

ingREeS project - Setting up Qualification and Continuing Education and Training Scheme for Middle and Senior Level Professionals on Energy Efficiency and Use of Renewable Energy Sources in Buildings

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A Summary
EDDIE Consortium

The ingREeS Project is linked to the European Build Up Skills Initiative (BUS). The Project has extended the implementation of the roadmaps established and endorsed under the Pillar I BUS Slovakia and BUS Czech Republic projects focused on enhancement of skills of craftsmen and on-site workers in the sectors of buildings, to middle and senior level construction professionals. The roadmaps identified key measures for setting up a national qualification and training schemes and other measures for ensuring the development of skills essential for the field of buildings to the fulfilment of the Europe 2020 energy targets. The project established the necessary resources and prepared technical, organizational and financial conditions for training and re-training on energy efficiency and use of renewable energy sources for middle and senior level professionals in the field of buildings.

ingREeS set up national qualification and further training schemes in Slovakia and the Czech Republic. European expert teams were set up for the development of learning outcomes. Qualification and assessment standards for targeted professionals have been developed based on knowledge transfer process between the participating countries.

The development of 16 training modules (building blocks of 5 education and training programs) were developed based on guidebooks. A guidebook contains one full module and is structured according to the respective sessions of the module. The description of the sessions is broken down in four sections that are to be easily readable. The guidebooks represent the basis for training of trainers in order to deliver the programs. A Permanent network of trainers delivering the training programs developed under the project.

Until 2018 the project succeeded to deliver training to over 900 middle and senior level professionals during the project lifetime, while the scheme continues to deliver training to further professionals since March 2018.

Synergy of all project partners know-how and academic resources created professional basis for 5 new training programmes which were developed within this project for the following targeted professionals:

1. Architects and Planners,
2. Civil Engineer – Site Manager,
3. Construction Site Supervisor,
4. Assessors of the Achieved Energy Efficiency of the Buildings,
5. Sustainability/Energy advisor.

Organized learning is time-consuming and difficult to implement so that the term, scope and form of teaching suit every participant. For this reason, great emphasis was placed on self-education and self-study. The Internet is matched in textbooks, books or radio and television in different directions. Teaching materials, educational materials or the verification of acquired knowledge for different types of education are very often processed as webpages. By using them, the user selects what information they choose and which resources they will use when gather materials for study.

This is a hybrid form of education which was made up of three parts: participation (in person or in the form of video projection) on program lectures ending with a certificate, self-study through the e-learning system, which you can be found on a separate portal completed by a certificate, final exam at the SKSI branch completed by the certificate.

The ingREeS project was coordinated by professional organizations and associations bringing together target groups with the vision of building a system of further education for construction professionals at secondary and higher management level, whose graduates gained skills and knowledge to meet European standards, expectations and requirements of today's Europe.

To facilitate the education and professional growth of trainers delivering the training programmes developed under the project, a permanent network of trainers was established. The network served as a platform for exchanging experiences and knowledge, discussing new approaches to training of trainers, know-how and the best practice sharing. It also provided ideas, materials and opportunities for the professional development and improvement of training materials based on their practical experience, as well as for delivering training on regular basis. Prior to first round of delivering education, trainers went through the initial training and became familiar with teaching materials, the pedagogical concept and methodology of education as well as the assessment of the acquired competences from the training of trainers.

Vocational training and subsequent acceptance of trainers was the responsibility of program experts in cooperation with the relevant modular expert. Program experts became the main guarantors of each program.

A database of all trained trainers and all certified trainees passing the training courses in the area of energy efficiency and use of renewable resources was set up in Slovakia and Czech Republic: <https://database-ingrees.eu>. The database facilitated companies – suppliers of works and services in the field of energy efficiency and renewable energy in buildings and other relevant stakeholders to search for a trainer delivering training or to verify acquired qualification and certificates of the trainee. The database as a register of top certified professionals also became a reference tool for evaluation and comparison of qualifications of experts in construction sector.

National expert teams involved in the project drafted the initial proposal for financial and regulatory supporting measures to be established to facilitate and motivate middle and senior level building professionals to participate in training courses and employers, including SMEs and microenterprises (delivering substantial part of works and services related to buildings) to invest in skills and knowledge of their employees. Proposed measures were also implemented with the aim to ensure the financial sustainability of life-long learning. From January 1, 2018, the Slovak Chamber of Civil Engineers keeps records of training sessions, seminars, conferences and other educational events belonging to lifelong learning within which the credit system was set up.

Education took place in a combined (hybrid) form of teaching. In addition to classical physical attendance, training took place in the form of electronic courses. E-learning is becoming more effective, helps to understand the issues easier, and the learner could

choose their individual optimal time to study. A major role in this form of education is played by its own initiative and the effort to consolidate acquired knowledge. On the other hand, the system is also advantageous for trainers who are not time-limited and can provide the most up-to-date information in their field.

Education in the form of training and courses was realized in a big list of towns. Each of the five educational programs, had its professional guarantor on both Czech and Slovak side. Experts in each country were the foremost specialists in the field. The education system was secured through web portals that provide access to information and study material.

The ingREeS project created complex conditions for the technical, organizational and financial requalification of professionals who are or will be active in the construction industry at the middle and senior level. In terms of energy efficiency and use of renewable energy sources in buildings, there are currently insufficient trained professionals. The vision of partners within the ingREeS project was to build a sustainable system of further education and qualifications, which will continue to contribute to the development of the knowledge and abilities of many other construction professionals after the project.