



**Professionalising site managers and team leaders in the specific management
of building renovation sites in Europe**

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**IO2: Transnational system for the assessment and recognition of the learning outcomes of site
managers and team leaders for building renovation sites with Open Badges**

IO2-A1 & IO2-A2

IO2 Transnational Synthesis of national Good Practices useful for Work-based Learning

FINAL REPORT



Erasmus+

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1. Presentation of IO2 and the aim of the report

“Transnational system for the assessment and recognition of the learning outcomes of site managers and team leaders for building renovation sites with Open Badges.”

The specific skills of middle management on building renovation sites are not, to our knowledge, recognised. The systematic recognition of skills, even informal as proposed here, would therefore be a first step towards identifying their specificity more clearly and thus contribute to the greater emergence of a professional identity specific to team leaders and site foremen working in the building renovation sector.

The proposed approach will follow the logic of the attribution of an Open Badge, understood as a digital image in which information such as: the field of attribution (or definition/description of the path of professionalisation followed), the identity of the issuer and receiver of the badge, the statement of the targeted competences, the criteria for the attribution of the badge and the evidence justifying the competences acquired will be recorded. To respect its open character, it will not only constitute a certificate of a successfully completed career path, but it may also consider other experiences, achievements, competences, commitments, values or aspirations of the person who will obtain it.

The Open Badges, launched simultaneously in all partner countries, will allow validation of the approach in several situations, which will probably lead to their gradual adjustment, following the experiences programmed as phase 4 of the project (see IO4). This approach could be valorised and disseminated to other audiences and sectors, mainly through events with a multiplier effect and testimonials of experiences on the different websites and through the social networks of the partners.

The elaboration of Open Badges will particularly consider the results of IO1-A3 and IO1-A4 (aiming at professionalisation methods, contents and learning outcomes). Links between IO1-A3 and IO1-A4 on the one hand and IO2 will be established.

The main activities scheduled within IO2 are the following:

- **IO2-A1.** Identification and review of the learning outcomes of the groups concerned to be validated in each partner country and their possible reformulation, so that their description corresponds, **in principle**, to level 4 (EQF) requirements for team leaders and level 5 (EQF) for site managers, even if Open Badge is an informal recognition too.
- **IO2-A2.** Development of a strategy for the assessment of learning outcomes of site supervisors and team leaders for building renovation sites in each country of the partnership, including the criteria and modalities for the recognition of the learning outcomes concerned (with Open Badge).

However, before tackling them, the partners decided, during the 3rd transnational technical meeting (held online on 26 April 2021) to fulfil an additional desk research (not foreseen within the initial workplan) and to collect relevant information, in each partner country, aiming at identifying existing national good practices in the following fields:

- **Methods of observation and analysis of work situations in company by specialists working for training organizations (trainers, pedagogical engineers, etc.)**
 - Identify, in each partner country, max 3 existing methods of observation and analysis of work situations likely to be exploited for the work-based learning (in the construction sector or elsewhere).
 - Describe the methods identified using the proposed grid (Part 1 of the Report).
 - Identify the ways and methods with which the work situations identified and analysed are combined/crossed with training modules/learning outcomes).
 - Find out how the competence, resulting from a work-based learning, is defined and understood within each method identified.
- **Practices enabling training organizations to evaluate and position trainees in their professionalization process (adjustable training)**
 - Identify, in each partner country, max 3 existing practices enabling training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs (in the construction sector or elsewhere).
 - Describe the practices identified using the proposed grid (Part 2 of the Report).
 - Identify the ways and methods with which the results of this positioning can be pragmatically exploited within the curricula to be proposed.
- **Practices of validation and formal recognition of learning outcomes in work situations (useful for future Open Badges)**
 - Identify, in each partner country, max 3 existing practices of validation and formal recognition of learning outcomes in work situations (in the construction sector or elsewhere).
 - Describe the practices identified using the proposed grid (Part 3 of the Report).

The identification of these three categories of good practices that already exist in the partner countries – in the construction industry or elsewhere – is considered as useful for Work-based Learning, i.e. professionalisation scheme to be proposed to worksite managers and team leaders on renovation sites. In fact, before proposing innovation, the project partners intend to know better and to explore more what already exists.

All partners contributed to this report, prepared under the coordination of the CCCA-BTP (FR).

Timeline of activities related to IO2

Practice has shown that IO1 and IO2 are closely linked and are now being carried out in parallel, with clearly identified phases and deadlines (see document "RenovUp IO2 Research Methodology", CCCA-BTP, 20 April 2021).

The good practice research referred to in this Report took place mainly between May and July 2021.

The results obtained will feed into the work on IO1 - Activities 3 and 4 which will run in parallel with IO2 - Activities 1 and 2, probably until the end of 2021.

Thus, from the beginning of 2022, the partners will be able to envisage the work relating to IO3 and IO4 of the RenovUp project. These will concern the training of trainers and the implementation of the planned professionalisation pathways.

2. Practices identified at a glance

The partners carried out the current survey mainly on the basis of available documentary resources (desk research) that were enriched by their own comments based on their professional experience and knowledge of national contexts. Some relevant websites also provided information on existing practice, didactic material and field experience results. A grid provided (see Annex 1) was used as a basis for reporting the results by all the partners.

We found that, despite a fairly abundant theoretical and methodological material concerning on-the-job and blended training, including apprenticeship, few pragmatic examples exist of how concrete work situations are exploited within training paths, how skills and abilities of candidates for training are previously evaluated and how the tools like Open Badges are used in practice. Thus, the integration of work situations into training courses on a larger scale, the positioning of training candidates in their courses, and the recognition of learning outcomes with open badges are still relatively unmet challenges in all the partner countries.

Construction companies specialised in the renovation of buildings are many and rather small in all project countries. They employ few salaried workers and their functions are often blurred, where a clear distinction between highly skilled independent worker, team leader and even site supervisor is often quite impossible to make. Therefore, a methodological observation and categorisation of work situations in terms of activities and tasks, as well as a pragmatic and simple identification of capabilities (in terms of skills and aptitudes) for these functions or a clear recognition of competence with appropriate tools like Open Badges are rather complex challenges.

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But even if the situations are not easy to identify and classify, knowledge transmission and learning practices, both formal and informal, exist in the companies that interest us in the framework of RenovUp. Our project must take into account them when conceiving work-based professionalisation paths, so that these are not then seen as disconnected from the realities that building renovation companies experience on a daily basis.

This is why the analysis of good practices makes sense if it is then used to better take into account the reality of the companies concerned (presented in the report of the studies carried out within the framework of IO1 A1 and A2) and to propose to them professionalization paths for site managers and team leaders in line with their realities and possibilities. The project partners are in favour of this "experiential," direct skills appearance as the learner needs to deal with concrete situations and direct circumstances rather than through multiple theoretical and only verbal representations.

Thus, the good practices identified, together with a reflection on their concrete application in the reality of the companies that interest us here, should contribute to making our professionalisation proposals realistic and meaningful to the actors concerned (learners and building renovation companies).

3. Existing methods of observation and analysis of work situations likely to be exploited for the work-based learning

Methods identified in the partner countries

Partner / Country	Method / Main Characteristics	Prescribers / Implementers
CCCA-BTP / France	<p>Method 1: AFEST - On-the-job training, competence-based approach and individualisation (formal training in a work situation). The main goal is to put closer work situations and learning objectives to help people to develop their capabilities and competences.</p> <p>Its main characteristic is to implement a training action directly in a work situation. This includes:</p> <ul style="list-style-type: none"> • Analysis of the work activity in order to adapt it, if necessary, for teaching purposes. • The prior appointment of a trainer who can perform a tutorial function. • The setting up of reflective phases, distinct from the work situations and intended to use the lessons learned from the work situation for teaching purposes, which make it possible to observe and analyse the differences between the expectations, the achievements and the knowledge gained from each work situation in order to consolidate and explain what has been learned. • Specific assessments of the training outcomes that mark or conclude the action. 	<p><i>Prescribers:</i> National Authorities</p> <p><i>Implementers:</i> Training centres Companies Funding bodies</p>
CCCA-BTP / France	<p>Method 2: "Séquence Pro" educational approach, which makes it possible to use real work and site situations to transform them into learning situations in training courses.</p> <p>This approach was designed to professionalise training centre instructors, by preparing them to make better use of work situations when training apprentices in training centres. It also gives meaning to learning by anchoring it in the reality of the learners and thus avoids theoretical/decontextualised approaches.</p> <p>The method consists of three phases:</p> <ol style="list-style-type: none"> 1. OBSERVE and ANALYZE the work situations characteristic of the jobs or functions, broken down into activities and then into tasks. 2. BUILD the learning sequence (situation) from the work situations and at the same time learning situations in the company, ORGANISE the different sessions that make sense for the learner. 3. MODERATE the learning sequence in the training centre that integrates learner's professional experience in company and on worksite. 	<p><i>Prescriber:</i> CCCA-BTP</p> <p><i>Implementers:</i> Training centres Companies</p>

<p>FLC Asturias / Spain</p>	<p>Method 3: Dual VET – Observation and analysis of work situations in company. Dual VET is a recent training modality in which the contents of the training modules/learning outcomes are distributed between the educational centre and the company, and the learner is evaluated for the training received in both places. It allows to specify the tasks done in the workplace and to speed up the individualised training plan for the learner in training centre. In fact, once the company tutor has the detailed tasks, the next step is to compare that description of what is done in the company with the content of the training qualification of the future learner. Three main steps: 1. Analysis of what is usually done in the company leading to a job description in terms of activities/tasks and their sequencing. 2. Setting up of an individualised training plan. 3. Evaluation of learning outcomes in training centre and in company.</p>	<p><i>Prescribers:</i> Regional and national VET administrations Chambers and Entrepreneurial Organizations</p> <p><i>Implementers:</i> Training centres Companies</p>
<p>Formedil / Italy</p>	<p>Method 4: Analysis of the skills necessary for the role assigned From the identified competences, an evaluation form is drawn up analysing the level of competences possessed by the worker. Technical interviews/additional tests are then carried out for further assessment of competences. The practice used allows training providers to recognise the knowledge, skills, etc. that learners or other individuals possess. The procedure consists of the following steps: 1. Initial interview 2. Assessment of competences and experiences declared by the worker 3. Initial verification of the skills possessed in relation to the experience. 4. Analysis of the documentation submitted by the worker (C.V., training certificates, self-declarations, Citizen's Training Booklet, etc...) 5. Verification of the documentation submitted (tests, interview, field tests, etc...) 6. Updating/editing of the Europass CV, European Language Passport, Citizen's Training Booklet, 7. Issue of the Evidence Dossier and (possibly) the Experience Dossier, which aims to be a tool for the validation of competences in order to identify the correct way to validate/analyse the competences of the workers requesting their certification.</p>	<p><i>Prescribers:</i> The activities will be carried out by the bodies of the Formedil network also in cooperation with the construction companies involved in the worker's training.</p> <p><i>Implementers:</i> Trainers/Tutors of the building schools will be able to verify the worker's skills also on the building site during the work operations with the support of the company tutor or the employer.</p>
<p>ITE Łukasiewicz / Poland</p>	<p>Method 5: Standard of examination requirements for journeymen and masters in the craft education system The standards developed define the range of competences expected from future journeymen and masters (skill profile related to the profession), define the equipment of exam positions and the</p>	<p><i>Prescribers:</i> Polish Crafts Association in cooperation</p>

	<p>conditions for taking the exam. Indicate the possibility of obtaining additional qualifications (professional development).</p> <p>In Poland, learning is divided between school and employers. As for the examination standards in crafts they play key-role in VET as they are the guide for the student or worker, and they know what they have to fulfil to become journeyman or craft master. The way to achieve it is not so important (formal, nonformal or informal).</p> <p>Methods of observation (during the WBL, also before an examination) use craftsman or his employee (both with proper pedagogical empowerments) to monitor and evaluate student progress. One craft master can supervise max. 3 learners.</p> <p>Standard can be a subject of further/constant development – dependently on the employers /professionals needs. That means that some skills or competences can be added constantly (environmental issues, technological problems, etc.). That also means that some of those skills can be equal to content of badges and validated in a way of “checking exams” by craft chambers or as a new, supplementary badge confirmed by other institution/authority. What is essential here is a fact that craft standards are not so often changed (last time it was done in a systemic way in 2012) so there is a space to offer some quick-responsive courses also for craftsmen that would be ready to follow new challenges in the market.</p> <p>Generally, companies’ needs are addressed to the members of a guild and craft chamber of branch organisation and than they are a matter of a acceptance process done ZRP’s building craft branch commission. The last phase is an introduction of the content (of proposal) into the examination standard for journeyman or craftmaster (and further dissemination).</p>	<p>with craft chambers.</p> <p><i>Implementers:</i> Training centres Companies</p>
<p>Pedmede / Greece</p>	<p>Method 6: Implementation of tasks within a real job context</p> <p>Two dimensions:</p> <ol style="list-style-type: none"> 1. Practical dimension of the educational process, even choosing the necessary "task" (which is characterized by the capacity of the employee to perform tasks defined by the company supervisor or the organization in general). 2. Inclusion of all three dimensions of learning i.e., cognitive (content), emotional (motivation) and social (interaction), with reference to the critical and evaluative cognitive aspect (meditation). <p>Example: Challenge-based learning, based on a collaborative framework, where learners, while trying to overcome challenges, gain deep knowledge and at the same time develop skills that enhance their business skills. When faced with a challenge, teams or individuals use their experience, internal and external resources, devise an action plan and strive to find the best possible solution.</p> <p>The company trainer, following discussions with all relevant departments, prepares a list of detailed tasks which include all dimensions of learning and then setting an individual training plan depending on the trainees’ profile.</p>	<p><i>Prescribers:</i> National authorities companies</p> <p><i>Implementers:</i> Training centres Companies</p>

How the competence, resulting from a work-based learning, is defined and understood within the methods identified

Within the methods identified and presented above, the competence, resulting from a work-based learning, is defined and understood in a relatively univocal way and overall, in coherence with the definition given by the CEDEFOP (Terminology of European education and training policy, EU Publications Office, 2008), which specifies that “Competence is the ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development)”. According to the European Qualification Framework (EQF), competence is expressed in terms of degree of responsibility and autonomy.

In this context, the French, Spanish and Italian methods perceive the competence as a set of knowledge and skills which enable the trainee to understand the professional situation and to act in it. Therefore, the competence can emerge simultaneously in training centre, where the learner acquires knowledge and know-how (theoretical and practical), and at the workplace, where he/she applies this knowledge and skills in concrete work situations.

The Greek method stresses the difference between “Workplace learning” and “Work-based learning in education”, where the first case is a provider of competence, whereas the second case is oriented rather towards knowledge and skills. In fact, workplace learning usually takes place through processes that are directly related to the specific working conditions in company or on building site and is considered to contribute both to apply knowledge and skills of individuals and working groups in concrete work situations. In addition, workplace learning includes many non-formal and informal elements of learning. It is strongly linked to social interactions and practices of daily professional and work life.

Thus, in line with the Greek approach, the French as well as all the other partners consider that the competence acquired through workplace learning can be based on the following aspects:

- Degree of adherence of the learner to the activity (interest in the actions and tasks to be performed - motivation)
- Anticipation and adaptation to the situations encountered and degree of ease in carrying out the actions and tasks assigned)
- Mastery of the professional exercise (safety of gesture, skill, self-confidence)
- Initiative in the face of unforeseen circumstances
- Good management of errors.

In fact, these indicators are considered in the evaluation processes of learning outcomes specified, among others, in the Polish examination standards where capacities and activities are met, in articulation among the individual, the situation and the environment. The fact of having resources (internal and external, such as the knowledge and know-how acquired in the training centre) is not a guarantee of being able to be competent, as one must also be able to combine them and put them to use in a context or situation. Within the Polish context, knowledge, skills, social competences are verified by carrying out examination tasks. A particularly comprehensive and cross-cutting assessment takes place at the practical stage, where the candidate must perform

the relevant activities and achieve the result in the form of a product or service performed in the workplace under the supervision of the members of the examination board. Similar procedures are also set up in other partner countries.

Potential usefulness of the methods identified for the design of the planned professionalisation pathways

Method / Country	Usefulness and Advantages for RenovUp
<p>Method 1: AFEST - On-the-job training, competence-based approach and individualisation (formal training in a work situation) - France</p>	<ul style="list-style-type: none"> • AFEST can be used as a single training modality or combined with other training modalities. • AFEST allows the development of professional skills linked to a specific activity (such as site managers and team leaders). • AFEST can be integrated into a broader training pathway leading to a certification such as <ul style="list-style-type: none"> - A national professional diploma or title issued by the State - A professional qualification issued by a training organisation or a consular chamber. <p>Therefore, learning outcomes resulting from AFEST can be validated by an Open Badge within the framework of RenovUp.</p>
<p>Method 2: "Séquence Pro" educational approach, which makes it possible to use real work and site situations to transform them into learning situations in training courses - France</p>	<p>The "Séquence pro" provides a better understanding of the concepts useful for the construction of RenovUp professionalisation paths:</p> <ul style="list-style-type: none"> • The professional situation which is the fact of the company. It is characterised by the concrete context in which people carry out a material or immaterial production in conditions of activity and safety which are defined beforehand. • The work situation is the fact of the individual intervening in the professional situation. It is therefore the set of activities performed by the individual to achieve the expected production. Professional experience and competence are built in the work situation. • The learning situation in the training centre (or online) is the work of the trainer who builds it from the observation of a work situation on the site and its analysis.
<p>Method 3: Dual VET – Observation and analysis of work situations in company - Spain</p>	<p>The method could help to highlight how to distribute roles within the management and setting up of the RenovUp professionalisation process:</p> <p>After observing and analysing the work situations faced by the site managers and team leaders on renovation site, these can be related to the learning outcomes identified in the qualification/training standard and thus be able to determine which are achievable in the practical context (work situations) and which must be addressed (or complemented) in the training centre.</p>

<p>Method 4: Analysis of the skills necessary for the role assigned From the identified necessary skills, drawing up an evaluation sheet and analysing the degree of coverage of each of them - Italy</p>	<p>The method can help to develop the ability to learn in the workplace, also through an effective management of time and information to gain:</p> <ul style="list-style-type: none"> - awareness of one's own learning process and needs in the workplace - ability to concentrate for extended periods - ability to reflect critically on learning objectives and aims - ability to recognise the coherence between the objective and the route used to reach it - knowledge of one's own habitual learning strategies - understanding of the strengths and weaknesses of one's skills to manage one's career and work patterns effectively - autonomy in identifying education/training opportunities and available guidance and/or support tools. <p>Moreover, this method can help in defining the contents to be deepened in the interviews and in defining the training path to be adopted (methodology and contents of the training).</p>
<p>Method 5: Standard of examination requirements for journeymen and masters in the craft education system - Poland</p>	<p>The set of learning outcomes defined in the standard (and subsequently confirmed in the Europass supplement) is rather general, but it can be extended by smaller effects e.g., by confirming further qualifications in the chamber of crafts, on vocational qualification courses, or sometime in the future - in the form of Open Badges (especially if so-called technical and technological innovations enter the market).</p> <p>A standard of examination requirements is the core curriculum for vocational education and the needs reported by employers – craftsmen. For standards of examination requirements for master level, much stricter requirements are applied (broader and higher complexity tasks, while at the same time, e.g. with a reduced examination task time).</p> <p>Standard can be a subject of further/constant development – dependently on the employers /professionals needs. That means that some skills or competences can be added constantly (environmental issues, technological problems, etc.). That also means that some of those skills can be equal to content of badges and validated in a way of “checking exams” by craft chambers or as a new, supplementary badge confirmed by other institution/authority. What is essential here is a fact that craft standards are not so often changed (last time it was done in a systemic way in 2012) so there is a space to offer some quick-responsive courses also for craftsmen that would be ready to fallow new challenges in the market.</p> <p>Generally, company needs are addressed to the members of a guild and craft chamber of branch organisation and then they are a matter of an acceptance process done ZRP’s building craft branch commission. The last phase is an introduction of the content (of proposal) into the examination standard for journeyman or craft master (and further dissemination).</p>

<p>Method 6: Implementation of tasks within a real job context - Greece</p>	<ul style="list-style-type: none"> • Learning in the workplace favours, compared to learning in organized training structures, those who have a better educational background as they build on an already existing knowledge basis. To this end, this method enables the development of professional skills related to an activity and can constitute part of a broader training program delivered by an education provider or a company. • Work on the main purpose of the business always takes precedence over intended actions in learning as the workers find themselves in real life situations when existing skill gaps become evident signalling the necessity for a possible training. In a few words, first the worker finds himself in a situation where he understands his deficiencies in skills and then proceeds into new learning paths. • A combination of vocational training in educational structures and concrete work situations is necessary to ensure integrated learning, but also to address the various problems that may arise during work experience. In the case of the challenge-based learning, challenges enhance learning environments by adding experiential learning, self-regulated learning, and critical thinking. This learner-centred approach allows learners to tackle problems that arise in the workplace and in the real world, thus enhancing portable skills such as teamwork, problem solving, risk-taking, public speaking, confidence, individual motivation, and creativity.
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4. Existing practices enabling training organizations to pre-evaluate and then position trainees in their professionalization process

Practices identified in the partner countries

Partner / Country	Practice / Main Characteristics	Prescribers / Implementers
CCCA-BTP / France	<p>Practice 1: Pragmatic positioning (pre-evaluation of initial knowledge, skills and competence of potential learners). Positioning is more a process than an isolated act. It is an integral part of the individual's training pathway. This practice consists in:</p> <ul style="list-style-type: none"> - Identifying the skills, know-how or knowledge acquired by a candidate before entering training. - Taking into account the individual needs and expectations of the learner. - Establishing an individualised training pathway considering the training content to be offered, the duration of the training period and the teaching methods. <p>Two different procedures:</p> <ul style="list-style-type: none"> - For INITIAL EDUCATION - For FURTHER (continuing) TRAINING. 	<p><i>Prescribers:</i> Training leading organisations</p> <p><i>Implementers:</i> Training centres Trainees Companies (sometimes)</p>

	All this positioning leads to the production of personalised courses, which are not fixed in time and content, to allow for possible regulation of the latter.	
CCCA-BTP / France	<p>Practice 2: CléA certification - a diploma recognised throughout France that allows you to learn throughout your career.</p> <p>This certification is, in practice, a system for assessing, training and certifying interprofessional knowledge and skills. The CléA certification gives candidates the opportunity to test their levels and to confront their visions of the professional environment with the realities and requirements of the job market. The candidate is assessed in 7 areas of transversal and professional skills leading to competences.</p> <p>The candidate for CléA certification will be accompanied in an initial assessment process in order to identify his or her knowledge of the 7 areas of the common base of knowledge and professional skills.</p> <p>Total duration of the procedure: 7 hours plus intersessional work. The total duration of the procedure will not exceed one month.</p>	<p><i>Prescriber:</i> National educational Authorities.</p> <p><i>Implementers:</i> Training centres Companies Trainees</p>
FLC Asturias / Spain	<p>Practice 3: Dual VET – Identification of individualised curricula in VET.</p> <p>This practice offers a set of tools enabling training centres and companies to identify, together, what kind of skills and aptitudes potential learners already possess and what still must be acquired. Within this perspective, positioning is not only considered as a preparation of teaching but also:</p> <ul style="list-style-type: none"> - Preparing the learner to join the world of work. - Transmit values and principles to him/her. - Generate curiosity and desire to learn. <p>In the positioning the role of the company tutor is essential: he/she must identify the requirements to be met by the future learner according to the company's needs (tool 2.1), and then, in a close collaboration with the tutor of the training centre, customize the training considering both the learner's abilities (tool 2.2) and his/her personality features (tool 2.3) – see national report (annex).</p>	<p><i>Prescribers:</i> Regional and national VET administrations Chambers and Entrepreneurial Organizations</p> <p><i>Implementers:</i> Training centres Companies Potential trainees</p>
Formedil / Italy	<p>Practice 4: LEARNING BY DOING - Starting from an existing profile or identifying which are the skills that the person must acquire. The validation process starts with a pact between three individuals: employer/company mentor, employee and training provider through the trainer/tutor meeting. From this meeting the professional development pathway of the worker (PSP) is established. After all the actors involved accept the conditions of the agreement, an informal interview with the worker takes place to make a first assessment of his/her competences. In the second meeting there is a formal analysis of competences: the worker presents his/her certificates/attestations, the tutor/trainer will analyse the documentation and check the competences through the interview and tests. At the end of this process, an ad hoc training path will be defined for the worker for the acquisition of new competences or the improvement of the existing ones. This path will include formal and informal meetings at the training centre, at the company's premises and on the construction site where the work phases will be observed (Learn by doing). At the end of the course, a</p>	<p><i>Prescribers:</i> Training centres</p> <p><i>Implementers:</i> This process carried out in cooperation with the company through the employer or company tutor.</p>

	final check will be carried out and a certificate of the acquired competences will be issued, also through the updating of the worker's booklet.	
Pedmede / Greece	<p>Practice 5: Specialization Course for Museum and Cultural Professionals</p> <p>The sectoral partners undertook the task to contact museums and cultural organizations and ask them their needs in terms of digitalization activities. They organized events in order to inform them about the exact modules that the learners had been training and together they created a list of possible projects-activities that the learner could implement while in job placement that would actually fulfill the needs of the museum.</p> <p>The partners took the responsibility to align these activities with the project modules and provided an indicative duration in hours so that the learner along with his/her supervisor in the museum choose together one or more activities to implement.</p> <p>The needed skills had been identified via quantitative and qualitative research that resulted to a skills index. Following the completion of the blended learning, the implementers together (training centres and companies), designed a list of practical activities where some of identified skills were put into practice. Therefore, each trainee was evaluated based on the effectiveness of the practical exercise (s)he chose to complete.</p>	<p><i>Prescribers:</i> Museum and professional organizations</p> <p><i>Implementers:</i> Training centres Companies</p>

Potential usefulness of the practices identified for the design of the planned initial positioning of learners within their professionalisation pathways

Practice / Country	Usefulness and Advantages for RenovUp
<p>Practice 1: Pragmatic positioning (evaluation of initial knowledge, skills and competence of potential learners). - France</p>	<ul style="list-style-type: none"> - Expression of needs by the candidate for training - Identification of the objective based on a grid of competences targeted in the context of the training - Cross-referencing the two previous steps to identify the training content to be proposed.
<p>Practice 2: CléA certification - a diploma recognised throughout France that allows you to learn throughout your career. - France</p>	<ul style="list-style-type: none"> - The initial interview process, taking at least a month - A series of at least two interviews to fully understand the needs and desires of the potential learner - The preparation of materials specifically adapted to the skills concerned by the training - The professionalisation of the participants (notably the assessor).
<p>Practice 3: Dual VET – Identification of individualised curricula in VET. - Spain</p>	<p>This practice might facilitate personal attention and encouragement to the future site managers and team leaders, taking into account their individual competences. Learners could receive one-on-one tutoring as needed and progress at their own possibilities, moving from one level to the next as they are ready.</p>

<p>Practice 4: LEARNING BY DOING - Starting from an existing profile or identifying which are the skills that the person must acquire - Italy</p>	<p>Complete the acquisition of missing skills in training courses by analysing the experiences already made by the training centres, it is possible to identify the transversal skills that are missing for team leaders and site managers.</p> <p>From this analysis an ad hoc training course could be developed for each of these figures. This pathway will effectively allow them to acquire the skills required by the market, companies and workers and avoid developing redundant training paths. This is thanks to the observation of work activities on the site and thanks to the training pact signed with the company and the worker for the worker's continuous professional growth.</p>
<p>Practice 5: Specialization Course for Museum and Cultural Professionals - Greece</p>	<p>This practice could help the RenovUp project as it provides an immersive experience for the learners where they can learn first-hand, by applying their knowledge and experience to a pre-defined but real work situation. This is cocreated by the employer (supervisor) and the training providers of the project identifying the specific activities to be delivered in the workplace during the placement; learning objectives and associated tasks; reporting and feedback mechanisms; and mentoring support.</p> <ul style="list-style-type: none"> - Expression of current needs by the company in terms of practical activities that a trainee could do. - Identification of all learning outcomes linked to each of the suggested practical activities. - Set-up of monitoring procedures and roles: 1. The trainee's in-company supervisor, 2. The external training company supervisor, 3. The union of employers monitored the company supervisor for any assistance needed.

5. Existing practices of validation and formal/non formal recognition of learning outcomes in work situations (ex. Open Badges)

Practices identified in the partner countries

Partner / Country	Practice / Main Characteristics	Prescribers / Implementers
<p>CCCA-BTP / France</p>	<p>Practice 1: THE FARMS OF THE FUTURE - COMPANIONSHIP IN AGROECOLOGICAL GARDENING</p> <p>Agroecological Farming Apprenticeship Programme is an 8-month itinerant training course with local educational support, acquisition of skills through experience and recognition of skills by peers.</p> <p>The project responds to a double social challenge: to train the future generation of farmers in agricultural practices that are respectful of the environment and human beings (setting up or salaried farming), and to facilitate the socio-professional integration of people, including refugees in France, by the recognition of their skills and competences with Open Badges.</p>	<p><i>Prescribers:</i> Territorial Agroecological organisations.</p> <p><i>Implementers:</i> Training centres Companies/Farms</p>

	<p>Recognition of learning outcomes is achieved through a system of digital badges, a digital record of achievement or competence/ability/aptitude.</p> <p>Assessments are carried out every two months in parallel with monthly professional monitoring.</p> <p>Regular presentations of individual and group work are organised.</p> <p>A questionnaire to validate the acquisition of knowledge is filled in at the end of the training.</p> <p>A training certificate is issued at the end of the course, as well as a skills booklet.</p>	
CCCA-BTP / France	<p>Practice 2: "CONSTRUCTION GENIUS" NATIONAL COMPETITION (My-Construction Pass)</p> <p>My-Construction Pass: is a common virtual space to connect, by means of open badges, networks of partners who need and want to connect with each other around actions for the training and attractiveness of young people for the construction trades. Today, a dozen partners have already joined the collective project</p> <p>In the construction sector in France, the first initiative was born during the " CONSTRUCTION GENIUS " competition to respond to the COVID19 health crisis with Open Badges for participation and winners for the 2020 edition. Three types of badges:</p> <ul style="list-style-type: none"> - A participation badge - A finalist badge - A winner's badge. 	<p><i>Prescriber:</i> French Concrete School Foundation</p> <p><i>Implementers:</i> Organisations and communities wishing to implement a recognition system based on Open Badges</p>
CCCA-BTP / France	<p>Practice 3: Badge "Inclusion through economic activity (IAE)" in the Centre Val de Loire Region</p> <p>This experimentation should allow job seekers and employees in the process of integration to have their informal skills acquired throughout their career recognised and to be able to encapsulate them in a "digital badge" recognised by stakeholders such as company managers, large groups, professors, trainers, and thus facilitate recruitment.</p> <p>To issue a badge, the partner must have participated in the 1st Steering Committee of the action.</p>	<p><i>Prescribers:</i> Federation of Inclusion companies in the Centre-Val de Loire Region French Centre Val de Loire regional Authority</p> <p><i>Implementers:</i> League of Education (regional body) Inclusion companies</p>
FLC Asturias / Spain	<p>Practice 4: Dual VET – VALIDATION AND FORMAL RECOGNITION OF LEARNING OUTCOMES IN WORK SITUATIONS IN THE FRAME OF THE DUAL VOCATIONAL TRAINING SPAIN</p> <p>Each Spanish Autonomous Community establishes how the company tutor must evaluate the training of the learner.</p> <p>The evaluation can be: - Quantitative, from 1 to 10 or from 1 to 5. - Qualitative, qualifying training in a scale from "Very satisfactory" to "Unsatisfactory", or from "Suitable" to "Not suitable".</p> <p>In addition to valuing the knowledge related to the professional learning, the Regional Authorities of Education can ask the company tutor to observe and evaluate other types of skills of the</p>	<p><i>Prescribers:</i> Regional and national VET administrations Chambers and Entrepreneurial Organizations</p> <p><i>Implementers:</i> Training centres Companies</p>

	<p>learner such as: autonomy, initiative, organization, teamwork, ability to solve problems, etc.</p>	
<p>Formedil / Italy</p>	<p>Practice 5: LEARNING BY DOING - IDENTIFICATION - VALIDATION – CERTIFICATION Steps: 1. Reception and information, 2. Recognition of the experiences declared by the person, 3. First identification of the skills corresponding to the experience gained, 4. Production of evidence, 5. Selection of evidence, 6. Possible preparation of the Europass CV, European Language Passport, Citizen's Training Booklet, 7. Release of the Dossier of Evidence and (possibly) of the Dossier of experiences. The training centre analyses the skills acquired by the worker: through formal and informal interviews, administration of tests, verification of work activities in the training centre workshops and through observation of work phases on the construction site. An evaluation grid containing scores for each skill is used and will be updated from time to time during the training course. This tool will be used to verify the evolution of professional growth during the training pathway. The employer/company tutor will use a work sheet (daily register form) where each week he/she will record the work phases carried out by the worker, reporting within it the evaluation of the work carried out by the worker. This tool will be used by the tutor/trainer to analyse the worker's growth and intervene if critical points are highlighted.</p>	<p><i>Prescribers:</i> Training centres, companies</p> <p><i>Implementers:</i> Training organisations accredited to provide training paths and vocational guidance. Public and private work services.</p>
<p>ITE Łukasiewicz / Poland</p>	<p>Practice 6: Certificate for trainers of NGOs In frame of the initiative, trainers (members of the NGO Trainers Association) confirm that they have coaching skills in planning and training. Candidates can apply for a base certificate followed by certificates of level I, II or III. For each certificate, requirements are defined, including a list of competences necessary for the acquisition of the qualification The person wishing to proceed with the validation procedure initiates and leads the process. He/she shall complete a questionnaire describing his/her coaching experience and the number of trainings carried out and completed. The most important stage of validation is to conduct the so-called training under the supervision. The supervisor evaluates both the training program and how it is conducted. His note and recommendation go to the certification committee, which may ask for further clarification if in doubt. In order to avoid irregularities in the validation process, the Association has established standards for carrying out supervisions. Supervision process: 1. Introductory session – the Supervisor takes a contract with the supervised person (number of meetings, organizational framework and conditions, areas of supervision), discusses the assumptions and outline of the training and provides feedback</p>	<p><i>Prescriber:</i> Association of Non-Governmental Trainers</p> <p><i>Implementers:</i> Training centres. Candidates to certification.</p>

	<p>on it. Responsibility for the training program rests with the supervised person.</p> <ol style="list-style-type: none"> 2. Participating session – The supervisor participates in the workshop/training carried out the supervised person (direct observation of the coaching work). 3. Closing session – After the training, the Supervisor provides feedback, in particular regarding the competences required for a certificate of a given degree. Feedback, in addition to describing strengths and weaknesses, should also include development recommendations. <p>It is example of “environmental certification”. Such certificate is valid only for those who recognize this Association of Non-Governmental Trainers and accept their requirement as valuable.</p>	
<p>ITE Łukasiewicz / Poland</p>	<p>Practice 7: Validation of market qualifications in the Integrated Qualifications System – legally regulated validation procedure</p> <p>Validation is available for everybody who complies with prerequisites. Two cases:</p> <ul style="list-style-type: none"> – Candidates for journeymen and masters in professions corresponding to a given type of craft, meeting the criteria laid down by law (concerning their primary/secondary school leaving certificates, professional titles, apprenticeships) – Candidates for so called “checking exam”, who have completed continuing education in the field of vocational skills falling within the scope of the profession covered by the examination and who hold a certificate proving completion of this form of training. <p>So called “market qualification” is a qualification that is given outside the formal education system. It may be included into the Integrated Qualifications System (ZSK) at the request of entities acting in the areas of economy, labour market, education or training.</p> <p>Validation can consist of three stages:</p> <ul style="list-style-type: none"> - identifying - documenting - verifying learning outcomes. <p>In carrying out the examination tasks, the following elements are assessed:</p> <ol style="list-style-type: none"> 1. Proper selection of tools and instruments, and the ability to properly use them 2. Maintaining the right attitude during work 3. Observing health and safety rules as well as environmental protection rules 4. Ordering undertaken activities 5. Cleanliness, accuracy and regularity of work, 6. Speed of orientation of the candidate in a new workshop environment. <p>The result of the common work of the advisor with the person joining the validation may be better preparation for the verification stage or the development of a plan for further educational and professional development.</p>	<p><i>Prescriber:</i> Ministry of Education and Science. Educational Research Institute (IBE) as the body supervised by the Ministry.</p> <p><i>Implementers:</i> Certifying Authorities (IC). External quality assurance body (PZZJ).</p>

	The certifying authority (IC) plans the exact course of the verification process and presents it on its website.	
ITE Łukasiewicz / Poland	<p>Practice 8: Validation of competences entitling to perform independent technical functions in construction sector – a legally regulated solution.</p> <p>The condition for obtaining building rights is to pass the examination with knowledge of the construction process and skills in the practical application of technical knowledge. The competent chamber of professional self-government shall recognize a professional experience which has been completed by candidate after graduation (it can be confirmed only by a person being registered in a Chamber and having appropriate building rights.) Chamber conducts a qualification procedure consisting of two stages:</p> <p>(1) verification of education and professional experience as suitable for the speciality of building rights (verification of the documents incl. statements confirming the traineeship which has been conducted by candidate).</p> <p>(2) an examination of knowledge of the construction process and the practical application of technical knowledge (the examination consists of a written and an oral part; no separate part of the examination taking place directly on the construction site).</p>	<p><i>Prescriber:</i> Ministry for Economic Development and Technology</p> <p><i>Implementers:</i> Polish Chamber of Civil Engineers + regional chambers</p>
Pedmede / Greece	<p>Practice 9: Validation of market qualifications in the Integrated Qualifications System – ISO 17024</p> <p>Example: Training and Certification of employees in the construction and materials sector / BIM Expert – PEDMEDE</p> <p>In detail, the certification path consisted of the following steps:</p> <ol style="list-style-type: none"> 1. Submission of the application for certification and the necessary supporting documents 2. Verification by the Hellenic Accreditation Body (ESYD) of the certification application and the supporting documents of each participant 3. Since the application was approved, the certification card of each participant was issued 4. Creation of an accredited certification exam schedule 5. Participation of the participants in the examination 6. Issuance of results at the end of the certification examination 7. Issuance of the decision to issue certificates and certificates to those who have completed the certification exam 	<p><i>Prescribers:</i> PEDMEDE Hellenic Accreditation Body</p> <p><i>Implementers:</i> Certification centres</p>

Potential usefulness of the practices identified for the design of the planned validation of individual skills and learning outcomes

Practice / Country	Usefulness and Advantages for RenovUp
Practice 1: THE FARMS OF THE FUTURE - COMPANIONSHIP IN AGROECOLOGICAL GARDENING - France	This Open Badge makes it possible to produce evolving job references, to create a network articulated around each skill, to build a society of cooperation and resilience and to bring out the skills resulting from informal experience.
Practice 2: "CONSTRUCTION GENIUS" NATIONAL COMPETITION (My-Construction Pass) - France	This Open Badge represents not only a declaration but also a digital validation of a person's skills, knowledge and experience, acquired formally or informally, which can be added to a CV. Open badges can enhance and highlight a network of skills and know-how specific to a profession.
Practice 3: Badge "Inclusion through economic activity (IAE)" in the Centre Val de Loire Region - France	The Federation of integration companies in the Centre-Val de Loire region has set itself the goal of promoting the informal and non-certifiable skills acquired by employees on integration programmes throughout their careers and making them accessible to employers as part of the " <i>Badgeons l'IAE en Centre-Val de Loire</i> " experience.
Practice 4: Dual VET – VALIDATION AND FORMAL RECOGNITION OF LEARNING OUTCOMES IN WORK SITUATIONS IN THE FRAME OF THE DUAL VOCATIONAL TRAINING SPAIN - Spain	This practice might facilitate the validation and recognition of the learning outcomes and soft skills acquired in real-world learning situations in the company, facilitating presumably their integration in future Open Badges their own possibilities, moving from one level to the next as they are ready.
Practice 5: LEARNING BY DOING - IDENTIFICATION - VALIDATION – CERTIFICATION - Italy	Analysis of the evidence and identification of potentially approvable skills, definition of the contents to be deepened through the interview and its implementation. Structuring and administration of tests, formulation of a validation decision in the examination documents. Communication.
Practice 6: Certificate for trainers of NGOs - Poland	Practice 6: Certificate for trainers of NGOs In frame of the initiative, trainers (members of the NGO Trainers Association) confirm that they have coaching skills in planning and training. Candidates can apply for a base certificate followed by certificates of level I, II or III. For each certificate, requirements are defined, including a list of competences necessary for the acquisition of the qualification The person wishing to proceed with the validation procedure initiates and leads the process. He/she shall complete a questionnaire describing his/her coaching experience and the number of trainings carried out and completed. The most important stage of validation is to conduct the so-called training under the supervision. The supervisor evaluates both the training program and how it is conducted. His note and

	<p>recommendation go to the certification committee, which may ask for further clarification if in doubt. In order to avoid irregularities in the validation process, the Association has established standards for carrying out supervisions.</p> <p>Supervision process:</p> <ol style="list-style-type: none"> 1. Introductory session – the Supervisor takes a contract with the supervised person (number of meetings, organizational framework and conditions, areas of supervision), discusses the assumptions and outline of the training and provides feedback on it. Responsibility for the training program rests with the supervised person. 2. Participating session – The supervisor participates in the workshop/training carried out the supervised person (direct observation of the coaching work). 3. Closing session – After the training, the Supervisor provides feedback, in particular regarding the competences required for a certificate of a given degree. Feedback, in addition to describing strengths and weaknesses, should also include development recommendations. <p>It is example of “environmental certification”. Such certificate is valid only for those who recognize this Association of Non-Governmental Trainers and accept their requirement as valuable.</p>
<p>Practice 7: Validation of market qualifications in the Integrated Qualifications System – legally regulated validation procedure - Poland</p>	<p>It is a recognition method of learning outcomes – applicable in case of construction foremen (site managers and team leaders) in Poland (description of their qualifications is included in the Integrated Qualifications System).</p> <p>Certificates issued by craft chambers after passing the “checking” exam de facto play a role similar to open badges, allowing for the verification and validation of small portions of learning outcomes, smaller than qualifications, but with a clear expression of their professional character (including issues from the oral part of the examination, where health and safety, environmental protection are concerned. They don't have a digital form.</p>
<p>Practice 8: Validation of competences entitling to perform independent technical functions in construction sector – a legally regulated solution - Poland</p>	<p>This practice assumes that the most reliable proof of having the required competences (in this case entitling to perform independent technical functions in construction) is the appropriate duration of professional practice.</p> <p>The functions of the construction manager are so complex, they concern so long-term activities that it is difficult to imagine a practical exam (directly on the construction site) giving building licenses/rights (it would have to last many months). The assessment at the workplace may rather concern specific skills or competences (would be easier for foreman than manager).</p> <p>This is a practice based on the opinions / statements of other people from the industry with appropriate permissions for this purpose (professional experience of the candidate can be confirmed only by a person with appropriate building rights and entered on the list of members of the Chamber). Such approach could be used also in RenovUp project for validation of skills of site managers or foreman in construction sector (assessment by more experienced experts – definition of “expert” needed of course).</p>

	Today, in Poland there is a lack of a way to confirm foreman competences at all and at construction-site as well. RenovUp could help us to develop competence profile for foreman in construction branch and validation methods that would consume craft experiences.
Practice 9: Validation of market qualifications in the Integrated Qualifications System – ISO 17024 Example: Training and Certification of employees in the construction and materials sector / BIM Expert – PEDMEDE - Greece	Could be an alternative method of recognition since the certification scheme of ISO 17024 is common in all countries.

6. Conclusion: Ideas on how to exploit the information collected for the design of the professionalization pathways

The partners of the RenovUp project must now face the major challenge, which is the design of professionalisation pathways for site managers and team leaders working on building renovation sites. These must be, as agreed, individualised and built upon work-based learning, in line with the expectations of enterprises, identified during the IO1 phase - Activities 1 and 2, between October 2020 and May 2021 (see transnational report and corresponding national reports). As their experience in the project grows, the partners are moving away from an exclusively modular approach to vocational training and are becoming increasingly convinced that future training schemes will be more and more individualised, anchored in work situations and addressing increasingly heterogeneous learners. The training response must therefore be flexible and adjustable to many unforeseen circumstances.

These trends are also perceptible in the information collected when identifying existing examples of work-based learning, individual positioning of learners before they enter their vocational training courses/professionalisation, as well as validation of personal abilities, skills and competences. The methods and practices identified show the importance of the following factors in vocational training:

- **Increased consideration of co-activity and unpredictability** in professional activities, including those of site managers and team leaders on building renovation sites (in all partner countries).
- **Recognition of the role of the company in the training process** as the primary place for acquiring professional skills and not just a place of application or internship (highly formalised in France and in Spain).
- Distinction between "**professional situation**" and "**work situation**" highlighted by CCCA-BTP (see "Séquence PRO" method, FR) and between "**work-based learning**" and "**workplace learning**" highlighted by Pedmede (see "Implementation of tasks within a real job context", GR).

- The understanding of "**competence**" as a **cross between "capacity" and "activity"**, in coherence with the definition given by the CEDEFOP. Therefore, open badges should be used to recognise this competence, to be proven in the work situation, and not only the professional capacity or aptitude. This implies that, quite naturally, if the partners wish to work on **competence improvement schemes, they must design them in relation to the work situations (activities) in company.**
- **Initial positioning**, different from final evaluation of learning outcomes, even if it is not yet practised to its full potential everywhere, **remains a future and an indispensable added value** for the professionalisation pathways to be developed. The practices provided by CCCA-BTP, FLC Asturias and ITE Łukasiewicz demonstrate that **positioning is a process and not a single act.**
- **Validation, transparency and recognition of both personal skills and learning outcomes** takes place (especially in France and Spain, but also in Poland and Greece) not only in training organisations or specialised examination centres, but **in company**, with appropriate company tutors.

Starting from these general observations, it seems essential to integrate into our educational and training engineering work a number of elements found through the analysis of good practices discussed in this report.

For the conception of work-based learning (at workplace and in training centre)

- Adopt definitively a competence-based approach and not a skill-based approach visible (cf. French Methods 3.1. & 3.2, Spanish Method 3.3)
- Combine competence-based learning in work situations with formative evaluations during training activities in the company and in the training centre (cf. French Methods 3.1 & 3.2)
- Work on the methods of observation and analysis of work situations in companies, as well as on the distribution of training activities between company and training centre, based mostly on experiences made more specifically in France (Method 3.2) and Spain (Method 3.3)
- Classify competences to be acquired in work situations by drawing inspiration from the Polish Method 3.5 and by including the three following dimensions: cognitive (content), emotional (motivation) and social (interaction), with reference to mediation between them and in connection with "Challenge-based learning" concept (Greek Method 3.6)
- Explore existing tools useful for the identification and description of specific competences required from site managers and team leaders working on building renovation sites (review all methods analysed, including Italian Method 3.4).

In conclusion, explore, above all, the links between professional activities and the capacities to be mobilised for these activities in the process of emergence and consolidation of competences.

For the conception of pre-evaluation and positioning of future trainees in their professionalisation process

- Consider pre-evaluation and positioning as a Step 1 (compulsory) of the professionalisation process, crucial for its success (cf. French Practices 4.1. & 4.2 - especially for its pacing in time and for the identification of accompanied and autonomous work of the future learners, Spanish Practice 4.3 – for the identification of individualised curricula)
- Explore existing tools useful for the pre-evaluation and positioning of future or current site managers and team leaders working on building renovation sites in their professionalisation pathways (review all methods analysed, including Italian Practice 4.4, Polish 4.5 and Greek 4.6)
- Analyse the practices enabling the trainers to check periodically that the contents of professionalisation pathways are in line with the initial positioning and the ways in which they are adapted to the evolving situations (complexity and unpredictability in professionalisation processes – all Practices concerned – from 4.1 to 4.6).

In conclusion, the analysis of the practices identified shows that pre-evaluation and positioning processes as a prerequisite for training can still be improved. Yet our research shows that this is an essential step in understanding the link between learners, the work situation they will be working in and the progress they need to make to work with the expected competence (in other terms, the link between the worker, professional activities and capacities to be mobilised for these activities in the process of emergence and consolidation of individual competences).

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For the validation and recognition of the capacities, skills, learning outcomes and competences of the target beneficiary groups

- Stabilise the validation and recognition processes by drawing on Spanish (5.4), Italian (5.5), Polish (5.7 & 5.8) and Greek (5.9) practices
- Create a link with the planned Open Badges and the ISO 17024 standard for the recognition processes of qualifications (Greek Practice 5.9)
- Analyse more closely the Polish Practices 5.6, 5.7 & 5.8 concerning the recognition of competences acquired at work or in other informal ways, through the Integrated Qualification System
- Solve digital and virtual space issues with the experience made through French Practices 5.1 & 5.2.

In conclusion, some methodological approaches for initial positioning and final evaluation can be used in both directions, even if their purpose is not the same. Indeed, both stages are individualised and give rise to coaching procedures that are often similar in design.

Annex : Detailed contribution from the project partners

CCCA-BTP (France)

Executive Summary

The CCCA-BTP carried out its research on the basis of available documentary resources. Three researchers in training and pedagogical innovation, all part of the training department, participated in this documentary research, which was carried out between the beginning of June and the end of July 2021. A grid provided was used as a basis for reporting the results.

We found that, despite a fairly abundant theoretical and methodological framework concerning mainly on-the-job training actions, few concrete examples of application in the field existed. Thus, the integration of work situations into training courses on a larger scale, the positioning of training candidates in their courses, and the recognition of learning outcomes with open badges are still relatively unmet challenges.

Nevertheless, we have identified, in the French context, some practices which may be interesting to analyse further in the framework of the RenovUp project:

- * Better consideration of co-activity and unpredictability in the activities of site manager and team leader thanks to the AFEST (*action de formation en situation de travail*) approach.
- * Recognition of the role of the company in the training process as the primary place for acquiring professional skills and not just a place of application.
- * Distinction between "professional situation" and "work situation" to be undertaken in the training engineering work (see "Séquence PRO" approach).
- * The understanding of the notion of "competence" as a cross between "capacity" and "activity". Therefore, open badges should be used to recognise this competence, to be proven in the work situation, and not only the professional capacity or aptitude.
- * Positioning, even if it is not yet practised to its full potential, remains a future and an indispensable added value for the professionalisation pathways to be developed in the framework of the RenovUp project.

This could be exploited in a more particular way:

- * Taking into account the professional experience of the candidates by following the "Séquence Pro" method and the positioning practiced by the BTP CFA Normandie training centre
- * Links between professional activities and the capacities to be mobilised for these activities in the process of emergence and consolidation of competences
- * Links to be created between the competences resulting from the learning process in work situations and their recognition with open badges based on the "Farms of the future" experience
- * "CléA" experience for the practical organisation of the positioning process in the professionalisation pathways (accompanied work sequences and autonomous work of the training candidates).

Part 1:

Existing methods of observation and analysis of work situations likely to be exploited for the work-based learning (in the construction sector or elsewhere).

Method 1: AFEST - On-the-job training action, competence-based approach and individualisation of paths

Key areas of investigation	Synthesis of the research findings
Definition of the method 1 and explanation of its context.	<p>AFEST (<i>action de formation en situation de travail</i>) - on-the-job training action - was included in the law reforming vocational training of 5 September 2018. It is formal training in a work situation, i.e. in the production environment. Its ambition is to organise encounters with objects and situations that help people to learn, build and develop capacities to understand and act.</p> <p>Experimental actions have been conducted in France since 2018, mainly in branches where on-the-job training is a tradition (car repair, food production trades, hotels, restaurants, construction). However, there is a difficulty in moving from the experimental phases of formalised AFEST to its deployment on a larger scale.</p>
Main players (prescribers, users, evaluators, etc.)	<p>Coactivity between training centre trainers and cooperation with teaching assistants, directors and other staff, mainly those who provide a link with companies, plus links with vocational training funders (such as the regional Constructyts advisers for the construction sector in France) and company employees are fundamental to a successful AFEST.</p> <p>AFEST Players</p> <ul style="list-style-type: none"> • The learner: the person trained via AFEST • The AFEST referent: he/she designs the course engineering and supervises the AFEST guides at the training centre or at regional level (if the training centres work in a network) • The AFEST supervisor at the training centre: a trainer, who may or may not be an expert in the field. This may be a person trained in the explanatory interview and who is not necessarily a trainer. He/she accompanies, in conjunction with the AFEST trainer in the company, the implementation of the process, from the diagnosis of the opportunity and feasibility of the AFEST to the evaluation of the learning outcomes. • The AFEST trainer in the company: employee, company director or manager who will train the learner.
Description of the method 1.	<p>AFEST is confirmation that production situations can be used for training purposes, provided that their organisation and implementation are properly supervised. The implementation of a training action in a work situation includes:</p> <ul style="list-style-type: none"> • Analysis of the work activity in order to adapt it, if necessary, for teaching purposes. • The prior appointment of a trainer who can perform a tutorial function.

Key areas of investigation	Synthesis of the research findings
	<ul style="list-style-type: none"> • The setting up of reflective phases, distinct from the work situations and intended to use the lessons learned from the work situation for teaching purposes, which make it possible to observe and analyse the differences between the expectations, the achievements and the knowledge gained from each work situation in order to consolidate and explain what has been learned • Specific assessments of the training outcomes that mark or conclude the action. <p>AFEST Steps:</p> <ol style="list-style-type: none"> 1. Checking the appropriateness of the AFEST in a specific situation (request from the company, request from the future learner, professional retraining, etc.): action taken by the AFEST referent and/or the adviser from the funding body. 2. Identifying the skills to be developed in a work situation: the AFEST referent and/or the AFEST coach. 3. Elaborating the pedagogical and commercial offer: the AFEST referent and/or the AFEST coach. 4. Positioning the learner: the AFEST referent and/or the AFEST coach. 5. Building and implementing the training pathway: the AFEST referent and/or the AFEST coach. 6. Analysing the action and having it analysed: the AFEST supervisor. 7. Adapting the training pathway: the AFEST referent and/or the AFEST supervisor. 8. Measuring the learner's achievements: the AFEST supervisor. 9. Analysing the approach and its impact: the AFEST referent and/or the AFEST coach.
<p>How the competence, resulting from a work-based learning, is defined and understood within method 1.</p>	<p>The competency-based approach and the individualisation of courses are major challenges for AFEST. Competence, in this context, is a set of knowledge and skills which enable the trainee to understand the professional situation and to act in it. During his training period in the training centre, the learner acquires knowledge and know-how (which may be theoretical and practical). Then, when he/she returns to the workplace, he/she is able to apply the knowledge and skills acquired in the training centre (i.e. to transform them into competences).</p> <p>Competence, in the context of AFEST, is expressed through the following indicators (<i>Santelmann, Education Permanente, Dossier L'AFEST, 2021, p. 132</i>):</p> <ul style="list-style-type: none"> - Degree of adherence of the learner to the activity (interest in the actions and tasks to be performed - motivation) - Anticipation and adaptation to the situations encountered and degree of ease in carrying out the actions and tasks assigned) - Mastery of the professional exercise (safety of gesture, skill, self-confidence) - Initiative in the face of unforeseen circumstances - Good management of errors. <p>These indicators can be considered in the evaluation processes of learning outcomes from work situations.</p>
<p>Potential usefulness of the method 1</p>	<ul style="list-style-type: none"> • AFEST can be used as a single training modality or combined with other training modalities.

Key areas of investigation	Synthesis of the research findings
for the design of professionalisation schemes	<ul style="list-style-type: none"> • AFEST allows the development of professional skills linked to a specific activity (such as site managers and team leaders). • AFEST can be integrated into a broader training pathway leading to a certification such as <ul style="list-style-type: none"> - A national professional diploma or title issued by the State - A professional qualification issued by a training organisation or a consular chamber. • The learning outcomes resulting from the AFEST can be validated by an Open Badge.

References :

AFEST action de formation en situation de travail - GUIDE de déploiement (méthodologie ET OUTILS) – CCCA-BTP – DPFIP – Pôle Certifications – 2017

Education Permanente, Dossier L'AFEST, 2021

Method 2: « SÉQUENCE PRO »

Key areas of investigation	Synthesis of the research findings
Definition of the method 2 and explanation of its context.	<p>"Séquence Pro" is an educational approach, set up by the CCCA-BTP more than 15 years ago, which makes it possible to use real work and site situations to transform them into learning situations in training courses.</p> <p>This approach was designed to support and professionalise training centre instructors, by preparing them to make better use of work situations when training apprentices in training centres. It also gives meaning to learning by anchoring it in the reality of the learners and thus avoids overly theoretical and decontextualised approaches.</p> <p>It is still applied in the training centres in relation with the CCCA-BTP.</p>
Main players (prescribers, users, evaluators, etc.)	<p>"Séquence Pro" is an initiative of the CCCA-BTP training department, set up in agreement with the social partners of the French construction sector. It is still managed by the CCCA-BTP training advisors and relayed to regional and local training organisations. There are two main user groups:</p> <ul style="list-style-type: none"> - Designers of training actions in training centres. - Trainers (mainly professional disciplines).
Description of the method 2.	<p>The approach consists of three phases:</p> <p>4. OBSERVE and ANALYZE the work situations characteristic of the jobs or functions.</p> <p>The description of a work situation consists of describing the individual's activities in a work situation.</p> <p>Each work situation :</p> <ul style="list-style-type: none"> - has a beginning and an end, - is oriented towards a goal, - takes into account constraints (means, environments, methods, materials, manpower),

Key areas of investigation	Synthesis of the research findings
	<ul style="list-style-type: none"> - requires material and immaterial resources, - takes place in a context, - is broken down into activities and then into tasks. <p>5. BUILD the learning sequence (situation) from the work situations and at the same time learning situations in the company, ORGANISE the different sessions. The learning situation is the contextualisation of the sequence objective.</p> <ul style="list-style-type: none"> - It is always drawn from real and concrete situations that make sense for the apprentice. - In the professional fields, the learning situations are always taken from work situations observed in companies. - It allows the apprentices to be put to work on the basis of a problem which they can understand, i.e. which is inspired by their experience. - The aim is to acquire the targeted knowledge and know-how that can be transformed into skills. <p>6. MODERATE the learning sequence in the training centre, in three stages:</p> <ul style="list-style-type: none"> - Analysis by the apprentices of the work situation experienced in the company. - Integration of the apprentices' professional experience in different learning sessions in the training centre. - Synthesis work and preparation of the training in the company. This synthesis is individual and focused on two aspects: <ul style="list-style-type: none"> ° What I learned in the training centre (questions and answers). ° How I am going to use what I have learned in the training centre in work situations in the company.
How the competence, resulting from a work-based learning, is defined and understood within method 2.	<p>Competence is here a meeting between capacity and activity, articulating the individual, the situation and the environment.</p> <p>activity, linking the individual, the situation and the environment. Competence is therefore above all a capacity to combine and mobilise resources in a relational and collaborative context, while showing responsibility, autonomy and creativity.</p> <p>The fact of having resources (internal and external, such as the knowledge and know-how acquired in the training centre) is not a guarantee of being able to be competent, as one must also be able to combine them and put them to use in a context or situation. This is the meaning of competence in the framework of the "Pro Sequence".</p>
Potential usefulness of the method 2 for the design of professionalisation schemes	<p>The "Séquence pro" provides a better understanding of the concepts useful for the construction of RenovUp professionalisation paths:</p> <ul style="list-style-type: none"> - The professional situation which is the fact of the company. It is characterised by the concrete context in which people carry out a material or immaterial production in conditions of activity and safety which are defined beforehand. - The work situation is the fact of the individual intervening in the work situation. It is therefore the set of activities performed by the individual to achieve the expected production. Professional experience and competence are built in the work situation. - The learning situation in the training centre is the work of the trainer who builds it from the observation of a work situation on the site and its analysis.

Part 2

Practices enabling training organizations to previously evaluate and then position trainees in their professionalization process (modular training): in the construction sector or elsewhere.

Practice 1: Positioning (evaluation of initial knowledge, skills and competence of potential learners) identified at the BTP CFA Normandie training centre

Key areas of investigation	Synthesis of the research findings
Definition of the practice 1 and explanation of its context.	<p>Positioning is more a process than an isolated act. It is an integral part of the individual's training pathway.</p> <p>Ideally, this practice consists in :</p> <ul style="list-style-type: none"> - Identifying the skills, know-how or knowledge acquired by a candidate before entering training - Taking into account the individual needs and expectations of the learner - Establishing an individualised training pathway considering the training content to be offered, the duration of the training period and the teaching methods. <p>Positioning at the start of training to establish a training pathway adapted to the learner's needs has become compulsory since the 2018 law on vocational training.</p> <p>This practice has been in place since then in many training organisations in the BTP branch, but with relative efficiency.</p> <p>Some training institutions have therefore reworked it with the aim of making it more attractive to future learners.</p>
Main players (prescribers, users, evaluators, etc.)	<ul style="list-style-type: none"> - The management for the institutional impulse. - The educational teams of the training organisations who are responsible for organising the positioning (interview, questionnaires, synthesis, etc.) for the operationalisation. - The potential learner, whose commitment and involvement in the process are essential
Description of the practice 1	<p>For INITIAL TRAINING candidates the practice is as follows:</p> <ul style="list-style-type: none"> - Positioning among a range of possible training pathways, in order to choose one that best suits the individual concerned. It is offered as early as possible to all prospects (EQF 3 and 4) who are considering training. - It is currently carried out by means of a paper-based face-to-face test and in the form of questionnaires focusing on basic knowledge (mathematics and French + some skills). - The aim is to detect as early as possible those who are in difficulty or dropping out of school in order to offer them immediate remediation via a dedicated system or by relying on "resource and training assistance centres" available in the BTP training organisations. - These tests are coupled with a thirty-minute interview between the future learner and a member of the teaching team. This interview allows the results of the initial test to be validated or not, and also takes into account the wishes of the candidate for training. - The practice is identical for level 5 learners (BTS), but with a more in-depth questionnaire extended to professional skills.

Key areas of investigation	Synthesis of the research findings
	<p>For CONTINUING TRAINING candidates the practice is as follows:</p> <ul style="list-style-type: none"> - The candidate is interviewed in order to express his or her training needs. A face-to-face test is used to assess certain knowledge (general education and technology) and professional skills of the person. The tool used is a grid listing all the skills targeted in the reference framework of the trade activity. In fact, it is more of a self-positioning exercise by crossing the needs expressed by the person and the needs detected by the test. All this is done with the support of the teaching team. - All this positioning leads to the production of personalised courses, which are not fixed in time and content, to allow for possible regulation of the latter.
Potential usefulness of the practice 1 for the design of professionalisation schemes	<ul style="list-style-type: none"> - Expression of needs by the candidate for training - Identification of the objective based on a grid of competences targeted in the context of the training - Cross-referencing the two previous steps to identify the training content to be proposed.

Practice 2: CléA certification - a diploma recognised throughout France that allows you to learn throughout your career

Key areas of investigation	Synthesis of the research findings
Definition of the practice 2 and explanation of its context.	<p>The CléA certification is a system for assessing, training and certifying interprofessional knowledge and skills. The CléA certification gives candidates the opportunity to test their levels and to confront their visions of the professional environment with the realities and requirements of the job market. The candidate is assessed in 7 areas of competence:</p> <ol style="list-style-type: none"> 1. COMMUNICATING IN FRENCH 2. USING THE BASIC RULES OF CALCULATION AND MATHEMATICAL REASONING 3. USE THE USUAL TECHNIQUES OF INFORMATION AND DIGITAL COMMUNICATION 4. WORK WITHIN DEFINED RULES OF TEAMWORK 5. WORK INDEPENDENTLY AND ACHIEVE AN INDIVIDUAL GOAL 6. LEARNING TO LEARN THROUGHOUT LIFE 7. MASTERING GESTURES AND POSTURES, AND RESPECTING BASIC HYGIENE, SAFETY AND ENVIRONMENTAL RULES <p>When all the areas are acquired, the candidate is awarded an official professional certification, recognised in all sectors of activity and in all French regions. The acquisition of the base of professional knowledge and skills certified by CléA is both an asset for securing professional careers, a competitiveness issue for companies and a social issue.</p>
Main players (prescribers, users, evaluators, etc.)	<p>Less qualified people, often without diplomas, in order to affirm their employability and develop their capacity to evolve.</p> <p>The trainers of the teaching team (formalisation of tests and choice of content)</p> <p>An assessor specifically trained for this scheme.</p>

Key areas of investigation	Synthesis of the research findings
<p>Description of the practice 2, enabling training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs.</p>	<p>The candidate for CléA certification will be accompanied in an initial assessment process in order to identify his or her knowledge of the 7 areas of the common base of knowledge and professional skills.</p> <p>Positioning procedure :</p> <p>1st appointment (duration: 3 hours)</p> <p>The assessor welcomes the candidate, collects his/her needs and motivation with regard to the CléA certification, he/she creates the follow-up booklet with the candidate, identifies personal data (name, address, etc.), the professional background, collects titles and certifications held, creates and provides identifiers.</p> <p>The candidate is then invited to orally detail his/her professional and extra-professional experience, in order to verify the potential for validation of basic skills, and to identify situations that could serve as material for the identification of skills.</p> <p>The assessor (a person from the training centre, specifically trained in this assessment process) then presents the CléA certificate reference framework and illustrates the concept of assessment criteria and indicators.</p> <p>The assessor and the candidate select a specific situation in which the candidate has succeeded in solving a problem situation, and then they identify the domains concerned by this situation (among the seven). Then, they fill in together on the digital monitoring tool the "indicators" allowing to attest the competence, based on the explanation of the situation.</p> <p>The assessor and the candidate then list all the possible situations and select the most significant ones, which will be formalised on the monitoring tool. This work can be completed directly during the interview if there is time left over, or by the candidate during the intersession.</p> <p>Inter-session time between the 1st and 2nd appointment</p> <p>The candidate completes the follow-up booklet by describing the situations encountered according to the model indicated. He/she adds the evidence he/she wishes to present (in text, image or video format). He/she may be assisted by his/her supervisor who may also complete a column provided for this purpose.</p> <p>The assessor takes note of the qualifications acquired by the candidate and prepares the questions that will allow the validation of competences; it cannot be an automatic correspondence, as the assessor must verify that the candidate has the required competences. The assessor will have at his disposal a base of simulated problem situations (case study), each one allowing to check one or several fields of competences in a transversal way.</p> <p>2nd appointment (expected duration: 3 hours)</p> <p>The assessor welcomes the candidate and presents the situations he has prepared. The assessor explains the purpose of the assessments and gives the candidate confidence and support, if necessary, in carrying out the assessment situations.</p> <p>The candidate carries out the evaluation situations planned.</p> <p>At the end of the test, the assessor records the candidate's productions and reports back to him/her on what he/she has validated in the digital monitoring file.</p>

Key areas of investigation	Synthesis of the research findings
	<p>3rd meeting: restitution (expected duration: 1 hour)</p> <p>The assessor receives the candidate one last time. He/she summarises what has been validated by means of the assessments in the situations mentioned and the simulated situations. If all the domains are validated, he sends the file to the certification jury, otherwise he proposes an additional training course to the candidate.</p> <p>Total duration of the procedure: 7 hours plus intersessional work. The total duration of the procedure will not exceed one month.</p>
Potential usefulness of the practice 2 for the design of professionalisation schemes.	<ul style="list-style-type: none"> - The initial interview process - A series of at least two interviews to fully understand the needs and desires of the potential learner - The preparation of materials specifically adapted to the skills concerned by the training - The professionalisation of the participants (notably the assessor)

Part 3

Practices of validation and formal/non formal recognition of learning outcomes in work situations (useful for future Open Badges): in the construction sector or elsewhere).

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Practice 1: THE FARMS OF THE FUTURE - COMPANIONSHIP IN AGROECOLOGICAL GARDENING

Key areas of investigation	Synthesis of the research findings
Definition of the practice 1 and explanation of its context.	<p>The FARMS OF THE FUTURE Agroecological Farming Apprenticeship Programme is an 8-month itinerant training course with local educational support, acquisition of skills through experience and recognition of skills by peers.</p> <p>The project responds to a double social challenge: to train the future generation of farmers in agricultural practices that are respectful of the environment and human beings (setting up or salaried farming), and to facilitate the socio-professional integration of people, including refugees in France, by the recognition of their skills and competences with Open Badges.</p> <p>At the end of the training, the companions can devote themselves to their own installation projects, be recruited as farm workers or crop managers on a farm or continue their training course.</p>
Main players (prescribers, users, evaluators, etc.)	<p>A pedagogical manager. Agricultural technicians. Social workers to support the companions.</p> <p>A network of 16 educational farms (including 3 referent farms that are involved in the co-construction of the programme).</p>

Key areas of investigation	Synthesis of the research findings
<p>Description of the practice 1, enabling training organisation s/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.</p>	<p>General characteristics: 8 months roaming on several farms. Recognition of skills by peers. Socio-professional, educational and linguistic support. Acquisition of skills through practical experience.</p> <p>A choice of two training courses: Pathway 1: Installation / Salaried farm manager (4 skill blocks) A - Set up a global system for designing and managing the farm (taking into account environmental, economic and human constraints) B - Prepare and manage a vegetable production C - Market a production D - Set up and maintain a farm E - Diversify the activity of a farm Pathway 2: Agricultural employee (4 blocks of competences) A - Prepare and manage a vegetable production B - Marketing a production C - Setting up and maintaining a farm D - Diversify the activity of a farm.</p> <p>Recognition & Validation: Recognition of learning outcomes is achieved through a system of digital badges, a digital record of achievement or competence/ability/aptitude. Assessments are carried out every two months in parallel with monthly professional monitoring. Regular presentations of individual and group work are organised. A questionnaire to validate the acquisition of knowledge is filled in at the end of the training. A training certificate is issued at the end of the course, as well as a skills booklet.</p>
<p>Potential usefulness of the practice 1.</p>	<p>The badge makes it possible to produce evolving job references, to create a network articulated around each skill, to build a society of cooperation and resilience and to bring out the skills resulting from informal experience.</p>

Practice 2: "CONSTRUCTION GENIUS" NATIONAL COMPETITION (My-Construction Pass)

Key areas of investigation	Synthesis of the research findings
<p>Definition of the practice 2 and explanation of its context.</p>	<p>My-Construction Pass: is a common virtual space to connect, by means of open badges, networks of partners who need and want to connect with each other around actions for the training and attractiveness of young people for the construction trades. Today, a dozen partners have already joined the collective project</p> <p>In the construction sector in France, the first initiative was born during the " CONSTRUCTION GENIUS " competition to respond to the COVID19 health crisis with Open Badges for participation and winners for the 2020 edition.</p>

Key areas of investigation	Synthesis of the research findings
	146 badges were awarded: 3 types of badges - A participation badge - A finalist badge - A winner's badge.
Main players (prescribers, users, evaluators, etc.)	The French Concrete School Foundation Open badge Factory: an online platform for organisations and communities wishing to implement a recognition system based on Open Badges.
Description of the practice 2, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.	How to get the competition badges? 1st prize winner in the national competition CONSTRUCTION GENIUS - Winning the competition - Participation in the national competition CONSTRUCTION GENIUS - Work in transversal project mode - Work in a multidisciplinary team - Synthetic presentation of a project - Multimedia communication - Awareness of implementation and concrete production Participation Badge Superior Category - Participation in the national competition CONSTRUCTION GENIUS - SUP category (Higher education: STS, IUT, University, Engineering School, Architecture School, etc.) - Work in cross-disciplinary project mode - Multidisciplinary teamwork - Synthetic presentation of a project - Multimedia communication - Awareness of implementation and concrete production
Potential usefulness of the practice 2 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.	The Open Badge represents not only a declaration but also a digital validation of a person's skills, knowledge and experience, acquired formally or informally, which can be added to a CV. Open badges can enhance and highlight a network of skills and know-how specific to a profession.

Additional information: The French Construction Sector opens to Open Badges.

Source: *École Française du Béton (EFB), November 2020*

Open Badges are becoming increasingly popular in France, particularly in the construction sector. The "Passports for Construction" EFB national project is being developed to give full value to the Open Badges and thus make the sector more attractive. Since then, there has been a debate on how to get all the players to use them.

Little by little, the idea of Open Badges is gaining ground in the construction sector. Informing and raising the awareness of construction players about this innovative skills validation tool and giving it visibility and effectiveness for the entire sector was the aim of the webinar held on 27 November at the initiative of the *École Française du Béton (EFB)*, in the company of Open Badge Factory, a versatile platform for organisations wishing to create, issue and manage digital badges.

History of Open Badges

Created in 2011 by the Mozilla Foundation, Open Badges provide an accreditation system that aims to value informal learning, which accounts for 90% of what we learn throughout our lives. These badges are part of an era where skills and knowledge evolve and need to be constantly updated. They are not intended to replace a diploma or certification, but to complement them. The aim is to create new career and educational opportunities that promote the recognition of skills and achievements acquired through learning.

An Open Badge is a digital image in which information is recorded : identity of the recipient of the badge, identity of the issuer, criteria for awarding the badge and evidence to support the award. It is a verifiable and tamper-proof digital declaration of a person's experiences, achievements, skills, commitments, values, or aspirations. Open Badges can be used beyond the recognition of knowledge and skills. It can be a participation badge, a commitment badge, or a collective badge for a project, a skill, a function, or an interest.

Used since their appearance in 2011 in the United States, Open Badges arrived in France in 2017 with the idea of creating learning territories and the creation of the association "Reconnaître" in 2018 to "build a society of recognition". In the construction sector, Open Badges were really introduced in 2020 with the competition called "Les Génies de la Construction" open to secondary school and higher education students to award them for forward-looking thinking related to the new challenges of construction. In total, 146 Open Badges were distributed, and 40% were activated. The young people were delighted with the award. Some knew about it, others did not, but in any case, they very quickly understood the interest of this approach, it is something that has value in their eyes. This initiative brought modernity to this competition and this can motivate young people to participate.

Developing Open Badges in the French construction sector

Since their appearance, 25 million badges have been issued, and they are clearly gaining ground in various sectors in France. The French construction sector is taking a close interest in this development. *"It is important that we start thinking now about the importance of Open Badges for our sector. We are all concerned about attracting more young people, giving more visibility to job offers and the diversity of training. Open Badges can both facilitate and promote employability: they can help in the hiring of low-skilled workers, but also help a company looking for a specific skill. They are also a response to the rapid emergence of new occupations that anticipate the need for certification. Open Badges thus allow great flexibility by creating adapted, transversal, or specific training paths. Their use in the construction sector would demonstrate that our sector is more open and attractive than ever and that it can attract other people to join it. And for those who are already integrated, the badges would be an opportunity for employees to improve their skills and to embark on training courses that they had not imagined"*, says Sandrine Mansoutre from EFB.

Any organisation, institution or company can create and award Open Badges. Once issued, they can be exported to a "badge bag", an application that centralises all the badges obtained, whatever they may be. These online services such as Open Badge Passport or Mozilla Backpack make it easy for recipients to receive, store, organise and share their digital badges. It is also a community space to showcase and recognise one's skills through one's network.

"An Open Badge should not be reduced to a certificate, it should be easily shared on social networks, on LinkedIn, on a CV, etc. In many cases, the badge issuer does not think about the value of the badge in an ecosystem. Before embarking on this adventure, it is necessary to consider the added value for the beneficiary and its value within a community" explains Eric Rousselle from Open Badge Factory Platform. The important thing in this approach is to see what can be valued by and for a young person or an employee and which could interest a potential employer. It is in no way a question of competing with diplomas, but of highlighting skills that are neither validated nor valued more formally. For example, in an engineering school, students leave with the same diploma. How can you make a difference in front of an employer? It is likely to be done with an Open Badge that attests to a prize won, an active role played within a junior company or a specific mission within the framework of an internship.

Practice 3: Badge “Inclusion through economic activity (IAE)” in the Centre Val de Loire Region

Key areas of investigation	Synthesis of the research findings
Definition of the practice 3 and explanation of its context.	As part of its support mission, the Federation of Inclusion companies in the Centre-Val de Loire Region is launching an experiment called " <i>Badgeons l'IAE en région Centre-Val de Loire</i> ". This experimentation should allow job seekers and employees in the process of integration to have their informal skills acquired throughout their career recognised and to be able to encapsulate them in a "digital badge" recognised by stakeholders such as company managers, large groups, professors, trainers, and thus facilitate recruitment, the objective of this experimentation in the Centre Val de Loire region.
Main players (prescribers, users, evaluators, etc.)	<p>The institutions behind the project :</p> <ul style="list-style-type: none"> - The French Region Centre Val de Loire - European Regional Development Fund: FEDER - Regional digital resource centre: GIP Recia - The League of Education <p>Since June 2018, 23 organisations from the social and inclusion sector have joined the network of partner companies of L'IAE (inclusion through economic activity).</p>
Description of the practice 3, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.	<p>To issue a badge, the partner must have participated in the 1st Steering Committee of the action.</p> <p><i>Programme:</i></p> <ul style="list-style-type: none"> - Discovery of Open Badges and experimentation in IAE - Presentation of the philosophy of action of Open Recognition: how to better value experiences? - Getting your first Open Badge: practical test and exchanges - Expectations and objectives of the experimentation - Open Badge and IAE: proposal for an approach to trigger recruitment and/or training in mainstream companies <p>Sharing and commitments</p> <ul style="list-style-type: none"> - Enrichment of the approach proposed by the members of the consortium created - Adherence to the experimentation - Construction of the project agenda - Feedback from participants: proposed approach, state of mind and feasibility.
Potential usefulness of the practice 3 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.	<p>How to recruit differently?</p> <p>The Federation of integration companies in the Centre-Val de Loire region has set itself the goal of promoting the informal and non-certifiable skills acquired by employees on integration programmes throughout their careers and making them accessible to employers as part of the "<i>Badgeons l'IAE en Centre-Val de Loire</i>" experience.</p>

Key areas of investigation	Synthesis of the research findings
	The digital badge lists one or more recognised informal skills and know-how. It provides an illustration of these skills and makes it possible to know how these skills were acquired.

FLC Asturias (Spain)

Executive Summary
<p>The desk research that took place in Spain, managed by the Fundación Laboral de la Construcción del Principado de Asturias, was based on the consultation of some relevant websites concerning dual VET in Spain, where interesting didactic materials and experiences are available.</p> <p>Three methods and their tools, likely to be exploited in work-based learning, are described in this report:</p> <ul style="list-style-type: none"> - One for observation and analysis of work situation, in order to facilitate the company tutor and the tutor of the training center to define the training plan of the future learner, determining which are achievable in the practical context of the company and those to be addressed in the training center - Another for enabling training organizations (company and VET center) to define individualised curriculum for each learner, facilitating personal attention and encouragement to the future site managers and team leaders, taking into account their individual competences - And the third one to facilitate the validation and recognition of learning outcomes in work situation, enhancing presumably their integration in future Open Badges. <p>Some useful links concerning the use of Open Badges are also given at the end of the document.</p>

Part 1:

Existing methods of observation and analysis of work situations likely to be exploited for the work-based learning (in the construction sector or elsewhere).

Key areas of investigation	Synthesis of the research findings
Definition of the method 1 and explanation of its context.	<p>OBSERVATION AND ANALYSIS OF WORK SITUATIONS IN THE COMPANY IN THE FRAMEWORK OF THE DUAL EDUCATIONAL & VOCATIONAL TRAINING IN SPAIN (Dual VET)</p> <p>Source: <i>Manual de tutores de empresa en la FP Dual</i>, Fundación Bertelsmann, 2016</p>

Key areas of investigation	Synthesis of the research findings														
	Dual VET is a recent training modality in which the contents of the training modules/learning outcomes are distributed between the educational centre and the company, and the learner is evaluated for the training received in both places.														
Main players (prescribers, users, evaluators, etc.)	<p>The main players in the observation and analysis phase of work situations are:</p> <ul style="list-style-type: none"> - Company tutor - Tutor of the training centre <p>Both the company's tutor and the training center tutor agree on how the training plan is distributed: what part learner should do in the workplace and what part in the training centre.</p> <p>In the first meeting where both tutors have to plan the training, the company tutor can explain what are the main tasks that are developed in the company, and the tutor of the training centre, since he knows the training qualification, can guide him in the fit between those tasks and the different training modules (or subjects), in order to specify the part of the training that the learner will be able to follow in the company.</p>														
Description of the method 1.	<p>It can be very useful for the company tutor to try to detail, before the meeting with the tutor of the training centre, what are these tasks that are usually carried out in the workplace. This will allow him to sit down later with the tutor of the training centre with that previous work done, and so to speed up the training plan of the learner.</p> <ol style="list-style-type: none"> 1. Analyse what is usually done in the company: it is a question of detailing what are the tasks of his/her job, or those of other positions that may be related to the training of the future learner. 2. Break down those functions into specific day-to-day tasks. Here it consists of detailing step by step what is done, within each function. Functions respond to WHAT HE/SHE DOES and specific tasks to HOW HE/SHE DOES IT. In some way what has been done is a job description (in some companies it may be that this document already exists and that it facilitates its work to the company tutor). 														
How the competence, resulting from a work-based learning, is defined and understood within method 1.	<p>Once the company tutor has the detailed tasks, the next step is to compare that description of what is done in the company with the content of the training qualification of the future learner. This comparison can be made jointly with the tutor of the training centre. It is important that at this time the company tutor asks and clarifies all those terms with which he/she may not be familiar, since they are part of the educational "jargon", and not necessarily of the daily work of the company.</p> <p>In practice the most common is that there are contents of the training modules that are taught in their entirety in the training centre, while the others are made part in this and part in the company.</p> <p>Tool 1.1. Identification of real work situations with learning outcomes</p> <table border="1" data-bbox="521 1682 1268 1883"> <thead> <tr> <th data-bbox="521 1682 675 1797">Tasks in the company</th> <th data-bbox="680 1682 834 1797">Subject (Training module)</th> <th data-bbox="839 1682 993 1797">Content of the subject</th> <th data-bbox="998 1682 1136 1797">Training in the training centre</th> <th data-bbox="1141 1682 1268 1797">Training in the company</th> </tr> </thead> <tbody> <tr> <td data-bbox="521 1803 675 1883">Serving customers and trying</td> <td data-bbox="680 1803 834 1883">Dynamization of the point of sale</td> <td data-bbox="839 1803 993 1883">Organization of the</td> <td data-bbox="998 1803 1136 1883" style="text-align: center;">✓</td> <td data-bbox="1141 1803 1268 1883"></td> </tr> </tbody> </table>					Tasks in the company	Subject (Training module)	Content of the subject	Training in the training centre	Training in the company	Serving customers and trying	Dynamization of the point of sale	Organization of the	✓	
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Key areas of investigation	Synthesis of the research findings					
	to see what they need		commercial area			
	Controlling that the product is well placed, according to sales strategies		Knowledge of customers	✓	✓	
			Placement, exhibition, and replacement of products in the sales area		✓	
Potential usefulness of the method 1 for the design of professionalisation schemes identified	The method facilitates that after observing and analysing the work situations faced by the construction managers and team leaders in the company, these can be related to the learning outcomes identified in the qualification and thus be able to determine which are achievable in the practical context of the company and those to be addressed in the training centre.					

Part 2:

Practices enabling training organizations to evaluate and position trainees in their professionalization process (modular training): in the construction sector or elsewhere.

Key areas of investigation	Synthesis of the research findings	
Definition of the practice 1 and explanation of its context.	<p>IDENTIFICATION OF INDIVIDUALISED CURRICULA IN THE FRAME OF THE IN THE FRAMEWORK OF THE DUAL EDUCATIONAL & VOCATIONAL TRAINING IN SPAIN (Dual VET)</p> <p>Source: <i>Manual de tutores de empresa en la FP Dual</i>, Fundación Bertelsmann, 2016</p> <p>The company that is going to select a learner must be clear about the profile they are looking for, and the minimum requirements that the young person who is going to be trained in the workplace should meet in order to later design an individualized curricula to their needs and that meeting also the expectations of the company.</p>	
Main players (prescribers, users, evaluators, etc.)	<p>The tutor of the training centre, who is responsible for scheduling the training with the company tutor, maintaining contact with him and monitoring the stay of the learner in the workplace.</p> <p>The company tutor, responsible for training, accompanying and valuing the learner in the workplace, and for coordinating with the tutor of the training centre.</p> <p>The learner, who is trained in the training centre and in the company, and has a series of rights and obligations as a student and as an apprentice.</p>	
Description of the practice 1, enabling	The company must be realistic and aware of the age and experience of the young candidates. In this sense, it may be useful to have a tool, such as the following one, whose content is indicative, and can be modified	

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<p>training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs.</p>	<p>according to the characteristics of the company and the training position offered:</p> <p>Tool 2.1. Requirements to be met by the future learner</p> <table border="1" data-bbox="496 352 1243 1297"> <thead> <tr> <th></th> <th>Essential</th> <th>Desired</th> <th>Not relevant</th> </tr> </thead> <tbody> <tr> <td>KNOWLEDGE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Calculus</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Verbal expression</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Written understanding</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Written expression</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Foreign language/s (to be specified)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>METHODOLOGICAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Works rigorously</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Works autonomously</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Got initiative</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Knows how to plan and prioritize</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Obey rules</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Is a creative person</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SOCIAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Open and communicative person</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sensible person</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fits in the group</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Has self-confidence</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Knows how to deal with conflicts</td> <td></td> <td></td> <td></td> </tr> <tr> <td>INDIVIDUAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Shows motivation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Has good manners</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Is determined</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Shows curiosity for things</td> <td></td> <td></td> <td></td> </tr> <tr> <td>OTHERS (to be included by the Company)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>.../...</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Training is not only teaching but also:</p> <ul style="list-style-type: none"> - Preparing the learner to join the world of work. - Transmit values and principles to him/her. - Generate curiosity and desire to learn. <p>Each person has its own way to learn and the Company tutor must move to the learner's one. Below are described some tools that can be practical for the success of this adaptation.</p> <p>Taking into account the senses, there are learners who to learn prioritize the visual, others the auditory, and also those who need to touch and move.</p>		Essential	Desired	Not relevant	KNOWLEDGE				Calculus				Verbal expression				Written understanding				Written expression				Foreign language/s (to be specified)				METHODOLOGICAL SKILLS				Works rigorously				Works autonomously				Got initiative				Knows how to plan and prioritize				Obey rules				Is a creative person				SOCIAL SKILLS				Open and communicative person				Sensible person				Fits in the group				Has self-confidence				Knows how to deal with conflicts				INDIVIDUAL SKILLS				Shows motivation				Has good manners				Is determined				Shows curiosity for things				OTHERS (to be included by the Company)				.../...			
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Paying attention to the senses</p> <p>VISUAL</p> <table border="1"> <thead> <tr> <th data-bbox="496 352 849 380">HOW DETECT IT</th> <th data-bbox="886 352 1235 380">WHAT TO DO</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 380 849 478">He is a learner who needs to see things on paper or by reading information.</td> <td data-bbox="886 380 1235 443">Explain things to him/her with a chart, drawing, or outline.</td> </tr> <tr> <td data-bbox="496 478 849 659">Write things down, use his/her notes to ask questions, write or make diagrams when he tries to explain himself.</td> <td data-bbox="886 443 1235 478">Give it time to take notes.</td> </tr> <tr> <td></td> <td data-bbox="886 478 1235 541">Give him/her a document, an explanatory brochure, etc.</td> </tr> <tr> <td></td> <td data-bbox="886 541 1235 659">Always have pencil and paper on hand, or a computer where he/she can make graphics or schematics.</td> </tr> </tbody> </table> <p>AUDITORY</p> <table border="1"> <thead> <tr> <th data-bbox="496 701 849 728">HOW DETECT IT</th> <th data-bbox="886 701 1235 728">WHAT TO DO</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 728 849 827">It is a learner who gets information by listening, without having to take notes.</td> <td data-bbox="886 728 1235 827">Transmit the information orally by stressing to him/her the key points.</td> </tr> <tr> <td data-bbox="496 827 849 911">He/She asks a lot of questions and likes to exchange impressions.</td> <td data-bbox="886 827 1235 911">Encourage him/her to ask and give their opinion.</td> </tr> </tbody> </table> <p>KINAESTHESIA</p> <table border="1"> <thead> <tr> <th data-bbox="496 953 849 980">HOW DETECT IT</th> <th data-bbox="886 953 1235 980">WHAT TO DO</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 980 849 1100">He is a moved, restless person, who often changes his posture and has a hard time remaining static.</td> <td data-bbox="886 980 1235 1079">Let it move. Take him/her somewhere else to explain the task.</td> </tr> <tr> <td data-bbox="496 1100 849 1163">He likes to try, do things, take action.</td> <td data-bbox="886 1100 1235 1163">Make him/her try things and allow him/her to experiment.</td> </tr> </tbody> </table> <p>If we look at the personality of the learner, you might find the active one, who needs to take action quickly; the methodical one, who requires a procedure to follow, and the creative one who like to create and try new things.</p> <p>Tool 2.3. Looking at the personality</p> <p>THE ACTIVE ONE</p> <table border="1"> <thead> <tr> <th data-bbox="496 1423 849 1451">HOW DETECT IT</th> <th data-bbox="886 1423 1235 1451">WHAT TO DO</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 1451 849 1535">Whoever immediately wants to take action and do things.</td> <td data-bbox="886 1451 1235 1535">The tutor should give him/her the necessary guidelines and let it get done.</td> </tr> <tr> <td data-bbox="496 1535 849 1661">Ask the tutor what do I do now? or can I do this...?</td> <td data-bbox="886 1535 1235 1661">You can pose a challenge or a problem to solve, since this motivates a lot of an active learner.</td> </tr> </tbody> </table> <p>THE METHODICAL ONE</p> <table border="1"> <thead> <tr> <th data-bbox="496 1703 849 1730">HOW DETECT IT</th> <th data-bbox="886 1703 1235 1730">WHAT TO DO</th> </tr> </thead> <tbody> <tr> <td data-bbox="496 1730 849 1850">It's someone who needs to be explained the procedure in order to move forward. 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	<p>He/She is an orderly and organized person, which is noticeable on his/her desk or in the way he/she takes care of his/her tools.</p> <p>THE CREATIVE ONE</p> <p>HOW DETECT IT</p> <p>He likes to share ideas, try new methods. He's someone original.</p> <p>Their motto might be "what if...?"</p>	<p>It is also good that the learner is encouraged to ask about the procedure or method.</p> <p>WHAT TO DO</p> <p>The company tutor must give him/her new tasks and knowledge often and transmit concepts that make them think or experiment.</p> <p>It should not be allowed to fall into the routine.</p>
Potential usefulness of the practice 1 for the design of professionalisation schemes	<p>The method might facilitate personal attention and encouragement to the future site managers and team leaders, taking into account their individual competences. Learners should receive one-on-one tutoring as needed and progress at their own possibilities, moving from one level to the next as they are ready.</p>	

Part 3:

Practices of validation and formal/non formal recognition of learning outcomes in work situations (useful for future Open Badges): in the construction sector or elsewhere).

Key areas of investigation	Synthesis of the research findings
Definition of the practice 1 and explanation of its context.	<p>VALIDATION AND FORMAL RECOGNITION OF LEARNING OUTCOMES IN WORK SITUATIONS IN THE FRAME OF THE DUAL VOCATIONAL TRAINING SPAIN</p> <p>Source: <i>Manual de tutores de empresa en la FP Dual</i>, Fundación Bertelsmann, 2016</p>
Main players (prescribers, users, evaluators, etc.)	<p>The regional and national VET administrations with their respective competences. The Spanish Autonomous Communities are responsible for approving the different Dual VET projects in their respective territories.</p> <p>The tutor of the training centre, who is responsible for scheduling the training with the company tutor, maintaining contact with him and monitoring the stay of the learner in the workplace.</p> <p>The company, which is the other centre where the learner is trained. It can be large, SME or even a microenterprise.</p>

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	<p>The company tutor, responsible for training, accompanying and valuing the learner in the workplace, and for coordinating with the tutor of the training centre.</p> <p>The learner, who is trained in the training centre and in the company, and has a series of rights and obligations as a student and as an apprentice.</p> <p>The Chambers and Entrepreneurial Organizations, which collaborate in the development of Dual VET in Spain.</p>																																								
<p>Description of the practice 1, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.</p>	<p>Each Spanish Autonomous Community establishes how the company tutor must evaluate the training of the learner.</p> <p>The evaluation can be: - Quantitative, from 1 to 10 or from 1 to 5. - Qualitative, qualifying training in a scale from "Very satisfactory" to "Unsatisfactory", or from "Suitable" to "Not suitable".</p> <p>The assessment made by the company tutor must be taken into account and weighed in the final evaluation of the learner made by the VET centre. Next, an example of qualitative assessment is shown, in this case in a High Grade of Administration and Finance (for the purposes of the example, part of a single training module appears):</p> <p>Tool 3.1 Monitoring and evaluation of training activities in the company</p> <table border="1" data-bbox="553 869 1235 1709"> <thead> <tr> <th colspan="5">Mf1. Communication and customer service</th> </tr> <tr> <th>Training activities</th> <th colspan="4">The realization of the training activities has been:</th> </tr> <tr> <th></th> <th>Very suitable</th> <th>Quite suitable</th> <th>Suitable</th> <th>Not suitable</th> </tr> </thead> <tbody> <tr> <td>Telephone management of inquiries, complaints and claims</td> <td>○○○○○</td> <td>○○○○</td> <td>○○○</td> <td>○</td> </tr> <tr> <td>Face-to-face management of inquiries, complaints and claims</td> <td>○○○○○</td> <td>○○○○</td> <td>○○○</td> <td>○</td> </tr> <tr> <td>Preparation of information documents and communications</td> <td>○○○○○</td> <td>○○○○</td> <td>○○○</td> <td>○</td> </tr> <tr> <td>Classification and archiving of documentation</td> <td>○○○○○</td> <td>○○○○</td> <td>○○○</td> <td>○</td> </tr> <tr> <td>Development of oral and written communications, with internal clients in different communication channels</td> <td>○○○○○</td> <td>○○○○</td> <td>○○○</td> <td>○</td> </tr> </tbody> </table> <p>In addition to valuing the knowledge related to the professional learning, the Regional Authorities of Education can ask the company tutor to observe and evaluate other types of skills of the learner such as: autonomy, initiative, organization, teamwork, ability to solve problems, etc.</p>	Mf1. Communication and customer service					Training activities	The realization of the training activities has been:					Very suitable	Quite suitable	Suitable	Not suitable	Telephone management of inquiries, complaints and claims	○○○○○	○○○○	○○○	○	Face-to-face management of inquiries, complaints and claims	○○○○○	○○○○	○○○	○	Preparation of information documents and communications	○○○○○	○○○○	○○○	○	Classification and archiving of documentation	○○○○○	○○○○	○○○	○	Development of oral and written communications, with internal clients in different communication channels	○○○○○	○○○○	○○○	○
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	<p>Below is a tool that can help track skills. Each company can incorporate those skills that it considers important and adapt the tool to the criteria that are of most interest to it.</p> <p>Tool 3.2. Monitoring and evaluation of transversal skills</p> <table border="1" data-bbox="553 384 1235 1178"> <thead> <tr> <th></th> <th>Date 1</th> <th>Date 2</th> <th>Date 3</th> </tr> </thead> <tbody> <tr> <td>METHODOLOGICAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Works rigorously</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Works autonomously</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Keeps the workplace tidy</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Works in an agile way</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Got initiative</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Knows how to plan and prioritize</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Asks for help when needed</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Obeys rules</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SOCIAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Open and communicative person</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fits well in the working group</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Keeps calm in difficult situations</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Collaborate actively</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Has self-confidence</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Knows how to deal with conflicts</td> <td></td> <td></td> <td></td> </tr> <tr> <td>INDIVIDUAL SKILLS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Shows motivation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Has good manners</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Is resolute</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Each skill will be rated from 1 to 5, with 1 being the lowest and 5 the highest.</p> <p>It is important that, in addition to assessing the learning outcomes and skills of the learner, the company tutor has a control sheet for absences of attendance and delays, with the justifications of these if this is the case.</p>		Date 1	Date 2	Date 3	METHODOLOGICAL SKILLS				Works rigorously				Works autonomously				Keeps the workplace tidy				Works in an agile way				Got initiative				Knows how to plan and prioritize				Asks for help when needed				Obeys rules				SOCIAL SKILLS				Open and communicative person				Fits well in the working group				Keeps calm in difficult situations				Collaborate actively				Has self-confidence				Knows how to deal with conflicts				INDIVIDUAL SKILLS				Shows motivation				Has good manners				Is resolute			
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Potential usefulness of the practice 1	This method should facilitate the validation and recognition of the learning outcomes and soft skills acquired in real-world learning situations in the company, facilitating presumably their integration in future Open Badges.																																																																																				

SOME EXAMPLES OF OPEN BADGES IN SPAIN

[Universidad Politécnica de Madrid-Gabinete de Telecomunicación. Insignias digitales como acreditación de competencias en la Universidad](#)

[Insignias INTEF](#) is the Spanish National Institute of Educational Technologies and Teacher Training - INTEF's backpack of digital badges.

[EU-OBP Toolkit](#) of Open Badges in Adult Education (Erasmus+ 2019-1-RO01-KA204-063793)

List of References

La formación en centros de trabajo (FCT) ([enlace](#))

Alianza para la FP dual. El tutor de empresa ([enlace](#))

Ejemplos prácticos en el ámbito de la Tutoría de empresa en la FP Dual ([enlace](#))

La formación profesional dual, Fundación Bertelsmann ([enlace](#))

Caballero M.ª Ángeles y Pep Lozano, *Manual de tutores de empresa en la FP Dual*, Fundación Bertelsmann, 2016 ([enlace](#))

Formedil (Italy)

Part 1a:

Existing methods of observation and analysis of work situations that can be exploited for work-based learning (in the construction sector).

Investigation area	Synthetic description
Definition of the method and explanation of its context.	ANALYSIS OF THE SKILLS NECESSARY FOR THE ROLE ASSIGNED – I identify the necessary skills
Main players (prescribers, users, evaluators, etc.)	Tutor of the Training Body - Industry Expert - User - Business Tutor - Business Experts
Description of the method.	From the identified competences, an evaluation form is drawn up analysing the level of competences possessed by the worker. Technical interviews/additional tests are then carried out for further assessment of competences. The practice used allows training providers to recognise the knowledge, skills, etc. that learners or other individuals possess. The procedure consists of the following steps 1. Initial interview 2. Assessment of competences and experiences declared by the worker 3. Initial verification of the skills possessed in relation to the experience. 4. Analysis of the documentation submitted by the worker (C.V., training certificates, self-declarations, Citizen's Training Booklet, etc....) 5. Verification of the documentation submitted (tests, interview, field tests, etc...) 6. Updating/editing of the Europass CV, European Language Passport, Citizen's Training Booklet, 7. Issue of the Evidence Dossier and (possibly) the Experience Dossier. The following dossier aims to be a tool for the validation of competences in order to identify the correct way to validate/analyse the competences of the workers requesting their certification.
How the competence, resulting from a work-based learning, is defined and understood.	The method can help to develop the ability to learn in the workplace, also through an effective management of time and information, in order to gain - awareness of one's own learning process and needs in the workplace; - ability to concentrate for extended periods

Investigation area	Synthetic description
	<ul style="list-style-type: none"> - ability to reflect critically on learning objectives and aims - ability to recognise the coherence between the objective and the route used to reach it - knowledge of one's own habitual learning strategies - understanding of the strengths and weaknesses of one's skills in order to manage one's career and work patterns effectively; - autonomy in identifying education/training opportunities and available guidance and/or support tools. <p>Moreover, it can help in defining the contents to be deepened in the interviews and in defining the training path to be adopted (methodology and contents of the training)</p>
Potential usefulness of the method for the design of professionalisation schemes dedicated to team leaders and site managers for renovation.	It is used to understand if you can certify the skills and therefore certify the hours of the path or if the competence is not acquired which aspects to include in the training path to obtain the required skills

Part 1b:

Practices that allow training institutions to evaluate and insert workers / apprentices in the professionalization process (modular training) in the construction sector.

Investigation area	Synthetic description
Definition of the practice 1 and explanation of its context.	LEARNING BY DOING - Starting from an existing profile or identifying which are the skills that the person must acquire
Main players (prescribers, users, evaluators, etc.)	Tutor of the Training Body - Industry Expert - User - Business Tutor - Business Experts
Description of the practice 1, enabling training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs.	<p>Develop the ability to learn in the workplace, also through effective management of time and information, in order to acquire:</p> <ul style="list-style-type: none"> - awareness of one's own learning process and needs in the workplace; - ability to concentrate for prolonged periods; - ability to critically reflect on learning objectives and purposes; - ability to recognize the consistency between the goal and the road used to achieve it; - knowledge of one's usual learning strategies; - understanding the strengths and weaknesses of one's skills in order to effectively manage one's career and work patterns; - autonomy in identifying education / training opportunities and available guidance and / or support tools. <p>The validation process starts with a pact between three individuals: employer/company mentor, employee and</p>

Investigation area	Synthetic description
	<p>training provider through the trainer/tutor meeting. From this meeting the professional development pathway of the worker (PSP) is established. After all the actors involved accept the conditions of the agreement, an informal interview with the worker takes place to make a first assessment of his/her competences. In the second meeting there is a formal analysis of competences: the worker presents his/her certificates/attestations, the tutor/trainer will analyse the documentation and check the competences through the interview and tests. At the end of this process, an ad hoc training path will be defined for the worker for the acquisition of new competences or the improvement of the existing ones. This path will include formal and informal meetings at the training centre, at the company's premises and on the construction site where the work phases will be observed (Learn by doing). At the end of the course, a final check will be carried out and a certificate of the acquired competences will be issued, also through the updating of the worker's booklet.</p>
<p>Potential usefulness of the practice 1 for the design of professionalisation schemes dedicated to team leaders and site managers for renovation.</p>	<p>Complete the acquisition of missing skills in training courses by analysing the experiences already made by the training centres, it is possible to identify the transversal skills that are missing for team leaders and site managers.</p> <p>From this analysis an ad hoc training course could be developed for each of these figures. This pathway will effectively allow them to acquire the skills required by the market, companies and workers and avoid developing redundant training paths. This is thanks to the observation of work activities on the site and thanks to the training pact signed with the company and the worker for the worker's continuous professional growth.</p>

Part 1c:

Practices of validation and formal / non-formal recognition of learning outcomes in work situations (useful for future Open Badges) in the construction sector.

Investigation area	Synthetic description
<p>Definition of the practice 1 and explanation of its context.</p>	<p>IDENTIFICATION - VALIDATION - CERTIFICATION</p>
<p>Main players (prescribers, users, evaluators, etc.)</p>	<p>TRAINING AGENCIES ACCREDITED TO THE Vocational path; TRAINING AGENCIES ACCREDITED TO ORIENTATION; ACCREDITED AND PRIVATE PUBLIC WORKING SERVICES; Expert in Certification Techniques; Operator Adequately</p>

Investigation area	Synthetic description
	Trained in the Identification, Validation and Certification Processes; Matter Expert; Evaluation commission
Description of the practice 1, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.	<p>ACTIVITY IDENTIFICATION</p> <ol style="list-style-type: none"> 1. Reception and information, 2. Recognition of the experiences declared by the person, 3. First identification of the skills corresponding to the experience gained, 4. Production of evidence, 5. Selection of evidence, 6. Possible preparation of the Europass CV, European Language Passport, Citizen's Training Booklet, 7. Release of the Dossier of Evidence and (possibly) of the Dossier of experiences
Potential usefulness of the practice 1 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.	<p>UTILITY FOR VALIDATION ACTIVITY</p> <p>ANALYSIS OF THE EVIDENCE AND IDENTIFICATION OF POTENTIALLY VALIDABLE SKILLS, DEFINITION OF THE CONTENTS TO BE DEEPENED IN THE INTERVIEW AND ITS IMPLEMENTATION, STRUCTURING AND ADMINISTRATION OF POSSIBLE TESTS, FORMULATION OF A JUDGMENT OF VALIDATION OF THE EXAMINATION DOCUMENTS, COMMUNICATION</p> <p>UTILITY FOR CERTIFICATION ACTIVITIES</p> <p>REQUEST FOR ACCESS TO THE FINAL EXAM, INSERTION IN THE FIRST USEFUL EXAMINATION SESSION, ACCOMPANYING THE EXAM, CARRYING OUT THE EXAMINATION AND EVALUATION, COMMUNICATION OF RESULTS AND RELEASE OF CERTIFICATES / DOCUMENTS</p>

ITE Łukasiewicz (Poland)

1a: Existing methods of observation and analysis of work situations likely to be exploited for the work-based learning (in the construction sector or elsewhere).

Key areas of investigation	Synthesis of the research findings
1. Definition of the method 1 and explanation of its context.	<p>Standard of examination requirements for journeymen and masters in the craft education system</p> <p>Standards are developed by the Polish Crafts Association in cooperation with craft chambers. They define the range of competences expected from future journeymen and masters (skill profile related to the profession), define the equipment of exam positions and the conditions for taking the exam. Indicate the possibility of obtaining additional qualifications (professional development).</p> <p>Polish craftwork apprenticeship system differs from the French one. Main difference is as it comes to the role of training centres. French chambers have strong cooperation with training centres and the practical part of training is being realized in more alternate manner with time divided between workplace, school and the training centre...in Poland this time is divided only between school and the employer. As for the examination standards in crafts they play key-role in VET as they are the guide for the student/worker and they know what they have to fulfil to become journeyman or craft master. The way to achieve it is not so important (formal, nonformal or informal).</p> <p>Methods of observation (during the WBL, also before an examination) use craftsman or his employee (both with proper pedagogical empowerments) to monitor and evaluate student progress. One craft master can supervise max. 3 apprentices.</p> <p><i>An example standard for a journeyman and master in profession construction fitter is attached.</i></p>
2. Main players (prescribers, users, evaluators, etc.)	Candidates for journeymen and masters in professions corresponding to a given type of craft, meeting the criteria laid down by law (regarding their primary/secondary school leaving, certificates, professional titles, professional experience in question) ¹
3. Description of the method 1.	Both the journeyman's and master's exams take place in two stages: practical and theoretical.

¹ ROZPORZĄDZENIE MINISTRA EDUKACJI NARODOWEJ z dnia 10 stycznia 2017 r. w sprawie egzaminu czeladniczego, egzaminu mistrzowskiego oraz egzaminu sprawdzającego, przeprowadzanych przez komisje egzaminacyjne izb rzemieślniczych (Dz.U. 2017 poz.89)

Key areas of investigation	Synthesis of the research findings
	<p>The practical stage of the examination shall be carried out at employers or in training workshops with the organisational and technical conditions necessary for the examiner to complete the examination tasks.</p> <p>The practical part of the journeyman and master's exam consists in the self-performance of the test tasks in the field of practical skills. During the practical examination phase, each examinee works at a separate workplace.</p> <p>Examination tasks are prepared by members of the examination team, who most often choose them from the pool of tasks recommended by the Polish Crafts Association (but taking into account the specificity of the services performed by the workplace, where the exam takes place). <i>More about the examination tasks in part c.</i></p> <p>The assessment of the examination task shall be carried out on the basis of observations of its performance (observation card and assessment of the practical stage) and by allocating an appropriate number of points.</p>
<p>4. How the competence, resulting from a work-based learning, is defined and understood within method 1.</p>	<p>Competences are defined in the standards of examination requirements for journeymen and masters in crafts. All professions – including construction sector – has their own set of knowledge and skills (as a minimum for gaining), but also a set of competences common to all crafts (personal, social, and for masters additionally in the field of pedagogy, psychology and teaching methodology).</p> <p>Knowledge, skills, social competences are verified by carrying out examination tasks. A particularly comprehensive and cross-cutting assessment takes place at the practical stage, where the candidate must, actually, perform the relevant activities and achieve the result in the form of a product or service performed in the workplace under the supervision of the members of the examination board.</p>
<p>5. Potential usefulness of the method 1 for the design of professionalisation schemes dedicated to team leaders and site managers for renovation. (How work situations identified and analysed with the method 1 can be combined/crossed</p>	<p>Examination standards provide the basis for determining requirements to become a journeyman or master in a profession corresponding to a particular type of craft (in the case of construction professions, the diploma of master in the construction craft gives the opportunity to stand for the examination for building rights).</p> <p>The set of learning outcomes defined in the standard (and subsequently confirmed in the Europass supplement) is rather general. It indicates the minimum requirements. It can be extended by smaller effects, e.g. by confirming further qualifications in the chamber of crafts, on vocational qualification courses, or sometime in the future - in the form of Open Badges (especially if so-called technical and technological innovations enter the market).</p>

Key areas of investigation	Synthesis of the research findings
with training modules/learning outcomes).	The basis for creating a standard of examination requirements for journeymen is the core curriculum of education in the professions of vocational education and the needs reported by employers – craftsmen. For standards of examination requirements for master level, much stricter requirements are applied (broader and higher complexity tasks, while at the same time, e.g. with a reduced examination task time).

1b: Practices enabling training organizations to evaluate and position trainees in their professionalization process (modular training): in the construction sector or elsewhere

Key areas of investigation	Synthesis of the research findings
1. Definition of the practice 1 and explanation of its context.	Certificate for trainers of NGOs (innovative project not regulated by law)
2. Main players (prescribers, users, evaluators, etc.)	This kind of certification is only available to members of the Association of Non-Governmental Trainers (STOP).
3. Description of the practice 1, enabling training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs.	In frame of the initiative, members of the NGO Trainers Association confirm that they have coaching skills in planning and training. Candidates can apply for a base certificate followed by a Tier I, II or III certificate. For each certificate, requirements are defined, including a list of competences necessary for the acquisition of the qualification. The person wishing to proceed with the validation procedure shall complete a questionnaire describing his/her coaching experience and the number of trainings carried out and completed. The most important stage of validation is to conduct the so-called training under the supervision. The supervisor evaluates both the training program and how it is conducted. His note and recommendation go to the certification committee, which may ask for further clarification if in doubt. In order to avoid irregularities in the validation process, the Association has established standards for carrying out supervisions.
4. Potential usefulness of the practice 1	As an idea to use supervision in the assessment of skills in a real workplace
References: https://stowarzyszeniestop.pl/certyfikacja/	

1c: Practices of validation and formal/non formal recognition of learning outcomes in work situations (useful for future Open Badges): in the construction sector or elsewhere)

Practice 1

Key areas of investigation	Synthesis of the research findings
1. Definition of the practice 1 and explanation of its context.	Validation of market qualifications in the Integrated Qualifications System – legally regulated validation procedure
2. Main players (prescribers, users, evaluators, etc.)	Validation is available for everybody who complies with prerequisites (if specified in the market qualification description).
3. Description of the practice 1, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.	<p>So called “market qualification” is a qualification that is given outside the formal education system. It may be included into the Integrated Qualifications System (ZSK) at the request of entities acting in the areas of economy, labour market, education or training.</p> <p>An entity wishing to obtain the rights of a certification body (IC) may apply for the right to validate that qualification.</p> <p>The competent Minister shall confer on the body the power of the certifying authority (IC) and shall entrust, by contract, the selected external quality assurance body (PZZJ) with the role of external quality assurance towards specific IC.</p> <p>The minimum standards set for IC entities are:</p> <ul style="list-style-type: none"> – Use methods to test learning outcomes that are allowed for a given qualification or specific learning outcomes; – employment of staff meeting the requirements for persons who carry out validation – assessors and members of the committee; – ensuring an adequate course of validation as well as organisational and material conditions. These could be, for example, housing conditions, required equipment, validation timeframes, or other relevant issues related to the organization of validation. <p>Validation can consist of three stages: identifying, documenting, and verifying learning outcomes.</p> <p>At the stage of identification and documentation, extremely important is the support of a professional counsellor who helps to determine your competences and to gather relevant evidence of their possession. The result of the common work of the advisor with the person joining the validation may be better preparation for the verification stage or the development of a plan for further educational and professional development.</p>

Key areas of investigation	Synthesis of the research findings
	<p>At the verification stage, an assessor or a committee of assessors plays a decisive role. They make the final decision on the issue of the certificate.</p> <p>The course of validation depends on the specific market qualification. Some requirements are included in the description of the qualification itself, which is accessible in the Integrated Qualifications Register. However, the certifying authority (IC) plans the exact course of the verification process and presents it on its website.</p>
<p>4. Potential usefulness of the practice 1 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.</p>	<p>It is a recognition method of learning outcomes – applicable in case of construction foremen in Poland (description of the qualifications of the foreman would have to be prepared and included in the Integrated Qualifications System of course).</p> <p>The function of site manager is in Poland regulated by construction law and requires building rights to perform so-called independent technical functions in construction (SFT). The rules for the acquisition of building rights are strictly defined, attributable to the professional self-government: the Polish Chamber of Civil Engineers and the Regional Chambers of Civil Engineers.</p>
<p>Resources:</p> <ul style="list-style-type: none"> – https://kwalifikacje.edu.pl/baza-wiedzy/skorzystaj-z-zintegrowanego-systemu-kwalifikacji-zsk/kwalifikacje-rynkowe/ – Rozporządzenie Ministra Inwestycji i Rozwoju z dnia 29 kwietnia 2019 r. w sprawie przygotowania zawodowego do wykonywania samodzielnych funkcji technicznych w budownictwie (Dz.U. 2019 poz.831) http://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20190000831/O/D20190831.pdf 	

Practice 2

Key areas of investigation	Synthesis of the research findings
<p>1. Definition of the practice 2 and explanation of its context.</p>	<p>Validation of the journeyman's and master's practical competences (examination in the craft education system) – legally regulated validation procedure</p>
<p>2. Main players (prescribers, users, evaluators, etc.)</p>	<p>Persons wishing to obtain (during work-based learning at the crafts works) or confirm (examination in the chamber of crafts) formal professional qualifications in more than 130 craft professions (school and out of school). They are:</p> <ul style="list-style-type: none"> – Candidates for journeymen and masters in professions corresponding to a given type of craft, meeting the criteria laid down by law (concerning their primary/secondary school leaving certificates, professional titles, apprenticeships); – Candidates for so called “checking exam”, who have completed continuing education in the field of vocational skills falling within the scope of the profession covered by the

Key areas of investigation	Synthesis of the research findings
	examination and who hold a certificate proving completion of this form of training.
<p>3. Description of the practice 2, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.</p>	<p>The solutions used in the craft are legally sanctioned ^{2 3}. For juveniles (at least 16 years old), the training consists of two integral parts: practical, carried out <u>in the process of work in a craft company</u> and theoretical training. Young people can choose a form of theoretical further training: at a basic vocational school or in a further education course.</p> <p>Validation activities, also for adults, are carried out by the Association of Polish Crafts, whose tasks include: providing organizational and substantive assistance to craft chambers, establishing a list of professions in which examinations are conducted, developing examination standards, organizing training for committee chairs and disseminating good practices.</p> <p>Exams are organised in professions taught by employers, including professions for which no education is organised in vocational schools.</p> <p>The examination activities of chambers of crafts are open to adults who are seeking the opportunity to confirm professional qualifications acquired through long-term professional work (WBL) and professional theoretical preparation. This is important, especially for those working in professions with an additional obligation to periodically confirm their qualifications and professional readiness to work (e.g. under construction or energy law).</p> <p>A feature of the craft system of confirming professional qualifications is the organization of examinations outside the candidate's "every day" company (where the work-based learning was conducted) and without the participation in the committee of his master of training - the employer.</p> <p>An important element of the examination system is the uniformity of the requirements for candidates for examinations, regardless of where the exams are taken.</p> <p><u>The journeyman's and master's examination</u> consists of several elements, i.e. the theoretical part (written test and oral questions) and the practical part carried out at the workplace, mainly in SMEs. The practical part can last up to 24 hours, understood as 3 days after 8 hours. The duration depends on the level of complexity of the technological examination task and the available equipment, but allows you to observe the full process of product formation or the production of the service.</p>

² Ustawa z dnia 22 marca 1989 r. o rzemiośle (t.j. Dz. U. z 2020 r. poz. 2159).

³ Rozporządzenie Ministra Edukacji Narodowej z dnia 10 stycznia 2017 r. w sprawie egzaminu czeladniczego, egzaminu mistrzowskiego oraz egzaminu sprawdzającego, przeprowadzanych przez komisje egzaminacyjne izb rzemieślniczych (Dz.U. 2017 poz. 89).

Key areas of investigation	Synthesis of the research findings
	<p>So called “checking exam” shall include the validation of certain professional skills falling within the part of the examination requirements for the profession concerned and the examination of knowledge in the oral part. It covers also rules and principles of health and safety at work and fire protection, basic principles of environmental protection. The scope of the exam is much narrower than that of the journeyman. Therefore, the practical part does not take more than 8 hours. After passing the checking exam, the candidate receives a certificate confirming specific skills. <i>The standards of requirements for master and journeyman exams are described in Part 1a.</i></p> <p>Master, journeyman and “checking” exams are conducted by examination boards of chambers of crafts created on the basis of the applicable law. The performance of the examination in the workplace is supervised by two members of the examination team appointed by the chair of the examination team, one of whom shall draw up observation and assessment cards for the practical stage.</p> <p>In carrying out the examination tasks, the following elements are assessed:</p> <ol style="list-style-type: none"> 7. proper selection of tools, instruments and the ability to properly use them, 8. to maintain the right attitude during work, 9. to observe health and safety rules as well as environmental protection rules, 10. order of undertaken activities, 11. cleanliness, accuracy and regularity of work, 12. speed of orientation of the candidate in a new workshop environment. <p>The assessment of the practical stage shall be determined on the basis of the assessments given for each examination task. For the master's examinations, the Polish Crafts Association, based on European funds, has created a database of about 30,000 examination tasks for about 40 professions, including most professions in the construction industry (i.e.: fitter of network, installation and sanitation, finishing fitter, chimney sweeper, electrician, etc.).</p> <p>For each profession, a catalogue of tasks has been created for the practical stage, which the examination board allocates to the candidate to perform, depending on the technical capabilities available, infrastructure, the type of work performed in the specific workshop/company (also the conditions associated with the construction site), which gives great flexibility in the planning of the exam and does not affect the quality of the validation process (examination tasks for theoretical stage are drawn, thanks to the possibility of generating sets of tasks on the Platform Exams</p>

Key areas of investigation	Synthesis of the research findings
	in Crafts – ewr.zrp.pl – available to committee members after logging in).
<p>4. Potential usefulness of the practice 2 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.</p>	<p>Examination tasks developed for the EWR Platform and the work of members of the examination boards of chambers of crafts may also be used for “checking” exams verifying that the candidate has certain professional skills.</p> <p>Certificates issued by craft chambers after passing the “checking” exam de facto play a role similar to open badges, allowing for the verification and validation of small portions of learning outcomes, smaller than qualifications, but with a clear expression of their professional character (including issues from the oral part of the examination, where health and safety, environmental protection are concerned. They don't have a digital form.</p> <p>Obtaining professional qualifications in the system of journeyman and mastery examinations is a well-known and used solution in the circle of EU Member States. Documents issued by chambers of crafts in Poland are recognised in European countries, what is especially important where professional qualifications are required to start a business.</p> <p>It is a method of confirming learning outcomes applicable in the recognition of learning outcomes of construction foreman (only with regard to the title of master). Not suitable for construction managers and site managers, where higher education is required.</p>
<p>Resources:</p> <ol style="list-style-type: none"> 1. https://zrp.pl/ 2. <i>Ustawa o rzemiośle</i> - Załącznik do obwieszczenia Marszałka Sejmu Rzeczypospolitej Polskiej z dnia 13 listopada 2020 r. (poz. 2159) 3. <i>Rozporządzenie ministra edukacji narodowej z dnia 10 stycznia 2017 roku w sprawie przeprowadzania egzaminów czeladniczych, mistrzowskich i sprawdzających</i>, Dz. U. z 2017 r., poz. 89 ze zm.) 4. <i>Kryteria oceniania na egzaminach mistrzowskim, czeladniczym i sprawdzającym</i>, Związek Rzemiosła Polskiego, Warszawa 2017, Załącznik do Uchwały Nr 7 Zarządu ZRP z dnia 22 marca 2017 r. w sprawie: ustalenia wzorcowych kryteriów oceniania etapu praktycznego i etapu teoretycznego egzaminów przeprowadzanych przez komisje egzaminacyjne izb rzemieślniczych 5. <i>Informator egzaminacyjny dla kandydatów przystępujących do egzaminu czeladniczego „murarz-tynkarz”</i>, Wielkopolska Izba Rzemieślnicza w Poznaniu, wydanie 1/2016. 6. Platforma Egzamin w Rzemiośle, Ewr.zrp.pl (źródło URL) 	

Comment:

Examples of practical tasks to be carried out in the journeyman's examination in the profession of bricklayer-plasterer (to be selected by the members of the committee taking into account the services performed in specific workshop/company where the exam is organised):

- *Door replacement with machining;*
- *Window replacement with machining;*
- *Execution of the elbow wall with the masonry of the rafter;*
- *Execution of reinforced concrete pillars;*
- *Construction of concrete stairs reinforced with straight landings;*

- Brick wall masonry with door seating;
- Execution of the partition wall;
- Bricking of the partition wall of siporeks, Ytongu - of your choice;
- Masonry of the external support wall on 1 1/2 bricks together with window and door openings;
- Execution of interior plaster - a wall with a window opening;
- Making a warming outer wall of mineral wool or polystyrene along with plaster - of your choice;
- Making a window and door lintels up to the ceiling;
- Construction of the foundation on the bench from concrete blocks together with horizontal and vertical insulation;
- Excavation of the foundation bench with decking, reinforcement and concreting.

During the practical stage of the exam, the examiner usually performs 2 to even 10 tasks (usually 3) depending on the profession. In the "checking" exam, these tasks are carried out to a narrow extent, e.g. for a particular technique or technology (e.g. Execution of a ceiling of only 1 type – to be selected by Klein or Fert).

Practice 3

Key areas of investigation	Synthesis of the research findings
1. Definition of the practice 3 and explanation of its context.	<p>Validation of competences entitling to perform independent technical functions in construction sector – a legally regulated solution</p> <p>The condition for obtaining building rights is to pass the examination with knowledge of the construction process and skills in the practical application of technical knowledge. The competent chamber of professional self-government shall recognise a professional experience which has been completed by candidate after graduation (it can be confirmed only by a person being registered in a Chamber and having appropriate building rights.) Chamber conducts a qualification procedure consisting of two stages:</p> <p>(1) verification of education and professional experience as suitable for the speciality of building rights (verification of the documents incl. statements confirming the traineeship which has been conducted by candidate);</p> <p>(2) an examination of knowledge of the construction process and the practical application of technical knowledge (the examination consists of a written and an oral part; no separate part of the examination taking place directly on the construction site).</p>
2. Main players (prescribers, users, evaluators, etc.)	Graduates of higher education in the field of Construction.
3. Description of the practice 3, enabling training	The specific requirements for process of validation and validation bodies are set out by law ^{4 5} .

⁴ ustawa Prawo budowlane (t.j. Dz.U. z 2019 r. poz. 1186)

⁵ rozporządzenie Ministra Inwestycji i Rozwoju z dnia 29 kwietnia 2019 r. w sprawie przygotowania zawodowego do wykonywania samodzielnych funkcji technicznych w budownictwie (Dz.U., poz. 831)

Key areas of investigation	Synthesis of the research findings
<p>organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.</p>	<p>The condition for obtaining building rights is to pass the examination with knowledge of the construction process and skills in the practical application of technical knowledge. The competent chamber of professional self-government shall conduct a qualification procedure consisting of two stages: (1) verification of education and professional experience as suitable for the speciality of building rights, (2) an examination of knowledge of the construction process and the practical application of technical knowledge.</p> <p>The competent Chamber of Civil Engineers shall recognise a professional experience which has been completed after graduation if it has been confirmed by a person with appropriate building rights and entered on the list of members of the Chamber and its scope corresponds to the speciality of building rights. The Chamber shall also recognise the professional traineeship following the completion of the third year of study, confirmed by a person with appropriate building rights and entered on the list of members of the Chamber.</p> <p>The documents confirming education are: – a copy of the diploma; – diploma supplement or certificate of course of study; – a statement confirming that the traineeship has been conducted. The examination consists of a written part, carried out in the form of a test and an oral part (no separate part of the examination taking place directly on the construction site).</p> <p>The written part of the exam consists of 30 to 90 questions and concerns following knowledge: 1) the act and laws corresponding to the scope of the speciality of building rights, as well as implementing acts issued on the basis of them - 70% of the questions; 2) health and safety conditions in the execution of construction works - 20% of questions; 3) administrative procedure - 10% of questions. The oral part of the exam consists of answers to questions from a drawn set of 5 to 10 questions. The organizational units of professional self-governments responsible for conducting the examinations are: Polish Chamber of Civil Engineers; District Chambers of Civil Engineers.</p>
<p>4. Potential usefulness of the practice 3 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.</p>	<p>This practice is based on the assumption that the most reliable proof of having the required competences (in this case entitling to perform independent technical functions in construction) is the appropriate duration of professional practice.</p> <p>The functions of the construction manager are so complex, they concern so long-term activities that it is difficult to imagine a practical exam (directly on the construction site) giving building licenses/rights (it would have to last many months). The assessment at the workplace may rather concern specific skills or competences (would be easier for foreman than manager).</p> <p>This is a practice based on the opinions / statements of other people from the industry with appropriate permissions for this purpose (professional experience of the candidate can be confirmed only by a person with appropriate building rights and entered on the list of</p>

Key areas of investigation	Synthesis of the research findings
	<p>members of the Chamber). Such approach could be used also in RenovUp project for validation of skills of site managers or foreman in construction sector (assessment by more experienced experts – definition of “expert” needed of course).</p> <p>Today, in Poland there is a lack of a way to confirm foreman competences at all and at construction-site as well. RenovUp could help us to develop competence profile for foreman in construction branch and validation methods that would consume craft experiences.</p>
<p>Resources:</p> <ul style="list-style-type: none"> – Ustawa z dnia 7 lipca 1994 Prawo budowlane (t.j. Dz.U. z 2019 r. poz. 1186) – Rozporządzenie Ministra Inwestycji i Rozwoju z dnia 29 kwietnia 2019 r. w sprawie przygotowania zawodowego do wykonywania samodzielnych funkcji technicznych w budownictwie (Dz.U., poz. 831) – Ustawa z dnia 15 grudnia 2000 r. o samorządach zawodowych architektów oraz inżynierów budownictwa (t.j. Dz. U. z 2019 r. poz. 1117). 	

ADDITIONAL INFORMATION

Unfortunately, the Polish experience concerning **work-based learning** is not very rich. In fact, only the craft education system realistically implements it and organises the process of validation of acquired competences at the workplace. The reference point in this case is the so-called standards of examination requirements (also for construction professions) prepared by the Polish Crafts Association.

Regarding the **Open Badge** experience: The Lukaszewicz Institute participated in the Open Badge Network project in (2014-2017). This was an initiative taken by institutions from eight European countries. The aim was to promote an open system for recognising the achievements of learning processes in the countries of the European Union on the basis of the Open Badge concept. To this end following results were developed:

- guides for individuals, organisations and regions wishing to increase their competitiveness by implementing an open badges digital character at the same time,
- guidance on the required IT infrastructure,
- an on-line course (MOOC) introducing the open badge concept and providing practical guidance on how to generate signs of achievement.

All listed results are available on the Open Badge Network website: <http://www.openbadgenetwork.com>

Unfortunately, the implementation of the open badge concept did not take place in Poland. From what we know unofficially in the Institute of Educational Research, work is underway to integrate the CONCEPT of OB into the Integrated Qualifications System operating in Poland since 2017.

Quite useful and updated information related to a European approach to micro credentials ("small" learning outcomes) is accessible here (a webinar):

- https://hub.vet4eu2.eu/webinar/micro-credentials-in-vet-challenges-and-opportunities-at-european-level/?fbclid=IwAR09fV_ToO9jek-zhh_XOpRHqgO3RHe1Eh6U1ana4M1-Kt6ZTF0uP0pxXV4
- https://ec.europa.eu/education/education-in-the-eu/european-education-area/a-european-approach-to-micro-credentials_en

Pedmede (Greece)

Executive Summary

Greece is a country with many and small companies, which employ few employees per unit, and are distinguished by relatively low productivity. In general, larger companies invest in learning to a greater extent than smaller ones. This is natural due to increased scale, more resources and better internal organization. Large companies are very few and cover only a small part of the training needs in the workplace. Therefore, the country is not considered as an "easy case" for apprenticeships and work placements.

During the last couple of years, education policies and private sector education efforts are being redirected to better embrace such approaches. Professional learning, which involves a time of learning in a work setting or an internship laboratory in addition to instruction in organized educational institutions, is believed to provide a suitable learning environment for the successful acquisition of knowledge.

The Greek industry seems that is in favor of this "experiential," direct knowledge as the learner needs to deal with situations and circumstances directly rather than through multiple verbal representations. In terms of recognition of learning, a comparison to other European Union nations, Greece's national strategy for the validation of non-formal and informal learning is not as progresses. The formal education system predominated, with the assumption that other learning routes are a "second choice" for those from low socioeconomic backgrounds who have inadequate learning ability.

Nevertheless, the enactment of laws 3879/2010 on the development of lifelong learning and 4115/2013 and the organization and operation of the National Organization for the Certification of Qualifications and Vocational Guidance (EOPPEP) as well as the development of certification schemes in numerous occupations within ISO 17024, demonstrate a shift in this attitude and a growing interest in promoting lifelong learning through the recognition of alternative forms of learning.

1a: **Existing methods** of observation and analysis of work situations likely to be exploited for the work-based learning (in the construction sector or elsewhere).

Key areas of investigation	Synthesis of the research findings
Definition of the method and explanation of its context.	"Implementation of tasks within a real job context" which implies: <ul style="list-style-type: none">a. the practical dimension of the educational process, even choosing the necessary "task" (which is characterized by the capacity of the employee to perform tasks defined by the company supervisor or the organization in general) andb. the inclusion of all three dimensions of learning i.e., cognitive (content), emotional (motivation) and social (interaction), with reference to the critical and evaluative cognitive aspect (meditation).

Key areas of investigation	Synthesis of the research findings
	<p>Example: Challenge-based learning, based on a collaborative framework, where learners, while trying to overcome challenges, gain deep knowledge and at the same time develop skills that enhance their business skills. When faced with a challenge, teams or individuals use their experience, internal and external resources, devise an action plan and strive to find the best possible solution. The company trainer, following discussions with all relevant departments, prepares a list of detailed tasks which include all dimensions of learning and then setting an individual training plan depending on the trainees' profile.</p>
<p>Main players (prescribers, users, evaluators, etc.)</p>	<ul style="list-style-type: none"> - The instructor (mentor, consultant) who is required to combine constantly updated knowledge of the technical professional specialty as well as sufficient teaching skills (especially knowledge, experience, and a strong commitment to the application of adult education principles). - The learner who is introduced to specific and ways of managing complex situations, and gradually joining the "community of practice" of the profession with the practical adoption of rules of cooperation and codes of conduct. In addition to learning the specific techniques of each profession, via this method the learner / practitioner becomes familiarized with the culture, coping and resolution processes of the company, develops general (soft/ social) skills such as teamwork, relationship management, situation assessment and decision making etc. - The company which has an interest in operating with education providers as a learning organization, i.e., as an organization that is constantly learning and changing. In this context learning is a continuous, strategically utilized process, which is connected and implemented in parallel with daily work and is integrated into work planning, career path and reward for performance.
<p>Description of the method.</p>	<p>Further to the previous section, the method is consisted of the acquisition of knowledge and skills through the implementation of tasks (and reflection on them) in a work environment, or in the workplace (such as alternating training). The possibility of practical experimentation and evaluation of the result is an important source of learning through direct experience. Within this consideration, the chances of taking a risk through practice in the workplace and committing an error vary from limited to non-existent. In general, challenge-based learning is based on a collaborative framework, where learners, while trying to overcome challenges, gain deep knowledge and at the same time develop skills that enhance their business skills. When faced with a challenge, teams or individuals use their</p>

Key areas of investigation	Synthesis of the research findings
	experience, internal and external resources, devise an action plan and strive to find the best possible solution.
How the competence, resulting from a work-based learning, is defined, and understood within method.	<p>Workplace learning, in contrast to work-based learning in education, usually takes place through processes that are directly related to the specific working conditions in each company and is considered to contribute both to increasing knowledge and skills of individuals and working groups within the company.</p> <p>It should be noted that Workplace learning includes many elements of non-formal and non-formal learning and is strongly linked to social interactions and practices of daily professional - work life.</p> <p>The empirical element and especially the implicit (or tacit) nature of learning (tacit knowledge) and the practical-experiential aspect of the knowledge that exists in organizations have, in this case, a very significant effect on the contents, processes and forms of learning.</p>
Potential usefulness of the method for the design of professionalisation schemes dedicated to team leaders and site managers for renovation. (How work situations identified and analysed with the method can be combined/crossed with training modules/learning outcomes).	<ul style="list-style-type: none"> • Learning in the workplace favours, compared to learning in organized training structures, those who have a better educational background as they build on an already existing knowledge basis. To this end, this method enables the development of professional skills related to an activity and can constitute part of a broader training program delivered by an education provider or a company. • Work on the main purpose of the business always takes precedence over intended actions in learning as the workers find themselves in real life situations when existing skill gaps become evident signalling the necessity for a possible training. In a few words, first the worker finds himself in a situation where he understands his deficiencies in skills and then proceeds into new learning paths. • An effective way of such learning method comes with a combination of vocational training in educational structures and internships / work in business, such as dual type apprenticeship. The first, therefore, structural element of efficiency and quality is the combination of "practical" learning in business with "theoretical" learning in vocational school. The -as best as possible designed in educational terms-combination of these aspects are necessary to ensure integrated learning, but also to address the various problems that may arise during work experience. In the case of the challenge-based learning, challenges enhance learning environments by adding experiential learning, self-regulated learning, and critical thinking. This learner-centred approach allows learners to tackle problems that arise in the workplace and in the real world, thus enhancing portable skills such as teamwork, problem solving, risk-taking, public speaking, confidence, individual motivation, and creativity.

Key areas of investigation	Synthesis of the research findings
<p>References:</p> <ul style="list-style-type: none"> - Lintzeris P. (2020), "Theoretical and practical dimensions of work-based learning", Research Texts IME GSEVEE 9/2020, Athens: IME GSEVEE, p. 44 - Nichols, M., Cator, K., and Torres, M. (2016) Challenge Based Learner User Guide. Redwood City, CA: Digital Promise. 	

1b: Practices enabling training organizations to evaluate and position trainees in their professionalization process (modular training): in the construction sector or elsewhere

Key areas of investigation	Synthesis of the research findings
Definition of the practice 1 and explanation of its context.	Specialization Course for Museum and Cultural Professionals
Main players (prescribers, users, evaluators, etc.)	<ul style="list-style-type: none"> - Learners: museum and organization professionals - Supervisors: staff of the museums/cultural organizations where the placement took place who were monitoring the learners during their placement - Training supervisors: staff from the partners who monitored the whole job placement procedure and graded the learners
Description of the practice 1, enabling training organisations/centres to pinpoint knowledge and skills that future learners already possess and to propose them individualised curricula corresponding to their own learning objectives and needs.	<p>Following a number of modules based on the job profiles they had selected, the learners of the project proceeded into 205 hrs. of work-based learning, including 200 h of practical in real work environment learning and 5 h of assessment.</p> <p>The sectoral partners undertook the task to contact museums and cultural organizations and ask them their needs in terms of digitalization activities. They organized events in order to inform them about the exact modules that the learners had been training and together they created a list of possible projects-activities that the learner could implement while in job placement that would actually fulfill the needs of the museum.</p> <p>The partners took the responsibility to align these activities with the project modules and provided an indicative duration in hours so that the learner along with his/her supervisor in the museum choose together one or more activities to implement.</p> <p>The partners' supervisor organized a weekly discussion with the learners about any issues that the learners or the supervisors faced and even proceeded to visits in the job placements, when necessary. In the end, all learners had to write a report about their selected activities and prepare a presentation about it which was graded as part of the certification procedure of the project. More specifically, it counted for 30% of their final grade (the rest 70% came from the successful blended learning completion).</p> <p>The needed skills had been identified via quantitative and qualitative research that resulted to a skills index. Following the completion of the blended learning, the implementers together (training centres and companies), designed a list of practical activities where some of identified skills were put into practice. Therefore, each trainee was evaluated based on the effectiveness of the practical exercise (s)he chose to complete.</p>

Key areas of investigation	Synthesis of the research findings
<p>Potential usefulness of the practice 1 for the design of professionalisation schemes dedicated to team leaders and site managers for renovation.</p>	<p>This method could help the RenovUp project as it provides an immersive experience for the learnerσ where they can learn first-hand, by applying their knowledge and experience to a pre-defined but real work situation. This is cocreated by the employer (supervisor) and the training providers of the project identifying the specific activities to be delivered in the workplace during the placement; learning objectives and associated tasks; reporting and feedback mechanisms; and mentoring support.</p> <ul style="list-style-type: none"> - Expression of current needs by the company in terms of practical activities that a trainee could do - Identification of all learning outcomes linked to each of the suggested practical activities - Set-up of monitoring procedures and roles: 1. The trainee’s in-company supervisor, 2. The external training company supervisor, 3. The union of employers monitored the company supervisor for any assistance needed
<p>References: http://www.project-musa.eu/</p>	

1c: Practices of validation and formal/non formal recognition of learning outcomes in work situations (useful for future Open Badges): in the construction sector or elsewhere)

Key areas of investigation	Synthesis of the research findings
<p>Definition of the practice 1 and explanation of its context.</p>	<p>Validation of market qualifications in the Integrated Qualifications System – ISO 17024 Example: Training and Certification of employees in the construction and materials sector / BIM Expert – PEDMEDE https://pedmede.gr/epanek-2/#1543408804165-097bf8d6-7873</p>
<p>Main players (prescribers, users, evaluators, etc.)</p>	<p>Within the framework of the project, PEDMEDE as Leader of the Project, made an agreement with a training center for the delivery of the BIM training as well as with an accredited (by the Hellenic Accreditation Body) Certification center for the certification procedure.</p>
<p>Description of the practice 1, enabling training organisations/centres to recognise knowledge, skills, abilities, values etc. that learners or other individuals possess or vehicle.</p>	<p>The certification process for the trainees can be summarized as follows: Stage 1: Agreement with the Certification center Stage 2: Preparation for Certification Stage 3: Conduct Certification Examinations Stage 4: Decision for Certification Stage 5: Valuation of the Certification Action. Each beneficiary participated in the certification process of BIM following the completion of his / her participation in the educational process (80hrs training). Along with the theoretical examination there was also a practical one. The practical examination was checked and evaluated by a competent examiner, while its duration was approximately thirty (30) minutes. Each candidate was asked to identify components, measuring instruments and equipment as well as the correct planning of a specific scenario in a smart building, utilizing appropriate software.</p>

Key areas of investigation	Synthesis of the research findings
	<p>During the practical examination, candidates were examined at the following points:</p> <ul style="list-style-type: none"> - Understand the designs and technical specifications of components and equipment - Identification of used components and equipment - Identification of communication network components and component wiring - Recognition of the correct wiring of the circuit - Identification of possible malfunctions and existing failures <p>Upon completion of the certification exams, a list of participants in the certification exams was issued, which recorded the results of the examinations. For those who have succeeded, a decision was taken to issue their certificates and all the corresponding certificates.</p> <p>In detail, the certification path consisted of the following steps:</p> <ol style="list-style-type: none"> 1. Submission of the application for certification and the necessary supporting documents 2. Verification by the Hellenic Accreditation Body (ESYD) of the certification application and the supporting documents of each participant 3. Since the application was approved, the certification card of each participant was issued 4. Creation of an accredited certification exam schedule 5. Participation of the participants in the examination 6. Issuance of results at the end of the certification examination 7. Issuance of the decision to issue certificates and certificates to those who have completed the certification exam
<p>5. Potential usefulness of the practice 1 for the validation and formal/non formal recognition of learning outcomes aimed within RenovUp.</p>	<p>Could be an alternative method of recognition since the certification scheme of ISO 17024 is common in all countries.</p>