BRICKS Project
Building Refurbishment with Increased Competence Knowledge and Skill

Rotterdam
Anna Moreno
Content of the presentation

• The training methods, materials, infrastructure developed;
• The most remarkable project outcomes / results and achievements;
• Marketing and outreach strategy;
• Any challenges or very good practices and reporting on performance indicators;
• Financing of the project and continuity.
Content of the presentation

• The training methods, materials, infrastructure developed;
• The most remarkable project outcomes / results and achievements;
• Marketing and outreach strategy;
• Any challenges or very good practices and reporting on performance indicators;
• Financing of the project and continuity.
The starting point

- The BRICKS project

https://vimeo.com/218425239
### The method: Assisted On the Job Training (AOJT)

<table>
<thead>
<tr>
<th>Customer</th>
<th>Trainers</th>
<th>Evaluation commission</th>
<th>Qualification center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of competences GAP</td>
<td>Identification of learning resources</td>
<td>Definition of the training program</td>
<td>Qualification AOJT</td>
</tr>
<tr>
<td>E-learning courses</td>
<td>Self-assessment on line</td>
<td>Realization of the training</td>
<td>AOJT demo</td>
</tr>
</tbody>
</table>

**Steps**

1. Check
2. Training review
3. Step n-1

https://vimeo.com/194009554
Content of the presentation

• The training methods, materials, infrastructure developed;

• The most remarkable project outcomes / results and achievements;

• Marketing and outreach strategy;

• Any challenges or very good practices and reporting on performance indicators;

• Financing of the project and continuity.
Standards development

• N° 2 of finalized standards:
  – UNI CEI TS 11672:2017

• N° 5 of draft standards:
  – CEU C.1199 “photovoltaic sector”
  – E0201F290 “Coat thermal insulation specialization”
  – E0205E050 “Radiant heating systems”
  – E0206D570 “geothermal system”
  – E0209F340 “Solar thermal system”
E-learning courses and videos

- four e-learning courses on the basic knowledge of energy efficiency/renewable energy in building sector for trainers
- one e-learning course on the basic knowledge of efficient energy systems for buildings
- one e-learning course for technicians of building automation
- one e-learning course for installers of thermal insulation
- one e-learning course for installers of geothermal heat pumps
- several videos of the installations recorded during the on-site training
## Pilot courses

<table>
<thead>
<tr>
<th>Professional Schemes</th>
<th>Training population</th>
<th>Yard site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic technician (Et) – building automation specialization</strong></td>
<td>Trainer</td>
<td>Trainee</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Building operator (Bo) – coat thermal insulation specialization</strong></td>
<td>Trainer</td>
<td>Trainee</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Heat Pump</strong></td>
<td>Trainer</td>
<td>Trainee</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>On-the- Yard Trainer</strong></td>
<td>Trainer</td>
<td>Trainee</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Trainer</td>
<td>Trainee</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>12</td>
</tr>
</tbody>
</table>
Assessments

Assessment tests are available for the following professionals profiles:

- Trainer of on site trainers
- Trainer of trainers
- Installer of Thermal Insulation Coat Systems
- Energy Auditor
- Installer of geothermal systems Heat Pump
- Technician of Building Automation Systems
- Installer, Operator and Maintenance of Solar Thermal Systems
- Photovoltaic Installers
- Installer of Biomass Plants
- Installer of Thermal Boilers (<35Kw)
- Maintainers of chimney (Sweeps)
Content of the presentation

- The training methods, materials, infrastructure developed;
- The most remarkable project outcomes / results and achievements;
- **Marketing and outreach strategy**;
- Any challenges or very good practices and reporting on performance indicators;
- Financing of the project and continuity.
Marketing and outreach strategy: the national qualification framework

Learning context

Where?
In which context we work. Which economic sector?

What we do:
Which process or activity we work in

What we produce:
Description of the results of the activity performed

How we do it:
Description of the resources (knowledge, skills competences)

What the qualification consists on:
Description of the qualification and educational degree

Where we get the qualification:
Context were we gain the qualification

Properties

Linked to national and international codes
Activities: linked to experiences
Exchange traceability
Modular approach, dynamism
Permeability

Evolution

Stable framework in continuous update
Wiki approach
... continuous update
Keep code approach
Synchronization with social context evolution

By ENEA and Formedil

Co-funded by the Intelligent Energy Europe Program of the European Union

12

www.bricks.enea.it – bricks.project@enea.it
Third party certification

National standard

Reference procedure ACCREDIA

Regional accredited organizations

Professional qualification for specialists

Certification organization

Regional certification organization

Labor Ministry

Specialist unit of competences

Regional qualification schema

Occupied workers

Transversal unit of competences

Unoccupied workers

Regions through FSE

UC defined in BRICKS

ISO 17024

32-120 hours

600-1200 hours
Content of the presentation

- The training methods, materials, infrastructure developed;
- The most remarkable project outcomes / results and achievements;
- Marketing and outreach strategy;
- Any challenges or very good practices and reporting on performance indicators;
- Financing of the project and continuity.
A positive feedback from the Regions and Ministry of welfare

• New profiles are now included in the regional qualification framework of Lombardy Region:
  – Thermal insulation
  – Building automation
  – Building site trainers

Many other regions are updating their regional qualification framework even if the process is quite slow.

The Ministry of welfare will update the “Atlante del Lavoro” with the new profiles
An example: Building automation installer

- Use of national and European standards
- Identify the requirements
- Identify the elements of a building automation plant
- Install a building automation plant
- Diagnosis and troubleshooting
- Maintain a building automation plant

Profilo BRICKS

Expertise for building automation expert

Installation, maintenance, repair

- UC1
  - Electrical installer for outdoor / indoor in construction
- UC2
- UC3

Assembling, setting, reset, maintenance

- UC1
- UC2
- UC3
  - Installer and electrical and electronic maintenance
- UC4
- UC5

Basic expertise
The position paper, which is signed by the major stakeholders, contains a list of commitments for different stakeholders, for instance:

- The public administration should foresee the employment of skilled workers in the public tender for promoting the demand of qualified workers.
- The constructor should foresee AOJT to qualify their workers.
- Regions should foresee the use of European Social Funds for AOJT and for setting up instruments for qualifying workers already skilled.
- The training centers should promote courses for workers using all the tools BRICKS has developed.
Some indicators

- Only 7 regions out of 20 have established the rules for training the RES installers.
- Only 5 Regions out of 20 have updated their regional qualification framework to include the new profiles developed by BRICKS.
- About 12.000 workers were trained as RES installers.
### Some indicators

#### ANNUAL IMPACT OF ONE BLUE-COLLAR WORKERS

<table>
<thead>
<tr>
<th></th>
<th>for one/single blue-collar worker</th>
<th>For 12,000 workers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard annual energy savings</strong></td>
<td>0.004</td>
<td>44.38 ktoe/yr</td>
</tr>
<tr>
<td><strong>Average annual renewable energy production installed</strong></td>
<td>0.005</td>
<td>57.32 ktoe/yr</td>
</tr>
<tr>
<td><strong>Annual GHG savings</strong></td>
<td>0.006</td>
<td>66.94 ktCO$_2$/yr</td>
</tr>
</tbody>
</table>

19
Content of the presentation

- The training methods, materials, infrastructure developed;
- The most remarkable project outcomes / results and achievements;
- Marketing and outreach strategy;
- Any challenges or very good practices and reporting on performance indicators;
- **Financing of the project and continuity.**
What’s next

- Finish to review the regional qualification framework
- Update the national «Atlante del Lavoro»
- Organize workshops with regional stakeholders (Regions functionaries, training centers, trade organization, etc.) to exploit the qualification and/or certification schemes within regional and national legislation dealing with refurbishment of buildings.
- ENEA, which has regional offices in all Italy, is committed to continue to assist Regions for the implementation of policies devoted to increase the demand for qualified workers and to better use European Social Funds
The BRICKS label

- BRICKS has registered the label at European level
- Only companies which employ certified workers will be able to use the BRICKS label
- The chamber of commerce will promote the label registration among building enterprises
- Through the position paper endorsement, the Regions should increase the demand for BRICKS qualified enterprises
Contacts

Anna Moreno, BRICKS coordinator
anna.moreno@enea.it
Tel. +39 06 3048 6474
Mob. +39 329 8313225

Web site: www.bricks.enea.it