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Deliverable D 2.1: Inventory plan and resources
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ICPI

0. Introduction

IND-ECO Project has the following main objectives for **Work Package 2 Inventory and benchmarking**:

- To check energy consumption in the tanning and footwear sectors;
- To identify efficiency areas and technical improvement opportunities;
- To build companies capacity to plan and support the energy efficiency process.

This work-package consists in activities aiming at:

- ✓ raising companies' awareness of energy consumptions and environmental impacts;
- ✓ focusing on energy consumption of the involved sectors (tanning, and footwear);
- ✓ allowing involved companies to know their consumptions and CO2 emissions and their position relative to the benchmark;
- ✓ defining a starting position to evaluate investment opportunities and to assess the achieved results.

These activities will be developed under the following WP2' tasks:

- 2.1. Task organization
- 2.2. Sector-specific inventories
- 2.3. Benchmark definition
- 2.4. Energy audit and benchmarking

The results of this work-package are relevant for the other project work-packages:

- ▶ defining which are sustainable efforts to have access to economic and financial facilities (WP4);
- ▶ allowing companies that make investments to know their baseline and set their efficiency targets (WP5);
- ▶ allowing such companies to define their position with respect to the performances of their sector before and after investments (WP2 and WP4);
- ▶ allowing companies to correctly communicate their engagement and results (WP7).

1. Documents to update companies' management and staff

The "Set of organizational tools" (Annex 1) elaborated (SOGESCA) has been set up to cover points 1 and 2 of the deliverable D2.1 "Inventory plan and resources".

The set of tools elaborated in the frame of IND-ECO project is aimed to:

- Provide to companies information about opportunities and requirements for energy management and energy efficiency within the industrial process.
- Create an adequate organization to collect and analyze data and information regarding energy use.
- Define a complete and appropriate set of Energy Performance Indicators (EnPI).

- Understanding effects of investments and projects on the energy consumptions.
- Plan training sessions to inform, train and motivate staff and energy teams.
- Provide tools to support energy consumptions benchmarking.

The “set of organizational tools” is also designed as a training supporting tool addressed to companies’ management and staff in order to be informed on the opportunities and requirements for energy efficiency.

Each presented tool is an example. Tools have been selected and eventually modified from those adopted by single companies participating to the INDECO project or by other companies adopting an Energy Management System and selected by the INDECO project partners and from those examples proposed by international or national standards and guidelines.

Each tool, including one or more examples, is introduced by a sheet addressing the company’s staff to properly use the tool.

Tools and examples are likely and appropriate for a standard medium-size tannery/footwear company; nevertheless, tools and examples are not “real” and cannot be directly used for business purposes. Each company shall understand the aim of each single tool and properly adapt the tool to its organization and general context.

Informative meetings and trainings for companies’ management and staff will be organized, at national level, by all associations and technical centers partners in the project.

2. A set of organizational tools related to international standards such as ISO 50001 and ISO 14064 which will be appropriate also to gather data related to products’ performances

The Set of organizational tools are directly related to the international standards:

- **ISO 50001:2011** Energy management systems - Requirements with guidance for use; and
- **ISO 14064:2006** Greenhouse gases -- Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

Applying the set of organization tools in tanning and footwear companies will allow acquiring data on energy consumption and costs but in the same time on products’ performances.

Elaboration of energy management and efficiency plans, in conformity with the tools designed, will produce, in tanning and footwear companies, the following benefits:

- ✓ Cost reductions through efficient use of energy;

- ✓ Reductions in energy consumption and greenhouse gas emissions;
- ✓ Reduced production costs;
- ✓ Improve product quality;
- ✓ Improve compliance with regulations and overall environmental performance;
- ✓ Improve products competitiveness on the “green” market.

The tools and actions aimed in the frame of IND-ECO project represent a responsible and active contribution in supporting tanning and footwear companies in developing energy efficiency and sustainable production systems.

3. The questionnaire

In order to collect data from companies, in the WP2 was programmed a task for the *definition of sector specific inventories questionnaire*.

Were defined two questionnaires, firstly in English (Annex 2), one for tannery (CR&S) and one for footwear sector (CTCP).

The questionnaires are well adapted to the specific characteristics of production processes in the two sectors; they are short, clear and effective related to the type of products, production processes, equipment, energy consumption etc. in order to allow the data collection from companies and to define the benchmarks.

The questionnaires have been translated into Italian, Spanish, Portuguese, Bulgarian and Romanian (Annex 2) and are already sent to companies in participating countries.

Data acquisition is made both on-line and off-site, but mainly together with contacted companies to be sure that appropriate answers are given.

About 300 questionnaires for each sector will be collected and based on quantitative and qualitative analyses and to inputs received, the *Inventory results* (D2.2), sectorial and process-related *benchmarks* (D2.3) will be defined in the next tasks of the WP2.

4. The sample description

The EU leather industry is composed of a series of different sectors, starting from the hides and skins markets, which supply the tanning industry with raw materials sourced from abattoirs dedicated to the production of meat for human consumption, and concluding with the production of manufactured consumer goods made of leather. Some of the sectors are highly industrialized, while others present a marked degree of craftsmanship and for yet others, the core business are trade and supporting services.

Europe has a very long tradition in the production of leather, footwear and leather goods. Consequently all these industries are present in the region and each of them also plays a relevant role on the international marketplace.

If we consider the all leather manufacturing segments (tanneries, footwear, leather goods, upholstered furniture, garments, car interiors, etc.) and the allied sectors (chemicals, machinery, etc.), the whole industry in the EU is estimated to be composed of more than 40.000 companies, employing over 500.000 people, with a total turnover of 50 billion Euro.

The European leather industry is a world leader in terms of quality, and quality means value. EU covers the top ranges of production in all the main specialisations and uses. In the fashion area, top ranges mainly mean the best design, style and creativity in the world. Success for the European leather & footwear industry is increasingly linked to his capacity to be efficient and innovative.

Most of the companies are SMEs located in industrial districts, even if among Member States there are some differences in the average size of businesses.

The **EU tanning sector** has traditionally been composed of small and medium sized enterprises mainly, but big companies can be found as well. The average size of a EU tannery is currently 18 people per enterprise.

In **EU footwear sector** represents the main end user (about 41%) of leather produced by the EU tanning companies. Most of the footwear companies are SMEs located in industrial districts, with differences in the average size; so, Italian and Spanish companies employ 13-16 workers on average, while in France and Germany are located bigger dimension firms (60-120 workers).

The EU footwear manufacturers has been the focus on high value-added segments, outsourcing to some other countries part of the low end “mass” production; EU footwear sector remains the world leader in the high quality segment.

This is the general context of European leather and footwear sectors in which the IND-ECO project will develop its activities.

For inventory stage about 600 companies will be selected from tanning and footwear sectors existing in the participating countries: Italy, Spain, Portugal, UK, Bulgaria and Romania.

Thanks to the European Associations (e.g. COTANCE) other 50 questionnaires will be collected from representative countries which are not in the project.

Having regard to the countries and sectors that will contribute with their data to the IND-ECO project, it can be said that the sample is representative, in qualitative and quantitative terms and that it represents very well the variety of the European tanning and footwear industry.

5. The updated plan and scheduling of the inventory

The sector-specific inventories are programmed to be carried by the technical centers and associations in the participating countries.

The tasks for partners' organisations were:

- Participation in questionnaires definition in English;

- Translation of questionnaires in 5 more languages;
- Information to companies - made by direct meetings, using the IND-ECO Flyer and the questionnaire itself (in Introduction there is a short presentation of the project aim, objectives and opportunities for companies);
- Data collection;
- Data analysis from quantitative and qualitative point of view;
- Production of the deliverable “Inventory results” (D2.2).

First 3 subtasks started from the beginning of the project and have finished in the 7th month.

The other 3 subtasks have started in the 4th month, are in progress and will finish in the 12th month of the project when will be presented the inventory results.

Identified problems and corrective actions taken in this period:

- Possible delay in collecting all inventory questionnaires (about 600 for both sectors). **Corrective action:** extension of the period for data collection with max. 1 month.
- Due to the low number of tanning companies in some countries (e.g. Romania) it's possible not to collect 50 questionnaires from tanning sector in these countries. **Corrective action:** will be collected more questionnaires from other partner country where the sector is better represented (e.g. Italy).

The collected data will be presented to the project partners, involved companies, associations, experts and based on the quantitative and qualitative analysis the sectorial and process-related benchmarks will be established.

ANNEXES:

Annex 1: “Set of organizational tools related to international standards such as ISO 50001 and ISO 14064. Energy Management Tools (EMT)”

Annex 2: *Inventory Questionnaire – Footwear (EN, IT, SP, PT, BG, RO)*
Inventory Questionnaire – Tannery (EN, IT, SP, PT, BG, RO)

REFERENCES:

1. IND-ECO Project, 2012
2. Set of organizational tools related to international standards such as ISO 50001 and ISO 14064. Energy Management Tools (EMT), 2012
3. Social and Environmental Report – the European leather industry; COTANCE, 2012
4. Identification of the national and regional observatories on employment and training, existing in the EU for the leather and footwear sectors; COTANCE, ETUF:TCL, CEC, 2011