



ASEA BROWN BOVERI,  
S.A.  
FÁBRICA NIESSEN

COMMUNICATION TO THE AGENTS INVOLVED IN THE LIFE CYCLE

**Zen-IT- 2CLA223300NXX**

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LCA

# Communication to the agents

## Zen-IT – 2CLA223300NXX

### Contents

<b>1. Introduction .....</b>	<b>2</b>
1.1. Quality and environmental management.....	2
1.2. Purpose of the study.....	3
1.3. Eco-designed product .....	3
1.4. Raw materials used .....	3
<b>2. Considerations of the eco designed products .....</b>	<b>4</b>
2.1. Usage considerations .....	4
2.2. Recyclability considerations.....	4
2.3. Environmental improvements.....	4
2.4. Methodology and data .....	4
2.5. Comparative.....	5
<b>3. Conclusions .....</b>	<b>6</b>

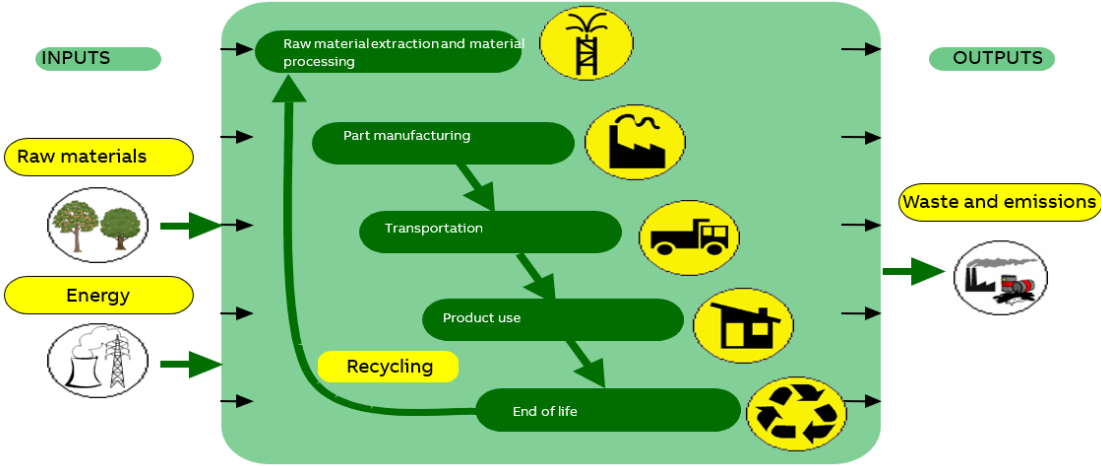
# 1. Introduction

## 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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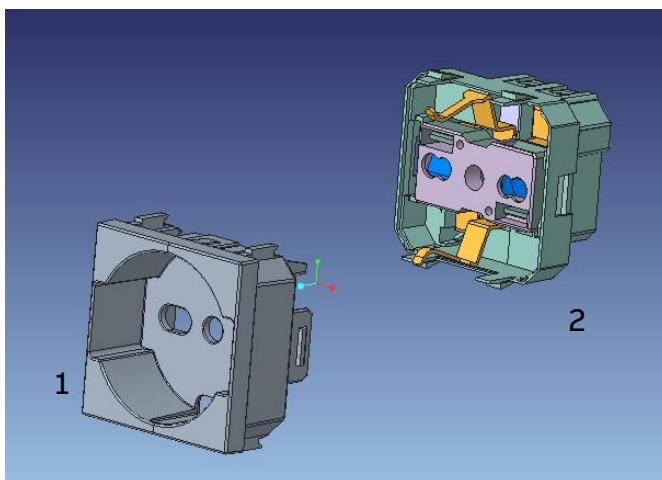
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## 1.2. Purpose of the study

In this study the Zen-it N2233 XX\* socket outlet has been environmentally analysed to seek for an improvement, and it has been compared with the 2CSY1109MC socket outlet to check the reduction in its environmental impact.

*\*note: XX stands for BL, PL, AN, CV or RJ.*

## 1.3. Eco-designed product



Part	Name	Material
1	Cover	PC
2	Mechanism	-

## 1.4. Raw materials used

The materials analysed in this study are polycarbonate and cardboard from the packaging, as this are the only changes between the products that are being studied.

STATUS	SECURITY LEVEL	DOCUMENT ID.	REV.	LANG.	PAGE
Draft	Internal	[1ABC123456]	A	en	3/6

## 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

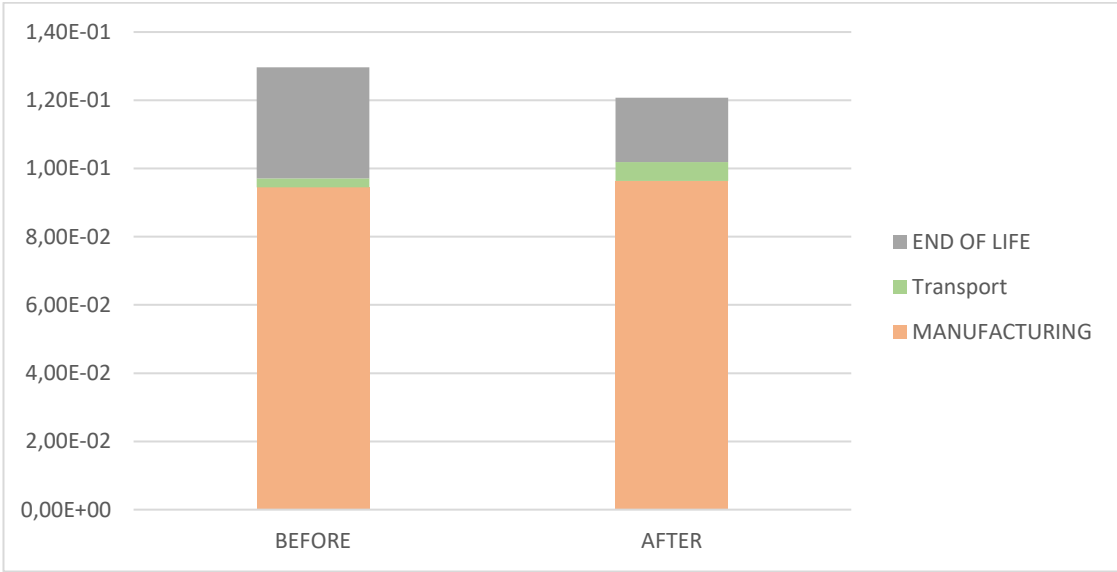
-Elimination of use of halogenated flame retardants, by using halogen-free materials.  
-Minimum cardboard for recyclable packaging  
-Minimum number of components, thereby savings in energy and raw materials in manufacturing processes.  
-Use of water-based paints, avoiding the use of solvents harmful to the environment.  
- 6,8% reduction of the environmental impact.

### 2.4. 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 are the following: manufacturing, distribution and end of life. The data has been obtained from the different suppliers, as well as SAP.

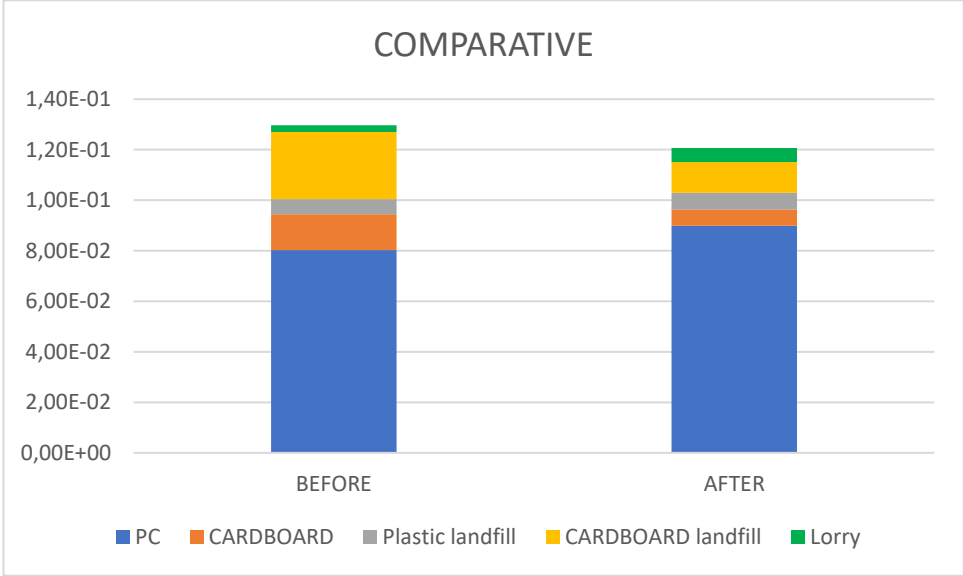
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Draft	Internal	[1ABC123456]	A	en	4/6

## 2.5. Comparative



The graphic shows the changes made and the differences on the impact (in Kg of CO2 eq.). It shows that the improvement is not big in quantity, but the study is made for an individual unit. If it's considered that this product is a high runner and the improvement shown is per unit, the improvement is more notorious.

### 3. Conclusions



Although the impact of the polycarbonate and the transport is bigger, the reduction of the cardboard needed for the packaging makes the new product 6,8% better environmentally (8,91E-03 Kg CO2 eq.).

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

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