents harmful to the environment.
-The change of components in the electronic circuit achieves a reduction in energy consumption of 3% in the use stage.
-The change of components in the electronic circuit achieves a reduction in energy consumption of 100% in the standby stage.
-The consumption in the use stage impacts a 48,32% less.

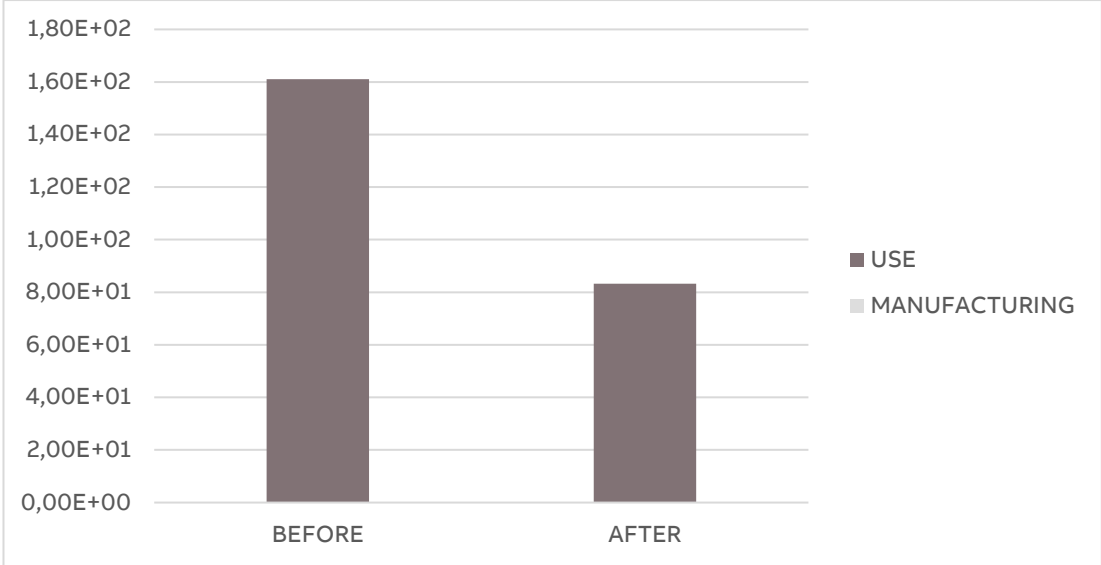
3. Impacts

3.1. Methodology and data

For this analysis the software Simapro 9.1.0 has been used, with the database Ecoinvent 3. The calculations have been made with the methodologies IPCC GWP 100a and CML-IA baseline.
The lifecycle stages considered have been: raw material and use stage.
The data has been obtained from SAP.

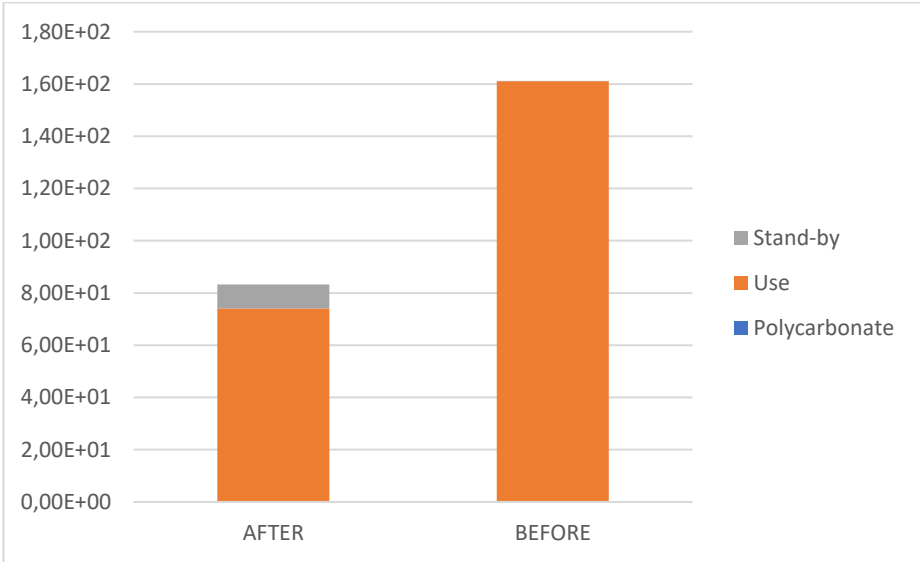
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3.2. Comparative



The graphic shows the changes made and the impact differences. In this case, the use stage is the reason why the impact decreases exactly a 48,32%. The manufacturing stage has quite more impact due to the use of more material, whereas, the use stage is the stage which impacts the most.

4. Conclusions



The graph shows how the manufacturing process has no impact compared with the consumption during the use stage. Although the hospitality microswitch uses more material, the use stage consumes less energy, which results in less impact.

Note: The presentation of these texts wrath according to the medium used (web, catalogs, instructions) so it does not always have this format.

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