

NEWCOM: Transparency Regarding New Competences for Professionals Working on nZEBs

The Facts

On 01.01.2021, the nearly zero-energy building standard will be implemented for new buildings in EU countries. Furthermore, the European Commission announced its intention to launch a 'renovation wave' initiative in the buildings sector that will be adopted by the end of 2020. The challenge for achieving the European and national climate and energy goals is that low energy consumption is not only planned on paper, but is actually realised in buildings.

The construction sector is thus facing both the major task of executing the lowest energy standard of buildings – i.e. nearly zero-energy buildings (nZEB) – and ongoing changes in the labour market. Even small mistakes in the construction can lead to increased energy consumption and loss of indoor comfort. Therefore, the quality of construction work is crucial when building nZEBs. To ensure very low energy consumption, an air-tight building envelope as well as professionally installed heating, ventilation and air-conditioning (HVAC) systems are required.

The low energy standards are not only obligatory for new buildings, but also for building renovations. Moreover, investors are increasingly demanding low energy standards in real estate development.

“Workers and construction companies are confronted with difficulties in matching the right skills and professional qualifications with the needs of the companies. ... Anticipating future skills needs is therefore a significant challenge for companies, as well as for training providers.”

(FIEC European Construction Industry Federation AISBL, EFBWW European Federation of Building and Woodworkers, 28/02/2019)

Our Goal

The European Union project NEWCOM emerged from the BUILD UP Skills initiative provides solutions to improve and maintain energy efficiency in the building sector. NEWCOM supports the professional execution of nearly zero-energy buildings (nZEB), on the one hand, by developing new training modules for professionals, and on the other hand, by preparing a basis for mutual (European-wide) recognition of competences via a database which allows describing and comparing expert qualifications.



The Results

In order to support the quality of sustainable constructions, NEWCOM has developed nZEB training schemes. To ensure maximum flexibility, the trainings have been designed in modules so that they can be used both as stand-alone units and as a complement to already established courses. Based on the current needs of the partner countries for professionals in the fields of flat roof and structural waterproofing, comfort ventilation and quality assurance of near zero-energy buildings, specific training modules have been prepared. The training blocks have been conceived in cooperation with further education institutes as well as public and private stakeholders.



Photo: ©ÉMI

- Flat roofing – acquisition of competences with respect to a “lifelong service approach” such as correct planning and installing of green roofs and renewable energy systems on the roof, avoiding of humidity in the structure of the roof, implementing of energy efficiency measures on the roof as well as further nZEB features



Photo: © J. Pichler Ltd.

- Ventilation installation – acquisition of competences regarding correct planning and installing of ventilation systems with heat recovery, noise protection and controlled air flow distribution as well as smart demand controlled systems



Photo: ©EASt

- Quality assurance – acquisition of competences in terms of managing of cross-craft interfaces, ensuring of indoor air quality, quality of thermal building envelop and energy system, optimising of the building as to energy use and ecology, and evaluating of the cost-optimal measures in view of the life cycle of the building

With the aim of a Europe-wide comparability of acquired skills, a competence database has been created. This database provides a basis for the mutual recognition of skills of professionals throughout Europe.

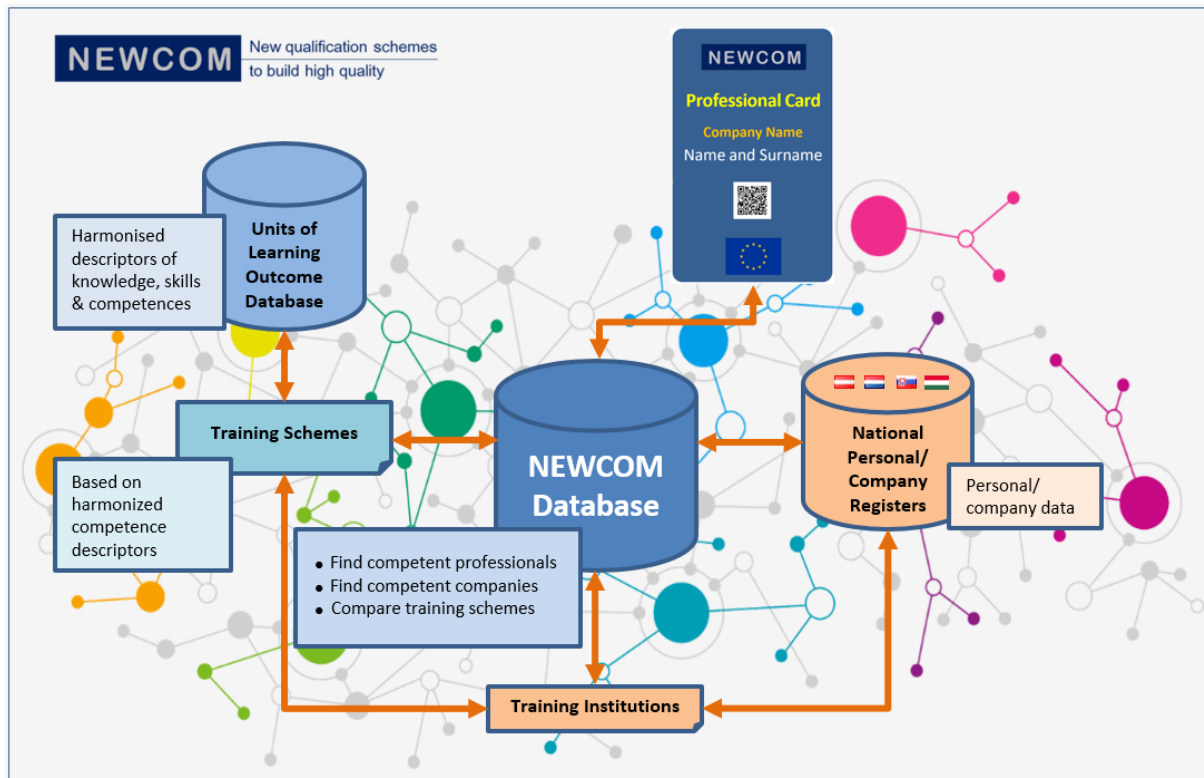


Figure: The environment of the NEWCOM database (graphic: © AEA)

The competence database links the description of the competences gained by attending a relevant course to the expert. Furthermore, a professional card can be issued on base of the acquired skills. The system can be expanded to nearly every field of work and could be used throughout Europe.

The **benefits** of the developed **NEWCOM competence database** can be clearly illustrated by the following four fictional users:

- Bojan G., a typical **blue-collar worker from Moldavia** is a flat roofer. He has successfully completed a training provided by the International Federation for the Roofing Trade (IFD). Now, he can **link his earned qualification with his profile in the database and produce an individual professional card showing his competence**. This enables him to present his skills on the job market in a comprehensible manner.
- Ronald S. is **manager of a training institute** and develops training courses. Now, he is **planning a course based on the harmonised competence descriptors provided by the competence database**. The training is successful because construction companies can clearly identify the

up-skilling of their employees according to the new course.

- Alexandro A. is officer in a municipal department of a city dedicated to advanced climate protection actions. He is preparing a **public tender for renovation measures of public buildings**. **To ensure a high implementation quality**, he **adds specific requirements for the qualification of the workforce** on the construction site. **For evidence, construction companies can refer to the competence database** to highlight the quality of their staff.
- Silvia M. is **CEO of a construction company**. She cares for high quality and, therefore, her workforce is well trained. Her **flat roofers are listed in the competence database**. The **names of her qualified employees are not public, but their numbers in different professions can be seen**. Hence, the **competence of her company and her skilled workforce is clearly illustrated for quality-oriented costumers**.

Further information on the project: www.newcomtraining.com



Project consortium:

The EU project NEWCOM is coordinated by the Austrian Energy Agency (AEA) and carried out in cooperation with six partners.

