WE-Qualify «Improving skills and technicians qualifications associated with the energy efficiency of buildings»

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Specific objectives of CEA

- Promotion of Renewables
- Promotion of Energy Efficiency
- Promotion of Sustainable transport
- Sustainable Local Energy Planning
What we do..

- Information, advice and training on renewables and energy efficiency
- Support for the implementation of local regional energy plans
- Energy audits of public and private buildings, Infrarent thermography
- Environmental Impact Assessment Studies
What we do..

- Raising awareness on energy efficiency, renewable energy sources and transport issues

- Certification of photovoltaic installations

- Participation in National, and European Projects
**WE-qualify project**

- **Number of cooperating bodies:** 6 (all from Cyprus)
- **Lead partner:** Cyprus Energy Agency (CEA)
- **Duration:** 36 months (November 2013 – October 2016)
- **Budget:** 268,132 €
- **Co-funding:** 200,197€ (74.66% from the European Commission through the «Intelligent Energy for Europe» (2007-2013))
Project partners

**LP:** Cyprus Energy Agency

**P2:** Cyprus Productivity Centre

**P3:** Cyprus Organisation for Standardisation

**P4:** Human Resources Development Authority

**P5:** Technical Chamber of Cyprus

**P6:** Energy Service
European Distinction (1)

The WE-Qualify project has emerged between the 3 nominations for the most successful European Projects for the year 2016, in the Public Domain category, for the promotion of clean, safe and efficient energy in Europe.
European Distinction (2)

The ceremony of the European Awards for Sustainable Energy was held in Brussels under the European Sustainable Energy Week 2016.
Background

The construction sector in Cyprus is a growing sector which is responsible for 37% of the final energy consumption.

In contrast to this and according to the current National situation and the «Roadmap» that has been developed within the Build Up Skills Pillar I (www.buildupskills.org.cy), a lack of a sufficient number of skilled workforce for the implementation of measures relating to the construction of energy efficient buildings has been identified.

Additionally there is a lack of appropriate training programs for the training of the workforce.
In Cyprus, according to the «Roadmap» that has been developed in the framework of the «Build Up Skills - Pillar I», it was estimated that at least **4,500** employees need to acquire green skills in **13** different skillsets up to 2020!
WE-qualify targets

To assist the Construction sector in Cyprus to address the **skill gaps in the workforce** relating to the construction of **energy efficient buildings**, but also to contribute to the **promotion of renewable energy technologies**.

- 5 pilot training programs for technicians
- 3 Skills
- Training of **125** technicians, certification of **100** technicians
Skills

Educational training programs for the development of the following skills:

- **Skill 1:** Installation of thermal insulation (3)
- **Skill 2:** Installation of windows and external blinds (1)
- **Δεξιότητα 3:** Installation and maintenance of Biomass small-scale boilers and stoves (1)
Training Courses (I)

- Three training courses were completed regarding the installation of thermal insulation systems:
  - 24 hours of theory – 9 hours of practical exercise
  - Number of applications: 100
  - Attended: 71
  - Certified: 69

- One training course was completed regarding the installation of windows and sun protection systems:
  - 24 hours of theory – 9 hours of practical exercise
  - Number of applications: 14
  - Attended: 7
  - Certified: 7
One training course was completed regarding the installation of Biomass small-scale boilers and stoves:

- Approved by the Ministry of Energy, Commerce, Industry and Tourism (Κ.Δ.Π. 374/2015)
- Cooperation with the Agricultural Research Institute for the practical training
- 31 hours of theory – 9 hours of practical exercise
- Number of applications: 18
- Attended: 14
- Certified: 14
## Overall evaluation of training courses – Level of targets implementation

<table>
<thead>
<tr>
<th>Target</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Training</td>
</tr>
<tr>
<td>Certification</td>
<td>Certification</td>
</tr>
<tr>
<td>125</td>
<td>92 (74%)</td>
</tr>
<tr>
<td>100</td>
<td>76 (76%)</td>
</tr>
</tbody>
</table>
# Establishment of National Steering Committee

<table>
<thead>
<tr>
<th>Organization/stakeholder</th>
<th>Number of representatives</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus University of Technology</td>
<td>2 representatives</td>
<td>University</td>
</tr>
<tr>
<td>University of Cyprus</td>
<td>1 representative</td>
<td>University</td>
</tr>
<tr>
<td>Nicosia University</td>
<td>1 representative</td>
<td>University</td>
</tr>
<tr>
<td>Ministry of Education and Culture</td>
<td>1 representative</td>
<td>Ministry</td>
</tr>
<tr>
<td>Energy Service</td>
<td>1 representative</td>
<td>Ministry</td>
</tr>
<tr>
<td>Cyprus Employers and Industrialists Federation</td>
<td>1 representative</td>
<td>Federation</td>
</tr>
</tbody>
</table>
Training material

- Development of appropriate **training material and practical tools (3)** for trainees and trainers, providing all the necessary technical information for each addressed skill
- Created **Guides for trainers** for each skill
- Development of **training methodology** for each skill
- **Training presentations** for each skill
- Available in the project web-site ([www.cea.org.cy/we_qualify/](http://www.cea.org.cy/we_qualify/))
Review of training material

- Revision of the training material based on the feedback of instructors and trainees (skills 1 & 2)
- Meetings with representatives of organizations, to exchange views on the possible improvements of the initial training material developed for skill 3.
Opinion of trainees

Results from questionnaire

- A dedicated questionnaire was created, which was distributed to the trainees at the end of each training program
- **65 questionnaires** were collected fully completed by the insulation installers
- **7 questionnaires** were collected fully completed by the windows and blinds installers
- **14 questionnaires** were collected fully completed by the installers of biomass boilers and stoves
Opinion of trainees (I)

Q. A1: To what extent do you think you have **improved your knowledge and skills** through the WE-Qualify project;

- **Thermal Insulation training course**
  - 74%: None
  - 26%: Little
  - No reply

- **Windows and blinds training course**
  - 57%: None
  - 43%: Little
  - No reply

- **Biomass small-scale boilers and stoves training course**
  - 93%: None
  - No reply
Q. A2: To what extent do you think you will use in your work the knowledge and skills acquired through the training course;

- **Thermal Insulation training course**
  - None: 1%
  - Little: 71%
  - Medium: 28%
  - Very Much: 0%
  - No reply: 0%

- **Windows and blinds training course**
  - None: 57%
  - Little: 43%
  - Medium: 0%
  - Very Much: 0%
  - No reply: 0%

- **Biomass small-scale boilers and stoves training course**
  - None: 50%
  - Little: 50%
  - Medium: 0%
  - Very Much: 0%
  - No reply: 0%
Q. A3: To what extent do you think that the WE-Qualify certificate can provide a competitive advantage in the market?

- **Thermal Insulation training course:** 7%
  - None: 55%
  - Little: 8%
  - Medium: 32%
  - Very Much: 5%
  - No reply: 7%

- **Windows and blinds training course:** 57%
  - None: 43%
  - Little: 21%
  - Medium: 22%
  - Very Much: 50%
  - No reply: 7%

- **Biomass small-scale boilers and stoves training course:** 43%
  - None: 13%
  - Little: 12%
  - Medium: 21%
  - Very Much: 50%
  - No reply: 7%
Results from the opinions of the trainees

- A large proportion of the respondents indicated that the WE-Qualify project has improved their knowledge and skills.
- The majority of the respondents believe that the certificate acquired will give them a competitive advantage in their work.
- The training courses in general left the insulation installers satisfied, however a number of them suggested longer time of practical training.
- The majority of the respondents were satisfied with the timetable and the overall duration of the program.
Training providers(I)

Cyprus Productivity Centre
(laboratory for thermal insulation and installation of windows and blinds)
Training providers (II)

Cyprus Energy Agency
(Collaboration with Agricultural Research Institute)
Training for Instructors
Theoretical training
Roof thermal insulation
Roof thermal insulation
Roof thermal insulation
Roof thermal insulation
Roof thermal insulation
Roof thermal insulation
Materials preparation
Wall thermal insulation
Wall thermal insulation
Wall thermal insulation
Wall thermal insulation
Wall thermal insulation
Wall thermal insulation
Wall thermal insulation
Installation of windows
Installation of window frames
Installation of window frames
Educational visits
Educational visits
Practical exercise for installation of Biomass boilers and stoves
Practical exercise for installation of Biomass boilers and stoves
Practical exercise for installation of Biomass boilers and stoves
Practical exercise for installation of Biomass boilers and stoves
Practical exercise for installation of Biomass boilers and stoves
Theoretical examination
Practical examination
A questionnaire was prepared and was sent to organizations and institutions across Europe. The questionnaire was associated with existing systems of professional qualification for the 3 skills carried out be the project.

List of criteria and requirements to be met by the trainers, trainees and the training centre.

Certification Rules of the educational program WE-QUALIFY.
Main conclusions:

- Education, lifelong learning and the creation of certification schemes for craftsmen qualifications provide **quality assurance** in the construction and refurbishment of buildings, helps **increase the technical knowledge** of the installers as well as, **increase in trustworthiness**.
- The legally regulation of professions must be handled with care and it is done where there is an **imperative public interest**.
- There is a necessity of a **common reference point** for the whole effort or alternatively the **use of the Qualifications system** by the Human Resources Development Authority.
- Need of **updating or creating new Qualification Standards** which will incorporate issues of energy efficiency in construction.
- Need for **cooperation of all stakeholders** in order to provide the appropriate reference framework for the training and certification of installers for energy efficient buildings.
## Setting qualifications for the construction of buildings in Cyprus

<table>
<thead>
<tr>
<th>TYPICAL EDUCATION</th>
<th>TERTIARY</th>
<th>TECHNICAL INSTITUTES</th>
<th>PRIMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQF8</td>
<td>Architects</td>
<td>Civil Engineer</td>
<td>Contractor</td>
</tr>
<tr>
<td>EQF7</td>
<td>Civil Engineer</td>
<td>Mechanical Engineer</td>
<td>(EQF3, 4 &amp; 5)</td>
</tr>
<tr>
<td>EQF6</td>
<td>Mechanical Engineer</td>
<td>Electrical Engineer</td>
<td>(EQF4)</td>
</tr>
<tr>
<td>EQF5</td>
<td>Energy Performance Professionals</td>
<td></td>
<td>(EQF5)</td>
</tr>
</tbody>
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### Regulated by laws and other regulations:
- Compulsory and regulated by laws and other regulations
- Voluntarily carried
- Post-secondary Educational and Training Institutes (MIEEK)
- Voluntary Regulations
- No legal regulation

### Design:
- Production of Molds
- Raised Floors
- Plumbing
- Carpentry
- Dry Construction and Placing
- Concrete Reinforcing Steel
- Electrical Installations
- Installation of Glazing

### Construction:
- Central Heating Systems
- Installations and Maintenance of Elevators
- Colouring and Decorative Coatings
- Waterproofing Systems
- Cooling and Air Conditioning Systems
- Household Automation
- Excavator Operator
- Shading Systems Installer
- RES Systems Installation
- Supervision

### Inspection:
- Management of the Project
- Maintenance Technician and Energy
- Upgrading of Buildings
- Inspection

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**Regulation of qualifications:**

- Compulsory and regulated by laws and other regulations
- Voluntarily carried
- Post-secondary Educational and Training Institutes (MIEEK)
- Voluntary Regulations
- No legal regulation
Thank you for your attention!

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WE-qualify website:
http://www.cea.org.cy/we_qualify/