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EETheSkills
VISIBLE | VALIDATED | VALUABLE

SUSTAINABLE ENERGY Skills
IN CONSTRUCTION:
Visible, Validated, Valuable





Title:
Sustainable EnErgy
Skills in construction:
Visible, Validated, Valuable
Grant Agreement (GA)
No:101033743



Call/Topic:
Stimulating demand for sustainable
energy skills in the building sector

Type of action:
Coordination and support action

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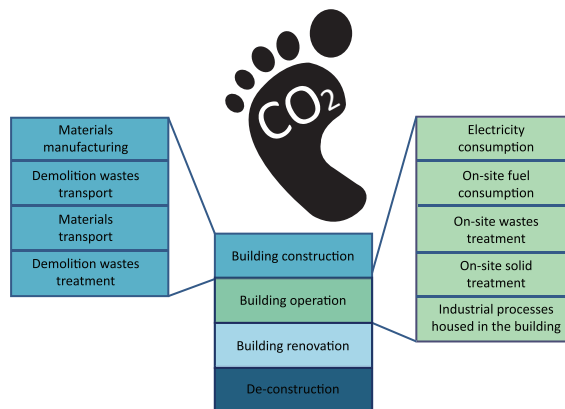
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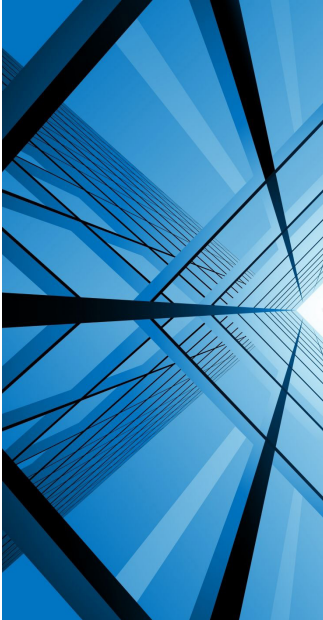
BACKGROUND

- Buildings consume around 40% of the EU's energy and are thus the largest energy consumer in Europe. They generate 36% of CO₂ emissions in the EU. Almost 75% of the building stock is energy non-efficient, while only 0,4-1,2% of the building stock being renovated each year.
- A European wave of renovations - new skills benefit from a wave of renovations - could help with economic recovery by creating jobs locally, raising workers' skills and building resilient communities.
- Nowadays, investments in energy performance can ensure quality homes with lower bills for energy. They can improve the health of our communities and reduce our contribution to climate change.



SUMMARY OF PROJECT IDEA

This project proposal stands in front of the challenge for energy efficient construction of new and renovation of existing building stocks and to act at market level in order to stimulate the demand for previously developed and new or upgraded energy skills. It is based on the idea to build upon the good foundations of previous BuildUpSkills actions, each of them notably successful on national level, in order to facilitate broader visibility and accessibility of energy skills and to enable their mutual recognition across partner countries, through their cross validation based on learning outcomes.



PROJECT SEETHESKILLS IN BRIEF – MAIN PROJECT OBJECTIVES AND APPROACH

OVERALL OBJECTIVE:

Challenging market acceptance and acting toward stimulation of demand of energy skills in construction through a **novel 3V approach**, to support need for energy efficient construction of new and renovation of existing building stock



Objective 1

To make skills **VISIBLE** through whole value chain in building sector by implementing **Integrated register of energy skills**



Objective 2

To **VALIDATE** skills relevance to standardized EE construction and interventions in renovation, by matching and levelling skills and linking them to national and EU qualification standards, to **enable mutual recognition**



Objective 3

To emphasize skills **VALUE** in order **stimulating market demand for energy skills** in design, construction and maintenance of buildings and manufacturing and installation of EE construction materials



Project consortium spreads across wide geographic area including countries from south, south–east, central and western European region. The SEetheSkills consortium consists of 10 partners: 3 universities, 2 national chambers of commerce, educational and research institute, professional association, consulting company, SME and non-profit private foundation for software development.



Economic Chamber of North Macedonia

The project coordinator **ECNM**, as national chamber of commerce will use its long term experience in coordination of activities that involve communication with companies, professionals and authorities, and initiating mutual dialog among them. It will use its well established communication channels to reach the wide range of target groups. Management activities and communication within project team and with stakeholders is the main role of ECM.



Ss Cyril and Methodius University, North Macedonia

The project coordinator **ECNM**, as natThe University UKIM as creator and heir of handful of results that are recognized on EU level (here referring to the established procedure for recognition of previous learning – RPL and developed methodologies for its implementation as a tool for upskilling and certification of workers and professionals) will have the role in dissemination of this tool within the consortium and beyond. UKIM will also take part in dissemination of new innovative products: e-RPL tool and Digital badge as a digital certificate of personal energy related accomplishments.

Univerza v Ljubljani



WITS Institute SLU - BIM Academy, Spain

BIM Academy will implement all its capacity in animating Spanish and EU workforce and professionals involved in construction, through its well established channels mainly as general organizer of huge events related to construction (EUBIM summit, REBUILD, GEOBIM etc.). BIM Academy will also bring expertise in creation and organization of training courses for BIM qualifications, and will enable digital offer of trainings through development of e-learning platform in SEetheSkills.



University of Ljubljana, Slovenia

The **UL**, is responsible to draft the procedure for collaboration between project partners, mainly in terms of sharing good practice and transferring IPR for training offer from one partner to another, because UL as well established research institution has proven experience in collaboration that tackle IPR rights, and is responsible for identification and summarizing the list of existing EE measures in project partner countries.



Slovak chamber of Civil engineers, Slovakia

SKSI as professional organization that represents Slovak civil engineers will spread project results and involve its membership in all project activities, ensuring high level of visibility of project achievements and its exploitation. Its excellence in creation of short cross-craft training will be valorized with creation of new cross-craft skills in SEetheSkills and enabling them through e-learning platform. Experience for gathering and organizing data, and drafting reports will serve to draft proposal for legislative changes that will stimulate demand for energy skills.



Association of business and consultancy, North Macedonia

Kreacija as a leader in creation of innovative approaches and products will be responsible for the process of certification of project innovative products – the concept of Digital badge, e-RPL tool and POE web tool, as certified trade marks. Its huge experience in organization of events and identification of approach suitable to stimulate involvement of different stakeholder groups will be used in realization of the task for dissemination of project results and ensuring their maximum exploitation.



Slovak University of technology, Slovakia

STUBA as higher education institution will bring expertise in creation of training courses, especially on-line courses offered through e-learning platform. Also their expertise in BIM tools will be basis for development of webinars on BIM qualifications. STUBA will summarise the conclusions from all organised events for awareness raising into general report drafted at the end of the project.



Institut de Tecnologia de la Construcció de Catalunya, Spain

Creation of databases, offering innovative technical solutions and services, generation and transfer of information, knowledge and tools to improve competitiveness of construction sector is what ITeC is bringing into SEetheSkills. The development of best concept and creation of 4 different databases to enable dissemination of project outcomes is the challenging task for ITeC.



Chamber of commerce and industry of Slovenia, Slovenia

The CCIS, represents one of the most influential business organizations in Slovenia. CCIS staff regularly cooperates with Employment service of Slovenia in field of up-skilling and prequalification of unemployed and will have its role in deciding how to best concept the Digital badge. Their responsibility will be organisation of events for companies and sector stakeholders and communication channels.

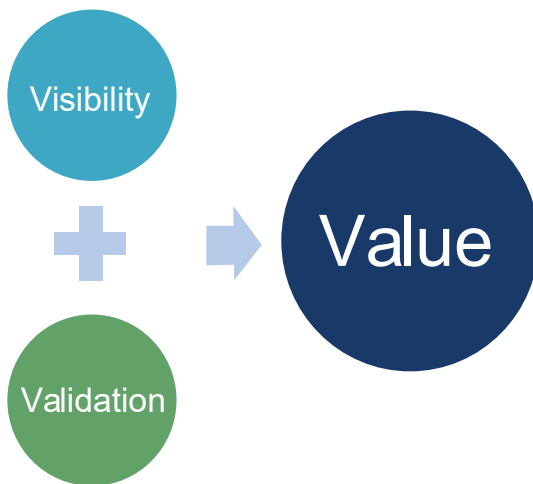


Stichting ISSO, Netherlands

ISSO brings in its experience with mobile app and database development resulting in the BUILD UP Skills advisor app. Based on build up experience will coach the national implementations and development of task based qualification schemes and its use for personal and company recognition.

PROJECT APPROACH

The 3V approach refers to: VISIBILITY of skills by creation of an on-line repository for skills registration i.e. Integrated SEetheSkills area to make the skills visible, accessible and available on interregional level, between project partners and beyond; then enabling interregional cross VALIDATION of energy skills by making them comparable within SEetheSkills area for management of knowledge&skills and through transferring and replication of training schemes between project partners; which as a final result will raise the VALUE of the skills and tackle their market demand internationally and globally, initiated by expressing the benefits of using energy skills in achieving sustainability of construction.



Recognizing the importance of acting in integrated way in achieving the common goal for climate resilient future as an essential and inevitable approach, SEetheSkills project partners are decided to unite expertise, experience, knowledge and capabilities in reaching these goals. Former work done towards energy efficient building sector identified the necessity of energy skills and different schemes for obtaining skills were created. However, in order to trigger market demand for energy skills we need to work on the visibility of skills and expressing their benefits and real value for each stakeholder participating in the building life cycle.

IDEAS ON HOW TO MAKE SKILLS VISIBLE

Visibility of energy skills will be achieved by creating online repository-Integrated database of energy skills. The Repository will ensure development of appropriate pilot digital solution to deposit the collected data with a possibility for filtering according to various criteria, exchange of experiences and training schemes between the partners, transfer and replication of training schemes, as well as providing e-learning with developed/existing training schemes, aiming for their replication.

The **INTEGRATED DATABASE OF ENERGY SKILLS WILL** contain 3 databases.



Database of qualification schemes for obtaining skills based on the Units of learning outcomes and presented through **Learning opportunities Catalogue**, based on BUS Advisor



Database of skilled and certified workers and professionals – **Professionals register** (with sub-database of companies employing skilled workers)



Database of EE construction materials – **Materials catalogue** with grades for their greenness and listed necessary skills to be incorporated in buildings (with sub-database of producing companies).

ENABLING E-LEARNING

As a way to offer training schemes for wide range of users without geographical constraints, e-learning process will be established. The **E-learning platform** will be enabled as on-line solution, linked to the Integrated repository of energy skills, as one of the paths for obtaining qualification and will evolve during the project. All registered users of the platform, that will obtain personal account for Integrated repository will regularly receive notifications on the upcoming e-trainings in order to apply if interested.

New training schemes to be developed in the field of:
RES
BIM
Cross-craft skills

APPROACH TOWARD SKILLS VALIDATION

After achieving skills visibility, the process will proceed with harmonization and management of skills and knowledge, both at personal and organizational level, aiming to promote the visibility, mobility, professional development, employability and market recognition of construction workers and professionals, leveling of skills and linking them with the national and EU qualification standards based on learning outcomes. This will be facilitated by developing various tools within the Integrated repository that enable skills validation.

Replication of RPL process among partner countries



The process of recognition of previous learning is legal path for obtaining qualification as defined in European qualification framework. Thus, using this procedure for validation of informal and non-formal learning as legal path for certification of skilled workers is enabling taking into account knowledge and skills that workers usually obtain at workplace and during life. It will also result with creation of e-RPL tool.

Defined procedure and minimum criteria for mutual recognition, comparison and levelling of EE skills based on defined qualification standards



will be used for leveling existing training schemes from Repository (BUS Advisor database of training schemes) by marking them with stars for level of correspondence with the predefined "Qualification Standard of min requirements".

Powering functional tools of SEetheSkills area for upskilling (Microlearning&Gamification)



Microlearning refers to acknowledging each and every "amount" of learning, even knowledge and skills obtained in 2-3 hours of experience at workplace or short trainings/webinars. Each of mentioned cases are very common in construction sector. It can be find even in reading and following instructions for installation of certain product. Gamification itself, refers to creating positive experiences in these areas that might improve the morale and productivity of any workplace.

Development of mobile applications facilitating the comparison of workers' skills



A tool for self-assessment of the professional skills and knowledge will be developed as mobile application facilitating the comparison of workers' skills and qualifications.

ACTIONS TOWARDS INCREASED VALUE OF SKILLS

Simulative activities to raise the awareness of the value of energy skills in buildings.

The value of energy skills is the last component of 3V approach, but not least important. In fact, in the light of stimulating market demand for energy skills appreciating the value of the skills is most important, aiming to:

- To raise awareness of public but mainly of home and building owners and tenants on the benefits of energy skills
- To compare different legal obligation in partner countries and to share good practice
- To present the benefits of skilled workers aiming reinforcing the link between skills and quality of construction

The aforementioned will be implemented through the 3V pilot process. The benefits of using energy efficiency skills in buildings will be promoted via various means such as online survey, "ask the tenants" campaign for harvesting ideas, organization of events and round tables, internet tool for owners, case studies to reduce the gap based on BIM tools, and an application for seeking qualified professionals

Raising public awareness on energy skills

In order to obtain relevant data on the current level of awareness on energy skills, online survey will be conducted. Second action will be champagne for harvesting ideas from home owners "Ask the tenants" to hear the opinion of end users of buildings, in terms of comfort for living and to identify whether they recognize the benefits of energy skills.

Developing and implementation of POE web tool

Having free web based tool for self conducting of POE by the home owners will have its benefits. Furthermore, if this tool offers basic recommendations about improvement of building performance through interventions of skilled workers or renovations.

Concept of sustainable energy skills Digital badge

This will be another innovative solution resulting from the project. The web-based solution of Digital badge will include each skill, knowledge and competence that a worker has ever gained, it will contain an information on the education of the worker in formal and non-formal form with the list of trainings, and moreover this personal skills' passport will have levelled all learning outcomes with the pre-defined minimum requirements in order to mark the individual competences with different colour of tags.

Enabling "Find your craftsman" functionality

Having Professionals and company Register in place, than competences of workers organised according to ULO database, searching through the data entered into the Repository will be feasible. This will advantage matching and finding professional with most adequate skills as required.



FEATURED PUBLIC CALLS

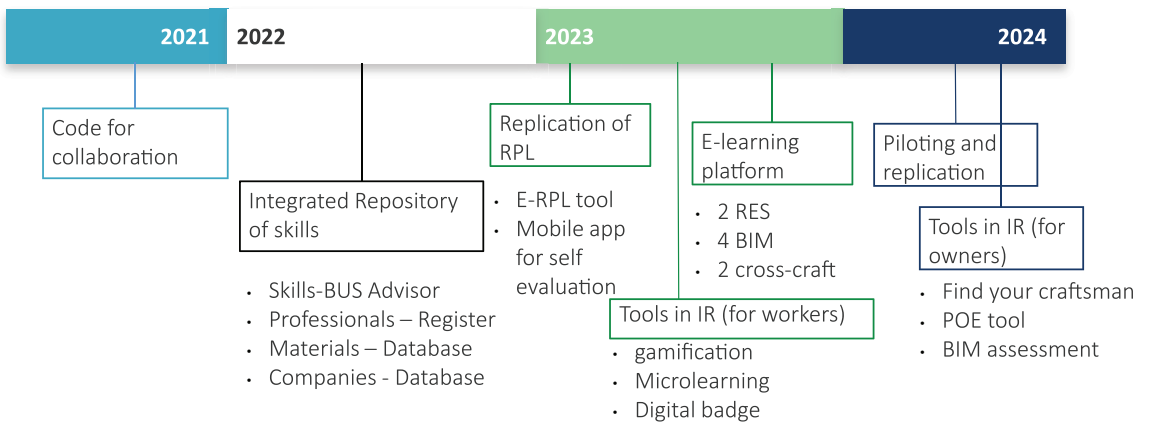
- call for Professionals register
- call for EE companies register
- call for 8 webinars in RES, BIM and cross-craft skills
- call for e-RPL



PUBLIC EVENTS

- project Kick-off meeting
- promotional events for the Repository
- round tables with professional associations and authorities
- SEEtheSkills virtual tour composing of series of 5 e-conferences

PROJECT TIMELINE





TARGET GROUPS

EXPECTED IMPACTS

20+ harmonised certification schemes in the scheme's database

5+ training schemes targeting cross-craft

2500+ skilled workers in the database

5+ "micro" roadmaps for legislation changes offered to the governments

3+ mio eur Triggered investments in sustainable energy

2,75 GWh RE production triggered

400 GWh/year Primary Energy savings triggered by the project

Building professionals, blue collar workers and home owners (occupants) will individually be involved in feeding the activities toward reaching visibility of energy skills. Lists of trained and skilled professionals will be the base for creation of different databases in the Integrated on-line register of skills. Furthermore, individuals will be involved in upskilling that will become possible by mutually offering different training schemes across project partners, thus enriching the training offer and possible paths for obtaining qualifications for energy efficient construction, while the home owners will be involved in some of the actions for awareness raising

Professional groups and associations will be directly involved in the process of creation of Integrated on-line Register of skills, especially its design. The role of associations from each of the project countries will be beneficial in defining procedure and minimum criteria for recognizing certified workers, based on developed Recommendations for the scope of professional occupations and occupational standards.

Relevant market actors critical for project activities toward expressing (and using) the value of energy skills are: public authorities; construction companies in a role of employers especially building and refurbishment SMEs; investors and retailers of construction materials and products and training and educational institutions, both on national and international level.



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