

## ▶ RESEARCH TEAM



**Naciba Haned**  
Professor and Researcher  
ESDES, Université Catholique de Lyon



**Paul Lanoie**  
Professor of Economics  
HEC Montréal



**Sylvain Plouffe**  
Professor of Design  
School of Industrial Design, Université de Montréal



**Marie-France Vernier**  
Professor and Researcher  
ESDES, Université Catholique de Lyon

The complete study is available for download at the  
Institut de développement de produits website: [www.idp-ipd.com](http://www.idp-ipd.com)



### Institut de développement de produits

4805 Molson  
Montréal (Quebec) H1Y 0A2  
CANADA

Telephone: 514-383-3209  
[www.idp-ipd.com](http://www.idp-ipd.com)

### Pôle Éco-conception et Management du Cycle de Vie

57 cours Fauriel  
42024 Saint-Etienne Cedex 2  
FRANCE

Telephone: 04 77 43 04 85  
[www.eco-conception.fr](http://www.eco-conception.fr)

With the financial support of



# PROFITABILITY OF ECODESIGN: an Economic Analysis

## Highlights

### ▶ January 2014

Ecodesign is an increasingly common practice in business, but a fundamental question remains for which no precise answer has yet been provided: *Is ecodesign profitable?*

A 2008 exploratory study sought to answer this question with a sample of 30 companies from France and Quebec. Five years later, we thought it was time to take another look at the situation, widen the sample size to obtain more robust statistical results, and try to understand what makes a given ecodesign approach more profitable than another one.

The hypothesis is that the greater the intensity of the ecodesign approach and the better the company's overall management, the more profitable the company would be. The main results of this new study are set out below.



### France-Quebec Collaboration

This study is the result of a France-Quebec collaboration initiated by a partnership between the Pôle Éco-conception and the Institut de développement de produits. Since 2009, the two organizations have been working together to support industry in its efforts to boost the success of its responsible innovation initiatives. This study constitutes the most comprehensive assessment to date of ecodesign and related profitability.

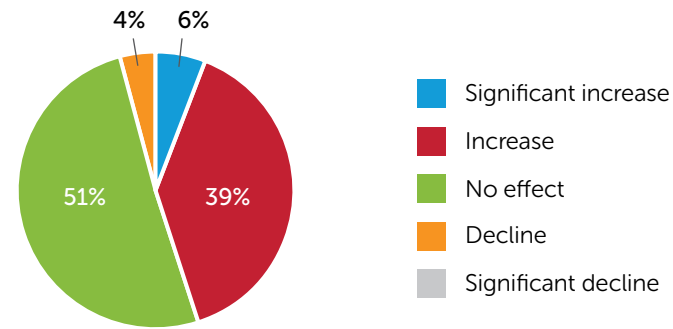
## ▶ PROFILE OF COMPANIES ENGAGED IN ECODESIGN

- Most of the companies that practice ecodesign are in **manufacturing** (62% of the sample), catering to either consumers (**B2C**) or other businesses (**B2B**).
- A large proportion base their practices on an **environmental standard** and use a formal **methodological tool**, such as life cycle analysis, in their ecodesign approach.
- On average, the responding companies try to reduce the environmental impact associated with **four stages (out of six) in the product life cycle**. These efforts translate into five main **environmental benefits**: replacement of hazardous materials, reduced use of materials, increased recyclability of products at the end of their life cycle, reduced energy consumption per unit of output and reduced CO<sub>2</sub> emissions.
- The **primary motivation** to undertake an ecodesign approach stems from the personal convictions of the company's senior executive officer. Once launched, an ecodesign initiative is developed in **cooperation** with several different operating units.
- More than half of the responding companies sought **outside support** (professional or financial) to develop their ecodesign project. In Quebec, the proportion is 30%. Most companies say they would like **more assistance from government** to pursue their ecodesign activities.
- The vast majority of companies feel it is worthwhile **publicizing the environmental benefits** of their ecodesigned products because they consider their buyers to be well aware of environmental issues.

## ▶ IMPACT OF ECODESIGN ON PROFITABILITY

Environmental protection is generally considered to be an extra financial burden for a company. This is not the case with ecodesign, however.

- The **profit margin of ecodesigned products is, on average, 12% higher** than that of conventional products.
- For **96% of the responding companies, ecodesign has a positive or neutral effect on profits**.



- For the vast majority of responding companies, the ecodesign approach also generated other **positive impacts**.

	France (%)	Quebec (%)	European Union (%)	Total (%)
Improved recognition and reputation	92	84	81	86
Greater employee motivation or pride	21	53	58	41
Better customer relations	33	47	23	36
Greater capacity to develop new products	29	33	35	32
Easier to recruit staff	4	23	19	15
Improved relations with funding agencies, regulatory authorities or NGOs	8	12	19	12
Better interdepartmental cooperation	17	2	19	12

Respondents could select multiple choices

- Thanks to their ecodesign approach, the responding companies managed, on average, to improve **two functional aspects** of the product, such as its contribution toward improving quality of life.
- Two variables representing the **intensity of the ecodesign approach** are associated with greater profitability: the number of product life cycle stages taken into consideration and the use of a formal methodological tool.
- Two indicators measuring **overall quality of company management** are associated with greater profitability: certification awarded for the quality of the product or company management, and offering a wider range of greener, more functional products.
- The **smaller the company**, the greater its chances of turning a profit on its ecodesign activities.

**From a social standpoint, ecodesign is a win-win solution, as it generates environmental benefits for all, without negative impact on profitability.**

## ▶ IMPLICATIONS

### For Business Managers

Ecodesign is a promising option for improving a company's profitability, and the positive impact can be more than just financial. In short, the ecodesign approach can become a significant **competitive advantage**.

To launch an ecodesign initiative, it is crucial for the company's senior executive officer to be convinced of its benefits and to send a clear signal to this effect throughout the organization.

### For Policymakers

Since the ecodesign approach is beneficial for the environment, but has no adverse effects on the economy, **policymakers should promote it and encourage its adoption**.

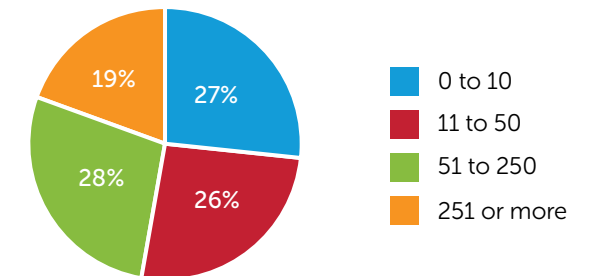
A number of measures could be implemented: develop ecodesign awareness and training programs, or provide better support for existing programs; adopt stricter environmental criteria for government procurement policies; and develop extended producer responsibility programs.

## ▶ METHODOLOGY

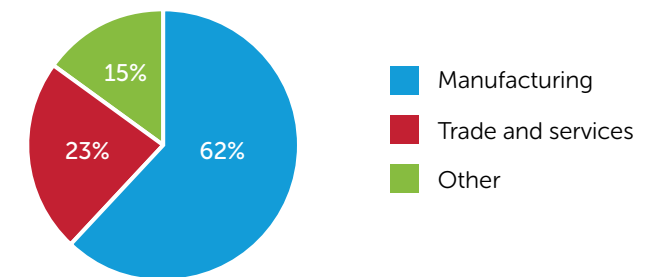
The survey was conducted between March 15 and October 1, 2013. Data were collected from a total of 119 companies: 49 in France, 26 in other European Union countries and 44 in Quebec.

### Profile of Participating Companies

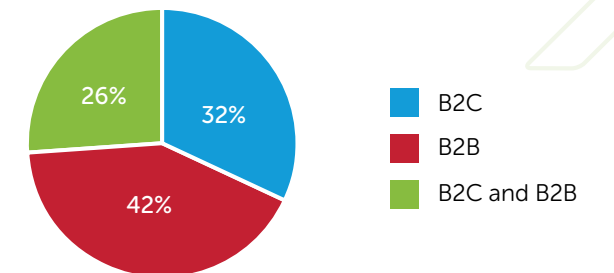
#### Company size



#### Industry



#### Clientele



### Data Analysis

First, a descriptive statistical analysis was done to identify the typical profile of companies that practice ecodesign, as well as the impact on profitability: profits, profit margin, differential with conventional products. Second, the researchers used a regression model to test the hypotheses. The results obtained are reliable and robust.