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# WP 2 RESEARCH

Project partner: P4, Hungary

WP 2 has the following aims:

- 1. Carrying out research concerning existing competence profiles, materials, methodologies and competence profiles for workers in the sectors installation, electro and maintenance, regarding energy performance of buildings Installations for comfort of people >12 Kw.
- 2. Providing advice on adaptation, upgrading and transfer of materials to make them fully fit the EU directive EPBD, 2002/91/EG **2010/31/EU**.

In WP 2 the following activities will be executed:

1. Research on and comparison of available competence profiles, training & lesson materials, approaches and methods within the partnership's organizations concerning the topics mentioned above;

2. Report and advice on: transfer of competence profiles, methods, materials and approaches (use, adaptation and upgrading) to make them fully fit the EU Directive EPBD, 2002/91/EG.

### Introduction of the EPBD

By three governmental decrees:

- one for the audits, certifications for building energy performance,
- the second for the training, assessment and certification of building auditors,
- third for the energetic inspections of heating equipment, systems and air conditioners with certification criteria (responsible Body is the Hungarian Chamber of Engineers)

### Inspection of airconditioning systems

Since 1 April 2007, air conditioners with a rated output of more than 12 kW have to be regularly inspected by a qualified expert. From 10 April 2011, the inspection frequency is as follows:

For air conditioning systems:

12 - 150 kW - every 4 years

150+ kW - every2 years

Detailed methods, steps of inspections

See 264/2008 Governmental decree, but doesn't work!!

## Reports on the inspection of heating or airconditioning systems

Regulated in 264/2008 Governmental decree See annexes:

- detailed minutes/protocols
- with mandatory form and content
- paperbased,
- no monitoring, no database

Examples (annexes of the decree) will be sent

### **Independent experts**

Current situation

Regulated in 264/2008, operated, detailed by Hungarian Chamber of Engineers Chamber (HChoE)

- Registered experts, designers in field of building service engineering (BSE)
- Only highschool, university level
- Trainings, courses, exams and certification/ criteria and procedure by (HChoE)
- Independent (certified) persons, no company certification

#### **Future situation**

- The reviewed system will be based on EPBD/2010, Art.14-15/3!!, because the former one didn't work,
- New system of "authorized specific jobs" in Hungary-based on EQF
- "experts" ' hierarchie needed, refrigeration craftsmen and/or BSE experts.
- Harmonisation with the EQF/NQF

## Training

Depending on inspection category-level (capacity, application, ...), depending on competence dedicated candidate

Trainings are organised by independent, voluntary institutions followed the training instructions and materials, controlled by the examination/certification body/ies

### Examination

Training, courses, exams and certification/ criteria and procedure

- for BSc, MSc level by Hungarian Chamber of Engineers Chamber
- for VET level by the Dedicated ministries/ National Employment Institution/Hungarian Coordination Association of Building Engineering

### **Competence profiles**

- for BSc, MSc the criteria of Hungarian Chamber of Engineers,
- for VETs (now only for FGas/ODS)