

## **Work Package 2: Professional training for young people with good practical skills**

*Development of country specific concept: LITHUANIA*

### **Current situation and forecast to development in the energy and construction sectors:**

Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings and Lithuanian legislation for its implementation indicate that in a relatively short period of time it will be necessary to make significant changes to the requirements for building construction and engineering equipment. In order to maximize the chances of efficient energy use in buildings, the thermal properties of building envelopes should be improved by about twice; efficiency of building engineering systems should be increased, and all possibilities of renewable energy use should be utilised. The implementation of these objectives requires preparation not only for the engineering staff to learn new technological decision-making, but also the vocational training has to be prepared in order to properly prepare and retrain workers. VET sector must respond to these changes, which means that curricula have to be updated, and supplemented with necessary knowledge and skills.

During the last 20 years the requirements for energy efficiency in buildings increased, but they were implemented gradually, so that the labour market and vocational training system could be easily adapted to that, the missing vocational training programmes were upgraded, new professions were introduced, e.g. thermal insulation fitter of buildings.

However, the national qualification and certification system for workers in the construction sector has not been developed yet, particularly in relation to construction of energy efficient buildings (including almost non-energy using buildings).

About 60 per cent of apartment blocks in Lithuania were built over the last four decades of the last century, they were mainly brick and typical panel apartment buildings. Thermal characteristics of exterior envelopes in these houses are poor. Heating energy consumption in apartment buildings constructed in accordance with construction technical standards and legislation in force before 1993 are about 5,000 GWh per year. Lithuania has a big potential for building modernization, which is likely to have a significant impact on the demand for qualified labour force in the construction sector in the near future.

The recent analysis on the demand of occupations of blue-collar workforce with skills needed for the construction of energy efficient buildings and efficient use of renewable energy source technologies has revealed the following most lacking occupations (listed in the order of priority):

- Installer of solar heating system
- Thermal insulation fitter
- Installer of biomass power plants
- Installer of ventilated facades
- Installer of plaster facades
- Installer of heating pumps and / or cooling systems

**Qualification awarded:**

*Building Insulator*

**Target group:**

In Lithuania the proposed training in the field of energy-related modernisation of buildings could be aimed at the IVT students who generally *drop out* of the training process due to learning difficulties in theoretical courses leading to the lack of motivation, poor attendance, etc.

**Duration:**

*2 years vocational training*

**Delivering bodies:**

- *VET schools,*
- *VET centres,*
- *Labour Exchange training centres,*

in collaboration with *SMEs*.

**Proportion of theory and practice:**

The training is composed of *3/4 practice* (in-company training) and *1/3 theory* (delivered at school). The school and the SME can decide on the specific division of the training hours according to their existing practice and internal facilities. E.g., due to the country's climatic situation, in Lithuania exterior building insulation is often a seasonal work because certain activities can be performed only in proper weather conditions. Thus, it might be relevant to have more theory during winter months, with more practical training in spring and summer.

**Training contents**

Upon completion of the 2-year course the trainee will acquire the theoretical and practical skills and competences in the following areas:

- Personal health and safety at the building site;
- Basic construction materials: classification, features and application;
- Basics of economics and work law: types of enterprises, their establishment, rights of the employer and employee, etc.
- Environmental protection, energy saving and sustainable construction;
- Preparation and clearing of the working area, selecting tools and equipment;
- Calculations of building areas, material consumption, etc.
- Working at heights and installation of work and safety scaffolds;
- Reading, using and preparing technical drawings and outlines;
- Inspection and assessment of the building structures before insulation;
- Surface marking and preparation;
- Insulation by using different materials (rockwool, foam, cellulose, etc.)
- Performance of simple brick work;
- Plastering different surfaces;
- Finishing and decoration of the insulated facades;

- Refurbishing and repairing insulated structures;
- Checking quality of insulated structures.

### **Exams and course degree**

Each trainee is awarded a *Qualification certificate* which confirms the knowledge and skills of a qualified *Building Insulator* and sets out the topics learned, and demonstrates that a person is qualified to perform the work envisaged.

The certificate is awarded by the training provider, authorised by the Ministry of Education and Science, after the trainee's successful performance in theory and practice exams.

### **Legal and financial conditions**

In Lithuania the proposed training programme could be legitimized following the established order. It will have to be assessed by external experts (Qualifications and Vocational Education and Training Development Centre) and recognized as suitable to be delivered in VET institutions. A VET institution needs to get a license for delivering of the programme by the authorised body which assesses its necessary teaching and material facilities.

After the programme is recognized, the funding for its delivery is made from the state budget.