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Training FOR REnewableS and Energy Efficiency in building sector

FORESEE

The BUILD UP Skills FORESEE Project put into practice the priorities identified in the Roadmap 2014-2020, under the Build Up Skills - Portugal project and also, at national level, the participation of different actors involved in the workers training concerning construction sector, Energy Efficiency area (EE) and Renewable Energy Sources (RES). With this initiative it is now intended to overcome barriers and skills gaps or needs in various professions to achieve national goals for 2020, and provide a highly skilled workforce with relevant competencies towards effective implementation of skills to support the integration of Renewables in Buildings (namely PV and small Wind power generators) as also to improve the Energy Efficiency in Building Envelope and HVAC Systems and lighting. The training will focus on three areas to support training for installers according the following structure:

- Building envelope: installers of windows and installers of thermal insulation;
- Heating and cooling: HVAC systems and solar thermal and biomass boilers;
- Renewable energy systems and efficient use of electricity: lighting, photovoltaic and wind.

During the project, the training actions for trainers and pilot courses to installers, were tested the support material developed and therefore created training opportunities, organized into short training units (UFCD) to be included in the National Catalogue Qualifications of (NCQ).



Results

The Project developed

1. The Curriculum for the training courses on 8 Themes;
2. The Training material, (Manuals, Presentation, Models, Workshops, equipment);
3. The Trainers for future courses;
4. A network of Training centers interested in this courses;
5. Inclusion of some of these training courses in the National Catalogue of Professions

The training material in eight topics are now available (in Portuguese) in our website; Thermal solar collectors and boilers; Photovoltaic and wind systems; HVAC systems; Lighting systems; Windows and Thermal Insulation, which have been used as support for action under WP3- Training the Trainees. These material was been used as support for the Trainees during the courses but is available to support future training actions and all professionals ans installers.

For these training courses in some of the areas, Insulation, Windows and Solar Thermal Systems, PV and Wind Systems, specific training infrastructures had been set up for experimental purpose a sort of tutorial and “hands on” procedure.

In this first set of training courses, training the trainers, participated:

- **179** trainees

According to the overall evaluation for Lisbon and Porto (5 = very positive- 1=very negative).

Lisbon/Porto

PV Systems-4,2/4,3; Wind Systems-4,3/4,3; Solar Thermal-4,7/4,5; Biomass Boiler-3,8/3,8; HVAC-4,3/4,1 Windows-4,2/2,9;Thermal Insulation- 4,1/3,8; Ligthing-4,7/4,5

The feedback from the participants was quite successful concerning: coordination, organizational aspects, contents and documentation available. The weakest aspects pointed out were identified during the training of trainers and the introduction of significant modifications regarding the methodology of training adopted for the Pilot training, shows to be extremely positive, once and the average score values increased significantly, becoming the Overall Evaluation Positive or Very Positive.

The Pilot Training for Installers started in October 2016 and the Project reached:

- **262** Installers.

The global overall evaluation for was positive or very positive, according to:

PV Systems-4,3; Wind Systems-4,3; Solar Thermal-4,6; Biomass Boiler-4,3; HVAC-4,1; Windows-4,7; Thermal Insulation- 4,2; Ligthing-4,5

In conclusion all the major goals of the project has been accomplished and the practical courses, materials are available and trainers are prepared to continue the work with the the training centers.

Lesson learned

Among the trainees there is a strong belief that specialized training and certification of qualifications on energy efficiency, renewable energy systems and construction elements has a major importance to achieve recognition of their professional competence and abilities in their field of work. The training of trainees proved the interest of the participants, companies and training centers offered their installations for the training actions.

It must be pointed difficulties associated with attracting construction workers to longer training courses (e.g. 25 hours), during working hours. The distribution of the academic load 25 hours on 3 consecutive days is not suitable for employee professionals and is still more critical for smaller company's size, without time available or financial capital to undertake supplementary training and, where sometimes, the employee is also the owner.

The completion of the Pilot Training Courses, with the lessons learnt, allows to integrate the 25 hours and 50 hours training courses developed in the framework of FORESEE project into short training units (UFCD) of the National Qualification Catalogue (NCQ). The bases for this purpose are created, but there are some aspects that are necessary to overcome, in particular, to bring together the Civil Construction and Civil Engineering Sectorial Council and the Electricity and Energy Sectorial Council.

Partners and coordinator

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Portugal

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Budget

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In brief

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