

# WORLD CHAMBER COMPETITION 2011



**CHAMBRE DE COMMERCE  
INDUSTRIE ET SERVICES  
SAINT-ETIENNE MONTBRISON**

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## **“FRENCH ECO-DESIGN INSTITUTE SPIN OFF” CATEGORY : BEST SMALL BUSINESS PROJECT**

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## PROJECT PRESENTATION

### CATEGORY : BEST SMALL BUSINESS PROJECT

The Territorial Saint-Etienne Chamber of Commerce and Industry (CCIT) is a public administrative agency governed by local business leaders that plays a key role in local economic development through the following activities:

- > Participation in regional and local development strategies,
- > Educational and training services and participation in research,
- > Incentives and technical support for the creation of new firms, innovation, exportation, competitiveness, and sustainable development and environmental issues,
- > Stimulating capacities and activity through networking and information services, including an online information system describing the territory's 19 000 businesses and their activities.

After creating an environment service in 1996, the CCI began promoting eco-innovation in industries in 2001 (more than 500 small and medium-sized industrial firms (SMIs), representing 44000 jobs) and ecodesign in 2002. The creation of an ecodesign service led to the development of different tools including an "ecodesign prediagnosis approach" in which relay centres review the situation of firms and their products and give advice on how to profitably and effectively integrate ecodesign principles in their activities.

This ecodesign awareness-building methodology has been tested in over 400 companies, in both SMEs and among Large Companies and in 2006 was selected as one of the best tools elaborated by French CCIs. Now the Saint Etienne CCI is running operations to transfer this tool to other regions of France (the CCIs of Auvergne, Franche-Comté, Rhône Alpes and Aquitaine) and internationally through partnerships with the European Research Cluster 'Excellence in Ecodesign and Recycling (CREER)' and the Quebec Institut de Développement de Produits.

Based on this recognition, The "*Pôle Eco-conception et Management du Cycle de Vie*" (PEMCV; "Ecodesign and Life-Cycle Management Pole") is a resource centre entirely dedicated the promotion and development of ecodesign practices and life-cycle resource management. The PEMCV was initially created as a service within the Saint Etienne CCI, but has since become an independent association.

Within the frame of an ecodesign awareness-raising and support programme initiated by the Saint Etienne CCI in 2002, a series of tools and methods were developed for the promotion and implementation of ecodesign in industry, such as the so-called "ecodesign prediagnosis method" ([www.eco-conception.fr](http://www.eco-conception.fr)). The success of this programme led to the creation of an ecodesign service within the CCI, but also stimulated requests for ecodesign services falling beyond the awareness-raising mission the Saint Etienne CCIT had been commissioned to do.

In 2006 the CCIT conducted an internal study to evaluate the potential for organizing an independent structure for ecodesign expertise. Workshops held with different partners revealed their interest in the creation of an ecodesign resource centre and the potential contributions this centre could make in the economic development of these companies. Also creating an independent association would facilitate collaboration with scientists, manufacturers, NGOs and European partners. Full information on this new structure was officially presented on 16 September 2008, and the resource centre formally obtained legal status as an association called "*Pôle Eco-conception et Management du Cycle de Vie*" (PEMCV) in April 2009.

The PEMCV now operates as a specialized resource centre on ecodesign and life-cycle management for the network of CCI's in France through a partnership with the ACFCI. They providing training, support, and materials to CCIs to help them be more effective in promoting ecodesign and life cycle product management throughout France. Other PEMCV missions include:

- > conducting studies on ecodesign methods, practices, the success of ecodesign products...
- > participation in discussion of ecodesign standards and regulations,
- > creating tools and methods for the implementation of ecodesign,
- > promoting ecodesign and creating documents and tools for the promotion of ecodesign.

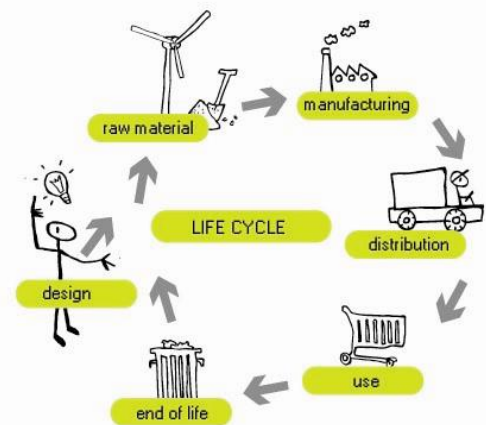
# I. THE CREATION OF AN ENTITY INDEPENDENT OF SKILLS IN ECO-DESIGN IN THE FRENCH CCIS

## CONTEXT

### DEFINITION OF ECO-DESIGN

The eco-design is defined by the taking into account of the environment on the whole of the life cycle of a product or a service. Extraction of the raw materials until the life of life of a product, the éco-design studies for each stage of the life cycle all the environmental impacts (greenhouse effect, eutrophication, atmospheric pollution, toxicity...) More than simple measurement of the impacts, the éco-design integrates the environmental aspects in the development of the product. Thus, it is source of innovation and this on the whole of its life cycle

The environment then becomes a new element of the product design just like the usual criteria which are technical feasibility, the control of the costs or waiting customers. In an economic context marked by the innovation, sustainable development and quality, the éco-design seems a approach essential to each company.



### WHICH ADVANTAGES FOR YOUR COMPANY

Currently, the innovation, sustainable development and quality are fundamental concerns for the companies. The market takes account of environmental realities to meet the needs for the consumers. The éco-design seems an essential approach then to dissociate and engage a new dynamics closer to the respect of our framework of life and that of the future generations.

#### To have a length in advance

The European Union does not cease promoting a market more favorable to the marketing of ecological products. In this context, new texts are already in force, others still will be set up soon. Do you know the regulation applicable to your branch of industry? Are you regulated some with this regulation? The éco-design enables you to anticipate the regulation and to take a length in advance.

#### Competitive advantage

The environment becomes a strong factor of differentiation making it possible to reinforce the image of a perennial company and to distinguish you in an increased competing context. It is necessary éco-to conceive without forgetting to announce it! A certain environmental markdowns number products exists like various types of communication going from the autodeclaration to the eco-labellisation via the éco-profile. They answer normalized reference frames.

#### To innovate

Most projects of éco-design are sources of innovation. To think of the environmental impacts as of the design, it is to design its product differently.

- Marketing design: to identify of news idées, new opportunities...
- Design: to generate inventive solutions and environmental concepts...
- Marketing: to sensitize and inform the consumers
- Communication: to propose a new image of the company, in-house and into external

#### To integrate and respect the environment

Exhaustion of resources natural, the disturbances climatic, the increase continues of the quantities of

produced waste, the dissemination of toxic elements... are not without us to point out the worrying situation in which we are. Eco-to conceive your products, it is to become an actor responsible by decreasing the impact for your activity on the environment, without making transfer of pollution and by controlling your costs. That requires a thorough knowledge of the techniques put at your disposal and likely to optimize your specific approach.

## BIRTH OF THE POLE ECO DESIGN & MANAGEMENT OF LIFE CYCLE (PECMCV)



The CCIT Saint-Etienne/Montbrison was precursory as regards environment related to the company. Its first actions start to 1996. They continued and amplified with sensitization programs bound for SME like "1,2,3 environment".

In a more precise way still, in 2002, CCI Saint-Etienne/Montbrison was first CCI of France to initiate an action eco-design thanks to the financial support of the ADEME and regional council of Rhône Alpes.

In this direction, it launched out in a project of sensitizing of its nationals to the eco-design by integrating within its team "environment" an expert in eco-design. Thus was born the prediagnosis eco-design intended to take stock with each company of its challenges, its products and its approach in comparison with the eco-design. This method was elected among the 48 best tools of the french CCIs to the service of the companies. It was tested in more than 500 companies.

Quickly, the requests of methodological transfer were made at the CCIT of Saint Etienne Montbrison. Thus, the expert teams were brought to work out of administrative borders of the CCIT to accompany initially the Chambers of commerce and industries bordering in the development economic for their companies by the taking into account on the environment. In parallel, the lack of tools of methods and studies on the practices of eco-design led these same teams has to develop its own methods and to control technical studies and scientists. These new activities left the perimeter of actions then that had been initially posed the elected representative of the CCIT: the simple sensitizing of SME

## LOCAL DEVELOPMENT TO NATIONAL DEVELOPMENT

Taking into account the territorial development the PEMCV elected in 2006 a study on the prefiguration of the Pole Eco-design. This first market study carried out by the CCI watch that there exists a real need of accompaniment of SME to the eco-design by collective and the individual one, that the action of the CCI is clearly identified on this subject and that the companies become aware of the environmental problems more and more.

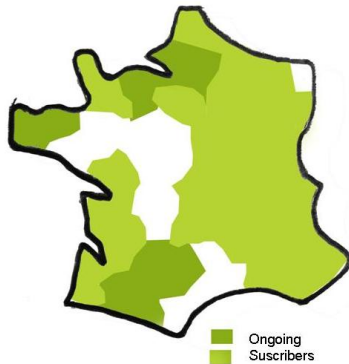
The analysis of all the actions suggested makes it possible to make emerge a typology of actors and to divide them into five main categories :

- Financeurs
- The technical centres which control the processes and technologies of the companies
- Likely organized sectors of facility the integration of new devices in given branches of activity
- Relays very often supported by the local government agencies, representing a privileged main door and of proximity for the companies.
- Research centres and of futurologies consisted the institutes which propose formations and which feed the prospective formation in the field

The national and international recognition of its capacities as regards eco-design led the CCIT Saint-Etienne/Montbrison to further going and to create, with the support of a certain number of partners a Pole Eco-design, this last was officialized on September 16th, 2008 and the creation of association was done in April 2009.

The center relay is defined as an institution of support to the companies for this reason it sensitizes and accompanies SME in a specific project while bringing its expert testimony, its know-how and its

skills. The PECMCV passes by the means of the network of the centers relay to diffuse the tools and methods developed within association and the experts in eco-design.



On January 14th, 2010, the PECMCV and the French Assembly of the Chambers of commerce and industry (ACFCI) sign an agreement. Through this agreement, the ACFCI becomes partner of the Pole Eco-design, and this last becomes national center of resource on the eco-design for the network of C(R)Ci. The agreement devotes the privileged access granted by the Pole Eco-design for C(R)Ci with the resources of the Pole and the statute of relay center: The PECMCV functions partly thanks to the financial supports of Ademe, Regional council of Rhone-Alpes, Departemental Council of Loire and the CCIT of St-Etienne/Montbrison. But also with the contributions of its members divided in 8 categories.

- Cost: from 300€ for SME and the scientific structure to 1000€ for the group or the relay center
- Right of access: this contribution makes it possible to the members to profit from the tools set up by the PECMCV but also to profit from a particular accompaniment in a project of éco-design. The members also have a privative access on the website of the PECMCV where a eco-design watch is indexed

## PECMCV TOWARDS A EUROPEAN PROGRAM

In partnership with the CCIR of Rhône Alpes, the national Pole Eco-design and Management of the Life cycle organized one work day in 2010 to present the back offices to the companies for the implementation of the eco-design of the products and services in the companies. The objective of this meeting was also to consider the international and European prospects as regards durable production.

During the work meeting inter-participants which followed it was decided, initially, to support the exchanges between the various actors (institutional, academic, back offices with the companies), to collect and analyze the practices and methods of eco-design thanks to the drafting of cards syntheses. Then, in the second time, to start from these cards to formulate a European offer which could be presented at the time of the commission sustainable development of UNO in 2011.

## II. ACTIONS OF THE PECMCV FOR THE SME

After two years of existences, the Pole Eco-design and Management of the Life cycle play a determining role of information and sensitizing on the eco-design and accompany the companies wishing to develop approaches in this direction.

Unique in France, it was given for ambition to become a true resource center aiming organizations and companies on the national scale and international. It is in particular indicated, by a convention with the ACFCI, like the resource center of the French CCI.

Addressing at the same time to the companies, the research departments and to the center relay, the vocation of the Pole Eco-design for year 2010/2011 is of:

- To promote the best practices under development of product integrating sustainable development.
- To facilitate the access to the eco-design of SME.
- To diffuse the eco-design inside the companies.
- To transfer competences to actors relay while placing at the disposal of the tools and the methods so that any company of the territory can have access to the various services.
- To form, by qualifying courses, of the experts in éco-design in capacity to accompany the companies in the evaluations by impact and the development of products.
- To accompany the approaches.

- To set up research programs dependant on the éco-design and its impacts on the life and the operation of the companies. To allow the creation and the development of practical tools bound for the companies.

The Pole Eco-design and Management of the Life cycle count today 107 members including more than 50% of companies, primarily of SME. It animates 33 centers relay through France and Quebec, among which the 10 CCI of Rhône-Alpes, Bourgogne Innovation, Pôle Fibres, Alizée Plasturgie, CCI des Landes, CRITT bas normands

Created in April 2009 by the CCI of Saint-Etienne/Montbrison in partnership with the CCI of Roannais and the support of the ADEME, the Regional Council of Rhône-Alpes and the Departemental Council of the Loire, the Pole Eco design is chaired by Christian Brodhag, research director at the École Nationale Supérieure of the Mines of Saint-Etienne.

L'offre du Pôle se décompose en quatre grandes activités :

## THE DIFFUSION



The objective is to communicate at the SME on the strategic aspect of the taking into account of the environmental concerns in the design of the products which they intend to put on the market. Then to make contribute the SME to the pole in order to insert them concretely in these problems and finally to diffuse the best practices under development of products integrating the environment.

- Newsletter
- Event
- Participation in the briefings
- Answer of first level by telephone or courriel
- Development of the BtoGreen tool
- Diffusion of a method
- Development and animation of the platform [www.eco-conception.fr](http://www.eco-conception.fr) V3

The site [eco-conception.fr](http://eco-conception.fr) has great success it passed on average from 35 visits by day at the beginning of 2008 to 164 visits by day in 2010. This website equipped with a private part accessible only to the members is an important added-value because it is about a day before in eco-design, essential tools for the development of the SME to create competitive advantage thanks to the environment.



## THE TRANSFER, FORMATION AND ACCOMPANIMENT

The objective is to facilitate the access to the eco-design with the companies and more particularly SME by transferring the best practices under development from product integrating the environment in particular by specific accompaniment the companies on their projects of eco-design

- Development and organization of workshops
- Funds of expert testimony
- Platform on the recyclability
- Development and realization of interregional collective actions

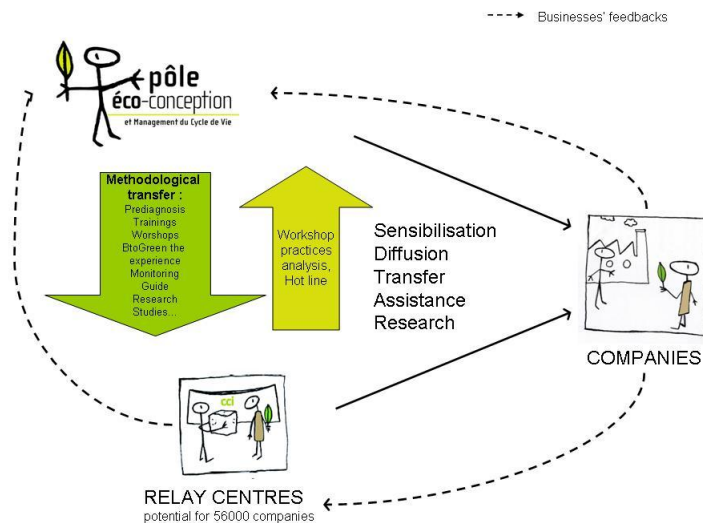
## ACTION OF THE REGIONAL RELAY CENTERS

The objective is to place at the disposal all the essential resources with the operations managers of the CCI centers relay of the eco-design for the sensitizing and the accompaniment of the companies of their territory, to accompany them in the realization by the prediagnoses in eco-design to sensitize and facilitate the deployment of the eco-design in the companies

- Formation
- Workshops of analysis of the practice
- Individual accompaniment
- Updates of the prediagnosis
- Assistance for the realization of regional workshops of the eco-design

Each Relay Centre has access to the knowledge of our Eco-design center as well as tools and methods. We organize at least one meeting per year of work transfer and debriefing.

The main purpose is to make sensibilisation , diffusion on best practices, to transfer tools and methodologies, expertise on technical problem and to develop research to firms



## ECO-DESIGN WATCH AND RESEARCH: CREATION OF CONTENTS, TOOLS AND THE REALIZATION OF STUDIES

The objective is to build and manage research and studies programs to create tools and methods in seen to develop the expertise on the Pole in seen to consolidate national dimension

- Cards regulation
- Tools, methods and practices
- Research in eco-socio design
- Development of guides



### Economic returns

Eco-design: how much does that pay and which is the convenient period to integrate it in the company? " This fundamental question was still remained unanswered precise.

The study conducted by the Pole Eco-design and the IDP relates to thirty concrete cases French and Canadian companies.

It could show the economic interest of such an approach. Since it was largely taken again and in particular by the French state to promote its actions with companies by the means of its agency of environment (ADEME)

#### - Environmental Auto-declarations in BtoB

The Pole Eco-design and Management of the Life cycle conducted a study on the declarations and environmental markings produces in BtoB. It proposes a format of auto-declaration validated by third party. This study was ordered by the ACFCI and was financed by the ADEME.

To date the study enables us to have today a better visibility on what could be a format of environmental auto-declaration produced certified. From the results which we presented, some lesson can already be released.

With final, the study exposes an inventory of fixtures and a proposal for 2 types of communication. One also finds a statistical analysis of the environmental criteria most used by the companies in their communication. The study on the auto-declarations proposes organisational diagrams of validation of the eco-communications and this, within the framework of BtoB.

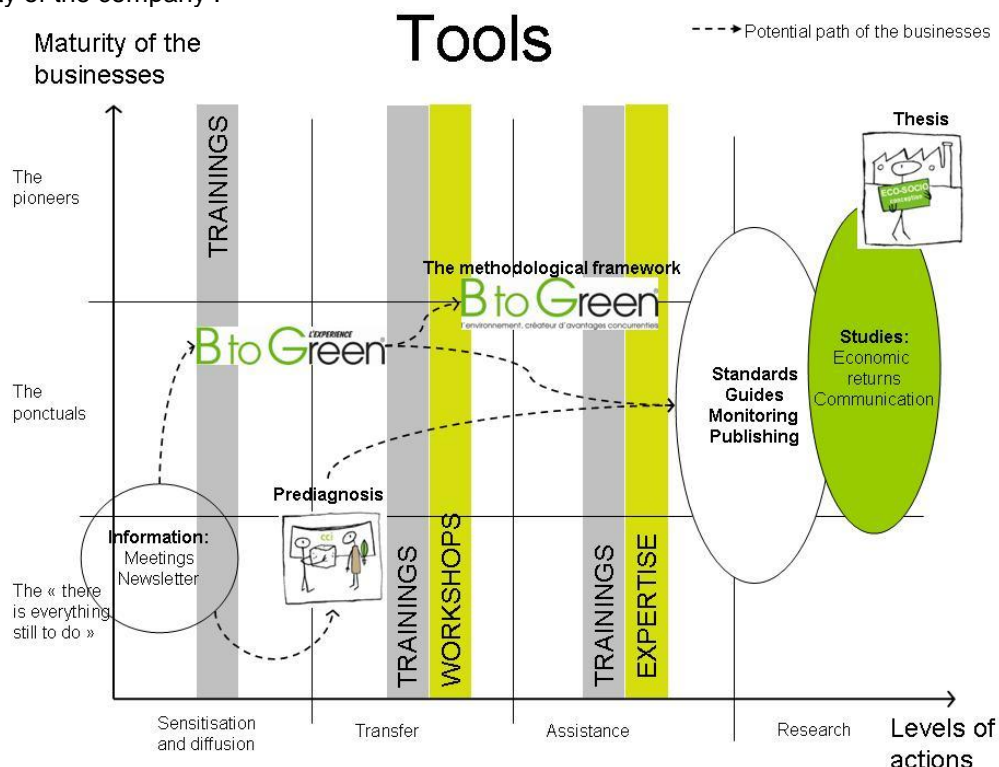
- Participation in the French network of the researchers in eco-design MCE (network animated by Pr Dominique MILLET supméca Toulon)

- Participation in ECAP (European Network of exchange on the best practices in eco-design)

- Participation in the European network CtoC (Cradle to Cradle)

### III. PECMCV'S TOOLS

The following graph takes again the various existing tools of PECMCV according to the degree of maturity of the company :



#### THE PRE-DIAGNOSTIC IN ECO-DESIGN

The pre-diagnostic in eco-design is a tool for sensitizing to the practice of the eco-design for the company. It allows diagnosed that they are the strong points and the weak points of a product with regard to the environmental challenges of the product. This pre-diagnostic worked out by the

PECMCV in 2003 in a first version in Excel. This version known a success in the historical network of association, has to know the chambers of commerce of the industry (CCI) of France. Today it is more than 33 centers relay which use it regularly, having realized more than 500 pre-diagnostic in France. After two and half of use in data-processing version, we estimated to have collected sufficient data to allow an analysis of this one, using a statistical processing and in preparation for the creation of a new version.

This static study of the data of pre-diagnostic related to 118 companies. 58% were manufacturing companies, 23% proposer of the services and 19% the last whose activity could not be identified. The majority (73%) of the companies using the tool has a manpower of less than 100 paid, of which 30% of the total have less than 10 collaborators. We can thus affirm that this tool carries a real interest for SME. The sales turnover to realize by most these companies ranges between 100 K€ and 100 M€.

## THE MECHANICS STANDARD OF ECO-CONCEPTION

The Pole Eco-design is joint author to standardize NF E 01 005 of methodology of eco-design of the mechanical products.

The first phase of the project consisted in carrying out a pre-normative document. This standard has just been published by AFNOR (standard NF E 01-005) and proposes a methodology of eco-design adapted to the mechanical products, by taking account of the hot lines developed in XP ISO/TR 14062 (environmental Management - Integration of the environmental aspects in the design and the development of product)

The purpose of the second phase of project MAPECO is to confront methodology with industrial concrete cases in order to draw from the lesson of this experimentation and to finalize the standard XP E thereafter 01-005. Several companies were already selected following a call to project to take part in the success of MAPECO. This pragmatic approach of eco-design particularly adapted to SME enables them to integrate the environment like an input datum of their projects in an autonomous way. It is an official French standard today, it is envisaged work of standardization in the ISO.

## BtoGREEN®, the methodological framework

Synthesis of various approaches in eco-design and innovation, the BtoGreen method launched in January 2010 by the Pole Eco-design with the participation of Weenov, aims to accompany the companies in the definition by an environmental strategy produces and service.

BtoGreen is a method of creation of value which analyzes and directs the structure of the offer of the company according to the potentialities offered by the green growth. The BtoGreen method, articulated according to 3 stages, is addressed to the TPE, SME, in BtoB and BtoC.

1/ The first stage consists in carrying out two audits of the company in seen defined precisely the strategy of the most adapted Co-innovation

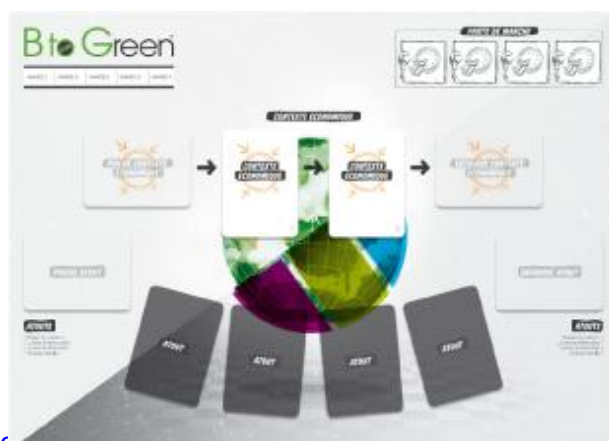
2/ the second phase "Creation" consists in making emerge ideas of eco-reconception, eco-innovations or of diversification within the segments analyzed previously in agreement with the definite strategy.

3/ the third stage "Application" aims to write and carry out the action plans per idea put forward in order to lead to a scenario of solutions.

## BtoGreen l'expérience

BtoGreen is a ludic and convivial experiment of training and sensitizing to the strategies of eco-innovations.

Because the eco-innovation is of nature strategic, the BtoGreen Experiment astutely establishes the link between the competitive advantages of a product or service and the threats and opportunities related to the economic context, through part of play, followed by an effective pedagogy.



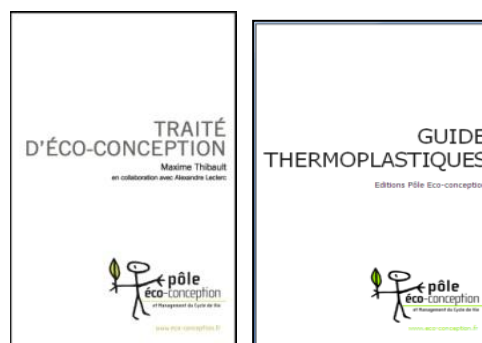
The BtoGreen experiment accommodates from 3 to 10 players and lasts 3:00 approximately

## GUIDES

Many guides are made every year and available free for the members and CCI center relay such as for example :

- Guide figures agro-sources
- Guide on simplified tools LCA (Life Cycle Analysis)
- Guide on simplified tools LCA of the building

In addition, an activity of edition was developed: Edition of the “Traité d'Eco-conception” (October 2010) bound for engineers in initial training and engineers technicians and a guide on thermoplastics (December 2010)



## RESEARCH

Thesis CIFRE eco-socio-design, a wage-earner doctorante was engaged within the Pole Eco-design to work on this rather recent subject. The clarification of a method framework in eco-socio-design, passes by the creation of a system organized of information on the collaboratif campus Agora 21 transitions like by the realization and the experimentation from a tool from evaluation to the level from two pilot sectors. This method will have to give to the companies the opportunity of positioning on the market in a competitive way while developing innovating products fully in conformity with the criteria of sustainable development.

## CONCLUSION

The national center of competence éco-design accompanies 2000 companies SME per year in France, in the ecological one in order to create competitive advantage and consequently economic development.

A competence room of a CCIT geared down with the national by the network of the CCIR and controlled by the ACFCI a model of spin off with the particular skill based on an approach “bottom up”

With the PEMCV we cuts opened up new business opportunities for the chamber's member companies and projects that supports economic development of small businesses while increasing to their dynamism and reach will Be considered.