PeSCoS Newsletter

2nd Project Newsletter

Personalised Training System for SMEs

Education and Culture DG

Lifelong Learning Programme

Second Meeting held on the 29th & 30th of September in Barcelona – Spain

The second meeting for the PeSCoS project took place in Barcelona on the 29th and 30th of September 2011. The meeting was hosted by FUNDITEC at their premises: Carrer de Veneçuela 103, Barcelona 08019.

Purpose

The purpose of the meeting was to bring all partners up to speed with respect to work already performed on the project and envisaged work for the forthcoming period.

The most important aspect of the envisaged work for the forthcoming months concerns the functionality and supporting design of the PeSCoS Genie that will generate the personalized withdrawal plans for SMEs.

Additional items of the meeting concerned issues relevant to the following work items:

➢ State of the art for footprint calculators;

➢ Emission factors for the partner countries;

➢ Specific questions per energy area considered by the tool;

➢ Methodology for generating personalized plans;

➢ Genie database development;

➢ Format and structure of the training content

Outcome

The partners have successfully concluded to the desirable functionality and facilitating design for the PeSCoS tool opening the way for the elaboration of the business use cases that will drive the design and subsequent development and testing of the tool. The first screens for the PeSCoS tool were already designed during the meeting with the active participation of all partners.

All the items were addressed and the partners agreed upon the next steps and all decisions are captured on a consolidated action list for the immediate future which reflects the renewed commitment of all partners to the successful completion of the project.

State of the Art for Calculating Carbon Emission is now completed

Purpose

The purposes of the current SoA were the following:

- Study the existing footprint calculators and the methodologies and technology behind them highlighting the strengths and weaknesses of the current measurement methods

- Populate the global list of items to be measured for all sectors addressed by the project

- Break down the sectors to sub-sectors in order to take into account their individual characteristics

- Identify the local factors that will filter the global list of items to be measured

- Generate generic (all sectors & energy areas) and specific questions. The questions will guide the data entry process which will be divided into three layers, Usage, Situation and Behavioural.

Methodology

The methodology for filtering the calculators to be studied was based on three distinct phases, as follows:

1. Preliminary list of calculators: A list of all the calculator websites was created as the result of a desk research which followed a structured approach comprising three steps:

   a. Determine where to look and what to look for

   b. Assess the quality of the source material

   c. Ensure the information is correct for the task

2. Standard set of input values: A set of input values to be used as input for the calculators of the preliminary list. The list was prepared with care in order to be usable by all calculators. The input set data comprised values in response to questions belonging to the following categories:

   a. Building & Human resources (type of building, age, square meters, number of people, etc.)

   b. Energy inputs (oil, gas, coal, LPG, etc.)

   c. Transport (air travel, public transport, car, distance covered, type of fuel, etc.)

3. Locality information: A final filtering rule was applied by retaining for a final assessment the business calculators that utilise at least a minimum amount of locality information, such as province or area code

Conclusions

The survey of carbon emission calculators has produced the following conclusions:

- There is currently no standard method for the calculation of CO_2 emissions

- The calculators are most consistent at calculating CO_2 outputs of natural gas and oil rather than electricity. When measuring the consumption of electrical energy, the difference between the estimates for CO_2 emissions increases linearly as consumption increases. The four business calculators that were studied demonstrated a linearly increasing deviation as the electricity consumption increased (up to a factor of 7). This is attributed to the fact that the sources of electricity depend on the location of the user and national or at best provincial averages are used by the calculators.

- The number of questions asked had a partial effect on the result (e.g. 30 questions yielded a large spread in CO_2 output). This conclusion in particular, proves the fundamental claim behind the PeSCoS initiative that it is necessary to develop calculators that take into account specific industry characteristics in order to provide the best possible advice to SMEs with the minimum possible cost.

- Natural gas inputs provide the most inconsistent results.

Survey on SME Sustainability Needs in now completed

Purpose

The purpose of the survey was the identification of the Sustainability needs of SMEs which provided the SMEs with the opportunity to indicate what they know in terms of the measurements they will be asked to provide to the PeSCS system.

This way it became apparent what difficulties they had understanding and obtaining the required information.

These conclusions were used as input for the design of the PeSCoS tool which will help SMEs provide accurate information (prerequisites - what to have at hand before starting the process) and thus improve the overall accuracy of the footprint calculator.

Methodology

A broad range of SMEs from the partner regions were invited to express their opinions with respect to their needs and requirements regarding environmental sustainability, as well as to outline their expectations from PeSCoS products and services.

The implementation of the survey comprised three stages.

1. The first stage covered the verification of documents relating to the conduct of the survey.
2. The second stage comprised a thorough analysis of the documentation necessary to conduct the survey and the development of a questionnaire to facilitate the survey.
3. The third stage was the execution of the survey and the subsequent analysis of the results, as well as the elaboration of conclusions and recommendations.

The survey was conducted face to face in the form of an interview process, but it was also facilitated electronically via email and online via survey monkey.

Conclusions & Recommendations

The following conclusions were drawn from the survey:

- ❖ There is a lack of awareness among entrepreneurs with respect to the uptake of existing environmental initiatives.
- ❖ Entrepreneurs are reluctant to give / or provide no answers to questions about there uptake of environmental initiatives.
- ❖ Entrepreneurs lack sufficient knowledge about environmental threats, including legal ones.
- ❖ There is a lack of knowledge about possible sources of training related to environmental initiatives.

The following recommendations address the conclusions of the survey:

- ✔ Initiatives aimed at promoting environmental activities among entrepreneurs.
- ✔ Actions to raise awareness of sustainable ways among entrepreneurs through trainings or advisory services.
- ✔ Development of advisory services to help entrepreneurs to verify the cost-effectiveness of the implementation of sustainability enabling technologies, including ecology.

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Design of the PeSCoS Footprint Calculator and Environmental Genie in now completed

Following the outcome of the 2nd meeting during which the partners concluded upon the main aspects of the PeSCoS footprint calculator and Genie, the design of the footprint calculator and the "genie" has concluded.

Purpose

The purpose of the design activity was to use as input the conclusions of the State of the Art for calculating carbon footprint and the outcome of the SME sustainability survey and conclude as to the following:

➢ The most efficient structure and facilitating design for the data entry forms of the footprint calculator part of the PeSCoS tool

➢ The presentation of the scores for the general footprint and the footprint attributed to each individual energy area of the project

➢ The functionality and presentation of the actions and the supporting training content as well as the follow up by the PeSCoS tool of the SME progress on the implementation of the actions

Methodology

The main aspects of the methodology driving the design of the PeSCoS tool are as follows:

❖ 2 Layers of data entry: With regards to the layers of questions, they will be separated in two main parts:

1. Footprint Questions: Questions for the current footprint (result in calculation of CO2 in Kg).
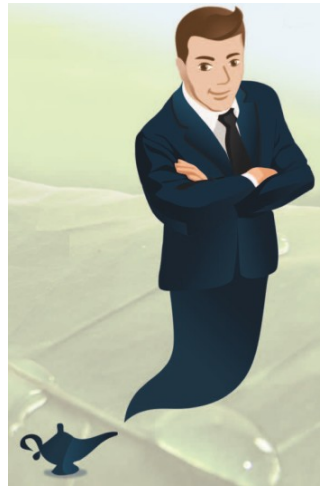
2. Additional Questions: Questions with regards to each energy block allowing the tool to recognise the situation the SME is currently in.
Locality information will be spread in both parts. Regional questions with respect to energy sources (e.g. what kind of cooling system is used in Greece) are important because they affect the training.

❖ Personalisation Features: A workflow will guide the data entry process and the generation of personalised plans. A the start of the workflow, the SME will be prompted to select the

"problematic" energy area to reduce the footprint (e.g. SME heating presents a major cost so heating actions should be implemented).

❖ Reduction Actions: The actions presented to the SME for reducing footprint will provide an appropriate reduction number (e.g. approximately xx Kg of CO2).

❖ Genie Functionality: The tool may keep averages of the data entered by SMEs and position the SME accordingly (keep scores in a way): A visual representation for the SME about where it is currently positioned.

❖ Training Content: The reduction actions will be supported by appropriate training content

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PeSCoS Footprint Calculator and Environmental Genie

PeSCoS consortium is made of 7 European organisations experienced in transnational projects promoting sustainable development

Design Considerations

The design of the PeSCoS tool should address the following considerations:

1. It should consist of a modular build up (e.g. mobility, energy etc.), so that the SME user can take action step by step and is not forced to go through a long intake process (full questionnaire) as this could scare the user off and result in low adoption.

2. It should reflect the philosophy that any action (also small steps) in the right direction will be rewarded. This is a matter of lingo, framing and signaling in the design phase. Think of "gamefication" aimed at adoption of measures and further completing the user's profile.

3. It should contain an area of sharing best practices or some form of Q&A where learning from peers is enabled.

envisaged screens graphically with simple drawings accompanied by a description of the main elements featured.

- Serving as a navigational map of the PeSCoS tool, even though limited in this respect, it will still provide valuable input for the developers with regards to the functionality that needs to be facilitated.

Outcome

A design document was elaborated in the form of Business Use Cases with the purpose of:

- Providing a narrative description of the Footprint Calculator and Genie functionality from the viewpoint of a simple user.

- Describing the main functionality of the PeSCoS tool by depicting the main

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PeSCoS Brochure is now available!

The PeSCoS project brochure is now available in all the languages of the project including English. The electronic version of the brochure is accessible via the Public Deliverables page of the project website (www.pescos.eu).

Alternatively, a smart phone's QR code reader application can be used to scan the QR code images of the brochure.

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