

SEE*the*Skills

Sustainable **En**Ergy **S**kills in construction: Visible, Validated, Valuable

"Energy Efficiency Competencies and Qualifications:
Sharing expertise, lessons learned and developed methodologies"

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Chamber of Commerce and Industry of Slovenia – CCIS (slov. GZS)

Chamber of Construction and Building Materials Industry of Slovenia – CCBMIS (slov. ZGIGM)

Gospodarska
zbornica
Slovenije 

Chamber of Commerce
and Industry of Slovenia

Chamber of Construction
and Building Materials Industry
of Slovenia

From the GRANT AGREEMENT DATA SHEET:

Grant Agreement (GA) No: 101033743

Acronym: SEETheSkills

Title: Sustainable EnERgy Skills in construction: Visible, Validated, Valuable

Call/Topic: Horizon 2020 project, Stimulating demand for sustainable energy skills in the building sector

Type of action: Coordination and support action

Granted by: European Climate, Infrastructure and Environment Executive Agency - CINEA

Duration (in months): 36 (1 June 2021 - 31 May 2024)

Reimbursement rate: 100% of the action's eligible costs

Maximum grant amount for consortium: 998 612.50 eur (actual, flat rate, unit)

Project countries: 5 (Spain, Slovakia, Slovenia, The Netherlands, The North Macedonia)

Consortium: 10 project partners

Partner organization: 2 chambers of commerce – department for construction sector, 3 universities for civil engineering, 1 chamber of construction engineers, 1 technology institute for construction, 1 knowledge center for building, 1 WITS institute for AECO – BIM ACADEMY, 1 company for project ideas creation and support



SEetheSkills' - actions toward sustainability of construction

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 (trained and skilled staff especially) of new and renovation of existing building stock.

The action will present a novel 3V approach

VISIBILITY

of skills by creation of an on-line database accessible and available on interregional level, between partner countries and beyond;

VALIDATION

of energy skills by making them comparable within SEetheSkills area for management of knowledge & skills; transferring and replication of training schemes between project countries

VALUE

of the skills and tackle their market demand, initiated by expressing the benefits of using energy skills in achieving sustainability of construction.

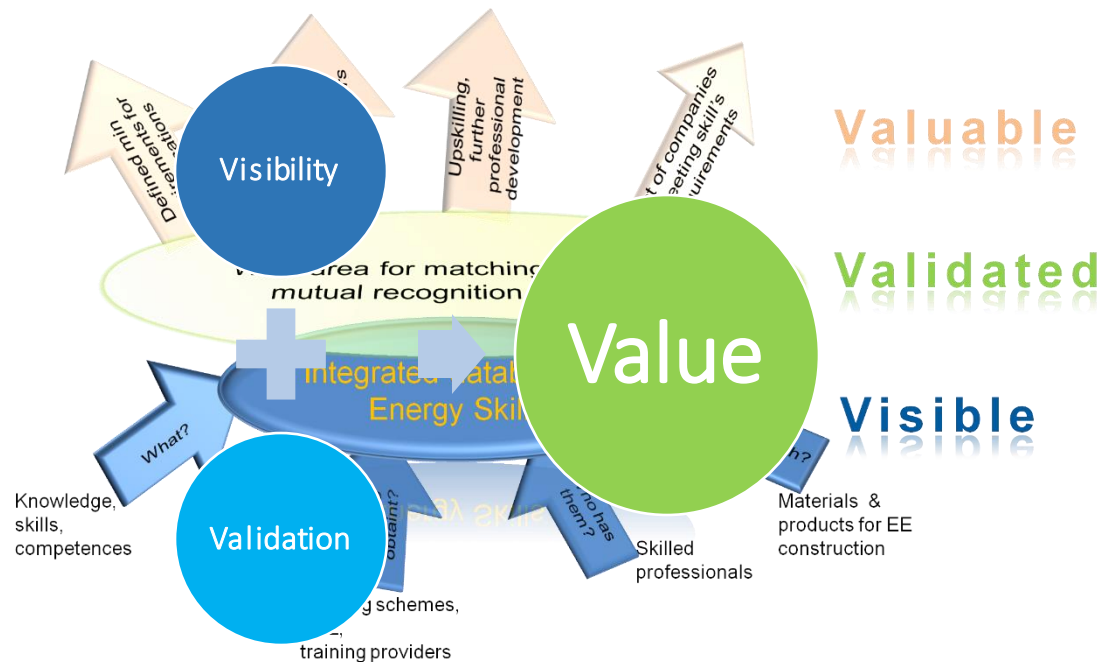


"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101033743"



Connecting the three SEETheSkills objectives

The 3V approach



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

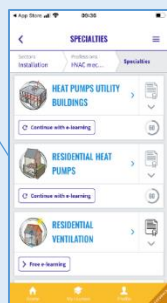
02 To **VALIDATE** skills relevance to standardized EE construction and interventions in renovation, by matching and levelling skills and linking them to national and EU qualification standards, to **enable mutual recognition**

03 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

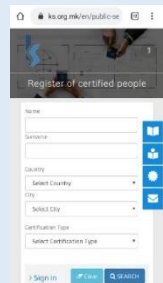
E-learning (10 in 8 webinars, 200 users)

VISIBILITY

Training catalogue
BUS Advisor app



Professional/workers register
(4000)
EE companies
register



Digital badge
(1000)



Find your
craftsman

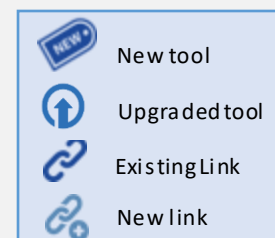


VALUE

POE tool
(Post-occupancy evaluation,
500)



BIM tools for
gap reduction

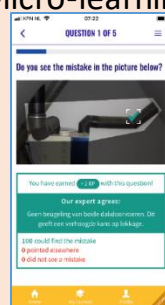


Self-
inspection



E-RPL tool
(3000 users)

Micro-learnings



Mobile app for
self evaluation
(500)

VALIDATION

SEE_{the}Skills
Sustainable EnERgy Skills in
construction: Visible, Validated, Valuable

Integrated area based on ULO-database

Gamification
elements



In-person meeting of the team, Barcelona 29-30 June 2022

Visit of a site for preparation of concrete from recycled construction material

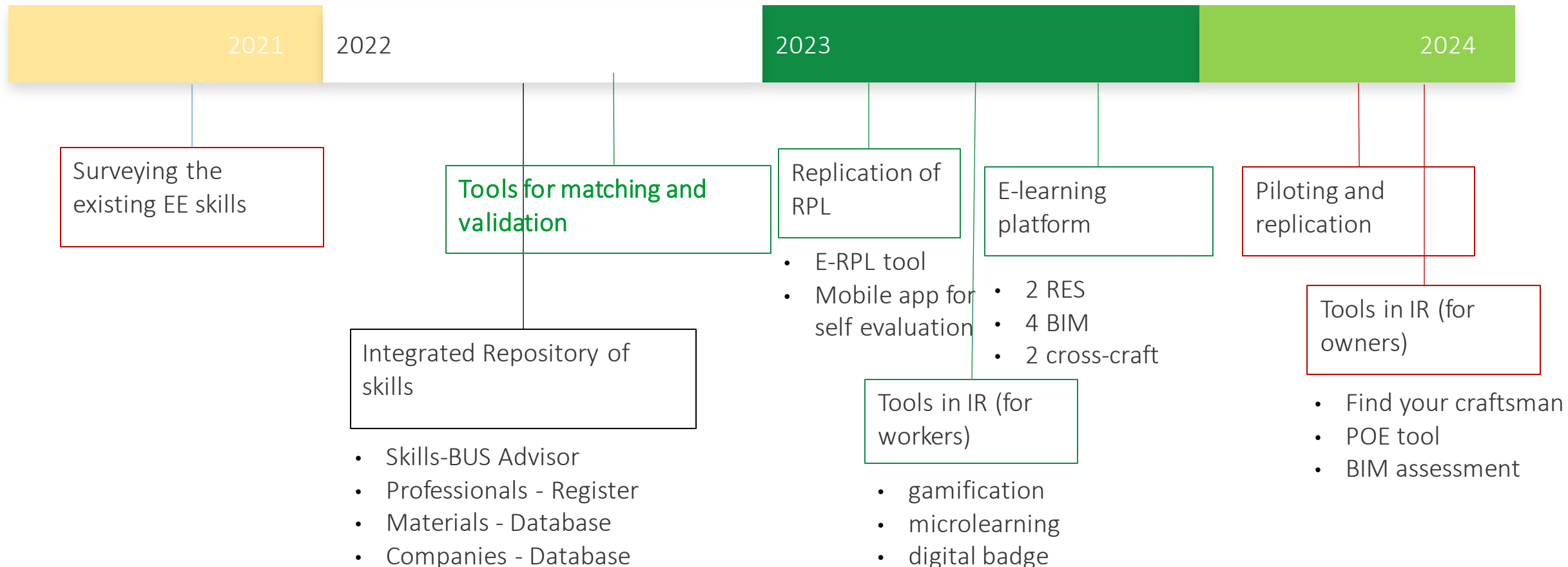
HERCAL DIGGERS cement and concrete plant



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SEetheSkills now – the timeline of realization of actions



Lessons learned from surveying EE skills - Methodology for research

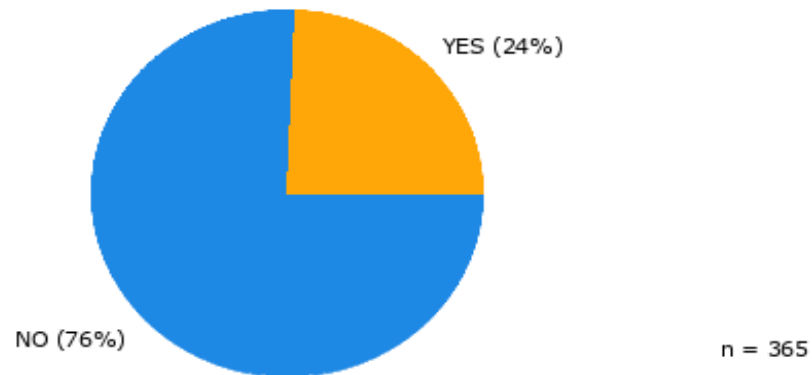


The key areas the research were focused on:

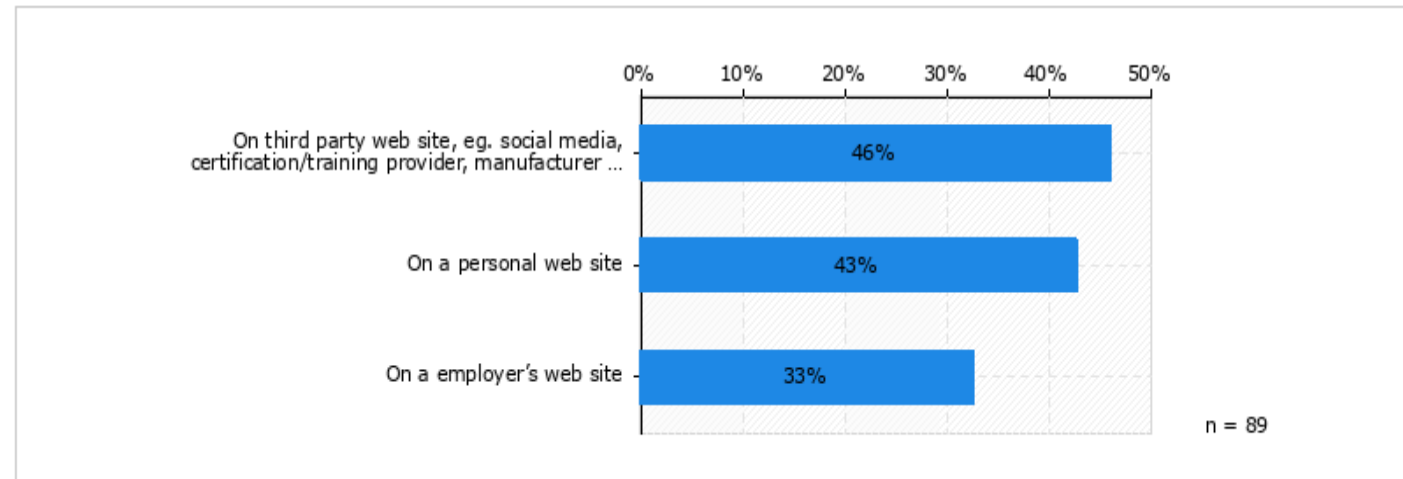
- Skills defined in national roadmaps
- Skills developed as part of previous BUS projects
- The developed training schemes
- The number of trained workers and professionals
- Companies who design and produce EE materials
- Status of Recognition of Previous Learning (RPL)
- Status of demand for energy skills
- Level of awareness of energy skills
- Available certifications
- Legal obligations promoting use of energy skills and their timelines
- Predictions for future development of energy skills

Lessons learned from surveying EE skills

- Lack of registers of skilled person – the need for VISIBILITY



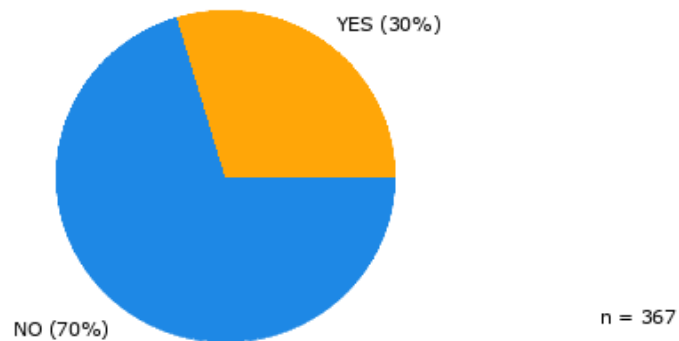
Are your skills publically visible?



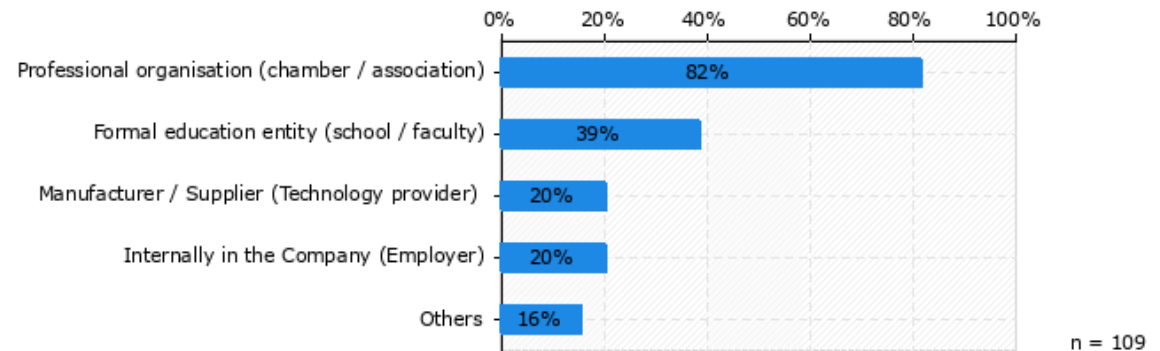
Where are the skills listed/announced?

Lessons learned from surveying EE skills

- Lack of formal certification of skills– the need for VALIDATION



Do you have certificate for your skills?



Where do you build your skills?

Lessons learned from surveying EE skills

- Crucial actions are needed to increase the AWARENESS of the VALUE of skills



When lacking EE and digital skills

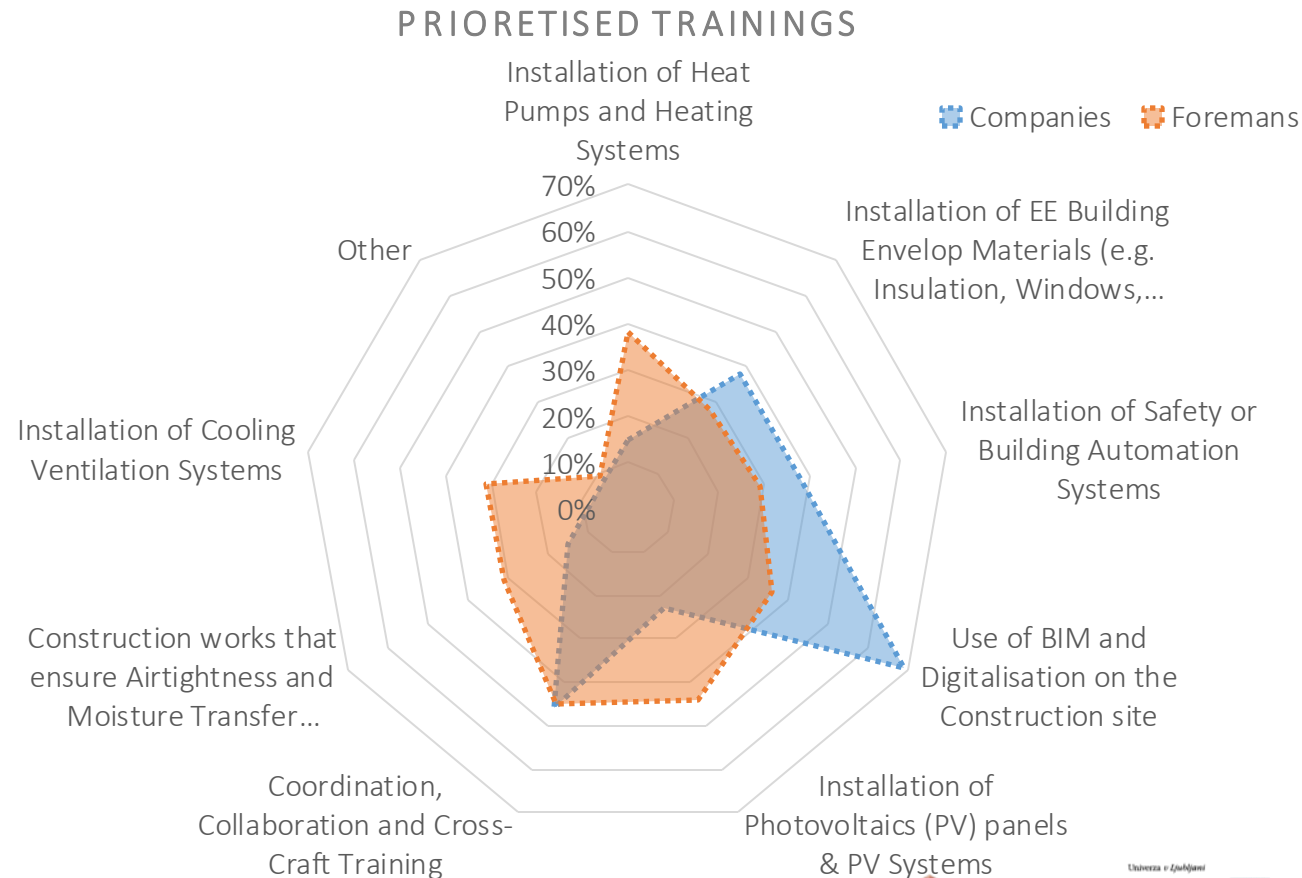
- Only 33% will reskill existing employed workers
- Only 11% will redeploy existing workforce
- More than 50 % will hire external experts (skilled professionals)

ACTION REQUIRED

Supporting the long term vision for supplying skills and skilled professionals

Lessons learned from surveying EE skills

➤ Identified scope of skills' need



Developing Integrated Repository of EE Skills

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Tool box



Company Culture

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DATABASES

Databases

→ Go to Integrated Search Platform



Professionals

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[VIEW DETAILS](#)

Companies & EE materials

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[VIEW DETAILS](#)

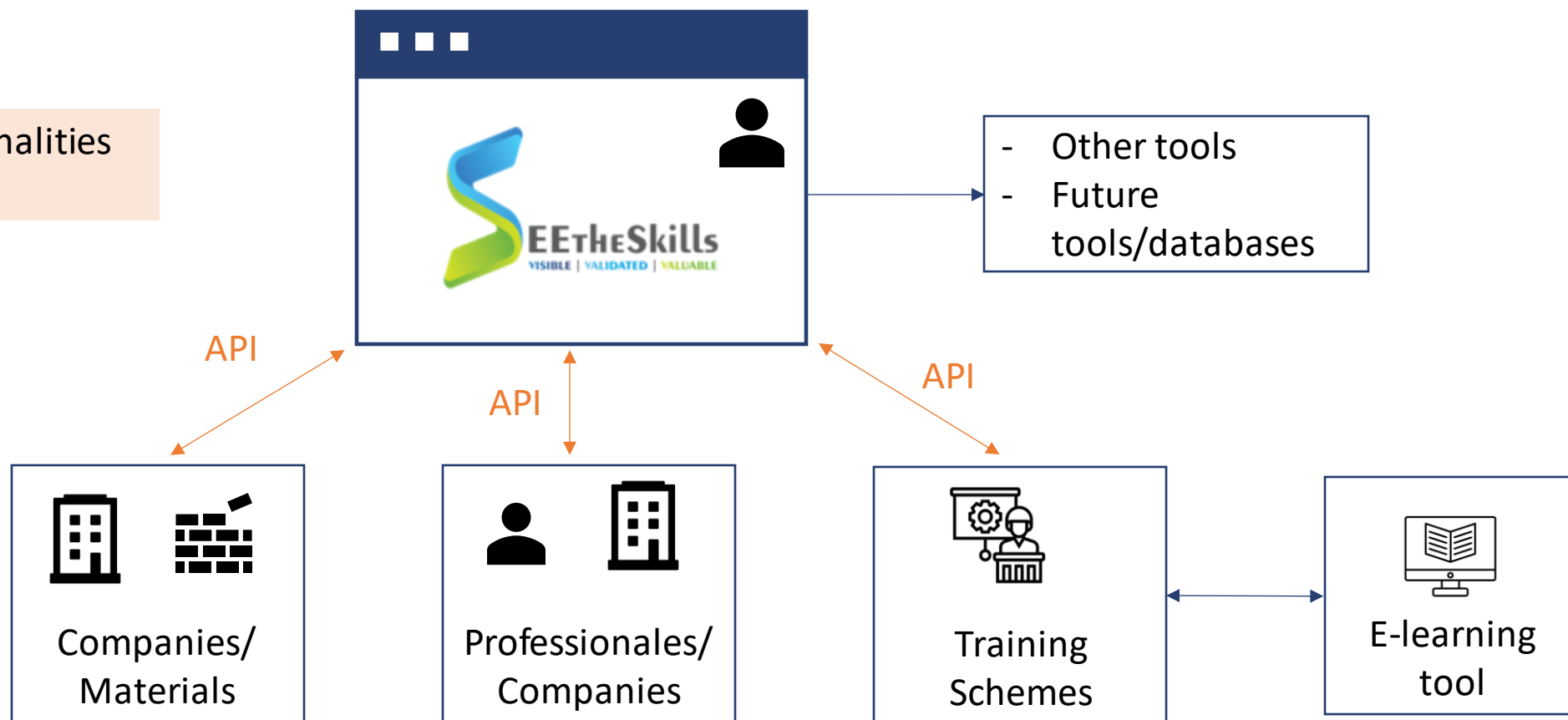
Training Schemes

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[VIEW DETAILS](#)

Developing Integrated Repository of EE Skills

Main functionalities in STS web



INTEGRATED REGISTERS OF ENERGY SKILLS

Visibility of energy skills can be increased by creating certain on-line repository/databases (Integrated database of energy skills) that can interact with each other. These databases will be developed through a chain of activities between the partners, such as: exchange of experience and training schemes between partners, transferring and replication of training schemes as well as enabling e-learning on developed/existing training schemes for the purpose of replication.

STS E-learning

STS Certification

STST Different functionalities and tools

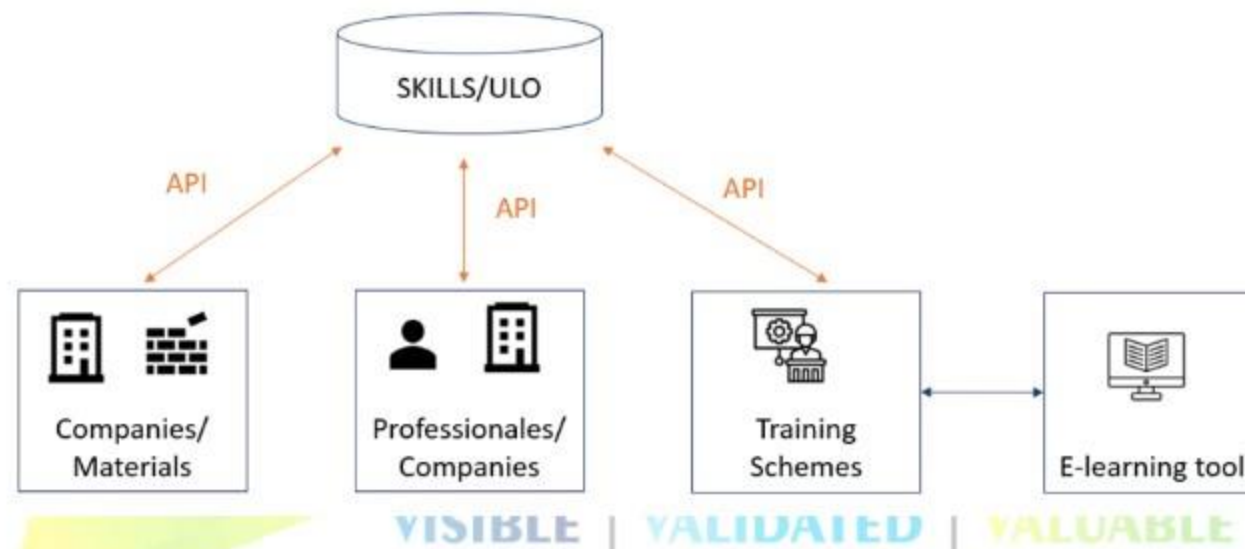


Figure 1. Scheme of API system in Cross-functionalities alternative, skills are the binding factor

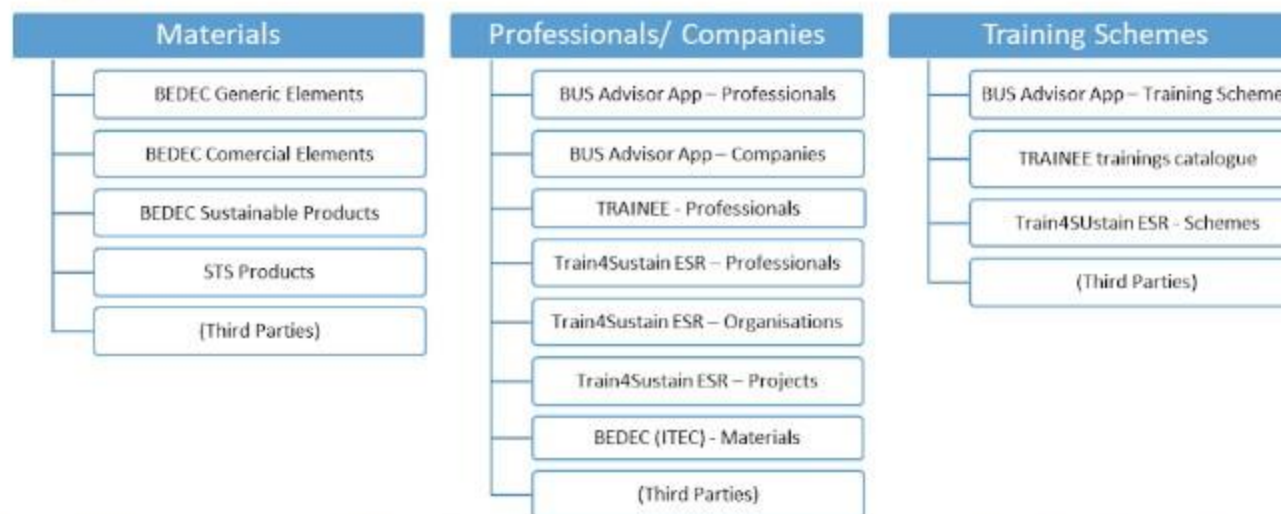


Figure 2. Several functionalities of the integrated SEetheSkills register provided by different solutions

<https://seetheskills.eu/databases/>

Defined approach for matching and leveling of skills

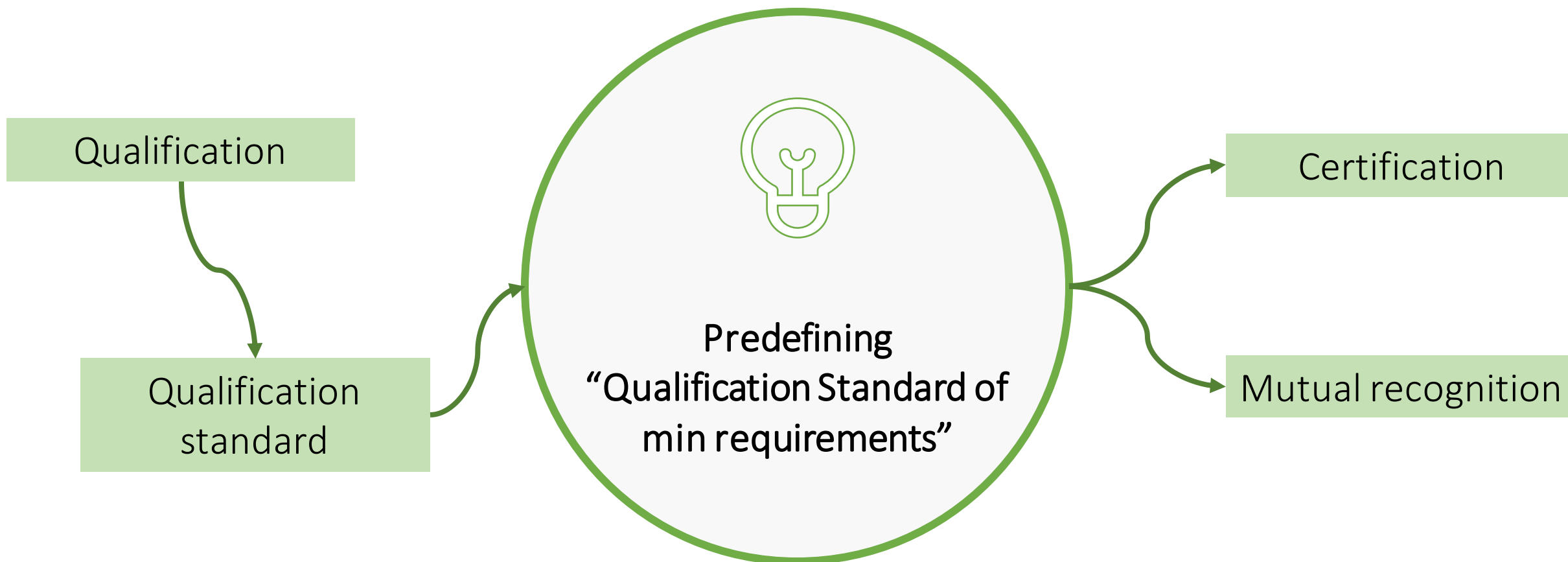


Defined procedure for mutual recognition, comparison and leveling of **EE SKILLS OF PROFESSIONALS**, based on achieved ULOs, by comparing with the **standard** of minimum requirements



Defined procedure for comparison of **different TRAINING COURSES** and matching the resulting qualifications, based on planned ULOs, by proposed methodology for **mutual recognition of qualifications**

Defined approach for matching and leveling of skills



Two different approaches for skills validation

- **e-learning platform**, that will include the following e-trainings in form of webinars created by project partners:
 - 2 webinars on RES qualification
 - 2 webinars on BIM qualifications for blue collars
 - 2 webinars on BIM qualifications for white collars
 - 2 webinars on cross-craft skills qualifications

- **Creation of e-RPL tool**. The process of recognition of previous learning RPL, based on defined steps of identification, documentation, evaluation and certification adjusted as on-line process, including:
 - communication to identify the necessary skills
 - submitting documentation for evaluation
 - evaluation of submitted documents and
 - issuing certification

realized through web-based platform for e-learning. Besides the necessary documents to be filled by the applicants, the tool will include guidelines for explaining the process to ensure successful applications.

Further actions: The link between energy skills and the quality of construction

It can be easily presented by conducting case studies for measuring reduction of performance gap



Proper implementation of proposed EE measures
with SKILLED workers

proper insulation,
avoiding thermal bridges,
proper installation of dwellings,
integration of RES in buildings
sustainable design



Measurable energy savings



Promotion of the **value**
of energy skills

Further actions: The value of energy skills

The tools used to express these benefits are usually digital tools like BIM

By using BIM modelling, different scenarios for reduction of performance gap while implementing EE measures can be proposed.



SEETheSkills outputs with innovation potential

No	Innovative solution
11	Integrated repository of energy skills a) Database of training schemes b) Database of skilled workers/proffesionals (in companies) c) Database of EE materials (and companies)
12	e-RPL tool
16	POE web tool



INTENSE PROMOTION !!!

INCREASED VISIBILITY !!

EASY UPTAKE OF RESULTS !

VALUABLE IMPACT

Skills for Green Construction

The project group Skills for Green Construction specifically addresses the topic of training and skills for sustainable and green construction. Their outputs are relevant for industrial and public operators as well as policy actors at various levels.

Challenges

- Sustainable energy upskilling for construction professionals
- Accreditation recognised across borders
- Adoption of Building Information Modelling
- Nearly Zero Energy Buildings

Results

- Training modules
- E-Learning Platforms
- Qualifications
- Standards

Stakeholders

- Training Providers
- Policy Makers / Policy Experts
- Building Professionals

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The HRB - Horizon Result Booster is an initiative funded European Commission, Directorate General for Research and Innovation, Unit J5, Common Service for Horizon 2020 Information and Data.

Skills for Green Construction

Meet the Projects

- HP4ALL** - Improving capacity and skills within the Heat Pump (HP) industry and securing the energy efficiency benefits that HP technology offers. hp4all.eu
Grant Agreement No. 891775
- nZEB ready** - Increasing market readiness for an effective nearly Zero Energy Building (nZEB) implementation by addressing the main barriers in Bulgaria, Croatia, Portugal, Poland and Romania and supporting skills enhancement with a mutual recognition training and certification scheme. nzebready.eu
Grant Agreement No. 101033773
- EETheSkills** - Collecting best practices in meeting needs for energy efficiency in the building sector and promoting the visibility of sustainable energy skills in the construction of new and renovation of existing buildings by creating an online repository. eechskills.eu
Grant Agreement No. 101033743
- ARISE** - Developing a recognition scheme of digital energy efficient Building Information Modelling (BIM) construction skills in an innovative system of universal learner focused stackable micro-credentials for micro module units of learning supported by a blockchain-based micro-credentialing system. ariseproject.eu
Grant Agreement No. 101033864
- PRO-Heritage** - Establishing a permanent education resource for professionals and craftsmen providing excellent competences and skills for built heritage and support the exchange of those competences and skills across Europe. pro-heritage.eu
Grant Agreement No. 785211
- BUSLeague** - Addressing and controlling the challenges created by the rise in demand for energy-skilled and experienced workers for the building planning, operation and support value chain. busleague.eu
Grant Agreement No. 892894
- INSTRUCT** - Providing an operational framework for workers. In order to enhance their skills and provide them with a certification. instructproject.eu
Grant Agreement No. 894756
- CraftEdu** - Setting up the national qualification and training scheme for craftsmen and on-site workers in the field of energy efficiency and use of renewable energy sources in buildings in the Czech Republic. It will also develop the training offer delivered via Slovak national scheme STAVEDU. craftedu.eu
Grant Agreement No. 785836
- TRAIN4SUSTAIN** - Establishing future-oriented training and qualification quality standards to foster a broad uptake of sustainable energy skills in the European construction sector, also addressing the issue of mutual recognition of qualifications between countries. train4sustain.eu
Grant Agreement No. 894514

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