EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)

CINEA.D - Natural resources, climate, sustainable blue economy and clean energy
D.1 - LIFE Energy + LIFE Climate

13th BUILD UP Skills European exchange meeting

30 November 2021, Online

Summary

On 30 November 2021, the Climate, Infrastructure and Environment Executive Agency (CINEA) organised the 13th edition of the BUILD UP Skills European exchange meeting.

Since 2011, the BUILD UP Skills initiative supports the upskilling of building professionals across Europe, with a view to deliver building renovations offering high-energy performance as well as new nearly zero-energy buildings. European exchange meetings aim to create a forum between relevant projects for exchange on common challenges and good practices in an effort to advance the skills agenda in the field of energy-efficient and sustainable buildings.

The event provided an opportunity for over 100 representatives from across 20 EU-funded projects to learn from each other and discuss common challenges and good practices. Representatives from DG Energy, DG Employment, DG Environment and DG Internal Market and were present to update participants on the latest policy developments. Breakout sessions allowed a deeper dive into specific issues e.g. innovation in the training delivery, digital skills, skills validation mechanisms, awareness raising campaigns towards homeowners as well as inclusion of skills requirements in procurement processes.

Plenary I

Welcome - Christian STRASSER, Head of LIFE Energy & Climate Unit, CINEA

Mr Strasser welcomed the participants on behalf of CINEA to the **13th edition of the BUILD UP Skills Exchange Meeting**, held in virtual format. He presented the core mission of the Agency in support of the implementation of the **European Green Deal** by management of funding instruments directed to an extensive range of stakeholders.

Among the programmes managed by the Agency, since 1992 **LIFE** has funded projects promoting social, economic, and environmental sustainability through a bottom-up approach that catalysed an improvement in the quality of our lives and the way we manage our resources. Evolving from nature conservation to climate action and circularity, in 2021 LIFE has widened to include the **Clean Energy Transition (CET) sub-programme**, previously addressed by Intelligent Energy Europe and the Energy Efficiency part of Horizon 2020. The programme thus contributes to the objectives of the Clean Energy for All Europeans package towards a sustainable, circular, and renewable-based economy.

In this context, building renovation plays a fundamental role to which the **BUILD UP Skills Initiative** and this Exchange Meeting contribute. Indeed, the initiative brings together several policy priorities, namely energy efficiency, economic growth, circularity, education, and digitalization. Crucially, without skilled professionals the decarbonisation of our building stock, one of the essential pillars of the Green Deal, will not be achieved. The new home of the BUILD UP Skills Initiative is now the LIFE CET

programme, that will continue to support and encourage its contributors. As a first step, the **2021 LIFE CET Call** closing in January 2022 expects excellent proposals to update the platforms and roadmaps developed during the first phase of BUILD UP Skills.

Mr Strasser concluded by encouraging participants to take an active role in the following discussion sessions.

Policy developments (Part 1)

The Renovation Wave and the upcoming EPBD revision. Brigitte JACQUEMONT, Policy Officer - Buildings and Products, DG Energy

Mrs Jacquemont opened the presentation of **policy updates in the European Commission** with the message that climate change is already visible in our lives and the Green Deal is our blueprint to tackle this crisis. Two important dates are in front of us: **2050**, by when the EU aims to be climate neutral, and **2030**, year of the mid-term goal to cut Green House Gas (GHG) emissions by 55% form 1990 levels. To these ends, the EU strategy is based on the three fundamental pillars of energy **efficiency and savings, electrification, and innovation**.

With 75% of the existing building stock being energy inefficient and a yearly renovation rate of 1%, **energy efficiency in buildings is a priority** of the current EU political agenda. The **Renovation Wave Strategy** presented in 2020 has the twofold objective of doubling the renovation rate in the next ten years and ensuring that retrofits lead to higher energy and resource efficiency. As a direct consequence, the strategy will bring an improvement to our quality of life and foster economic recovery, creating new jobs and strengthening the market competitiveness of the EU.

As part of the Renovation Wave, the update of twelve European policies was announced to align the legislation to the 2030 targets, including the **revision of the Energy Performance of Buildings Directive (EPBD)** in December 2021. Based on intense discussion with involved stakeholders, the policy measures on the table for the revision include:

- The definition of **Minimum Energy Performance Standards** (MEPS), proven as an effective tool in the Netherlands and in Flanders.
- The definition of ***deep renovation*** and its connection to financial mechanisms allowing both for single or multi-step renovation.
- The introduction of **Building Renovation Passport**, based on best-practice examples from MS.
- The strengthening of **Energy Performance Certificates (EPCs)** to improve their quality and comparability.
- The decarbonisation of buildings through provision of information on their operational and **life cycle carbon emissions**.
- The introduction of a **Smart Readiness Indicator**.
- The strengthening of **e-mobility** requirements.
- The introduction of **certification schemes** for the construction workforce due to their crucial role in the transition.

For the transition to an energy efficient, decarbonised, circular, and digitalized building stock, it is clear that the EU workforce needs to be up skilled. As part of the 2020 European Skills Agenda, DG Employement launched in November 2020 the crosscutting initiative **Pact for Skills**.

The EU approach to micro-credentials. William OKEEFFE, Policy Officer - Vocational Education and Training, DG Employment

Mr Okeeffe presented the EU approach adopted for the **micro-credentials proposal to the Council** planned for the week following the Exchange Meeting. The proposal, to be negotiated with Member States in the following year, aims at establishing a single and consistent EU approach to the matter and includes:

- The definition of micro-credentials
- The adoption of standardized elements and mandatory requirements
- The outline of principles for the design and set-up of micro-credentials
- Recommendations for the development and use of micro-credentials at Member States and Commission level.

Micro-credentials (MCs), obtained from short learning experiences often held online, have been on the table since 2013 as a **solution for upscaling learning opportunities in a flexible way** that can fit the needs and lifestyles of workers. Although stakeholders are aware of the potential of MCs, they currently cannot easily accept them or adopt them for their workforces, due to the **lack of common definitions, portability, recognition, and transparency**. Employers, NGOs, and universities are becoming very active in the field, highlighting the cross-sectional dimension of context and issues related to MCs. Remarkably, there is a clear call to action on using them to **foster the digital transition** in the areas of sustainable energy and other relevant sectors and industries of our economy.

The goal of the MC proposal is to enable individuals to further manage their careers and steer their knowledge, not to substitute traditional education but to provide additional possibilities, especially to those workers that cannot dedicate themselves full-time to education and to disadvantage groups (e.g. early school leavers or individuals with disabilities). The outcomes of consultations with stakeholders highlighted that:

- The interest in MCs is going to stay and grow
- EU action in this direction is very welcome
- **Flexibility and dynamicity** are fundamental characteristics of MCs, as they need to be up-to-date and reflect the market current needs. Bureaucracy and administrative burdens will go against their purpose
- The definition of MC needs to be **open, universal, and comprehensive** to satisfy the different expectations of different stakeholders. The proposal should support existing tools (e.g. ESCO) and their adaptation to the use of MCs, but the requirements should be open enough to ensure participation of all providers
- **Recognition of MCs** by employers is paramount in all phases, from recruitment, to upskilling and reskilling, to work mobility. Moreover, employers have the potential to become key actors in the initiation, support, and lead of MC
- Already existing MCs are mostly engaging individuals with degrees or an employment. Individuals with limited education and lack of digital skills necessitate guidance against information overload.

The hope is that the MC proposal will place the initial blocks towards the building of confidence and trust in micro-credentials and their adoption.

Welcoming new projects! Elevator pitches

The meeting provided an opportunity to welcome and briefly present four projects selected under the 2020 call and that had recently started their work.

BUS-GoCircular – Jan CROMWIJK, Project Coordinator – ISSO

The **BUS-GoCircular** consortium identified the energy, material, climate, and digital transitions we are facing as drivers of a transition wave for the building environment. The project combines these drivers together in a **circular transition** by:

- Developing a **Circular Qualification Framework** delivered through a dedicated toolbox
- Stimulating the market demand for circular skills, through advertisement, dissemination, communication, and use of digital tools
- Developing **EU recognition schemes** and delivering **'Train the Trainer' courses** to inspire MS
- Improving the reputation and inclusiveness of the construction sector
- Expanding both at national and EU-level by **replicating** the BUS-GoCircular Qualification Framework.

nZEB Ready – Horia PETRAN, Senior Researcher - INCD URBAN-INCERC

The aim of **nZEB Ready** is to act at market level to identify the barriers to the **increase of demand of sustainable energy skills**, escalating the level of market readiness for nZEB implementation. The project will support the **mutual recognition and certification** (including micro-certification) of skills and provide the necessary technical support to engage stakeholders, including homeowners. The practical plan is to connect and build upon the heritage of previous BUILD UP Skills actions in the consortium countries to promote awareness, fill the skills gaps with training and certification schemes, and produce tools for homeowners and public procurement.

SeetheSkills - Jadranka ARIZANKOVSKA, Project Manager - Economic Chamber of North Macedonia

SeetheSkills builds upon the past experience of consortium partners with BUILD UP Skills to **stimulate the demand of energy skills** in construction through a novel approach based on:

- **Visibility**, by creating an integrated register at international level to increase the number of upskilled professionals and blue-collar workers.
- **Validation**, to link workers to national and international standard qualifications and to foster mutual recognition.
- **Value**, by combining the previous results to tackle market demand.

The project will be developed around an architecture of three databases: a learning opportunities catalogue, a professional register for companies and workers, and an energy efficient construction catalogue for production companies.

ARISE – Paul McCORMACK, Innovation Manager - Belfast Metropolitan College

The objective of **ARISE** is to revolutionize the learning processes to complement traditional education by adopting blended delivery methods, offering new certification models, introducing complementary micro-modules, and ensuring user engagement and ownership of their learning experience.

ARISE will **facilitate the upskilling of blue and white-collar workers** and inspire them to engage in a **non-linear learning pathway** that can be **designed according to their own requirements**.

To this end, the practical steps will consist of:

- The harmonization of previous activities
- The development of a system for the recognition of Continuing Professional Development (CDP) complementary pathways
- The development of on-demand online learning modules
- The creation of a system to reward the learners through gamification.

Policy developments (Part 2)

The impact of the Level(s) framework. Josefina LINDBLOM, Policy Officer - Sustainable Buildings, DG Environment

Mrs Lindblom highlighted how, over its entire life cycle, the construction sector is accountable for 50% of all material extraction, 50% of our energy and water consumption, and 1/3 of our waste generation.

The **Level(s) framework** was conceived in 2015 in collaboration with Member States and professionals in the building sector as a common language to support related policy objectives. The framework, published in 2020, addresses both new and renovated buildings in the residential and office sectors by providing **16 core indicators for the whole building life cycle**, selected according to best-practice industry standards and two years of testing. Level(s), rather than a certification scheme, is a **common language** designed to support activities ranging from development of policy and certifications, to definition of public procurement requirements, to better understanding of building design at project level. The indicators, divided to cover six areas of the building life cycle, can be used on three levels:

1. **Qualitatively at concept stage**, to help focus the conversation between client and building design team.
2. **Quantitatively at construction stage**.
3. **In real use, for monitoring** purposes during and after handover to the client.

The adoption of Level(s) is voluntary and can be adapted to needs by selecting the desired indicators and depth level.

Current developments are focusing on producing web-based material for training on the tool, e-learning journeys tailored to different objectives (e.g. circularity or future proofing), and an indicators calculator by the end of the year. The potential of Level(s) in introducing circular thinking to other building policies focusing on carbon performance, sustainable finance, and public procurement. Notably, **a roadmap to reduce building life cycle carbon emissions** with the use of the indicators is being developed as an action under the Renovation Wave.

To conclude, the key befits entailed by the adoption of the framework include:

- Creating of a common language based on best-practice industry standards.
- Tracking of performance across building life cycle.
- Ensuring accountability.
- Enhancing dialogue across the whole value chain.
- Supporting sustainability skills and understanding.
- Underpinning future policies at EU and national level.
- Future-proofing of buildings for carbon neutrality.

Latest developments from the EU Construction Blueprint initiative. Roman HORVATH, Policy Officer - Sustainable Industrial Policy and Construction, DG GROW

Mr Horvath presented the **Blueprint Initiative**, started as part of the Skills Agenda 2016, and currently counting 21 sectorial alliances. In the construction sector, a partnership of companies and Vocational Education and Training (VET) providers from 12 Member States is working on a 4 years project focused on digitalisation, energy efficiency, and circular economy. Their activities include:

- The identification of skills needs through analysis at company level
- The creation of the WatchTower tool to visualize online data about skills needs.
- The analysis of available training, taking into account the results achieved by BUS projects
- The creation of an Interactive Map to provide innovative training examples
- The development of new trainings to address current skills gaps.

New possibilities for EU funding of skills-focused projects include the national plans submitted under the **Recovery and Resilience Facility**, which proposed the upskilling and reskilling of workforce as a flagship initiative towards a green and digital recovery, and the **Cohesion Funds**.

Finally, two notable EU partnerships should be included in the picture, the **Pact for Skills** and the **Transition Pathway**. As part of the former, a roundtable for the construction ecosystem was held in November 2020 to discuss how the sector could be involved and what support mechanism could facilitate its upskilling. The launch of a supporting platform is expected by next year. On the other hand, the Transition Pathway launched in May 2021 represents the latest partnership development between the EC, MS, and stakeholders towards a green, digital, and resilient economy. Skills in the construction sector are covered under the resilience cluster of the initiative and a working document is in preparation together with a survey for stakeholders for the shaping of the transition in the sector.

BREAK-OUT SESSION I

Session 1: Innovation in training delivery

Aim of the session: For building professionals, the learning experience is increasingly taking place outside of the classroom, as this is better suiting the needs of companies. The Covid pandemic has accelerated the need to find other learning tools and channels, supported by digital means. This session aimed to explore what are the typical challenges and opportunities when moving away from the traditional classroom based, linear, learning format.

Welcome, introduction. Filippo GASPARIN, CINEA

Project highlights:

Jan CROMWIJK, BUSleague/BUS-GoCircular. ***Update on the BUILD UP Skills Advisor App developments***

Through successive EU-funded projects, ISSO and its project partners developed a methodology to identify and fill skills gaps, combining skills mapping, micro learning, gamification and learning ecosystems. The BUILD UP Skills Advisor app was first released in 2015, with the aim of providing construction workers with job-specific advice and short upskilling opportunities. By turning on the app notifications for specific techniques, the user automatically receives updates on the most current course offers as well as question sets based on practical real-life situations. The app also includes e-learning modules covering more than 70 thematic areas, including gamified exercises. In addition, trainers can add their own courses and other material to the database supporting the app, ensuring a continuous development of content. The project team is currently working with other Horizon 2020 projects to integrate new content in the app.

Narjisse BEN MOUSSA, BIMplement. ***Experience of on-site training using a mobile unit***

BIMplement integrates on-site training on ventilation and airtightness competencies performed on a mobile training platform with its BIM model. Four short training modules were developed both for blue and white-collar workers involved in the process. The hands-on training has been reviewed and has proven to bring a very positive impact. Future developments will focus on setting up smaller mobile trucks that can access all types of construction sites and developing a qualification system.

Discussions in 3 parallel sub-groups

Questions:

1. What are project experiences with the development of e-learning modules (content-wise and IT-wise)? What are the experiences with Learning Content Management Systems and learning applications: which are the most useful according to you?

2. What are projects' experience with on-site training? Discuss the specific use of mobile training units as part on-site training: how successful is this tool? What are the typical challenges?

3. What are project experiences with gamification of training content?

Results from group discussions & wrap-up

Group 1a: *Bojan MILOVANOVIC, the NZEB Roadshow*

- Mixed methods have been chosen by the different projects: e-learning on the Moodle platform, training at DIY stores sites, on-site learning.
- The definition of responsibilities in the construction process has emerged to be fundamental.
- Looking at the demand-side, on-site training has proven to be the best option for blue collar workers, as they need guidance and value the importance practical training. On the other hand, online trainings are better accepted by white collar workers; e-leaning for blue collar workers should be limited to awareness raising and small theoretical modules.
- On-site training can be complemented by the use of BIM to point out issues that can emerge during construction.
- The TripleA-rino project adopted the gamification strategy by developing board games on renovation.

Group 1b: *Gloria CALLINAN, BUSleague/BUS-GoCircular*

- Synchronous training, with all trainees connected ad contributing at the same time, has proven to be the most effective way to convey traditional education online.
- Trainers unprepared to the online shift emerged as an issue.
- Despite the more complicated planning and logistics, on-site training emerged as the favourite approach. The integration of digital solutions on-site (e.g. augmented reality) has proven successful.
- There is general interest in gamification as a facilitator of behavioural changes.

Group 1c: *Agnieszka MIKOŁAJCZYK, INSTRUCT*

- Many projects propose to build their own platforms but often resorting to existing ones that are user-friendly, easily accessible, and already adopted can be more successful. Examples of these platforms is Moodle.

Key takeaways:

- Projects are interestingly targeting the **demand-side of the market** along with the supply. On-site training has proven better for blue-collar workers as they need practical information and experience, while online trainings have been found to better fit white-collars. In general, on-site trainings are a powerful tool for the engagement of participants.
- Planning, logistics, health and safety concerns can hinder on-site training delivery. However, the **integration of augmented and virtual reality** can play a role in overcoming these challenges.
- In discussing how traditional trainings can be delivered online, especially following the COVID pandemic, **synchronous trainings** with all participants live and collaborating at the same time emerged as the most successful solution. The issue of trainers who had to shift from face-to-face to online teaching without preparation was raised. Their upskilling should be kept into attentive consideration
- **Gamification** was found to be a successful way to engage workers, easily accessible regardless of their educational background. The technique has great potential in changing behaviour.
- Many **existing e-learning platforms** can be successfully reutilized without the need of creating brand new ones.
- **Stakeholders' engagement** is a crucial element for all projects.

Session 2: Supporting the digital transformation of the building sector

Aim of the session: A number of BUILD UP Skills projects have been focussing on digital skills for a number of years. The session aimed to assess progress so far in terms of adoption of these new skills within the building value chain. Participants were also invited to explore what are the main remaining barriers and what can be done to unlock the potential of digitalisation to boost the green transition of the building sector.

Welcome, introduction. Amandine DE COSTER-LACOURT, CINEA

Project highlights:

Myriam OLIVIER, BIMplement. ***Why and How construction site workers should use BIM models?***

Mrs Olivier presented how BIMplement explored the use of **BIM for on-site workers** to discover projects in 3D rather than 2D, improving straight collaboration and enabling their involvement in the BIM process. Thus, project implementation will be better aligned with the designed plans, and construction quality and efficiency will be greatly improved.

Andrew HAMILTON, ARISE. ***Latest developments in the BIM Energy Performance Alliance (BIM-EPA)***

Mr Hamilton presented the **BIM Energy Performance alliance** as an enabler for net-zero construction and insisted on the importance of connectivity in stimulating the demand and access to upskilling.

Discussions in 3 parallel sub-groups:

Questions:

1. Have you seen recent progress in the uptake of digital skills in your country/area of work?

2. Discuss BIM use cases for public vs. private building owners/clients: according to your experience, what are the specific training needs for each of these target groups?

3. Looking ahead: how do we ensure a genuine digital transformation road mapping for the building sector, including the full set of required digital skills beyond just BIM (e.g. laser scanning, 3D modelling, skills for smart buildings, etc.)?

Results from group discussions & wrap-up

Group 2a: ***Anna MORENO, Net-UBIEP***

Group 2b: ***Miguel DE GRACIA, Construye 2020+***

Group 2c: ***Avril BEHAN, ARISE***

Key takeaways:

- While there is a clear momentum for digitalization at white-collar level, especially in projects involving public authorities or withing universities, a gap remains at blue-collar level, for smaller projects, and for heritage buildings.
- Moreover, the adoption of BIM is more common in big new built projects while it is used less in renovations.
- Despite this mixed-picture, progress is visible in Member States where there is now an obligation to use of BIM in public tenders (e.g. Italy). While it is obvious that there is **need for a regulatory and legal framework** to boost this transition, it is good practice to anticipate policy to avoid the lack of skilled professionals.

- There is a real need for further development of **BIM objects** and the related skills.
- **Training needs are different for e.g.**
    - **Public clients,** who tend to lack the overall knowledge of the process**.** As a result, they do not always provide the right specifications for the model, e.g. they request the use of specific softwares instead of asking for OpenBIM standards.
    - **Private clients:** there is potential for the development of BIM use cases, as it is important to make them understand how BIM could help them manage buildings to boost their interest**.** What is important for owners is to receive the final BIM model as this helps enormously to manage the building and can help cut costs. They start to understand the usefulness but need to deepen the understanding and uptake of BIM beyond level 1 to give the right specifications at the start of the project.
- To boost appetite for BIM training, there is a need to make people understand better the real value of BIM models, which is not just a 3D representation of the building but a real information vehicle to connect all steps in the chain and communicate better.
- Beyond BIM uptake, a **full digital transformation** of the sector is needed according to national-level visions. The integration and training on technologies like 3D scanning, virtual reality, drones, requires a policy push to contrast the reluctance of the market. Even further, specific training will need to be developed on smart buildings and the Smart Readiness Indicators to enable the connection of BIM and smart devices for building management business cases.

BREAK OUT SESSION II

Session 3: Skills validation mechanisms

Aim of the session: While developing new training interventions is a must to capture the emerging skills required from the market, it is equally important to make sure trained professionals get visible and recognised. This session explored some of the mechanisms to recognise and validate energy skills, based on projects' experiences.

Welcome, introduction. Piotr WAIS, CINEA

Project highlights:

Peter GYURIS, TRAIN4SUSTAIN. ***Experience with developing a skills registry and passport***

Mr Gyuris, the coordinator of the TRAIN4SUSTAIN project, focused his presentation on the project's experience with providing new tools and web-services to facilitate a practical exploitation of the developed competence quality standard, Skills registry and Skills Passport on the market. To achieve these tasks, the complement existing knowledge is integrated into a competence quality standard, which sets out the scope and depth of training and qualification for individuals in relation to studies on sustainable energy technologies and processes. The practical usability and exploitation of the common qualification standards is enhanced through a European Skills Registry (ESR), a web-based Platform providing functions for comparing various qualification schemes and learning outcomes and allow listing qualified experts on a match-making hub. National qualification schemes can be also compared with schemes from other countries or operators and shortcomings can be identified.

Lihnida STOJANOVSKA-GEORGIEVSKA. ***SeetheSkills: RPL as skills validation mechanism: feasibility and opportunities***

Ms Stojanovska-Georgievska shared interesting examples from SEEtheSkills project on the recognition of the prior learning. The project SEEtheSkills acts through novel 3V approach to facilitate broader visibility and accessibility of energy skills and to enable their mutual recognition across partner

countries. The 3V approach was defined as: VISIBILITY of skills by creation of an on-line repository for skills registration, VALIDATION of energy skills and replication of training schemes between project partners, and VALUE of the skills raised on the global market. Proposed implementation of on-line Integrated Register of energy skills with integrated databases of training schemes should facilitate mutual recognition of energy skills and qualifications in the construction sector across project partner countries. The personal skills' passport marks the individual competences and is a tool to identify the need for upskilling of workers within the company.

Discussions in 3 parallel sub-groups:

Questions:
1. Micro-credentials: Are you using this approach already or are you planning to use it? Any reaction to the presentation by DG Employment this morning?
2. Recognition mechanisms:
- Mutual recognition of qualifications based on learning outcomes definition: what is your experience with this so far?
- Skills registries, skills passports/cards: discuss their advantages and challenges
- Recognition of Prior Learning: any experience to share about this?
3. Formal certification: In your view, what are the advantages and challenges of this approach?

Results from group discussions & wrap-up:

Group 3a: ***Dan STEFANICA, HP4ALL***

- Micro-credentials are of great value and EU level legislation is very much welcome. They fill-in market gaps and provide training as a substitute/add-on to formal education. Micro-credentials bring forward the skills and competencies in different sectors.
- Additional legislation should complement existing EU directives and harmonise the approaches of member states to implement recognition mechanism. Further expansion and improvements can be considered in certain areas (e.g. the construction sector).
- Skills registries, skills passports/cards are very useful and their creation/adoption should be encouraged. Governmental agencies and ministries should be involved for the recognition and wide application of the skills registers. Creating registers for micro-credentials is not very efficient, and their coordination is recommended.

Group 3b: ***Gerald WAGENHOFER, PRO-Heritage***

- Micro-credentials are flexible and need less training, but the content should be unified and based on skills or on tasks. They are not a replacement for having a good basic education, but they help workers to specialise, to get back to the education system and recognise their experiences.
- Micro-credentials increase workforce mobility, and are more accessible for white collars who have the competences to find the they need and know how they want to improve their skills

Group 3c: ***Lihnida STOJANOVSKA-GEORGIEVSKA, SeetheSkills***

- Regulations are not ready for micro-credentials. Also, qualification approval process is not developed. Higher involvement of institutions in the recognition process is essential to ensure the recognition of micro-credentials.
- Micro-credentials should be clearly differentiate from qualifications. It is not clear whether the approach to micro-credential should be skill- or task-based. Duration of micro-credentials and micro-trainings should be carefully established. Courses lasting only few hours are hard to transfer to official training recognition.
- Mutual recognition of qualifications should be considered between training providers/educational institutions and between different countries. Predefined requirements should be reached in order to receive skills passports/cards.
- Achievement of certificates can generate higher workers' mobility (risk for companies).
- Formal certification certainly elevates the value and recognition of skills. However, there is a rigid process for introduction of new syllabus in formal education system with high level of

preparatory work: identifying needs, creating standards, designing programmes, preparing materials.

Key takeaways:

- **Micro-credentials** are more accessible for white collars who have the competences to find what they need and know how they want to improve their skills.
- The duration of micro-training should be carefully established. Courses lasting only few hours are hard to transfer to official training recognition.
- In general, **regulations are not ready for micro-credentials**. There is a need to develop clear definitions and approve qualifications tailored for micro-training. Involvement from institutions will be necessary to recognize that micro-credentials could fill current training gaps.
- A point of discussion was raised on the proper approach to micro-credential, whether it should be skill- or task-based.
- While standardized recognition at EU-level is valued by companies and workers, national policy-makers might oppose it in fear of losing qualified workers for their country.

Session 4: Mechanisms increasing the demand for skills & skilled workers

Aim of the session: Training and qualifying professionals is essential in the journey towards the decarbonisation of the building sector. However, it will be of no use if skilled professionals are not visible and valued in the market. This is why the latest BUILD UP Skills calls for proposals under Horizon 2020 have been focussing on mechanisms to trigger the demand for skills and skilled professionals in the construction sector. Given this background, this session took stock of the progress made by the projects thus far and facilitated the exchange of insights, including in terms of challenges encountered and best practices.

Welcome, introduction. Luca ANGELINO, CINEA

Boosting demand for skills and skilled professionals is the most recent of the work streams under the BUILD UP Skills initiative. Since 2020, the Agency has been funding nine projects which are currently working, amongst other things, on solutions such as financial incentives, awareness campaigns towards end-users, partnerships, and regulatory mechanisms, including public procurement.

1) Partnerships and awareness raising:

Project highlights:

Dragomir TZANEV, nZEB Roadshow. *Experience with awareness raising campaigns*

Mr Tzanev presented the experience of the nZEB Roadshow project. The starting point of the project was the realisation that without a demand for quality buildings there will hardly be any demand for skilled professionals. Moreover, customers are more likely to invest in renovation if they are given sufficient knowledge, which is better tackled, especially among low-income citizens, at neighbourhood level.

The nZEB Roadshow successfully built a demonstration mobile unit and brought it to schools, universities, construction sites, and public spaces to interact with, and increase awareness of, a variety of stakeholders.

Group discussion; Moderator: *Dragomir TZANEV, NZEB Roadshow*

Experience with marketing and awareness campaigns to promote energy efficiency skills:

Participants reported a number of positive examples. For instance, in Croatia small companies winning tenders because of better skilled and trained workers, a sign of success.

Furthermore, it was highlighted that previous bad experiences of stakeholders often are a **drive** to increasing their knowledge and people around them. **Showcasing poor practices** along with good ones can complement the full array of argumentations needed to foster the demand for upskilling.

Additionally, participants stressed that while it is often believed that public authorities should lead the way with awareness campaigns, BUILD UP Skills projects show what an innovative and more bottom up approach design of campaigns can achieve.

A key message emerging from the discussion was that action is needed at different levels: at the SMEs level, for example to convince them of the competitive advantage they may have and at the local level, to empower the end-users, which a key factor to trigger investment decisions by households.

Partnerships with producers/retailers:

Participants pointed out that **producers and retailers have shown their willingness** to form partnerships at all professional levels (engineers, technicians, etc.). For example, they are already working with Vocational Training Schools to increase competences of their workers and thus are willing to cooperate.

These forms of partnership can pave the way for **cooperation among competitors**, who do not focus anymore on advertising their own products but rather the quality of good standardised practices.

2) Linking sustainable energy skills and public procurement

Project highlights:

Paola Borgaro, TRAIN4SUSTAIN

Ms Borgaro presented the current work carried out within the TRAIN4SUSTAIN project, devoted to the analysis of skills requirements in public procurement. In this context, the project provided “Guidelines for public authorities" to explain how to include and manage skills requirements in public procurement processes through the use of the TRAIN4SUSTAIN methodology and tools: the Competence Quality Standard, the European Skill Registry and the Skills Passport. Furthermore, the following policy recommendations to foster requirements on sustainable energy skills in Green Public Procurement (GPP) have been identified by the stakeholders participating in the project:

FIELD: PROFESSIONAL COMPETENCES

- Promote the objective verification and measurement of professional’s competences through a uniform System
- Promote a multidisciplinary team approach in GPP

FIELD: PUBLIC TENDER REQUIREMENTS

- Transnational Harmonisation of GPP criteria for sustainability skills
- Inclusion of mandatory requirements in public tenders concerning the competence of professionals
- Raise awareness and importance on the awarding score concerning professional’s competence requirements
- Promote a Multilevel Governance Approach

FIELD: TRAINING

- Promote a more stringent continuous professional training
- Promote a specific training activity addressed to the writers of the tenders in the public authority

FIELD: COMMUNICATION AND SERVICES

- Promote ad hoc communication campaigns at regional/national level to raise awareness and disseminate the available tools
- Promote specific support services (help desks) at regional/national level aimed at the various players
- Promote benchmarking at national level to identify market needs and tendencies
- Promote international exchange of knowledge between professionals/workers and civil servants to adapt the construction requirements according to each climatic zone

Group discussion; *Moderator: Padraic O'REILLY, HP4ALL*

This session started with participants broadly acknowledging the large potential for green public procurement as a strategic instrument to support the upskillsing of the workforce. Yet, that potential is still largely untapped.

Some positive examples were reported, such us the EU project BIMplement, which carried out two pilots with local authorities where on-site training was mandated as part of the contract. The pilots focused on blue-collar and BIM skills and training.

In Finland, tendering processes have evolved so to allow the client to have meetings with potential contractors, and during these discussions it is possible to introduce the topic of energy efficiency skills so that the requirement for these skills is built into the eventual contract.

Participants discussed in particular three possible methods to boost energy efficiency skills through public procurement:

- **Competency-based clauses** under selection criteria - can be very detailed but require very good understanding from the panel and therefore by public administrations.
- **Training-based clauses,** which are already applied in France, precisely in the Hauts de France region.
- **Other mechanisms** such us making the blowing door tests and use of BIM mandatory in public procurement as a way to indirectly incentivise upskilling of the workforce.

Regarding competence-based clauses a key question emerged about how to express measurable and verifiable professional competence requirements in public procurement.

To that end, it was reported that the TRAIN4SUSTAIN project developed two tools:

Competence Quality Standard (CQS): originally developed under the H2020 Prof/Trac project, it is being expanded under TRAIN4SUSTAIN project to include new topics and new professions so as to facilitate the expression of measurable professional competences.

European Skills Registry (ESR), representing a solution to facilitate comparison and verification of the current professional qualifications.

Regarding training-causes, participants highlighted their potential. However, experience on the ground also raise various questions, such as

- Who pays for those training? At what level of governance should they be established to avoid some municipalities being at disadvantage?
- What about those companies that have already provided training? Is it possible to use accreditation instead?

All in all, it was highlighted that BUILD UP Skills projects working on this topic are still at an early stage of work. Yet, participants expressed strong interest for further experience sharing on the matter.

Plenary II

Informal exchange about the LIFE Clean Energy Transition Call 2021 (e.g. BUILDSKILLS topic)

Mrs De Coster-Lacourt presented the LIFE-2021-CET-BUILDSKILLS topic, which aims to support the continuation of the BUILD UP Skills initiative, and answered questions from participants.

Highlights from the parallel sessions. Zoé WILDIERS, Senior Project Adviser, CINEA

Mrs Wildiers, together with the four session moderators, presented the highlights from the discussions in the parallel sessions.

Closing remarks – Maria LAGUNA, Head of Sector Consumers, Built Environment, Products & Industry, CINEA

Mrs Laguna expressed her delight in seeing this fruitful information exchange and the depth of discussion reached during this Exchange Meeting. Despite the virtual format, discussions were highly participatory, demonstrating how BUILD UP Skills is a solid community of projects. While the Agency will make effort to foster further exchange, it is encouraged that participants take the initiative to continue the discussion independently.

To conclude, Ms Laguna remarked how LIFE CET is now the home of BUILD UP Skills, and encouraged participants to disseminate the objectives of the programme in its calls. CINEA will be there to support the projects in the barriers they might face, but also to promote their best practice examples, thanks to regular communication between consortiums and project advisors.

Annex – Meeting agenda

13th BUILD UP Skills European exchange meeting

30 November 2021
Online
10:00-16:30 CET (Brussels)

AGENDA

10:00 - 10:10	**Welcome** - **Christian STRASSER**, Head of LIFE Energy & Climate Unit, CINEA
10:10 - 10:35	**Policy developments (Part 1)** • *The Renovation Wave and the upcoming EPBD revision* **Brigitte JACQUEMONT**, Policy Officer - Buildings and Products, DG Energy • *The EU approach to micro-credentials* **William OKEEFFE**, Policy Officer - Vocational Education and Training, DG Employment
10:35 - 10:55	**Welcoming new projects! Elevator pitches** • BUS-GoCircular – **Jan CROMWIJK**, Project Coordinator - ISSO • nZEB Ready – **Horia PETRAN**, Senior Researcher - INCD URBAN-INCERC • SeetheSkills - **Jadranka ARIZANKOVSKA**, Project Manager - Economic Chamber of North Macedonia • ARISE – **Paul McCORMACK**, Innovation Manager - Belfast Metropolitan College
10:55 - 11:20	**Policy developments (Part 2)** • *The impact of the Level(s) framework* **Josefina LINDBLOM**, Policy Officer - Sustainable Buildings, DG Environment • *Latest developments from the EU Construction Blueprint initiative* **Roman HORVATH**, Policy Officer - Sustainable Industrial Policy and Construction, DG GROW

11:20 – 11:30	***Short break, joining the break-out sessions***	
11:30 - 12:45	**FIRST BREAK-OUT SESSION**	
	Session 1 - Innovation in training delivery ***Moderator:*** *Filippo GASPARIN, Project Adviser, CINEA*	**Session 2 - Supporting the digital transformation of the building sector** ***Moderator:*** *Amandine DE COSTER, Project Adviser, CINEA*
12:45 - 13:45	***Lunch break***	
13:45- 15:00	**SECOND BREAK-OUT SESSION**	
	Session 3 - Skills validation mechanisms *Moderator: Piotr WAIS, Project Adviser, CINEA*	**Session 4 - Mechanisms increasing the demand for skills & skilled workers** *Moderator: Luca ANGELINO, Project Adviser, CINEA*
15:00 – 15:30	***Break***	**Informal exchange about the LIFE Clean Energy Transition Call 2021** (e.g. BUILDSKILLS topic)
15:30 – 16:15	**Highlights from the parallel sessions** Moderator: **Zoé WILDIERS,** Senior Project Adviser, CINEA	
16:15 - 16:30	**Closing remarks – Maria LAGUNA,** Head of Sector Consumers, Built Environment, Products & Industry, CINEA	

Annex – List of registered participants

First Name	Last Name	Organisation	Country
Maria	ACHILLEOS	Cyprus Energy Agency	Cyprus
Naghmeh	ALTMANN	Austrian Energy Agency	Austria
Luca	ANGELINO	CINEA	Belgium
Jadranka	ARIZANKOVSKA	Economic Chamber of North Macedonia	North Macedonia
Diana	ATANASOVA	Bulgarian Construction Chamber	Bulgaria
Tanja	BATKOVIČ	Chamber of Commerce and Industry of Slovenia (CCIS)	Slovenia
Avril	BEHAN	Technological University Dublin	Ireland
Graham	BELL	Cultura Trust	UK
Narjisse	BEN MOUSSA	Alliance Villes Emploi	France
Daniela	BLAZEJOVA	Institute of circular economy (CZ)	Czech Republic
Florin	BODE	Technical University of Cluj-Napoca	Romania
Paola	BORGARO	iiSBE Italia R&D	Italy
Martin	BREEN	TUS Development Unit	Ireland
Verónica	BUEY CIESLAK	AEGPC	Spain
Gloria	CALLINAN	TUS	Ireland
Mara	CORBELLA	IIPLE	Italy
Cristiana	CROITORU	Pro-NZEB Cluster	Romania
Jan	CROMWIJK	ISSO	the Netherlands
Rory	CULLEN	Cullen Conservation	United Kingdom
Matilde	DAGANZO	Fundacion Laboral de la Construccion	Spain
Amandine	DE COSTER	CINEA	Belgium
Larissa	DE ROSSO	ACE	Belgium
Dirk	DE WIT	ISSO	The Netherlands
Frantisek	DOKTOR	ViaEuropa Competence Centre	Slovakia
Pavla	DVOŘÁKOVÁ	CVUT in Prague	Czech Republic
PEPA	ESPARZA ARBONA	IVE	SPAIN
Silvia	FRIZZERA	ZEPHIR SRL	Italy
Carlos	GARCÍA	CTA	Spain
Filippo	GASPARIN	CINEA	Belgium
Peter	GYURIS	Geonardo	Hungary
Andrew	HAMILTON	Belfast Metropolitan College	Northern Ireland
James	HARTY	Copenhagen School of Design & Architecture	Denmark
Roman	HORVATH	European Commission, DG GROW	Belgium
Dorottya	HUJBER	EMI Nonprofit lld	Hungary
Risto	IVANOV	ABC Kreacija	Republic of North Macedonia
Borislav	IVANOV	EnEffect	Bulgaria
Brigitte	JACQUEMONT	European Commission, DG Energy	Belgium
Uli	JAKOB	Dr. Jakob energy research GmbH & Co. KG	Germany
Luis	JIMÉNEZ LÓPEZ	Instituto Nacional de las Cualificaciones INCUAL	Madrid
Jiří	KARÁSEK	SEVEn	Czech Republic
Soulla	KARRA	Cyprus Energy Agency	Cyprus
Viola	KELEMEN	ÉMI Nonprofit Llc.	Hungary
Jaap	KOLK	Building Changes	The Netherlands
Katarzyna	KORCZAK	Research and Innovation Centre Pro-Akademia	Poland
Sylvain	KUBICKI	Luxembourg Institute of Science and Technology	Luxembourg
Michaela	KUBIKOVA	The National Trust of Slovakia	Slovakia
VALENTINA	KUZMA	Chamber of Commerce and Industry of Slovenia - CCIS Chamber of Construction and Building Materials Industry of Slovenia - CCBMIS	SLOVENIA
Zuzana	KYRINOVICOVA	UVS	Slovakia
Maria	LAGUNA	CINEA	Belgium

Stanislav	LAKTIS	Slovak Innovation and Energy Agency	Slovakia
Dijana	LIKAR	Institute for Research i Environment, Civil Engineering and Energy, IECE	North Macedonia
Pilar	LINARES	CSIC	Spain
Josefina	LINDBLOM	European Commission, DG Environment	Belgium
Tomas	MAJTNER	SPS	Czech Republic
Tarja	MÄKELÄINEN	VTT Technical Research Centre of Finland	Finland
Damir	MANDIC	Regional Energy Agency North	Croatia
Joel	MARSDEN	Circle Economy	Netherlands
Karoly	MATOLCSY	ÉMI	Hungary
Paul	MCCORMACK	Belfast Met	UK
Benny	MCDONAGH	Technological University of the Shannon	Ireland
Agnieszka	MIKOŁAJCZYK	ASM Market Research and Analysis Centre	Poland
Bojan	MILOVANOVIC	University of Zagreb, Faculty of Civil Engineering	Croatia
Stephanie	MOORE	TUS	Ireland
Anna	MORENO	IBIMI	Italy
Stephen	MURPHY	TUS	Ireland
Karin	NOVOTNY	UBW Wagenhofer GmbH	Austria
William	OKEEFFE	European Commission, DG Employment	Belgium
Beatriz	OLIETE	Fundación Laboral de la Construcción	Spain
Myriam	OLIVIER	ASTUS-Construction	France
Padraic	O'REILLY	Technological University of the Shannon	Ireland
Dimitris	PALLANTZAS	Hellenic Passive House Institute	Greece
Christina	PALOCHI	Cyprus Energy Agency	Cyprus
Zuzana	PALUGOVA	Slovak Innovation and Energy Agency	Slovakia
Horia	PETRAN	INCD URBAN-INCERC	Romania
Ioan	PETRI	Cardiff University	UK
Carmen	POORT	ISSO	Netherlands
Andrei	POPESCU	pRO-nZEB	Romania
Sonia	RAETCHI	Cluster Pro nZEB	Romania
Fantina	RANGELOVA	UACG	Bulgaria
Michael	REINER	ECQA GmbH	Austria
Esther	RODRÍGUEZ	Fundación Laboral de la Construcción	Spain
Joan	ROMERO	Valencia Institute of Building	Spain
Mihnea	SANDU	Technical University of Civil Engineering of Bucharest	Romania
Veronika	SCHRÖPFER	Architects' Council of Europe	Belgium
Luisa	SILENI	IIPLE	Italia
Ana	SIN BAGUES	CINEA - European Commission	Belgium
Guillermo	SOTORRIO	CSIC	Spain
Hristina	SPASEVSKA	Ss Cyril and Methodius University in Skopje	North Macedonia
Alexander	STANKOV	EnEffect	Bulgaria
Dan	STEFANICA	European Heat Pump Association (EHPA)	Belgium
Lihnida	STOJANOVSKA-GEORGIEVSKA	Faculty of electrical engineering and information technologies, University Ss Cyril and Methodius, Skopje	North Macedonia
Christian	STRASSER	CINEA	Belgium
Julien	TAMI	CINEA	Belgium
José Antonio	TENORIO	CSIC	Spain
Sébastien	THOMAS	LIST - Luxembourg Institute of Science and Technology	Luxembourg
Georg	TRNKA	Austrian Energy Agency	Austria
Dragomir	TZANEV	EnEffect	Bulgaria
Martijn	VAN BOMMEL	ISSO	Netherlands
Pedro	VAZ	Secretaria-geral da Presidência da República	Portugal
Ana	VELASCO	Spanish Association of Cultural Heritage Managers (AEGPC)	Spain

Gerald	WAGENHOFER	UBW GmbH	Austria
Piotr	WAIS	CINEA	Belgium
Łukasz	WILCZYŃSKI	ASM - Market	Poland
Zoé	WILDIERS	CINEA	Belgium
Markus	WIMMER	Burghauptmannschaft Österreich	Austria
Iris	XHANI	RINA Consulting	Italy
Pavel	ZEDNÍČEK	Institut Cirkulární Ekonomiky, z.ú.	Czech Republic
Maria	ZHELEVA	Bulgarian Construction Chamber	Bulgaria

Annex – List of presentations

All presentations can be downloaded at https://www.buildup.eu/en/skills/13th-build-skills-european-exchange-meeting