

# ISEU

## Integration of Standardisation, Ecodesign and Users in energy-using products

### DURATION OF THE PROJECT

Phase 1: 01/01/2007 – 31/01/2009  
Phase 2: 01/02/2009 – 31/01/2011

### BUDGET

709.511 €

### KEYWORDS

Ecodesign, standardisation, use phase, energy, consumers

### CONTEXT

Electricity consumption is steadily increasing in Belgium, due to the very active market of appliances, supported a.o. by rising social standards of comfort and by the increasing number of households. The European Union has launched a legal framework for improving the environmental impacts due to energy using products. These appliances cover a wide variety of products but they have a common characteristic: their major environmental impact in their use phase, compared to the production phase. Yet, from a life cycle analysis (LCA) perspective, the use phase is generally the least known of the different phases. The impacts of these appliances is thus not fully known, nor the way they are used every day by the 4 millions Belgian households.

- Producers' dynamics: how do they take into account users' practices and needs in the design phase? Which options do they take/not take that have an impact on energy use, and why?

The project will evaluate the potential for technological improvements from the point of view of energy consumption and will recommend policy measures making it possible to realize gradually this potential. In particular, the project will examine information and feedback tools as means for encouraging reduced energy consumption by users.

### Methodology

Besides literature review, the project will mobilise a range of methods in order to gather original data:

- interviews with manufacturers, designers, marketers, public authorities, users, ...
- in-depth analysis of actual standards
- focus groups with users
- measurements of energy consumption of some appliances: in laboratories and in households.

The project will carefully study controversies about standards, failed endeavours of new appliances, how users are seen by the designers, appropriation of the appliances by the users.

The project will proceed in five steps:

- literature reviews in the fields of standards, ecodesign and life cycle analysis, making use of expertise networks in Europe;
- selection of a limited scope of appliances, on the basis of criteria stemming from the literature review; we want to concentrate on EuP for which user behaviour could be improved by ecodesign and would result in a significant improvement of environmental impacts;
- production and producers survey: we want to have the view of producers and designers on the use phase of their products, and on ecodesign in general;

### PROJECT DESCRIPTION

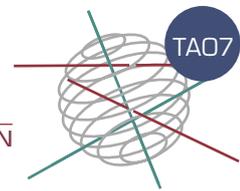
#### Objectives

The project is conceived as an integrated socio-technological study about the manufacturing and the use of household energy consuming appliances. Its main objective is to examine how standards and ecodesign could take into account the use phase and the different kinds of users. How does normalisation influence the use of these products? Which norms should be implemented? Energy-using products (EuPs) will be studied as an agency of constraints of different kinds: technological, economical, ergonomic, social and cultural, health and safety, environmental.

The study will develop along three topics:

- Standard's dynamics: How are standards elaborated? How do ecodesign schemes fit in the construction of standards?
- User's dynamics: How do users appropriate appliances? What do they expect from their appliances? Which role could play appliances in teaching more eco-efficient behaviours?





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- uses and users survey : the aim is to study users and their practices in their home environment; we will take advantage of this to also study their appliances and their energy consumption;
- confrontation of both surveys in order to identify levers and brakes for the use of standards and ecodesign to improve users behaviour.

### INTERACTION BETWEEN THE DIFFERENT PARTNERS

CRIOC will bring its competencies in the fields of standardisation — for it represents consumers in several standardisation institutions — and of consumers studies. ICEDD will study more specifically technical aspects

### PARTNERS - ACTIVITIES

The ISEU project will allow the Centre for Studies on Sustainable Development (ULB) and its multidisciplinary team to deepen its researches about the links between technology, environment and society.

ICEDD wants to broaden its experience on energy using products by a

of appliances, a.o. their LCA. ULB will coordinate the research in constructing the theoretical framework and in studying controversies about standards.

### EXPECTED RESULTS AND/OR PRODUCTS

The project will end by recommendations about the implementation of standards and ecodesign for more efficient and user-friendly EuP's, at different political levels (regional, federal, European, international). We will also determine to what extent Belgium can act on the identified levers and brakes, and which measures should be taken in order to improve both design and usage of EuP in Belgium.

pluridisciplinary approach, building on its experience in life cycle analysis and rational use of energy.

CRIOC is devoted to lead researches about consumers' attitudes and practices. It represents consumers' point of view in various consultative Councils.

### CONTACT INFORMATION

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#### Follow-up Committee

For the complete and most up-to-date composition of the Follow-up Committee, please consult our Federal Research Actions Database (FEDRA) by visiting <http://www.belspo.be/fedra> or <http://www.belspo.be/ssd>

