



**Discussion morning organised by the P.E.P. Association**

## **PEP UP your PRODUCTS**

The environmental footprint at your fingertips

26 September 2012



[www.pep-ecopassport.org](http://www.pep-ecopassport.org)

## Introduction



N. Bluthé

Norbert Bluthé, President of the P.E.P. Association, introduced the discussion morning by reminding the audience of the basic aspects of the PEP ecopassport program.

"What we are showing you is a human adventure!": manufacturers and union representatives, who are developing an important Program within an associative framework. Although a thousand PEPs have already been registered, this Program will only have a future if used in an international context in the same way as the products to which it applies.

## Round table: how are PEPs created?

Gérard Cappelli: "The environmental approach is only of interest if it is actually deployed with practical tools. This is what the PEP ecopassport program offers". The speakers at this first round table are experts based in different countries:

- Pierre-Yves BERTHELEMY – Groupe Atlantic - France
- Xavier VITAL – SGS - USA
- Charlotte INGOLD – Nexans - Sweden
- Jean-Bernard DUCOURNEAU – ABB – France



G. Cappelli

## What is a PEP?



PY Berthélémy

A PEP is a detailed environmental declaration that provides a summary of environmental performance: it is the environmental identity card of an electrical, electronic or environmental HVACR product which gives its material composition and indicates its environmental impacts. To create an environmental declaration, the life cycle of the product must first be assessed.

The Program is a facilitator that makes available the tools to meet the requirements of international standards and at the same time provides a format and content that are easy to use and adapt to our industries.

## What is meant by international dimension?

Firstly, it refers to the ISO standards that must be applied when developing a serious environmental communication: a harmonised format based on the life cycle assessment. For a given product, very different results can be obtained, because many different databases, calculation rules, indicators and hypotheses are used throughout the world. It is important to define harmonised rules. The Program provides these harmonised product category rules for electrical, electronic or HVACR products.

Cost is the main obstacle to carrying out LCAs and making environmental declarations. The Program is characterised by the fact that it takes this constraint into account and makes the creation of environmental declarations available to everyone in a B2B context, including the possibility of internal verification by an independent verifier accredited by the Program.

Compliance with ISO 14025 does not automatically ensure that the Program will be recognised in the international market. It will have to be recognised by contractors and the authorities in each country.



X Vital

## Why a PEP?

A company's marketing strategy is not about greenwashing, but really more about improving its product range according to new customers' expectations. A tool to clearly promote these added value products in terms of their environmental performance must be available.



C. Ingold

A PEP is primarily a tool to differentiate between manufacturers who have understood the new challenges and provide a relevant response with clear figures and those who do nothing. Furthermore, in the near future it will even be possible to differentiate between them on the basis of the environmental performance alone. In this approach, the role of the sales representatives in bringing the offer and the PEP to the customers is paramount, but they must have the right tools.

## How is it used in R&D?

R&D is heavily involved, with the aim of reducing the environmental impacts of new product generations. Product eco-profile assessment is used to validate the choice of solutions. At all stages in the development of new products, we create eco-profiles to check that the new product generations have far fewer environmental impacts than the previous ones and we include monitoring indicators throughout the process. The choice of materials, method of assembly, type of processes, as well as the choice of non-energy consuming technical solutions are concrete examples of what is known as "eco-design". The PEP ecopassport program helps R&D by providing common rules for product assessment methods.

### **Room discussion:**

#### What is the situation in the USA?

Very few programs have been developed in the USA. Those companies that produce environmental declarations do it so far for their European customers. The building sector is leading the market. In other sectors, there are initiatives involving qualitative measures based on technical criteria: mass, substance content, etc.

#### What is the international equivalent of a PEP?

The PEP is recognised by the market by the fact that PEPs are being implemented by manufacturers throughout the world vis-à-vis their suppliers and customers. All that remains is to ensure that the regulatory bodies in the various countries are made aware of the Program and do recognise it.

#### What does a PEP cost?

The cost varies a lot, depending on the choices made regarding its implementation (internal or external) and the complexity of the products assessed. The cost of a PEP is mainly related to the cost of the LCA, which is itself closely related to the cost of collecting the data. The more efficient a company's data collection practices, the lower the cost. The time required to collect the data, do the LCA and create the corresponding PEP can be reduced from 10/15 man-days to just one day.

The costs of verifying and registering the PEP in the Program are then added on. These costs are marginal within the framework of the PEP ecopassport program.

#### Do you use ETSI or ICU standards for the LCA?

When establishing the rules, the existing situation must first be reviewed, including these items if they are relevant.

#### What happens after a PEP has been obtained?

It is valid for 4 years and if there are any significant changes to the product, the PEP must be updated earlier.

#### What tools and databases do you use?

The Program does not require the use of a specific database, but it does require specific calculation rules. Everyone is free to choose their own tool and use the most relevant database for their product. This freedom leads to variations. The technical committee's role is to monitor developments and provide answers.

#### How can a PEP be adapted to meet different national regulations?

The technical committee is closely monitoring these issues and trying to organise convergence. He is responsible for the development of the technical framework and the applicable technical rules. The work in progress on the EN 15804 construction products standard is one of the subjects closely monitored by the Association.

With the same tool, I can get very different results, depending on my choices. There is a comparability problem. For example, depending on the source used for a given energy-mix hypothesis, we can obtain a 30% variation in environmental impact. How can you deal with this?

Nowadays, databases and the harmonisation of calculation methods pose a problem for everyone involved in LCA! The PEP ecopassport® program will not be able to resolve this issue on its own. The European Commission itself has tried to resolve it with the JRC. There are, however, commercial interests behind the databases.

Scientific and technical harmonisation and convergence work is in progress: it is the role of the P.E.P. Association's technical committee to monitor this very closely.

In the short term, the methodological choice made by the Program is transparency: the database and software used must be mentioned on the PEP sheet.

### **Round table: are PEPs an advantage in the marketplace?**

After the first round table which explained what PEPs are, their market scope must be discussed. PEPs have only recently been deployed. What will be the role of this new tool in the coming years?

To answer this question, we have:

- Zelda ELALOUF – Directorate of Housing, Urbanism and Landscape-DHUP
- David LE VELY – Legrand
- Yves GALPY – Ministry of Finance
- Bernard ALFANDARI – RESISTEX

### **What is the French regulatory plan for environmental building declarations?**

This plan fully complies with the Grenelle laws. It aims to provide consumers with objective information about the environmental impact of products based on their life cycle assessment. The intention of the project is to define the calculation methods to be used and the indicators associated with these methods, but not the format of the communication itself. It will eventually encourage manufacturers to reduce the impacts of their products. The time schedule is as follows: the decree will be published in 2012, it will become mandatory in 2013 for building products and in 2017 for equipment incorporated into buildings. Any company wanting to make an environmental communication about the products they sell in France must complete a full environmental declaration which is valid for 5 years and send it to a regulatory database. It must be verified by a third party.



Manufacturers can choose whether their declarations can be viewed on the regulatory database or on another site of their choice. They can import the data into the regulatory database from another existing database. For example, the PEPs registered on the PEP ecopassport® program database can be imported into the regulatory database.

### How do PEPs fit into the customer relationship?

This is part of a global approach for the building sector, which accounts for 40% of the energy consumed in France. The provision of eco-solutions to achieve energy efficiency is backed up by product environmental information that is made available to customers as a basis for comparison. PEP files are provided to customers in the same way as technical data sheets.

The Ministry of Finance is a customer that considers the environmental dimension to be extremely important: Bercy was designed twenty-five years ago to be sustainable and economical. The new 35,000 m<sup>2</sup> building in Evry is HQE certified.

It is a major purchaser in many fields. With government contracts, the rule is not to buy the cheapest, but to get the best value for money. In the government procurement system, environmental criteria are used for evaluation: 40% financial criteria, 60% technical criteria including 18% carbon footprint and site waste management. PEPs are a good first solution.



D Le Vely Y Galpy

### What motivates an SMI to create PEPs?



B Alfandari

The fear of not being able to sell its products when it hears about a European directive entitled "product eco-design" is quite a strong motive.

But not the only one, because human values also play a part. There is the feeling that the only possible growth will be green growth. Before communicating on what has been done, we have to do it first. That is why we got involved in PEPs. With PEPs, we are confident that we can show what we have really done.

Commercially, this enables us to be successful in tenders.

### What difficulties might an SMI encounter?

First of all, one question: the eco-design directive applicable to lighting dealt only with the utilisation phase and energy consumption and focused on banishing incandescent lamps. There is no mention of raw materials, manufacturing and transportation phases nor recycling.

There are two types of difficulties:

- the collection of data from sub-assembly suppliers: they refuse to give the breakdown of the materials in grams and we end up having to weigh the products!
- the cost: for the software alone, the licence would cost between 7 and 10 k€. We then have to add on the cost of internal resources to collect the materials data.

This does not yet lead us to compare data product per product, neither do our customers.. For example, electrical installers are not yet very familiar with PEPs.

#### **Room discussion:**

Will the regulatory declarations to be provided be made from paying databases or from free databases supplied by the State?

*The declaring companies will be able to choose, as long as they mention the database they are using.*

What is the schedule for consulting PEPs on the website?

*It is planned for early October 2012 on the [www.pep-ecopassport.org](http://www.pep-ecopassport.org) site. PEPs can also be accessed on the companies' sites. The decision as to where to make the data available depends on each manufacturer.*

How do PEPs fit into HQE?

*In the context of 2012 HQE performance, a set of 125 PEPs was provided for 85 experiments which are currently in progress. The business softwares run this data to determine the contribution of the equipment to the environmental impacts of the project. The HQE performance project aims to establish quantitative indicators based on PEP data.*

Since developing PEPs requires considerable resources, why is this only a first stage?

*It is important to distinguish between the data given on the PEP sheet for a particular product and integrating this data into a broader impact calculation for a system or site. The product PEP sheet does not indicate the total carbon footprint of the site.*

How can products be compared, if the source databases are not the same?

*The Directorate of Housing, Urbanism and Landscape (DHUP) in France specifies the calculation methods, but not the generic LCI (Life Cycle Inventory) databases. They can be different.*

Concern over the comparability of environmental declarations is justified. For the same study with two different databases, different results will be obtained and the difference will be related to the source data used. The purpose of the Program is to define the rules and improve comparability, but not to develop LCI databases. There are already different manufacturer-specific background, tools and data. Everyone is looking for a free, public, harmonised database of source data.

For all these LCAs, there is a plethora of tools and initiatives and the situation is even more tricky at the European level. The Program is trying to harmonise the way in which hypotheses are built on for product usage scenarios and the calculation methods in PCR-PSR documents. This reduces variability. However, it cannot be completely eliminated. We are talking here about modelling: everyone is using estimated impact characterisation factors in the various LCI databases. A single database used by all would presuppose a consensus amongst experts on a multitude of highly specialised issues. In the short term, modelling uncertainty cannot be further reduced.

In France, there is a draft database project managed by Ademe.

Testimonies from the room: with the same scenario, the same person may find a 20% discrepancy on the same product, when two different software packages are used.

How can calculation uncertainty be integrated into environmental declarations?

The issue of uncertainty calculation will not be resolved overnight. There are so many parameters to be considered that we must accept that uncertainties will exist.

Nevertheless, to control information, manufacturers must give their sources in the PEPs: software, database, reference PSR, if any.

The fundamental aim of manufacturers when designing their products is to take account their impact on future generations. PEPs comply with phase 1 of this approach: measurement. Phase 2 is eco-design: how can we limit the impact on the environment? On the raw material depletion? Progress will be measured with the same measuring tool all along.

Utilisation scenarios and their use

The first stage involves identifying the functional units of the products before comparing them: example of comparing a cast bronze chandelier with a Chinese paper ball. On the basis of the profile results, the paper ball will be chosen! You have to be sensible and think twice, and not base your choice only on the LCA results. On the other hand, the LCA is very useful for measuring product improvement

## Conclusion

Four main themes emerged from this discussion: methods and tools, improved environmental performance, internationalisation, databases. We are working on them.

The last point that emerged is the cost. The aim of our association is to make product environmental information available at an affordable cost to large and small organisations.



120 participants !