

| BUILD UP Skills GERMANY Factsheet | |
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| BUILD UP skills activities of the country | |
| BUS Pillar I project title (contract number) | QUALERGY2020 IEE/11/BWI/466 - SI2.604351 |
| BUS Pillar II project title (contract number) | Qualification and Training Schemes for craftsmen and on-site-workers in the German Building Sector (BUILD UP SKILLS QUALITRAIN) IEE-12-BWI-341 |
| Horizon 2020 Construction skills project title (contract number) | Train-to-NZEB: The Building Knowledge Hubs (Train-to-NZEB) Project ID: 649810 |
| BUILD UP Skills QUALITRAIN | |
| Project coordinator's full name | Dr. Iris Pfeiffer |
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| Project Partners | <ul style="list-style-type: none"> . Zentralverband des Deutschen Handwerks e.V. (<i>Consortium coordinator</i>) . Deutsche Energie-Agentur GmbH . Research Institute for Vocational Education & Training in the Crafts Sector . Verein zur Förderung des Heinz-Piest-Instituts für Handwerkstechnik . German Construction Confederation . Federal Institute for Vocational Education and Training . Central Agency for Continuing Vocational Education and Training in crafts |
| Project website | http://www.bauinitiative.de |
| Keywords | Building sector, cross craft qualification, skilled worker qualification, train-the-trainer, house as a system |
| Duration ¹ | Start date: 01/11/2013 End date: 30/06/2016 |
| Budget ² | EUR 768.534 (EU contribution: 75%) |
| Context | |

¹file:///C:/Users/Extra%202016/Downloads/intelligent_energy_europe_-_quotqualification_and_training_schemes_for_craftsmen_and_on-site-workers_in_the_german_building_sectorquot_-_2015-10-30.pdf

²file:///C:/Users/Extra%202016/Downloads/intelligent_energy_europe_-_quotqualification_and_training_schemes_for_craftsmen_and_on-site-workers_in_the_german_building_sectorquot_-_2015-10-30.pdf

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| Background | <p>At the heart of German VET education lays the “dual system” with vocational schools and enterprises playing a major role. VET is under both market and state control with companies deciding whether to take on apprentices and who to take while following regulations set out by the state. Germany currently has a confusing variety of CVET programmes that make it difficult to find the right path for learners. Upgrades are primarily needed in the schemes of career development in the SMEs (than in the CVET programmes) because the main problem is not the lack of offers in the CVET sector, but the lack of participants. On-site-workers should be qualified concerning the "interfaces between trades" and the "understanding of the building as an integrated system". As new technologies become available and new demands are put on the energy efficiency of buildings the skills in demand are constantly changing. Trainers are important multipliers who need to help spread the approach of understanding buildings in the field of energy efficiency and renewable energy as an integrated system which involves different trades that are closely interconnected. Career development currently has a low priority in most SMEs in the building sector.</p> |
| Objectives ³ | <ul style="list-style-type: none"> . To create a large-scale qualification scheme which is implemented as a cross-trade CVET programme and which is promoted as a 'brand'. . To make anticipating future demands for qualified workers more reliable instead of reacting to the needs. . To raise the number of participants in CVET programmes and in the long run benefit the SMEs. . To engage institutions (such as chambers) to consult employees and employers regarding CVET programmes in the field of intelligent energy. . To make sure that the results of research and newly created CVET addressing new skills in the building sector find their way to the learners and companies in order to raise the quality of the works. . To create transparency concerning CVET programmes and their learning outcomes in accordance with the EQF. |
| Target skills/ professions | <p>All construction workers, skilled across-the-crafts workers, craftsmen (across the crafts), unskilled workers (across the crafts)</p> |
| Project's results and impact | |
| Results ⁴ | <ul style="list-style-type: none"> . Development of a system for early recognition of future qualification needs and skills needs. . Implementation of systemic thinking and cross-trade-insights within a new CVET programme. |

³ BUILD UP Skills Qualitrain, Annex I - Description of action

⁴ <https://ec.europa.eu/energy/intelligent/projects/en/projects/build-skills-qualitrain#partners>

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| | <ul style="list-style-type: none"> . Execution and testing of a pilot course which addresses the interfaces and cooperation between trades. . Establishing the CVET programme as a brand. . Development of a transferable "Train-the-Trainer"-seminar, including materials and a complementary e-learning-module. . Development of supporting structures and materials for sustainable and lifelong qualification concepts in the SMEs of the building-/crafts sector. . Development of consulting aids within the chamber of skilled crafts organisations for sustainable and lifelong qualification concepts. . Implementation of a national CVET database/platform for the building sector tailored to the needs of the target group. . Within the project, they initiated an intensive debate in the building/ crafts sector regarding the optimisation of the cooperation between the relevant trades in energy construction processes in low energy buildings. . They strengthened terms like "house as a system" and "interfaces between trades/cross-craft-understanding". . They developed a) a seminar for trainers and b) for skilled crafts workers ("blue-collar-workers") |
| Lessons learnt ⁵ | <ul style="list-style-type: none"> . Ensuring a sustainable system for life-long qualification of blue-collar-workers in the building sector is not only relevant for quality aspects but also for supporting construction companies of the crafts sector in recruiting and retaining skilled employees. . It is difficult to include SME directly in the development process. So we focussed on interviews with consultants (crafts sector), providers of CVETs and also SMEs. . Due to the permanent pressure of money and time, particularly small company owners are busy organising the present, but are rarely concerned with future issues. So it is about convincing SME of the necessity to develop at least a medium-term perspective on the company's development. |
| Barriers ⁶ | It was a challenge to involve SMEs into the development processes as they have limited time for these kind of things. |
| Key needs ⁷ | Further engagement to encourage SMEs to invest in CVET. |
| Recommendations ⁸ | Focus on trainers, not on workers to systematically evolve an engagement for energy efficiency. For trainers, digital trainings are great! |

⁵ <https://ec.europa.eu/energy/intelligent/projects/en/projects/build-skills-qualitrain#partners>

⁶ Input from Iris Pfeiffer, November 2016

⁷ Input from Iris Pfeiffer, November 2016

⁸ Input from Iris Pfeiffer, November 2016

| Replicability ⁹ | Concerning train-the-trainer seminar and the cross trade training, the project is replicable for countries with a majority of skilled workers and a structured CVET system. The online training and early recognition system are applicable and replicable without restraints. | | | |
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| Project indicators | | | | |
| Common Performance Indicators | Ex ante target | Interim results | Final result ¹⁰ | Target 2020 |
| Number of training courses triggered by the action | CVET Programmes: 1 Train-the-Trainer-Seminar: 1 | | 1 CVET Programme, 1 Train the Trainer Seminar | CVET Programm: 100 Train-the-Trainer-Seminar: 48 |
| Number of people that will be trained | Programmes: 20 Train-the-Trainer-Seminar: 60 | TR | CVET realised: 38 Train the trainer-realised: 49 | CVET Programm: 1600 +400 Train-the-Trainer-Seminar: 2.400 |
| Number of hours taught in the frame of the courses triggered | CVET Programmes: 200 Train-the-Trainer-Seminar: 10 (+elearning) | | realised 6.5h (+3h e-learning) | CVET Programm: 20.000 Train-the-Trainer-Seminar: 480 (+eLearning) |
| Estimated specific cost to qualify each trainee | CVET Programmes: 7.179,94€ (=143.598,79€ / 20) Train-the-Trainer-Seminar: 1404,51€ | CVET Programmes: 7,230.80€ (=144,616.07€ / 20) Train-the-Trainer-Seminar: 1,414.47€ (60 participants) 1,719.81€ (49 participants) | CVET Programmes: 3,986.61€ (38 participants) Train-the-Trainer-Seminar: 1,846.69€ (49 participants) | CVET Programmes: 75.74€* Train-the-Trainer-Seminar: 37.70€ *based on project's actual costs |
| Renewable Energy production triggered | 0 Toe/year | | 0 Toe/year | 0 Toe |
| Primary energy savings compared to projections | 12.9 Toe/year (=0,645 * 20 participants) | | 24.51 Toe/year (0.645*38 participants) | 1,032 Toe/year (1,600 participants) |

⁹ Input from Iris Pfeiffer, November 2016

¹⁰ Input from Iris Pfeiffer, November 2016

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| | | | | 1,290 Toe/year (2,000 participants) |
| Reduction of greenhouse gas emissions | 100 t CO2e/year (5 t CO2e * 20 participants) | 300 t CO2 per year (15 t CO2*20 participants) The number of greenhouse gases has to be adjusted to the fact, that each of the skilled workers (participants of the CVET) contributes his or her knowledge to three projects a year. The calculation in the Grant Agreement considers only 1 project/participant. | 570 t CO2 (15 t CO2*38 participants) | 24,000 t CO2e (=5 t CO2e * 3 projects* 1,600) 30,000 t CO2e (=5 t CO2e * 3 projects* 2,000) |
| Train-to-NZEB | | | | |
| Role in the project | n/a (ZDH is not a partner) | | | |
| Country organisations involved | <p>Energy Efficiency Center - EmEffect Limerick Institute of Technology (Ireland) www.lit.ie</p> <p>Passive House Academy / MosArt (Ireland) www.passivehouseacademy.com</p> <p>Passive House Institute (Germany) www.passiv.de</p> <p>National Institute for Research and Development in Construction, Urban Planning and Sustainable Spatial Development (Romania) www.incd.ro</p> <p>Business Development Group (Romania) www.bdggroup.ro</p> <p>Pre-University Education Foundation - Future (Romania) www.calificat.ro</p> <p>Bulgarian Construction Chamber www.ksb.bg</p> <p>BSYS (Bulgaria) www.bsys.bg</p> <p>SEVEn (Czech Republic) www.svn.cz</p> <p>Department of Civil Engineering at Ege University (Turkey) www.ege.edu.tr</p> | | | |

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| | Municipal Development Institute (Ukraine) www.mdi.org.ua |
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| Project's website | http://www.train-to-nzeb.com/ |
| Keywords | Building, nZEB, training, certification, qualification |
| Duration | Start date: 2015/06/01 |
| | End date: 2018/06/01 |
| Budget | EUR 1.426.333,75 (EU Contribution) |
| Summary description | <p>The main tasks of the project include:</p> <ul style="list-style-type: none"> • The design and equipment of 4 fully active training centers (in Bulgaria, Romania, Turkey and the Czech Republic) and 1 pilot center (in Ukraine); • The adaptation of existing and the development of new curricula for training of building professionals; <p>Training and certification for a total of 90 trainers, 2,400 construction workers, 480 designers and 720 non-specialists (representatives of public authorities, business managers, NGOs, consumer groups, media, etc).</p> |
| Context | |
| Objectives | <ol style="list-style-type: none"> 1. Development of publicly available Terms of Reference for the setting up of the BKHs; 2. Adaptation of existing and development of new training programs; 3. Actual setting up of 4 training and consultation centres (BKHs) according to the Terms of Reference; 4. Building of internal capacity through train-the-trainer activities, targeting at least 90 qualified trainers; 5. Actual training courses according to annual training plans, resulting in: <ol style="list-style-type: none"> (a) 120 training courses for construction workers, targeting additional qualification of 2400 trainees; (b) 24 training courses for highly-qualified building specialists, targeting additional qualification of 480 trainees; (c) 36 training courses for non-specialists, targeting additional qualification of 720 trainees; 6. Strict monitoring and evaluation for constant improvement of the offered services. 7. Setting up of a web-based networking platform providing facilities for knowledge sharing and exchange between the BKHs; 8. Conduction of a targeted dissemination and communication campaign to increase the market demand for NZEB projects. |

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| Target skills/ professions | Trainers, construction workers, building professionals and relevant representatives including public authorities, business managers, NGOs, consumer groups, media. |
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