

# Development of an eco-responsible product selection program for a Canadian retailer using a life cycle assessment

François Charron-Doucet<sup>1,\*</sup>, Alexandre Courchesne<sup>1</sup> and Renée Michaud<sup>1</sup>, Réjean Samson<sup>1</sup>

<sup>1</sup> École Polytechnique de Montréal, CIRAIQ , Montreal, Canada

\*francois.charron-doucet@polymtl.ca

**Abstract** The steps to implement an eco-responsible product selection program into a large retailer's overall offer are presented in this abstract. RONA, the leading Canadian hardware retailer and distributor, in collaboration with the International Chair in Life Cycle Assessment (Ecole Polytechnique de Montreal) developed a life-cycle based selection program which identifies less environmentally impacting products. Since 2008, more than 1,800 ecoresponsible and 500 RONA ECO products were selected or developed. An increased awareness from suppliers concerning the best practices for environmental communications and basic ecoconception concepts was observed. A gradual evolution from qualitative through quantitative assessment is taking place to provide more precise information to customers about the environmental performance of the products they buy and consequently help them make better environmental choices.

## 1 Introduction

For most retailers the greatest leverage to reduce their environmental footprint is to influence the choice of its customers towards more environmentally sound products. The challenge is to offer a wide range of eco-responsible products while avoiding the pitfalls of greenwashing. In 2007, RONA, the leading Canadian hardware retailer and distributor became a partner of the International Chair in Life Cycle Assessment (Ecole Polytechnique de Montreal). In return of RONA's contribution to the research in LCA, the Chair has developed a life-cycle based selection program which identifies less environmentally impacting products. This paper presents the methodology for selecting products that should be identified as a greener alternative on the shelves of a retailer. The best practices in

environmental communication are also discussed. The benefits of this program for RONA, its suppliers and customers are presented.

## **2 The life cycle approach at RONA**

### ***2.1 Setting the priorities***

With more than 90,000 products available throughout its network of stores, it was necessary to identify product categories where environmental gains would be the most significant. Criterion on mass, monetary value and environmental relevance have been used to target about 80 product categories. A literature review was conducted to find existing LCA standards and environmental studies covering these categories of products. This information was used to build a methodology aiming to define which product should be labelled as eco-responsible into the RONA's stores.

Along this process, the Chair helped RONA select environmental issues that should be considered when products were assessed. The multi-criteria approach was seen as a must because it reduces risk of burden shifting from one environmental issue to the other. Inspired from the IMPACT 2002+ LCIA method, five damage categories were selected: Climate Change, Resources, Human Health, Ecosystem Quality and Water Quality [1].

### ***2.2 Defining a green product***

The basic assumption behind this methodology is that there is no absolute green product. Every product is made from resources; is manufactured, packaged, transported, used and has to be disposed. Throughout all these stages in their life cycle there are always impacts, thus a product should always be assessed with a comparative approach. This means that a product cannot be simply considered 'green' yet it may be declared as greener compared to a benchmark of products.

There are two comparative bases that can be used in environmental product assessment. The first one is to compare the attributes of a product with those of other comparable products. In this case, the product could be identified as "greener by its attributes". The second is to compare the scenario where the product is used with the one where the product is not used. This product is seen as "greener by its function". One of the main goal of RONA was to identify these

two types of product under two different labels called eco-responsible and RONA ECO products.

### **2.2.1 Greener by attributes**

Products greener by its attributes are certainly the most common type of green products offered to customers. Such products are made from recycled or responsible source (i.e. FSC wood) materials. Recyclable, compostable, low-VOC and energy efficient are also well-known green attributes that define greener products. Given that customers tend to believe that products with these attributes are better for the environment, it is not always clear if a given environmental attribute really leads to a significant improvement of the product's environmental performance. For example, what happens if a compostable product is landfilled and not composted at the end of its life. Should it still be considered a green product?

For this reason, the Chair proposed to RONA a life cycle approach methodology in three steps for assessing environmental attributes of each product. First, a screening LCA is done to identify the most relevant environmental issues for each type of product. Second, an assessment of the products' attributes ensures that these attributes address the most relevant issues in a meaningful way. Existing ecolabels and others types of certification are used as a benchmark for this assessment. Finally, the screening LCA results are analysed to ensure that environmental attributes do not lead to burden shifting between life-cycle phases or impact categories. At the end, the products that meet these criteria are labelled eco-responsible product.

### **2.2.2 Greener by function**

Products greener by its function are more difficult to define and consequently they are the most at risk to be associated with greenwashing. An example of product "greener by function" is the home composter. The decision to buy and use a home composter will induce a reduction of impacts associated with the management of organic waste of a customer. In other terms, it is better for the environment to use a home composter than not using one. This reasoning can be applied to many products such as insulation, solar panel, high efficiency filter, etc. The main concern is to ensure that the environmental benefice of using a product really exceeds the environmental impact of its life cycle. The assessment needs also to verify that the product will adequately deliver the function for which it was made. Screening LCA and review of performance standards are used to demonstrate the

two previous points. Products which succeed this analysis will be receive the title of eco-responsible product.

### **2.2.3 RONA ECO products**

The identification of ecoresponsible products was an important step, but RONA wanted to go further with a private brand called RONA ECO. The objective is to offer products that are the most environmentally performant with a life-cycle perspective when fulfilling a given function. This was directly inspired from the basic assumption in LCA which is, it is not the products that should be assessed but rather their functions.

The RONA ECO must fulfill two criteria:

- 1) The function of the product must be related to an essential need or a regulation.
- 2) Considering the product's whole life cycle, an LCA screening must show that the product is, from an environmental point of view, the best (or one of the best) option to fulfill the given function.

The essential needs are the ones related to hygiene, food, shelter, health, etc. This definition actually excludes any products design for strickly decorative or recreational purposes. This criterion has been put in place to encourage more sustainable consumption habits among customers.

For every product RONA ECO submits, an evaluation report has been done by the Chair providing the reasons why a product is accepted or refused. In both cases, recommendations on how to improve the product are stated. This is aligned with RONA's objective to support suppliers in their process of designing greener products.

## **3 Avoiding the greenwashing pitfalls**

Greenwashing can be defined as false or misleading environmental claims on products. These claims are seen as problematic because they discredit every effort of green communication, independantly if they are appropriate or not. Greenwashing is considered as rampant. Terrachoice, the operator of the Canadian ecolabel, produce every year a report about greenwashing in Canada. In 2010, only 4.5% of all products making environmental claims were found "greenwashing sin-free"[2].

The RONA program places emphasis on the quality of the communication of selected eco-responsible and RONA ECO products. Every product has to respect

the Canadian guideline produced by the Competition Bureau of Canada and the Canadian Standard Association (CSA) [3] largely inspired by the ISO 14021 standard that covers self-declared environmental claims [4].

The basic principle of self-declared environmental claims is that they shall be accurate, substantiate and relevant to that particular product. The relevance of environmental claims is often problematic because there is always a temptation to address popular environmental issue (for example, BPA free) even though there are not related to the product. Substantiating evidences are commonly lacking too because they are usually associated with expenses by the company such as certification by independent laboratory.

The Chair is called upon to validate the environmental communication made in store, on the RONA's website and flyers. It ensures that claims are true, proofs are available when needed and claims are relevant. The main issue is to verify that the Company has all the tools and documents to defend itself against greenwashing charges. The nature of the claim will define which documents are needed. For example, if the Company wants to make a comparative assertion about its product, it must have a ISO compliant LCA to support it.

Furthermore a green project guide was put online for providing tips and explanations on how to use RONA ECO and eco-responsible products for reducing the impact of a renovation project and improving the environmental performance of a residence. The website provides detailed information about the life cycle of each product and at which stage of it the environmental attributes have beneficial impact. A complete and transparent description of the whole life cycle approach is also supplied [5].

#### **4 Supporting the suppliers in the ecodesign process**

At the beginning of the program, most of the products selected eco-responsible and RONA ECO were products already on the market. These were called low hanging fruits. To keep the amount of 'greener' products growing, it was necessary to put in place a strategy to encourage the development of new products. A training program was developed especially for suppliers to introduce them to the basic principles of ecodesign and LCA. The training includes a follow-up with each company to look at its specific problems related to ecodesign and environmental communication. The environmental issues related to their industry are identified and solutions to address them through the design of their product or their business model are discussed. As a result of this training program, the number and the quality of submitted products has visibly raised. Some advanced

concept of product marketing developed from life cycle management thinking, such as stewardship programs, have been proposed. This is seen as signs that companies integrate the life cycle thinking and use it in their product development process.

## 5 Observed results from the program and next steps

The key result from this initiative is the larger and more complete offer of environmentally sound products to customers, resulting in lessening the negative impacts on the environment. Since 2008, more than 1,800 eco-responsible and 500 RONA ECO products were selected or developed. By leading their customers towards more environmentally sound choices, RONA has also had a strong beneficial impact on communities. For example, one of the effective and influential actions taken during the program was to stop selling synthetic pesticides for cosmetic use and replace them by alternative solutions.

The RONA's program was awarded many awards for its implementation of the life cycle approach and it has allowed RONA to position itself as a company leading the way in terms of environmental commitment.

Next steps will be to quantify the environmental improvement brought by the program using the life cycle methodology. In terms of environmental communication, more quantified indicators as well as more quantitative claims, such as carbon and water footprinting, are wanted. This implies working closer with suppliers to encourage them to provide more precise and verified environmental information about their products.

## 6 References

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