

*Collective actions to raise
Life Cycle Thinking in businesses*

**Automated LCA and the generation of environmental
information at a large scale**

Patrice ZIROTTI (1), Catherine GOMY (2)
(1) Auchan Production Alimentaire, (2)Greenext

Greennext is an environmental consultancy specialised in calculating industrialised solutions for sustainable production and consumption, member of **Deloitte** Touche Tohmatsu Limited .

The life cycle assessment (LCA) automation process developed by Greennext to calculate the environmental performance of products is based on:

- knowledge databases (*more than 1000 preestablished LCA's for food, cosmetic, personal care and home care products*)
- Implemented in a software (*the GreenCode SaaS®*)

Greennext innovative automation process allows :

- *the evaluation of a large number of products,*
- *and then the implementation of an eco-design approach*

Greennext supports different types of projects requiring :

- *rapid and comparable results,*
- *with adapted costs,*
- *for large scale environmental information.*

Auchan

Groupe Auchan bears the name of its historic business, the hypermarket, opened in 1961 by Gérard Mulliez.

Today it is a federation of autonomous, responsible and enduringly prosperous companies, developing around a shared mission:

“To improve the purchasing power and the quality of life of the greatest number of customers, with responsible, professional, committed and respected employees.”

This mission is based on three fundamental values: trust, sharing and progress.

In 2012, Groupe Auchan operates in 13 countries, employs 287,000 people, and generates more than 60 billion euros in revenue excluding taxes for the chains.

Auchan wished to have a tool for assessing the environmental impacts of its private label products, based on Life Cycle Analysis method, that allows :

- to improve the products in an eco-design approach and*
- to display the progress achieved, in full transparency about the methods and calculations used.*

The environmental diagnosis of Auchan private label products portfolio

The diagnosis of the environmental impacts was performed by Greennext in 2013, on 5,000 items. This diagnosis consists in a **progressive identification** of the product categories, product sub-categories and then individual products with the most significant environmental impacts, and takes **less than 1 month**.

The diagnosis allows Auchan to identify :

- the **most important product categories or products to focus on** in order to reduce their environmental footprint,
- and **progressively the footprint of its entire product portfolio**.

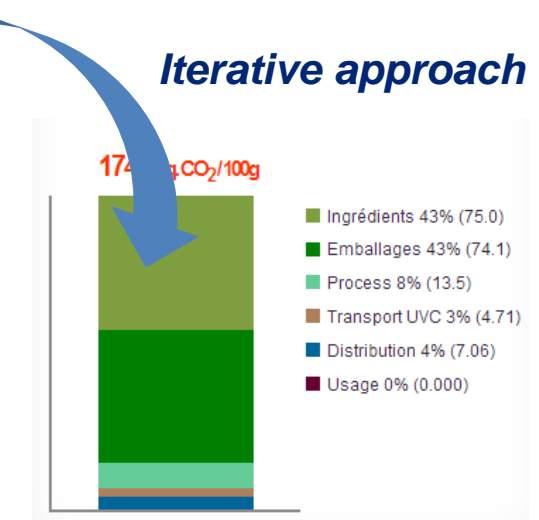
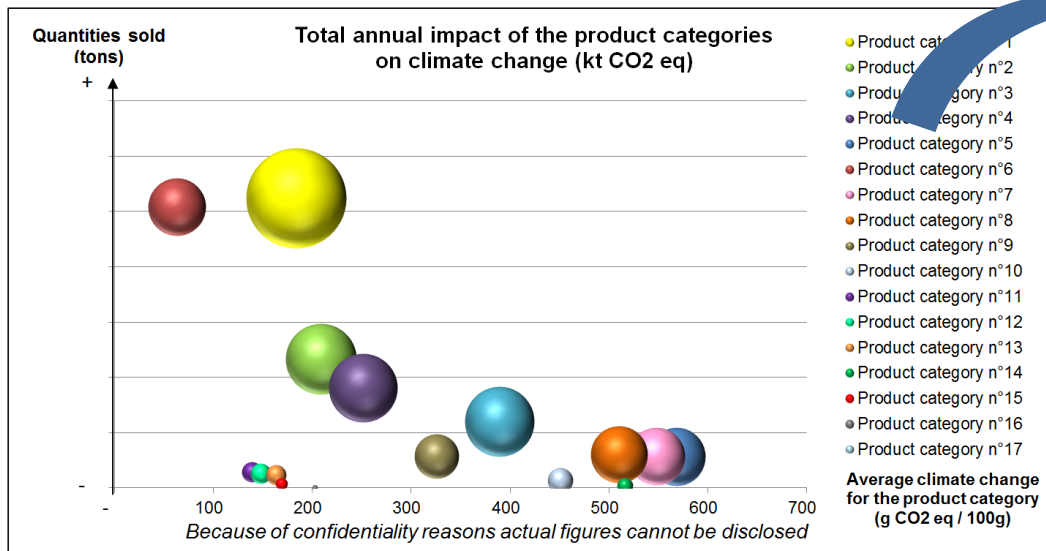


Figure 2.: Footprint of a specific product

Figure 1: Cartography of climate change impacts for all food products and beverages items

Environmental indicators : climate change, acidification and eutrophication

Some exemples for the determination of the subcategories / products to focus on :

- a subcategory with a few number of references contributing to more than 80% of the impact of the subcategory
- a subcategory with packaging impacts contributing to more than 10% of the subcategory
- a group of products manufactured by a supplier interested to work on an environmental improvement of its products

The Movida research programme, run by GAEL, INRA and Greennext

A research study was conducted on the **impacts of different front-of-pack labelling formats on the behaviour of consumers**. Greennext supported the GAEL laboratory with the identification of the tested products and formats, and provided the environmental information on nearly 300 food products.

The main research questions were the following : what are the impacts of each type of labelling and the possible interactions between nutritional and environmental information ?

The Greennext knowledge database and expertise on the environmental impacts of food products first contributed to the selection of food items, in order to represent nutritional and environmental issues.

For example, for the milk category:

- *the percentage of fat is the most important factor for nutritional choice.*
- *the type and size of packaging are among the most important environmental factors by consumers.*

Results are now under treatment and will be available in the last quarter of 2013.

In conclusion

Generating large scale products environmental information, based on LCA, is technically and economically feasible and useful for different types of projects and stakeholders.

LCA can so be used as an operational **decision making tool for different actors**, and particularly to support eco-design approaches and to secure environmental communication.

New research and development axes have however to be implemented, especially on databases and “global sustainable indicators”.