



CORDIS Results Pack on **construction skills**

A thematic collection of innovative EU-funded research results

September 2021

A photograph of four construction professionals (three men and one woman) wearing hard hats and high-visibility vests, standing on a construction site. They are gathered around a tablet computer, which one of the men is holding. In the background, a large construction crane is visible against a clear blue sky. The scene is brightly lit, suggesting a sunny day.

**Leveraging new skills
for the building sector to deliver
on the European Green Deal**

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Editorial

Leveraging new skills for the building sector to deliver on the European Green Deal

Europe's ambitious climate targets, particularly the aim to be completely carbon-neutral by 2050, are now very much the driving force behind many of the EU's current policy and research priorities. One such priority is the need to renovate and transform Europe's building stock, a major source of carbon emissions and energy output. This CORDIS Results Pack highlights six EU-funded projects working within the BUILD UP Skills initiative providing innovative training and new skills to building sector professionals to help enable such a transformation.

Launched in 2011, the BUILD UP Skills initiative arose from the realisation that Europe could only transform its building stock so long as it had the skilled and qualified professionals to do so. Indeed, Europe's building stock offers a big opportunity for reducing the EU's overall energy usage and contributing to its climate goals, as outlined in the European Green Deal. One of the key challenges though is the renovation of existing buildings, since the current rate of renovation is only around 1.2% of Europe's entire building stock per year. Naturally, the pace needs to be picked up. For new buildings, the nearly zero-energy building (NZEB) standards became mandatory in Europe as of December 2020, requiring robust skills from all professionals involved.

Reacquainting you with the BUILD UP Skills initiative

The BUILD UP Skills initiative has received around EUR 49 million in funding since its inception, and key target groups include building professionals and companies throughout the entire value chain of the sector, public authorities, as well as building owners and tenants. Some 32 countries have been involved in the initiative, with over 60 projects being finalised. The first step of the initiative has been to support the development of national qualification platforms and road maps focused on energy efficiency and renewable energy usage in buildings. In a second step, the road maps have been turned into action by projects developing national or transnational training and qualification schemes.

Alongside an emphasis on the main new and upcoming challenges relating to NZEBs, such as new materials and products, renewables integration, standardisation and certification processes, the integration of digital skills and in particular the use of building information modelling (BIM), BUILD UP Skills also aims to ensure that the building professionals who do make the time and effort to upscale their skills are recognised and visible on the market. Projects currently funded under the initiative are focusing on 'trigger mechanisms', such as one-stop shops, subsidies, awareness campaigns and supporting public authorities with skills-based procurement.

The Horizon 2020 factor

Through the Horizon 2020 programme, the initiative was upscaled, primarily through multi-country project consortiums addressing professionals along the entire building value chain, including designers, architects, engineers, site managers, technicians and installers.

In this sequel to the original CORDIS Results Pack on Construction Skills, we showcase six EU-funded projects under Horizon 2020 that positively contributed to the success of the BUILD UP Skills initiative and, more indirectly, the wider ambitions and targets of the European Green Deal.

BIM-trained on-site workers deliver better nearly zero-energy buildings

Nearly zero-energy buildings tend to be more promising on paper than they are in real life. To reverse this trend, the EU-funded BIMplement project has been training on-site workers across Europe on how to use building information modelling.

The year 2021 marks a turning point for the construction and renovation sector. The Energy Performance of Buildings Directive now effectively requires any new construction project to be a nearly

zero-energy building (NZEB). By 2050, renovation works will also need to comply. But although the march towards energy efficiency has begun, as soon as you look closer, you realise it's not without hurdles.



"There is still a considerable gap between designed and actual performance, in terms of both energy efficiency and indoor environmental quality," says Narjisse Ben Moussa, sustainable development and Europe project officer at Alliance Villes Emploi. "This has several explanations, one of which is the lack of a qualified workforce."

Ben Moussa and her partners under the project BIMplement (Towards a learning building sector by setting up a large-scale and flexible qualification methodology integrating technical, cross-

craft and BIM related skills and competences) want the whole value chain to do better. In the Netherlands for instance, they found many cases where excellent building information modelling (BIM) models could not be realised at the construction site because of a lack of interaction

between modellers and blue-collar workers. The same happens in France, where few small or midsize construction companies are familiar with BIM processes. Those in the know only implement it during the design phase based on 2D plans, as BIM processes are not even an afterthought in the execution phase. Such approaches can considerably undermine the energy efficiency of NZEB projects.



Our pilot projects ensured that the new tools were adapted to each partner's national or regional context before they could be deployed on real construction.

Reaching the right stakeholders

"We focused on construction companies and on-site workers who had so far been mostly left behind in BIM process strategies. We strongly believe that they are in fact the very stakeholders who can guarantee that implementation complies with design," Ben Moussa explains.

The project focused specifically on ventilation and airtightness. In France for instance, the team's training on 'hands-on and on-site airtightness' doubled or even tripled the level of airtightness on renovation sites compared to projects with no on-site training. This is just one of the project results. The team selected several pilot labs (national or regional BIM-learning Centres or on-site construction projects) where they reinforced training tests of custom tools and learning methods adapted to on-site workers. In the Netherlands for instance, they implemented the BIM maturity scan which can be used by organisations and value chains to detect skill gaps. Once this is done, they can organise targeted upskilling interventions.

"BIMplement goes way beyond methodologies, tools and technical training: It considers social acceptance to guarantee

successful implementation and appropriation by the targeted groups. Our pilot projects, on the other hand, ensured that the new tools were adapted to each partner's national or regional context before they could be deployed on real construction," adds Ben Moussa.

Raising awareness

Perhaps BIMplement's most critical endeavour was to raise awareness and convince stakeholders of the importance not only of using BIM, but also of conducting on-site training for manual workers. And it worked. In France, national institutions financing training companies have shown interest in upskilling building companies, most of which are still not familiar with BIM processes. Meanwhile in Spain, the Valencian regional government is now banking on training and qualification programmes using digital technologies. The region even adopted and customised the 'Catalogue of constructive elements' – a tool providing a wide range of solutions compliant with current regulations that contains information on the likes of thermal, acoustic, waterproof and fire-protection performance. The new version comes as an online application where users can connect their projects from their offices or on-site.

Now complete, BIMplement continues to live through the Horizon 2020 ARISE project which builds on the lessons learned through BIMplement. Project partner ASTUS has also developed programmes for training centres, with several training sessions planned in 2021. These efforts will certainly help skilled on-site workers avoid errors and improve the quality of buildings over the coming years.

PROJECT

BIMplement – Towards a learning building sector by setting up a large-scale and flexible qualification methodology integrating technical, cross-craft and BIM related skills and competences

COORDINATED BY

Alliance Villes Emploi in France

FUNDED UNDER

Horizon 2020-ENERGY

CORDIS FACTSHEET

cordis.europa.eu/project/id/745510

PROJECT WEBSITE

bimplement-project.eu

Training experts in energy-efficient construction

If the EU is to achieve its climate goals, it must improve the energy efficiency of its buildings. But doing so requires that building professionals acquire new skills in sustainable renovation. To help, one EU-funded project has set up a training and certification programme in energy-efficient construction for heating, ventilation and air conditioning professionals.



Accounting for 40% of the EU's total energy consumption and 36% of all greenhouse gas emissions, Europe's building stock has a carbon problem.

"Over a third of the buildings in the EU are over 50 years old, and approximately three quarters of these are considered energy-inefficient," says Johann Zirngibl, a senior scientist

who coordinates the EU-funded project CEN-CE (CEN standard Certified Experts EU-wide qualification and training scheme based on EPBD mandated CEN standards). "If the EU is to achieve its Green Deal climate objective of reducing net greenhouse gas emissions by at least 55% and becoming carbon-neutral by 2050, these inefficient buildings must be fully renovated."

With the goal of doubling the rate of renovations over the next decade, the EU has launched its renovation wave initiative (RWI). However, before building professionals can start renovating, they first need to know how to do so in a sustainable, energy-efficient way – which is where the CEN-CE project comes into play.

“CEN-CE is dedicated to setting up qualification and training schemes in energy-efficient construction,” explains Zirngibl.

Certifying HVAC experts

With the decarbonisation of heating, ventilation and air conditioning (HVAC) being a key focus of the RWI, CEN-CE has developed a range of training programmes specifically for HVAC professionals. “HVAC professionals play an important role in energy efficiency, especially in renovation where heating and cooling systems are replaced or upgraded first,” remarks Zirngibl.

Based on standards set by the European Committee for Standardization (CEN), the training programmes cover both individual standards and ‘big picture’ issues like adopting a holistic approach to assessing a building’s energy performance.

“Whereas some of these standards relate to the daily work of the HVAC professional, others relate to upcoming challenges like global cost calculation and integrating renewable energy sources,” explains Zirngibl. “That’s why simply providing training on individual technical topics is not enough and complementary training on transversal know-how is also needed.”



To make the EU’s envisioned ‘renovation wave’ a reality, we first need a qualified workforce and a quality assessment tool.

The training and qualification schemes target middle- and senior-level professionals and include both workshops and in-class sessions. An electronic learning system has also been launched. “We’ve received very positive feedback from the hundreds of experts who have already been trained,” adds Zirngibl.

Following the training, participants can take a test to become a CEN-CE certified expert. Once complete, the participant will

have his or her name added to the publicly available CEN-CE list of certified professionals, making it easy for anyone to find a qualified HVAC professional.

CEN-CE is now looking for partners for the commercial roll-out of its training scheme.

Beyond renovations

By increasing the renovation sector’s technical skills and competencies, the project is helping the EU achieve its climate goals. “To make the EU’s envisioned ‘renovation wave’ a reality, we first need a qualified workforce and a quality assessment tool,” notes Zirngibl. “CEN-CE has laid the groundwork for the former, now we must build on this work in order to deliver the latter.”

However, the CEN-CE training is by no means limited to renovation – it also benefits new construction projects. “The EU’s Energy Performance of Buildings Directive requirement that all new construction be nearly zero-energy as of 2021 has had a positive impact on our work and training,” concludes Zirngibl. “This requirement demands a more expert-level understanding of technical building systems, and the CEN-CE training is well-positioned to provide exactly that.”

PROJECT

CEN-CE – CEN standard Certified Experts EU-wide qualification and training scheme based on EPBD mandated CEN standards

COORDINATED BY

Scientific and Technical Center for Building in France

FUNDED UNDER

Horizon 2020-ENERGY

CORDIS FACTSHEET

cordis.europa.eu/project/id/785018

PROJECT WEBSITE

cen-ce.eu



Boosting green employment in the Spanish construction industry

Guided by the EU target of decarbonising Europe's housing stock by 2050, Construye 2020_Plus developed training solutions to support a sustainable construction industry in Spain, creating attractive employment prospects and opening up the marketplace.

Reducing the construction industry's CO₂ emissions will require structural changes to the sector, including the development of new techniques, new materials and new

skills. This is an opportunity as much as a challenge, as it will create employment and market opportunities, while benefiting the environment.





To help embrace the opportunities in Spain, the EU-funded Construye 2020_Plus (A new boost for green jobs, growth and sustainability) project has been developing formal and informal training for green construction methods.

“Our cross-cutting approach has engaged experts to share different perspectives and collaborative solutions, linking areas of construction that might not otherwise work together. This has helped raise public awareness of sustainable buildings – crucial to developing a market for them,” explains project coordinator Esther Rodriguez from the Construction Labour Foundation.

The project created a qualification for energy auditors – which aligns with the EU’s implementation of the Energy Efficiency Directive, two energy efficiency courses and a proposal for a green skills recognition system. It has also updated existing courses.

The training and accreditation

Construye 2020_Plus adopted the quintuple helix innovation model to engage key stakeholders from academia, business, government, civil society and environmental interest groups, for the sharing of knowledge, expertise and opportunities.

Some 70 experts within Spain identified key construction industry challenges, proposing a training road map to implement 30 solutions for energy efficiency, renewable energy sources and nearly zero-energy buildings (NZEBs).

The vocational and educational training developed by Construye2020_Plus included two courses to be piloted in 2021: energy efficiency for operators and energy efficiency for middle managers. Both are short cross-cutting courses giving each profession more knowledge of the other.

Additionally, the project updated several courses under the umbrella of the BUILD UP Skills initiative including those for laws and regulations, materials and construction solutions and the NZEB approach.

Taking advantage of recent digitalisation advances in the construction industry, Construye 2020_Plus also introduced a lean construction and building information modelling (BIM) methodology into their training.

“As efforts to digitalise construction workflows are not yet widespread in Spain, we only introduced these concepts,” adds Rodriguez. “The objective is not to deliver full training in a specific trade, but to familiarise tradespeople with the range of sustainable construction techniques available.”

We want to achieve a generational shift so that green construction jobs become more attractive to youngsters, while helping to create market demand for sustainable construction.

To develop the energy auditor qualification, the team followed the methodology established by the INCJUAL, a project partner. After official approval it will be published as part of the National Catalogue and adopted by the Ministries of Education and Employment.

A proposal is also under development for a green skills recognition system called Green tag. Green tag will certify learning outcomes from the energy efficiency courses for both operators and middle managers and from at least one of the six updated courses from the BUILD UP Skills range.

Shifting mindsets

The project has already participated in two BUILD UP Exchange events, with results also promoted within European training networks such as REFORME and CPD. The team are now organising 15 regional events to promote the benefits of energy efficiency in buildings, supported by a virtual platform hosting content such as interviews, good practices and training.

“We want to achieve a generational shift so that green construction jobs become more attractive to youngsters, while helping to create market demand for sustainable construction,” says Rodriguez.

Longer term, the team intends to adapt their approach to other related sectors, such as the wood and metal industries, as well as to other countries.

PROJECT

Construye 2020_Plus – A new boost for green jobs, growth and sustainability

COORDINATED BY

Construction Labour Foundation in Spain

FUNDED UNDER

Horizon 2020-ENERGY

CORDIS FACTSHEET

cordis.europa.eu/project/id/785019

PROJECT WEBSITE

construye2020plus.eu/en/home



E-learning platform ensures green construction skills in Czechia and Slovakia

To meet growing demand for energy-efficient buildings, the CraftEdu project developed an e-learning platform that helps to ensure the availability of the right skills amongst on-site workers and vocational schools in Czechia.



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Achieving greener building standards, such as nearly zero-energy buildings or deep renovations, relies on specialist skills amongst construction professionals. The EU-supported project CraftEdu (Setting up national qualification and training scheme for craftsmen in the Czech Republic and developing the further offer of training courses in Slovakia, Austria and Bulgaria) has developed training and qualifications for energy efficiency and renewable energy sources, initially for Czechia.

“COVID-19 restrictions spurred us on to increase the online component of our training. Our interactive e-learning platform will include over 30 training videos and around 20 e-learning modules, with regular online consultations between trainers and students,” explains project coordinator Jiří Karásek, from the SEVEN Energy Efficiency Center. “We are already seeing good levels of engagement, with one training video for electricians already receiving over 550 views.”

CraftEdu built on the achievements of the previous StavEdu project in Slovakia, which had stimulated a dialogue between policymakers, vocational trainers and employers about how to deliver the construction skills needed to meet the EU's 2020 energy targets.

StavEdu led to a voluntary initiative called Building Future, established in Slovakia, for the training of professionals working on energy efficiency solutions and the use of renewables. CraftEdu extended this initiative to Czechia.

Reaching educational and professional stakeholders

CraftEdu set out to provide a full qualification package for seven established professions key to energy-efficient buildings, in either construction or renovation. These were heating, ventilation and air conditioning installers, carpenters, low-voltage electricians, high-voltage electricians, hydro-insulators, stove and chimney builders and inspecting technicians, to which the project added the more recently established window installers.

Development of the training modules involved trainers and vocational schools already developing training courses, alongside Czech and Slovak ministries and construction associations, guilds and chambers of commerce, including the Czech Technical University in Prague and the Association of Construction Entrepreneurs in both countries.

"While the project initially aimed for just one e-learning programme, given our pivot to e-learning, we will likely develop around 18, increasing the project's impact," says Karásek. "We already have over 350 registered participants, and interest is strong across the portfolio."

Once fully implemented, those who successfully complete a course will receive the CraftEdu certificate. The courses are currently being piloted in Czechia and Slovakia with 280 craftspeople, and should be completed by autumn 2021.

To roll out the programme to nearby countries, such as Austria and Bulgaria, the training is designed to be as visual as possible, using icons instead of words to reduce translation requirements.

The CraftEdu courses and support can be accessed after registration on the CraftEdu database which is available in four languages (Czech, Slovak, German and Bulgarian), with most of the training available in Czech and Slovakian.

Enticing young people into Green Growth careers

CraftEdu's programme contributes directly to EU efforts to create Green Growth jobs, by offering training and qualifications in an industry tasked with delivering energy efficiency as part of the European Green Deal.

"Crucially, by designing training which is engaging and modern, CraftEdu helps to attract young people who are starting out in their careers," adds Karásek.

The team will continue to collaborate with ministries, construction companies and schools to further develop the training schemes. It is also working to integrate the platform within the curricula of vocational schools in Czechia and Slovakia.

Additionally, working with construction associations, the team has influenced policy, such as proposing an upgrade to qualification standards in Czechia, while the new Slovakia building code will be introduced with support from project partner ZSPS.



Crucially, by designing training which is engaging and modern, CraftEdu helps to attract young people who are starting out in their careers.

PROJECT

CraftEdu – Setting up national qualification and training scheme for craftsmen in the Czech Republic and developing the further offer of training courses in Slovakia, Austria and Bulgaria

COORDINATED BY

SEVEn Energy Efficiency Center in Czechia

FUNDED UNDER

Horizon 2020-ENERGY

CORDIS FACTSHEET

cordis.europa.eu/project/id/785036

PROJECT WEBSITE

craftedu.eu

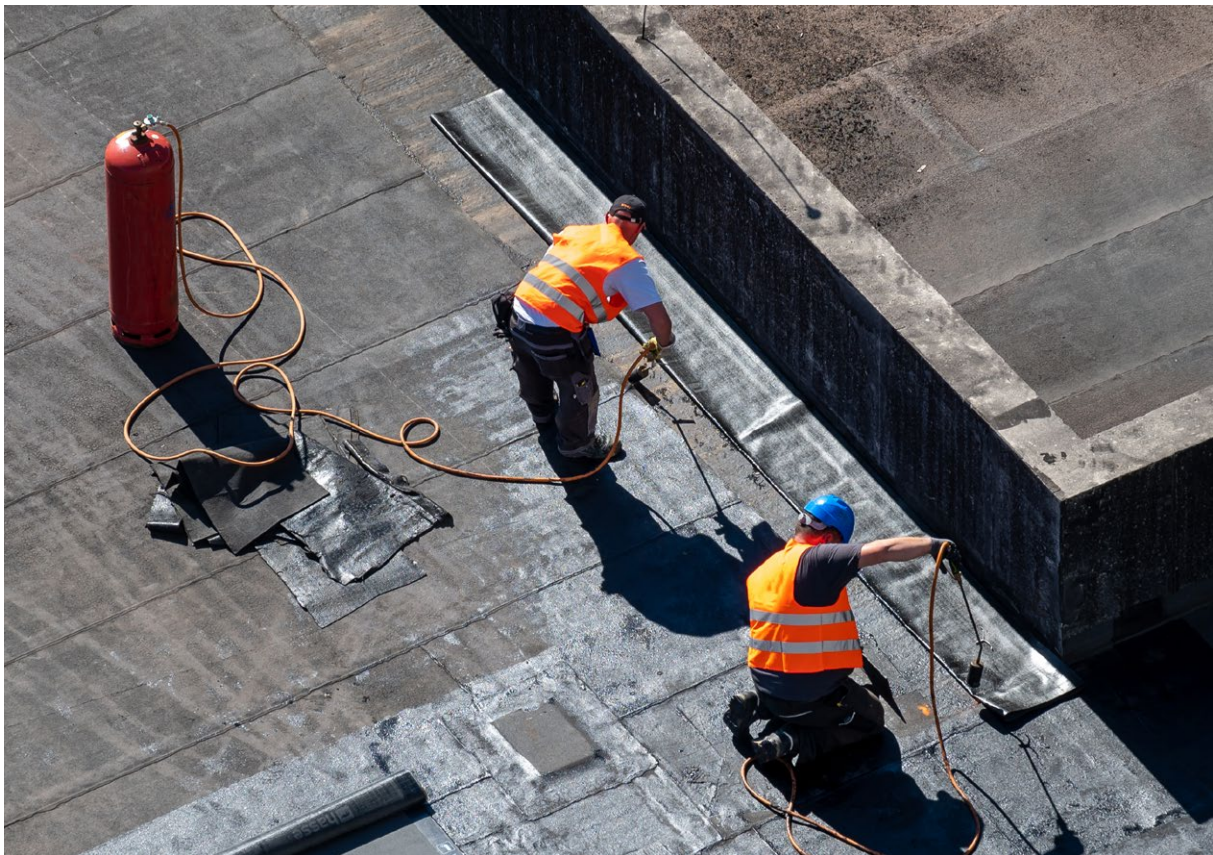


Enhancing and standardising skills for energy-efficient buildings

The challenge with EU climate goals for more efficient energy use is transferring them from the page to bricks and mortar. NEWCOM supports nearly zero-energy buildings with new training modules for professionals, complemented with a European competences database.

The EU's Energy Performance of Buildings Directive (EPBD) promotes policies that will achieve a highly energy-efficient and decarbonised building stock by 2050 – for both renovations and new builds.

Yet, construction of high-quality sustainable buildings, especially residential, suffers from inadequate quality assurance during construction/renovation, a shortage of relevant and up-to-date skillsets as well as low demand from owners and developers.





Building owners benefit from higher workmanship, and energy efficiency, while pan-European standardisation benefits professionals seeking mobility of employment.

To support the construction industry, NEWCOM (New competence for building professionals and blue-collar workers – certified qualification schemes to upgrade the qualification for building nZEBs) developed nearly zero-energy building (NZEB) training schemes. The training is modular with units either stand-alone or complementary to pre-existing courses.

In addition, a competence database was created to help standardise mutual recognition of skills across Europe. The database links course-accredited competences with individual professionals using an app-mediated skills card, viewable to potential clients.

“By inputting further training or course modules, this system can be expanded to other professional fields,” says project coordinator Georg Trnka from the Austrian Energy Agency.

Enhancing and standardising construction skills

For the construction sector to ensure the highest energy efficiency for buildings, even minor construction or renovation errors need to be avoided. An airtight building envelope has to be established along with professionally installed heating, ventilation and air conditioning (HVAC) systems. Yet there are gaps in the skills required to achieve this.

“Further education about energy efficiency is surprisingly scarce in many European countries, and existing courses often don’t cover topics like cross-craft understanding, life cycle service or continuous energy control and monitoring,” adds Trnka. “As there is also declining demand for personal certification in building services and skills under ISO 17024, unless it relates to safety, it makes sense to tie energy efficiency training to established courses.”

Based on the priority needs of the project partners, NEWCOM’s training modules focused on three topics.

Firstly, Flat Roofs and Roof Waterproofing, taking a lifelong service approach, including planning and installation of green roofs and energy efficiency measures. Secondly, Ventilation Installations, including heat recovery, noise protection, controlled airflow and smart demand systems. Thirdly, Quality Assurance in the planning, construction and operation phase of NZEBs, including aspects on indoor air quality, quality of the thermal building envelope and the energy system, including cost-efficiency measures.

The project’s partners, who helped develop the NEWCOM training modules, were organisations tasked with national energy efficiency

implementation and/or with experience in upskilling professionals, such as institutions and vocational schools responsible for NZEB skills. Train-the-trainer sessions were conducted and involved 149 trainers from different professional backgrounds.

The competence database was based on a methodology developed in cooperation with the Horizon 2020 BIMplement project.

After completing a training module, professionals can be tested in accordance with Units of Learning Outcomes which certify the individual’s skills. The competence database is linked to the BUILD UP Skills app which is then able to display a professional competency card, viewable by clients or companies.

Building benefits

NEWCOM supports the EPBD, the EU’s legislative instrument to improve the energy performance of European buildings. “Building owners benefit from higher workmanship and energy efficiency, while pan-European standardisation benefits professionals seeking mobility of employment,” explains Trnka.

Most of NEWCOM’s training modules have been adopted by the project’s partners, for example in Austria by the Working Group for Energy Consultant Training. In Hungary, the modules are offered in cooperation with the TRAINBUD Sustainable Construction Skills Alliance, while Slovakia offers the training in cooperation with other Horizon 2020 projects such as StavEdu and ingREeS.

Future training development will be undertaken by the project’s national partners who will also expand the competence database, with support from the current BUSLeague project.

PROJECT

NEWCOM – New competence for building professionals and blue-collar workers – certified qualification schemes to upgrade the qualification for building nZEBs

COORDINATED BY

Austrian Energy Agency in Austria

FUNDED UNDER

Horizon 2020-ENERGY

CORDIS FACTSHEET

cordis.europa.eu/project/id/754148

PROJECT WEBSITE

newcomtraining.com

Upskilling energy-efficient construction in North Macedonia

Buildings represent 40% of European energy consumption. To increase energy efficiency in North Macedonia's buildings, TRAINEE developed training, a knowledge centre and a skills register, while boosting market recognition of green buildings.



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The national qualification road map of North Macedonia was developed under the BUILD UP Skills initiative to increase energy efficiency (EE) and renewable energy sources (RES) building

skills in the country. The roadmap identifies the skills required, indicates where there are skills shortages and calls for updated training where needed.

To help overcome barriers such as a lack of trainers/training providers and low market demand for EE and RES skills, the EU-supported TRAINEE (TowaRd market-based skills for sustAINable Energy Efficient construction) project developed training for priority skills listed in the road map. The project also established a knowledge centre, which as well as providing training access also offers an online tool for homeowners to evaluate the energy performance of their buildings – a regional first.

“Awareness raising was critical. For example, despite building information modelling (BIM) being a crucial construction innovation worldwide, it was little known in North Macedonia. So, we developed training and a policy proposal for its introduction nationally,” says project coordinator Jadranka Arizankovska from the Economic Chamber of North Macedonia.

Qualifications along the whole value chain

To upskill the workforce towards EE and RES, voluntary qualification schemes from previous BUILD UP Skills projects were first updated and a process developed for the recognition of prior learning (RPL) for several professional groups: on-site workers; technicians/engineers; architects and designers; as well as installers of solar-thermal energy and photovoltaic systems. TRAINEE then developed nine new training topics for these groups.



We found short training sessions with small groups of 6-10, with less theory and organised as on-the-job training, to be most effective.

The new BIM course – for practitioners, decision makers, builders and manufacturers – used ACCA software. As this is an interoperable open BIM tool, certified and approved by the industry body buildingSMART, it ensures quality and sustainability.

The RPL route to certification was piloted for 11 occupations with 429 trainees, of whom 369 were certified, while all nine new training schemes were piloted with 234 trainees, of whom 183 achieved certification.

“We found short training sessions with small groups of 6-10, with less theory and organised as on-the-job training, to be most effective,” remarks Arizankovska.

To promote EE, the project also developed an online tool for its knowledge centre which allows users (homeowners or occupants)

to evaluate their building’s energy performance, along with suggestions for improvement.

Higher-quality buildings, energy savings and more employment

The knowledge centre, based in Skopje at the Engineering Institution of Macedonia, currently holds the catalogues that can be used for scheduled training. To date, 20 memorandums have been agreed with construction companies interested in having their employees take part in the training.

To further increase EE visibility and demand, the centre also houses the project’s online searchable register of certified workers and trainers. “It has been of interest to the authorities as a basis for a national register of licensed renewable energy sources installers, in alignment with the Renewable Energy Directive,” adds Arizankovska. The centre is now working to secure official verification of the training by national institutions for adult education.

The project’s results also contribute to European efforts to standardise qualifications, such as achieving ISO 17024 for professional profiles, with TRAINEE developing and piloting in Croatia, Greece and Slovenia its methodology for mutual recognition of skills between countries.

“In the meantime, more work needs to be done to promote opportunities, especially of the benefits of RPL to on-site workers who do not yet seem to fully value this approach as a means to certification,” says Arizankovska.

The TRAINEE team has ensured the continuation of its work through the ongoing Horizon 2020 project SEetheSkills aiming to stimulate demand for energy-efficient construction skills through a novel ‘3V’ approach which increases their visibility, validation and value.

PROJECT

TRAINEE – TowaRd market-based skills for sustAINable Energy Efficient construction

COORDINATED BY

Economic Chamber of Commerce
in North Macedonia

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Horizon 2020-ENERGY

CORDIS FACTSHEET

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RESULTS PACK ON THE FUTURE OF WORK

Following the huge disruption caused by COVID-19, combined with the ongoing digital and green transitions and high levels of socioeconomic challenges lingering on from the last economic crisis of the late 2000s, the future of work, workers and workplaces is currently right in the political spotlight. In this CORDIS Results Pack, we meet 11 EU-funded projects who have shone a spotlight on what the future of work holds for us.



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