



New Qualifications and
Competencies in TVET

BuildEst

Submitted by **InnoVe, Estonia**

BILT Innovation and Learning Practice



Within the overall framework of the European Union programme 'Intelligent Energy Europe', BuildEst is an Estonian-led, and EU-funded project that developed additional skills training to enhance 'green' competences and promote sustainability in the construction sector.

It focuses on developing training schemes and materials for non-qualified and qualified workforce and trainers' training in order to meet EU2020 Energy Efficiency requirements.

- Start date: 09/2013
End date: 08/2016
- Type of implementing institution:
Government/NGO/Private sector
- Target group:
Non-qualified and qualified workforce in the construction sector. Additionally, TVET teachers and trainers, on-site mentors and managers of construction enterprises and other stakeholders in the construction field were considered.

Innovate, Estonia

Foundation Innovate is an educational competence centre that creates opportunities for the substantive development and popularization of vocational and general education in society. In addition to Technical and Vocational Education and Training (TVET), Innovate offers educational counselling services through a nationwide network.

Description of activities

The main objective of BuildEst is increasing the availability of training, as well as the number and competences of qualified workers in the construction sector. The acquired knowledge enables professionals to deliver high energy performing renovations and (nearly zero energy) new buildings. TVET curricula was updated to reflect modern and green competencies relating to new or refurbished buildings to ensure they meet EU energy efficiency targets for the sector. Project activities consisted of three progressive stages in order to create a systematic view of the sector and its future development needs.

1. An analysis of the Estonian Construction Sector, describing the overall legal, political, and educational environment was completed. This included mapping the level of competences of the existing workforce and the training opportunities available at different educational levels.
2. Completion of an "Estonian Vocational Education and Training Roadmap and Action Plan" for the Construction Sector. Its goal is to improve the availability and quality of training in the construction sector in order to achieve the EU Energy Efficiency targets.
3. Development of training schemes and training materials for non-qualified and qualified workforce and trainers training to realise the above-mentioned roadmap and action plan.

Added value

What current challenges does your initiative address?

BuildEst trainings schemes and materials were developed to help the Estonian construction sector achieve the EU2020 Energy Efficiency targets.

Why is this initiative a success?

A key factor was the engagement and collaboration of all relevant stakeholders (government, non-profit and private sector representatives) from the construction sector. This wide-range collaboration provided high-level resources (experience, skills) for the large-scale

sectoral analysis and for systematic planning of future development activities of the training and qualification system in the construction sector. A major challenge was the involvement of the direct target group in the training, because business executives did not recognize the benefits that training their employees in the energy efficiency field could provide.

What is the added value of this example?

BuildEst shows that individual sectors can be targeted for updating in order to develop the availability and the quality of training a particular sector.

The project presented the opportunity to map qualifications in the form of a 'House of Competences', which is used to promote the qualification system in the construction sector and for career guidance as well. Additionally, basic knowledge, skills and competences related to energy efficiency were defined, described and integrated as an independent competence into 28 qualification standards.

Impact on curricula

What implications does this example have for current or future curricula?

A mechanism was created for forecasting new qualifications and skills in the construction sector that is carried out in construction enterprises in three-year intervals. These studies collect feedback about the competences and future training needs for the workforce in the construction sector and to evaluate the quality of TVET.

Additionally, energy efficiency competencies were integrated in existing TVET curricula (IVET) and training programs (CVET) including:

- Five outcome-based national secondary vocational education curricula (EQF level 4, 180 credits) and 15 outcome-based IVET curricula (EQF level 3-4, 60-120 credits).
- Three outcome-based curricula for CVET (EQF level 4, 15 credits) were created. These are "Heat pump installer", "Solar heating system installer", and "Photovoltaic system installer".
- A specific continuous education training program "Energy efficiency skills training program" (EQF level 4) was prepared for qualified workers.

Training programs were created for TVET teachers and trainers and qualified construction site manager master-foreman (EQF level 5) to increase their competences related to energy efficiency, including development of training and methodological materials to support the training. This could serve as a blueprint for future targeted training initiatives.

How does this example impact TVET systems?

The direct impact of the project is sector-specific, but it also has an impact on the TVET and qualification systems at the national level. Using the methodology of BuildEst, a new program was launched to develop a system of Labour Market monitoring and future skills forecasting in different sectors.

How does this example respond to industry and social demands?

BuildEst responds to social demands because it introduces sustainability-related competences in the construction section and therefore is one response to climate change. Furthermore, training materials developed as part of the project are used to sensitize TVET students to industry and social demands that improve both initial and continuing TVET.

Transferability

Which components of this practice may have practical value to other UNEVOC Centres/TVET institutions?

BuildEst's approach of using wide-ranging cooperation for introducing systemic innovations into TVET can be instructive for other TVET stakeholders considering a similar change.

The development of output-based curricula that include energy-efficient construction components are available for other TVET stakeholders to adapt to their context.

For teachers and trainers, an outcome-based training scheme with embedded energy efficiency related competences was developed. This program consists of 1 joint module, and 4 speciality modules, and because of its universal nature can be applicable to other institutions.

What challenges do you see if transferred to another context?

Challenges could arise from differences in TVET and qualifications systems compared to Estonia, so care must be taken to contextualize any materials considered for transfer to other country contexts.

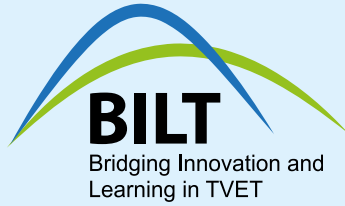
- Implementing institutions: consortium of Estonian stakeholders, including Foundation Innove, Tallinn University of Technology, Ministry of Economic Affairs and Communications, the Association of Construction Entrepreneurs, the Association of Heating and Ventilation Engineers, and, the Qualifications Authority.
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- For more information about this practice: www.ttu.ee/public/p/projektid/BuildEst/Public_raport_ver_3.pdf

Part of the BILT project involves collecting Innovation and Learning Practices* that address systemic challenges within the five work streams of the project, with the purpose to understand what elements lead to their success and can be transferrable to other contexts.

Access more BILT Innovation and Learning practices in the thematic areas of:



*UNESCO-UNEVOC does not endorse any of the practices included in this database and is not responsible for their management or implementation.



The Bridging Innovation and Learning in TVET (BILT) project provides TVET stakeholders with a platform for exchange and supports them to address current challenges in TVET systems, which arise due to technological, social, environmental, and workplace changes.

Within BILT, the overarching thematic area is New Qualifications and Competencies in TVET, which is supported by four work streams:

- Digitalization and TVET,
- Greening TVET,
- Entrepreneurship in TVET, and
- Migration and TVET.

Through regular knowledge exchange, thematic project activities, and expert working groups, BILT offers opportunities for collaboration between UNEVOC Centres and TVET stakeholders in Europe, and a platform for bridging of innovation and learning between European UNEVOC Centers and TVET stakeholders in the Asia-Pacific and Africa regions.

The results of ongoing activities are accessible on BILT's web page and will be disseminated during a BILT Learning Forum.

The BILT project is carried out in collaboration with UNEVOC Network members, coordinated by UNESCO-UNEVOC with support of the German Federal Institute for Vocational Education and Training (BIBB), and sponsored by the German Federal Ministry of Education and Research (BMBF).

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