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Contract No. 2020-1-FR01-KA202-080105 (2020-2023)

**IO4:** Transnational strategy and national systems for the positioning, support and professionalization of site managers and team leaders for building renovation sites

**IO4-A2. Adjustment of the transnational system for positioning, support, and professionalization according to the results of the experiments.**

**FINAL REPORT ON EXPERIMENTAL TRAINING PATHWAYS**

Fundación Laboral de la Construcción del Principado de Asturias

in collaboration with All Partners

OVIEDO (ES), 01 AUGUST 2023

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# **IO4 within RenovUp: General Context and Objectives**

The implementation of the training programme aimed at updating/professionalising site managers and team leaders in building renovation works (IO4), launched simultaneously in France, Greece, Italy, Poland, and Spain has enabled the project partners to empirically verify the suitability of the results obtained in the previous phases of the project, and which are:

**IO1-A1.** In-depth analysis of the **technical, organisational and normative specificities of building renovation sites** which affect the evolution of the functions of site managers and team leaders on these sites in the partner countries.

**IO1-A2.** Identification, in each partner country, of the **specific skills expected of site managers and team leaders by companies specialising in building renovation**. Done more than 80 Interviews to companies and the target groups in the five countries. Transnational results available at IO1-A1&A2.

**IO1-A3.** Design of national and modular systems for the professionalization of site managers and team leaders for building renovation sitesin the territories identified in each country of the partnership: contents of the modules and teaching methods to be implemented based on a jointly designed transnational model (including training in work situations on site, in training centres and in e-learning). With 2 main sub activities relevant for IO4:

IO1-A3a. Identification of Skills & Knowledge corresponding to the Activities specified through the previous work (IO1 - A1 & A2).

IO1 – A3b. Design of the professionalization paths dedicated to site managers and team leaders (transnational pattern to be declined nationally).

The purpose of Sub-activity **IO1-A3a** was to prepare, through the identification of **skills & knowledge corresponding to concrete activities of site managers and team leaders on renovation sites, the design of the professionalisation paths, where work situations were considered as main sources of learning**. **This aspect constitutes the principal innovation of RenovUp.** Four main blocks of activity were identified, with 15 components of activity individualised with its own pedagogical learning objectives. Transnational results available at IO1-A3a.

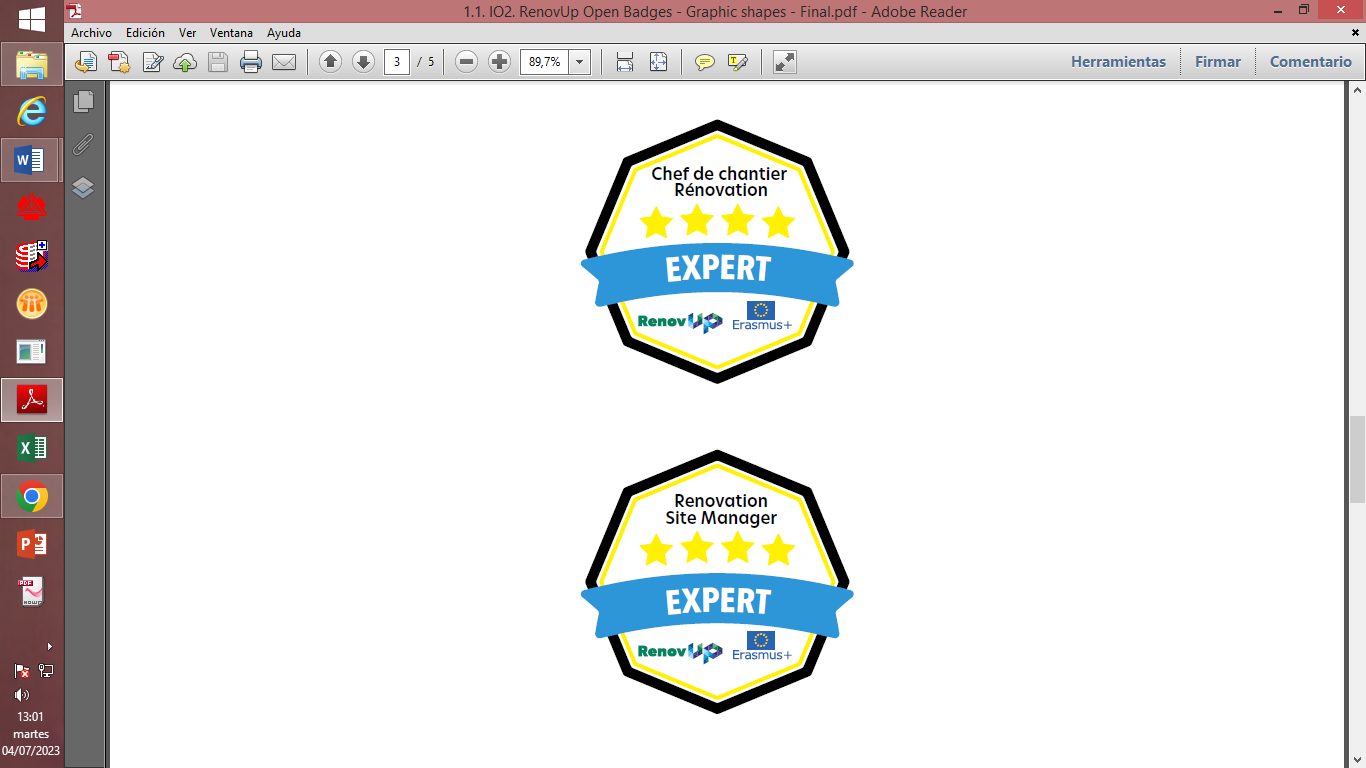
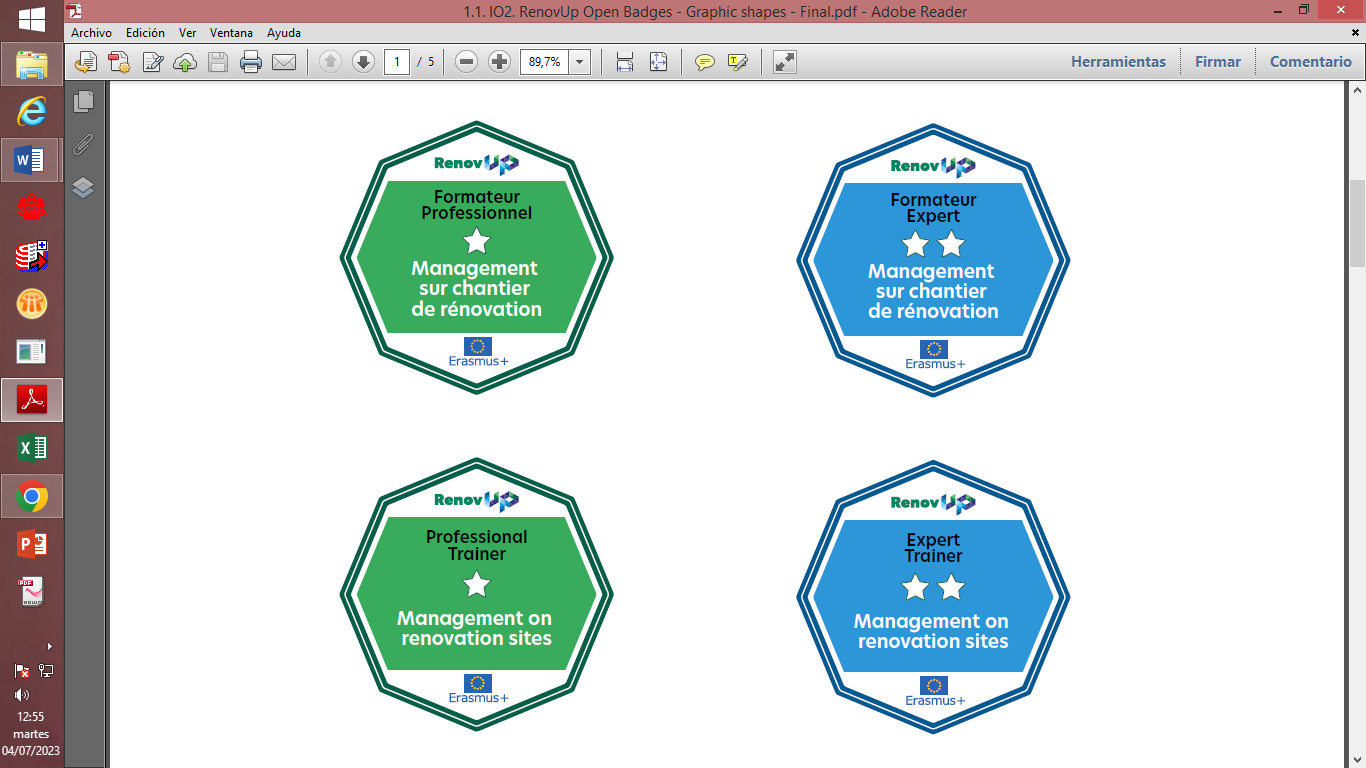
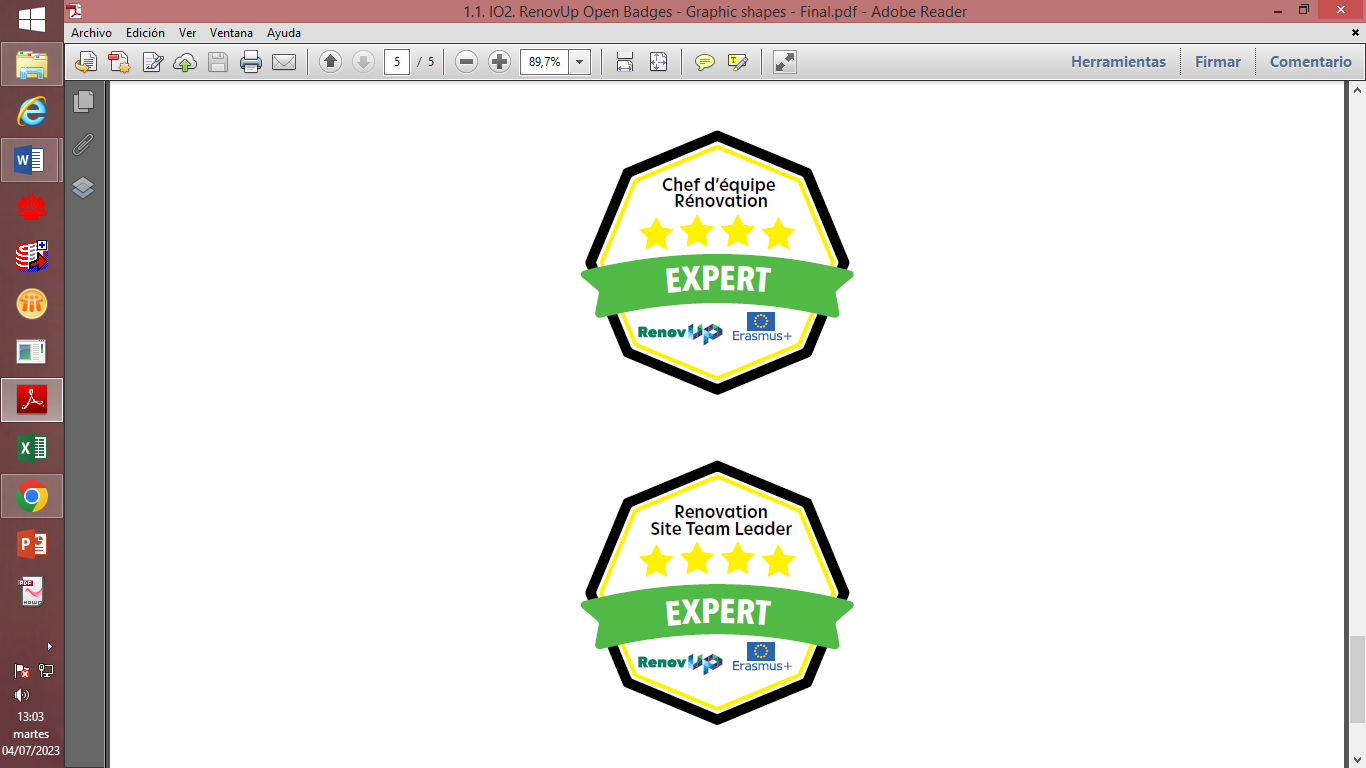
**IO1-A4.** Design at transnational level and implementation in specific national systems of a model for positioning the groups concerned in professionalization pathways and development of the **innovative** **didactic tools for the professionalization of site managers and team leaders for building renovation sites, designed in relation to work situations** (methodology for carrying out observations of work situations, the positioning of the trainee, as well as his/her monitoring and evaluation. Transnational report IO1-A3b&A4

**RenuvUp IO1** **Transnational model for the positioning, support and professionalisation of site managers and team leaders for building renovation sites**

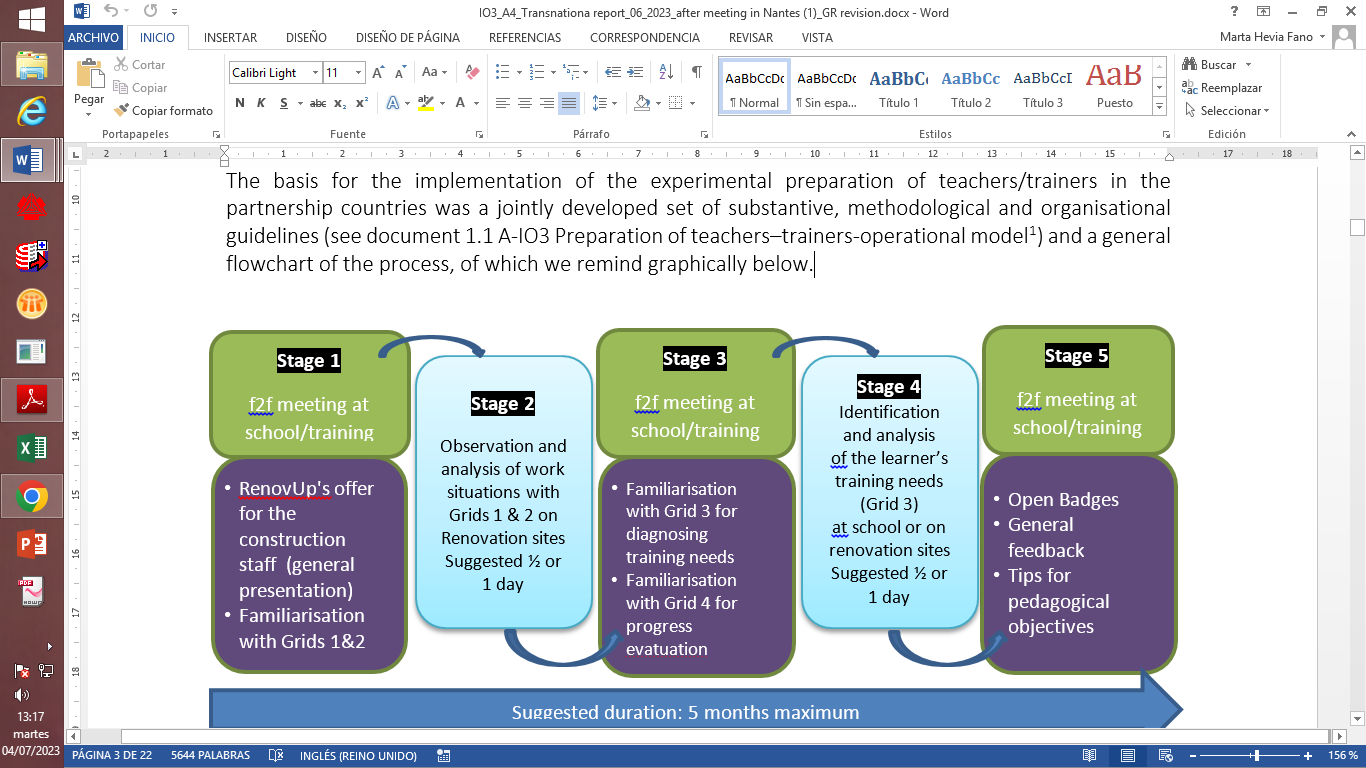
**RenovUp IO2** **Transnational model for the positioning, support and professionalisation of site managers and team leaders for building renovation sites**

**RenovUp IO3** **Support program for teachers/trainers preparing them to train site managers and team leaders based on real-life work situations**

**Two series of Open Badges** were created for RenovUp: one for trainers responsible for the professionalization of building renovation site managers and team leaders; and another for site managers and team leaders participating in the professionalization facility in the framework of IO4. Transnational report IO2-A1&A2.

Partners developed a model to support **teaching staff in observing real working situations** on construction sites and using the results of these observations in the design and implementation of educational / training offers. A training program was deployed in each country of the partnership testing tools developed in IO1-A4, and the adequacy of the qualifications planned. Transnational report IO3-A4.



**RenovUp IO4** **Transnational strategy and national systems for the positioning, support and professionalisation of site managers and team leaders for building renovation sites**

And so, we come to the last phase of the project, the subject matter of this report, where partners have experimented operational strategies for professionalization in the countries of the partnership adapting them to national contexts and to middle management on building renovation sites.

**IO4-A1.** Implementation of the targeted experimental professionalisation scheme, on clearly identified territories and with clearly identified partners in each partner country:

* Recruitment of the target groups (current or future team leaders and site managers) and their positioning in individualised professionalisation pathways.
* Modular work-linked training according to the prescriptions resulting from IO1 of the project.
* Assessment and recognition of learning outcomes with Open Badges.

**IO4-A2.** Adjustment of the transnational system for positioning, support and professionalisation according to the results of the experiments. Identification of points of vigilance.

* Evaluation of the results of the experiments in each partner country and transnational synthesis and terms of recommended improvements before moving on to the deployment phase.
* Drawing up a realistic and pragmatic strategic plan for the deployment of the system in the partnership countries over 3 years following the completion of the project.

# **Implementation of the targeted experimental professionalisation Schemes with Site Managers and Team Leaders**

The experimentation scheme was designed and implemented on the five partner countries in cohesion with results of IO3 experimentation (support for teachers/trainers). It was conducted in parallel with the professionalization of trainers, especially:

* the results of observation of the work situations on construction sites where renovation works were carried out (pilot work observations were made with the use of Grid 1/2 ) and
* the results of the diagnosis of training needs of current or future site managers/team leaders participating in the training done by the trainers with the use of Grid 3.

The arrangements put in place for the experiment varied from country to country and were adapted to their national contexts:

CCCA-BTP (France) had the cooperation of three VET centres in the construction sector: BTP CFA Blanquefort, BTP CFA Saint-Herblain and BTP CFA Angers.

FORMEDIL (Italy) was supported by the VET centre of Avelino.

Fundación Laboral de la Construcción del Principado de Asturias (Spain) used its own training facilities located in the VET centre of Gijón.

PEDMEDE (Greece) conducted its experimentation with the support of Techniki Ekpaideutiki (Training Centre located in Athens).

Łukasiewicz ITeE (Poland) planned it and executed it with cooperation with the Association of Finishing Work Specialists – SSRW, directly with companies.

The recruitment and experimentation took place during the first semester of 2023, although in some countries, such as France, Italy and Spain, the recruitment period started before, along 2022, while the courses in which the experimentation took place were being set up.

Access requirements also differed from country to country, as they were adapted to the national context: while in France, access to the RenovUp IO4 experimentation required an EQF Level 3/4 and a minimum of experience in the sector, in the other countries, access studies were not required and experience in the sector was valued.

**Modular work-linked training**

Modular work-linked training was planned in all countries based on the training blocks, components, and associated pedagogical objectives developed in IO1.A3a, and supported by the document “Tips for National Experimental Training”, drafted by CCCA-BTP in collaboration with FLC Asturias in October 2022. 73% of the components identified in IO1 were tested by the project partner organisations, covering the four targeted professional blocks.

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| **Block 1: Preparing a renovation site** | **Breakdown into general pedagogical objectives** |
| **Component 1.1:** Literature review of renovation project components  Tested in:   * **(FR)** | 1. Identify and collect documents specifically related to renovation projects. 2. Analyse data and identify critical points 3. Report and propose improvements, changes or solutions if necessary. |
| Component 1.2. Diagnostic methods for existing buildings and premises prior to intervention | 1. Identify the different diagnostic procedures/methods/techniques possible in renovation projects. 2. Determine/select appropriate diagnostic method(s) |
| **Component 1.3.** Visit to the site of the future renovation: Preparation, observation methods and analysis of observed elements  Tested in:   * **(ES)** | 1. Identify, list and locate the specific elements to be observed during the visit. 2. Determine the diagnostic methods to be used and possible partners or materials needed. 3. Carry out the visit, identify and report critical points. 4. Analyse the critical points and propose the necessary solutions or adjustments. |
| Component 1.4. Preparation of the renovation site plan and layout (signage, fencing and preparation of the site area). | 1. Identifying/characterising specific elements of renovation sites 2. Integrate the specific elements of renovation into the design and layout of intervention sites. |
| Component 1.5. Planning and phasing of the team's work in renovation works. | 1. Identifying/characterising specific elements of renovation sites 2. Integrate the specific elements of renovation into the planning, procedures and phasing of interventions. |

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| **Block 2: Managing communication and relationships on a renovation site** | | | | | | | | **Breakdown into general pedagogical objectives** |
| **Component 2.1.** Team management in renovation works: Monitoring of assignments and tasks and anticipation of complex and potentially conflicting situations with internal staff and subcontractors.  Tested in: | | | | | | | | 1. Identify and characterise critical situations or specific problems in renovation works. 2. Anticipating, developing and proposing solutions 3. Informing team leaders |
| * **FR** | | * **IT** | | | | | |
| **Component 2.2**. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.).  Tested in: | | | | | | | | 1. Identify and characterise the different types of constraints or problems specific to renovation projects. 2. Anticipating, developing and proposing solutions and reporting to team leaders |
| * **FR** | | | * **IT** | | * **ES** | | |
| **Component 2.3.** Follow-up of relations with the client, the company director, the architect, the project office and the CSS (health and safety coordinator).  Tested in:   * **FR** | | | | | | | | 1. Characterise the specificities of the different actors involved in a renovation project. 2. Integrate these specificities in the exchanges/procedures between stakeholders. |
| **Component 2.4.** Mental workload management, including the management of stress and strain at work.  Tested in:   * **FR** | | | | | | | | 1. Identify the particularities and specificities of the tensions linked to renovation projects. 2. Develop facilitation or anticipation strategies |
| **Block 3 : Management of the technical and organisational aspects of the renovation work** | | | | | | | | **Breakdown into general pedagogical objectives** |
| **Component 3.1.** Administrative, financial and legal management of a renovation project.  Tested in: | | | | | | | | 1. Identify and compile administrative, financial and legal documents specifically related to renovation projects. 2. Integrating these specificities in the management of the site |
| * **FR** | | | * **IT** | | * **ES** | | |
| **Component 3.2.** Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works.  Tested in: | | | | | | | | 1. Identify specific and critical situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| * **FR** | * **IT** | | | * **ES** | | | * **GR** |  | |
| **Component 3.3.** Waste management in refurbishment works: planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools.  Tested in: | | | | | | | | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop resolution strategies and apply appropriate techniques. 4. Informing team leaders |
| * **FR** | * **IT** | | | * **ES** | | | * **GR** |
| **Component 3.4:** Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools.  Tested in: | | | | | | | | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| * **FR** | | * **GR** | | | | * **PL** | |
| **Component 3.5.** Continuous quality control of renovation works: quality of intermediate stages and quality of finished works.  Tested in:   * **PL** | | | | | | | | 1. Identify the critical points to be taken into account 2. Determine quality criteria and develop specific control procedures. |
| **Block 4: Acceptance of renovation works and quality control .** | | | | | | | | **Breakdown into general pedagogical objectives** |
| **Component 4.1** Quality control of renovation results and approval by the client  Tested in:   * **FR** | | | | | | | | 1. Identify and characterise the points of care to be considered 2. Develop the necessary control procedures |
| Component 4.2. Evaluation of the work process and results, including evaluation, assessment and improvement of equipment. | | | | | | | | 1. Evaluating the final results and the processes implemented 2. Valuing work with team leaders and teams |

Components 3.2 (Occupational Health & Safety) and 3.3. (Waste Management) were the most experimented, taking place in four of the five countries (FR, ES, IT, GR).

The training framework in which experimentation took place was not the same in all countries: in France, Italy and Spain RenovUp modules were integrated into regular courses, whereas in Greece and Poland it was implemented as independent units.

Individualised professionalization pathways were designed in each country. The duration of each one was determined by each partner organisation, according to the targeted learning outcomes. A total of 365 hours were delivered with an average duration of 45 hours per training action. (For further details, please consult country reports in Annex)

The training modality chosen in each country was also diverse: 100% of the teaching experimentation took place in the VET centre in Italy and Spain, while in Poland was fully developed within the company. In France it was developed within the framework of the apprenticeship (75% of the experimentation took place in construction companies, and the 25% left in VET centre) and in Greece it was fully online.

A total of 88 trainees participated in the whole experiment (considerably more than the 60 planned), 64% of them being team leaders and 36% site managers.

The training courses were carried out by instructors specialised in the construction trades for the technical side, and by experts in cross-disciplinary subjects such as communication on a renovation site, application of circular economy and energy saving rules, and implementation of health and safety rules on renovation sites. A total of 21 trainers and 24 companies were involved in the process.

**Assessment and recognition of learning outcomes with open badges**

Except for Greece, which will issue the Open Badge Block 3 to the 23 participants, no Open Badges were delivered in the rest of the countries to date because 50% of the components were not exceeded in any block. However, the partners intend to deliver additional Open Badges by equivalence procedures starting from September 2023.

The system for the delivering Open Badges, based on Open Badges Factory platform, is operational from June 2023.

The criteria for the attribution of Open Badges are clearly identified for each audience: teachers/trainers, renovation worksite managers and team leaders. Details, including delivery procedures, can be found at [IO2.-RenovUp-Open-Badges-Final-Proposal](https://www.renovup.org/wp-content/uploads/2023/03/1.1.-IO2.-RenovUp-Open-Badges-Final-Proposal.docx).

Starting from September 2023, it is also planned to make use of them to validate and recognise new skills and competences not covered with the training standards and qualification frameworks, to give more visibility to the specific qualifications related to the renovation worksites.

**Evaluation of the experience**

The group of participating professionals had professional experience in construction or related sectors, so it was possible to deepen their knowledge of the subject and acquire the competences linked to the professional profile. All of them were suitable. Besides, based on the content of this grid 3/4 for monitoring/evaluating, the learners carried out a reflective analysis of their performance, based on exchanges between sub-groups, guided by the trainers. For the most part, the learners were able to correctly assess their level of performance, identify their strengths and areas for improvement and become aware of the contribution of the sequence to their acquisition of skills.

To evaluate the quality of the experimentation carried out within the framework of the RENOVUP project, in most of the partner countries the participating professionals completed a common satisfaction survey. As result, they found the IO4 experience fully interesting, linked to their activity and providing them with new knowledge to develop their professional activity. All of them were satisfied for having participated in the experimentation.

Furthermore, and in general, the experiment enabled the teaching team to discover and experiment with innovative and relevant tools (for observing, positioning, monitoring, evaluating and self-evaluating), and to become even more aware of the importance of the link between the real work situation and the learning situation.

The companies that took part in the project found it of real benefit that their needs and the reality of the work sites were considered in the training. They also felt valued and strengthened in their position as tutors, at the idea of contributing to the design of training for their future supervisors.

# **Evaluation of the Training Actions carried out and Recommendations for Improvement**

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| DURING RECRUITMENT OF CANDIDATES | |
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| **What went well** | The recruitment process was generally successful in the five participating countries. However, let’s us remember that in some countries the experimentation took place into regular courses, whereas in others it was implemented as independent units.  In the case of those experimentations integrated into regular courses, recruiting candidates did not pose any problem, given that they had been identified well in advance, as part of their main training courses (is the case of France, Italy and Spain).  On the other hand, for those experimenting independent units (such as in Greece, Poland and in one of the French experiences) it was essential for the success of recruitment the involvement of the cooperating construction companies, encouraged by the offer of training based on real working conditions and responding to highly demanded skills for these professional profiles. Furthermore, the fact that innovative RenovUp's methodology foresaw the individualisation of the training and its adaptation through real on-site observation, provided a further guarantee to all of them.  It is important to note that in France, the experimentation carried out in the framework of continuous training was carried out under an agreement signed with the company and negotiated beforehand. |
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| **What aspects should be improved?** | To have available information and promotional material ready to use when attracting participants could be very helpful in order to simplify explanations and provide candidates with written information to enable them to recall the information received after the recruitment session and help them make decisions.  Time constraints also had a significant impact on the experimentation of most of the participating organisations. The training centres (as in Spain and France) have not been able to devote sufficient attention to opening up the RenovUp training modules to continuing education audiences (where the training of site managers usually takes place) other than those pre-positioned/ pre-scheduled. Opening the RenovUp modules more widely to audiences other than those already pre-positioned/pre-scheduled would have resulted in a better fill rate for the training sessions, with richer exchanges between participants, based on an even greater number of professional situations. |
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| **What aspects should we pay special attention to?** | * + - * **Emphasise the innovative aspects of the system (modular work-linked training).** It is essential that candidates understand how important it is for them to receive personalised training (training modules are not fixed), taking into account the skills they have already acquired and the skills they need to acquire as a result of the observation of their professional development at real work situations. * **Do not limit registrations** for training sessions to candidates pre-positioned by the sponsoring companies. * **Ensure better dissemination,** with promotional material, through employment agencies for the training courses on offer. |

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| WHEN COMMUNICATING WITH SITE MANAGERS AND TEAM LEADERS | |
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| **What went well** | In general, we can say that communication was always positive, although the methods used in each country were diverse.  In the case of Poland, for Lukasiewicz-ITeE, the figure of the "ambassador" was very important. One of the most successful solutions for organising training was to find someone from the target group who was convinced of the proposed solutions and who could act as an "ambassador" for them among construction workers, highlighting the advantages of the innovative offer. The element that convinced Polish foremen in the construction industry to take part in the training was the fact that it was work-based learning and that the offer would be individualised. An additional advantage was the information that the trainers would be their professional colleagues.  Our Greek partners (PEDMEDE) found the communication with the participants was a very complex process that needed a high-level organization and flexibility by all sides. It was assured conducting on first stay phone calls to arrange the interviews and then later the trainers conducted one-to-one interviews to identify their respective training needs, sometimes supported by the employers in order to understand more in-depth the level of their competence. PEDMEDE also communicated with the learners before the arrangement of the training in order to ensure that the days for the training work for both sides.  The Spanish experience was also satisfactory. FLC Asturias mentioned that trainees are always very receptive to being involved, especially if it is to improve their professional skills. At RenovUp, they appreciated the fact that their opinion was taken into account in the interviews (which also helped them to take a snapshot of their professional activity) and that teachers/tutors observed on site, in real work situations, which skills they needed to strengthen in order to improve their professionality.  No problems were found either by our French partners: communication situations were more partnership-based than trainer-trainee. In fact, for trainees already in the certification training programme run by the training centres, communication has taken place naturally between the teaching teams and the trainees, explaining the ins and outs of the RenovUp modules and the reasons for integrating them into the certification programmes that the trainees are following. And In the case of company employees, it was the companies themselves that explained to the trainees their interest in taking part in the training courses on offer. |
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| **What aspects should be improved?** | In general terms, there were not addressed any problems that should be dealt with or improved, since there were clear guidelines, rational time scheduling and flexibility, although printed information and promotional materials could have helped.  Nevertheless, it was pointed out for some partners that in the future, we need to consider more effective ways of communicating with team leaders and site managers in small renovation companies, as these people do not have the reflex to take training, apart from statutory and therefore compulsory training. |
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| **What aspects should we pay special attention to?** | * **Contact with site managers and team leaders must be** **direct**, involving companies. * It is essential to **highlight the advantages of** **RenovUp innovative offer** (being ready for real training individualisation in real work situations). * In renovation companies, site managers and team leaders are a relatively old population, so there will be a problem of succession. **Ways of communicating with young people** **need to become more effective** and better adapted to their profile, to show them in a pragmatic way how the training courses on offer are designed to put work situations at the heart of the professionalization process and how they can help to strengthen the career plans of the people concerned. |

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| DURING THE EXPERIMENTATION PROCESS | |
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| **What went well** | The experiments themselves went off successful. The individualization of the offer linked to real work situations was high valued for all participants involved as mentioned by Polish and Spanish partners. For example, in FLC Asturias (Spain), the practical part of the experimentation was the most valued by trainees and trainers: controlling the execution of the elements that influence the energy performance of the building using the appropriate technology associated with the diagnosis, measurement and control of renovation works, such as thermographic cameras, sound level meters, laser levels…  In France (and in all participating countries in general) the site managers and team leaders gave very detailed accounts of their work situations on renovation sites. There were no communication problems between the trainees themselves or with the trainers. The communication situations were more partnership-based than trainer-trainee, which was one of the aims, with each contributing his or her expertise and experience.  Furthermore, it is important to be mentioned that the RenovUp project provided some partners, as PEDMEDE, the opportunity to valorize the outcomes of other European projects (i.e Construction Blueprint and CDWasteManageVET -which was awarded as a best practice by the EC), since parts of their training content were used to develop the content of the RenovUp learning activity. |
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| **What aspects should be improved?** | The challenges faced in each country vary from country to country.  In Poland, for example, there is a lack of training centres to date, mentioned Lukasiewicz-ITeE. The experimental phase of the RenovUp project was, of course, limited in quantity, and so it was possible to implement it using construction sites (where renovations were carried out by trainers) as training places. On a larger scale, however, this does not seem possible in many respects (OHS, legal reasons, owner/investor consent). Therefore, it is necessary to have training centres where active workers in the construction sector can develop their competencies in short practical and individualised training cycles.  Sometimes, as in the Greek case, PEDMEDE was not able to conduct some practical exercises (to apply theory in practice) on construction site (Royal Palace of Greece), due to the historical significance and the type of renovation works.  In Spain, difficulty arose due to the lack of work-linked training. Therefore, in order to overcome this difficulty FLC Asturias relied on the training proposal resulting from the observations and interviews carried out in IO3 phase by the trainers with site managers and team leaders in real work situations. Part of this program was experienced with team leaders participating in a regular course given at FLC Asturias simultaneously and related to the energy rehabilitation of the envelope in residential buildings.  In the future, more space should be given to reflective analysis, based on exchanges of experience and the contribution of theoretical knowledge by the trainers. The ability to take a step back, especially to be able to cope better with unforeseen situations on renovation sites, is fundamental to develop, as it is cross-disciplinary. The acquisition of this skill, linked to resilience, must be present in all the blocks and components of skills envisaged in the RenovUp framework. |
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| **What aspects should we pay special attention to?** | * The competence of trainers to **transfer the results of work situation observation into training objectives and training offerings** is essential. Success in this phase is only possible if the trainer who observes the work situation combines the two key competences: pedagogical (methodical) and sectoral (professional experience in the construction sector). * To succeed in the experimental process **close cooperation between the training centre, trainers and companies** is fundamental. * Care must be taken to strike the right balance between the following elements during each learning sequence: * Collecting the observations made by the trainees in the company (this is very time-consuming, but sometimes the process is too linear, in the form of reports, without sufficient analysis of the causes and effects). * Capitalisation on significant experiences (steered by the trainer) and conclusions for the planning of subsequent activities in the company. * Formalisation of observations and analyses, in a form that is easily accessible to all trainees. |

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| WHEN EVALUATING THE LEARNING OUTCOMES | |
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| **What went well** | In the case of the Polish conditions of the course of the experiment, the evaluation of learning effects was simple, since it was the trainees who were most interested in professional development. They took their time to learn specific skills and were able to clearly define their progress. Grid 3 developed within RenovUp project aims to be useful for this purpose.  After the completion of the RenovUp trainings, an online questionnaire with an assessment regarding each component was distributed by PEDMEDE (GR) to the participants in order to address the learning outcomes. As stated in the IO3 Final national report, the trainers preferred to use the Grid 3 for the evaluation of the trainees instead of using the Grid 4 because it will be more compact and comfortable to assess their progress. Thus, after the completion of the assessments, the trainers filled the Grid 3 in accordance with the score of the assessments. The assessment was a combination of multiple choices and open-ending questions regarding the Component of the block. The trainees successfully completed the assessment before the deadline of the 10th of June, thus PEDMEDE will provide the OB of Block 3 to the 23 participants.  In Spain the assessment was simple, making use of the usual assessment methods used in the courses we teach at FLC Asturias, and relying on the use of Grid 3 developed within the framework of the RenovUp project, which allowed us to assess the competences acquired in a broader professional context related to their professional profile.  Assessment not only of the skills acquired, but also of the way in which the professional attitude of site managers and team leaders has changed, was developed in France. As well as the assessment of the degree of autonomy and responsibility that learners have acquired on the site (progressive assumption of responsibility, analysed in relation to work situations); and the assessment methods are sufficiently relevant to assess managerial and cross-disciplinary skills (green economy, digitisation of processes, knowledge and application of standards). |
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| **What aspects should be improved?** | In Poland the professional development of construction workers is not promoted, i.e. there is no culture of asking a potential contractor for renovation works about his qualifications. It should be changed.  French partners found that reflective postures, in relation to work situations, have not always been sufficiently evaluated. And that there aren't enough methods or tools to measure the progress of contingency management on the renovation site.  Simplifying and breaking down the aspects to be evaluated in each of the blocks would improve the evaluation process, is one of the improvements done by FLC Asturias, while PEDMEDE think that it should be better to have a common evaluation assessment for each component of the Block. That would be translated into less work for the volunteer trainers as well as it would help make the provision of OB a common process with universal standards for all the Consortium countries.  The use of open badges to accredit competences should become more common. |
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| **What aspects should we pay special attention to?** | * **Promotion of awarding Open Badges** in the construction sector environment. * The **need to collect certificates (generated by the market) is slight** and therefore there is no other motivation than internal/personal one to improve professional competences of construction workers. * The **RenovUp Grid 3 for diagnosing training needs of trainees and monitoring** was preferred by evaluators instead of RenovUp Grid 4 for progress evaluation. * More thought needs to be given to the way in which **companies sponsoring training initiatives are involved in the evaluation of learning outcomes**. |

# **National Reports**

### SPAIN

**BRIEF DESCRIPTION OF THE EXPERIENCE IN SPAIN**

The experimental professionalisation scheme implemented by the Construction Labour Foundation of the Principality of Asturias, in Spain, was fundamentally developed within the framework of the training activity on Energy Rehabilitation Techniques for the Envelope of Residential Buildings (300 hours). Its goal to train future team leaders to install different thermal insulation systems on the exterior of the envelope of existing buildings (roofs, ventilated façades, thermal insulation systems), previously preparing the support, according to its composition, making the necessary adjustments according to the pathologies of the building to be renovated, following the guidelines specified in the technical documentation and in the prescriptions established in terms of quality, safety and the environment.

The experimentation took place during the first quarter of 2023 and involved **14 students**, all of them with a **team leader** profile.

The experimental scheme with the target group (RENOVUP IO4) was designed and implemented based on the training proposals resulting from the experimental training of trainers (developed in RENOVUP IO3), where the qualification (IO1.3) and didactic tools (IO1.4) developed within the framework of the project (RENOVUP IO1) were tested with middle managers (site managers and team leaders) working in real professional situations in the field of building renovation.

**MODULAR WORK-LINKED TRAINING ACCORDING TO THE PRESCRIPTIONS RESULTING FROM IO1 OF THE PROJECT**

The experimentation with team leaders was based on the training scheme proposed in IO1.3 and focused on the four components highlighted in yellow: one corresponding to Block 1 (Preparing a renovation site), another to Block 2 (Managing communication…), and the rest to Block 3 (Management…).

|  |  |
| --- | --- |
| **Block 1: Preparing a renovation site** | **Breakdown into general pedagogical objectives** |
| Component 1.1: Literature review of renovation project components | 1. Identify and collect documents specifically related to renovation projects. 2. Analyse data and identify critical points 3. Report and propose improvements, changes or solutions if necessary. |
| Component 1.2. Diagnostic methods for existing buildings and premises prior to intervention | 1. Identify the different diagnostic procedures/methods/techniques possible in renovation projects. 2. Determine/select appropriate diagnostic method(s) |
| Component 1.3. Visit to the site of the future renovation: Preparation, observation methods and analysis of observed elements | 1. Identify, list and locate the specific elements to be observed during the visit. 2. Determine the diagnostic methods to be used and possible partners or materials needed. 3. Carry out the visit, identify and report critical points. 4. Analyse the critical points and propose the necessary solutions or adjustments. |
| Component 1.4. Preparation of the renovation site plan and layout (signage, fencing and preparation of the site area). | 1. Identifying/characterising specific elements of renovation sites 2. Integrate the specific elements of renovation into the design and layout of intervention sites. |
| Component 1.5. Planning and phasing of the team's work in renovation works. | 1. Identifying/characterising specific elements of renovation sites 2. Integrate the specific elements of renovation into the planning, procedures, and phasing of interventions. |
| **Block 2: Managing communication and relationships on a renovation site** | **Breakdown into general pedagogical objectives** |
| Component 2.1. Team management in renovation works: Monitoring of assignments and tasks and anticipation of complex and potentially conflicting situations with internal staff and subcontractors. | 1. Identify and characterise critical situations or specific problems in renovation works. 2. Anticipating, developing and proposing solutions 3. Informing team leaders |
| Component 2.2. Development and implementation of procedures for the correct execution of operations. | 1. Identify and characterise the different types of constraints or problems specific to renovation projects. 2. Anticipating, developing, and proposing solutions and reporting to team leaders |
| Component 2.3. Follow-up of relations with the client, the company director, the architect, the project office, and the CSS (health and safety coordinator). | 1. Characterise the specificities of the different actors involved in a renovation project. 2. Integrate these specificities in the exchanges/procedures between stakeholders. |
| Component 2.4. Mental workload management, including the management of stress and strain at work. | 1. Identify the particularities and specificities of the tensions linked to renovation projects. 2. Develop facilitation or anticipation strategies. |
| **Block 3 : Management of the technical and organisational aspects of the renovation work** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial, and legal management of a renovation project. | 1. Identify and compile administrative, financial and legal documents specifically related to renovation projects. 2. Integrating these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works. | 1. Identify specific and critical situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.3. Waste management in refurbishment works: planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop resolution strategies and apply appropriate techniques. 4. Informing team leaders |
| Component 3.4: Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.5. Continuous quality control of renovation works: quality of intermediate stages and quality of finished works. | 1. Identify the critical points to be considered. 2. Determine quality criteria and develop specific control procedures. |
| **Block 4: Acceptance of renovation works and quality control .** | **Breakdown into general pedagogical objectives** |
| Component 4.1 Quality control of renovation results and approval by the client. | 1. Identify and characterise the points of care to be considered. 2. Develop the necessary control procedures. |
| Component 4.2. Evaluation of the work process and results, including evaluation, assessment and improvement of equipment. | 1. Evaluating the final results and the processes implemented 2. Valuing work with team leaders and teams. |

**PROPOSED TRAINING SEQUENCE RESULTING FROM THE OBSERVATION OF REAL WORK SITUATIONS (QUESTIONNAIRE 1) AND THE POSITIONING OF THE STUDENTS (QUESTIONNAIRE 3) IN RENOVUP IO3**

Based on the observations made during the site visits and the conversation with the interviewees, a series of training needs were identified that served as the basis for the following training proposal to be implemented in RENOVUP IO4:

|  |  |  |  |
| --- | --- | --- | --- |
| **RENOVUP IO1** | | **RENOVUP IO3** | **RENOVUP IO4** |
| *Block 1 : Preparation of a renovation site* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 1.3. Visit to the site of the future renovation: preparation, observation methods and analysis of the observed elements. | * Identify, list and locate the particular elements to be observed during the visit. * Determine the diagnostic methods to be used and the personnel/equipment required. * Carry out the visit, identify and report critical points. * Analyse the critical points and propose the necessary solutions or adjustments. | ✍ Identify and master new technologies associated with the diagnosis, measurement and control of renovation works, such as thermographic cameras, sound level meters, laser levels, etc.  ✍ Insulation concepts, thermal inertia, dew temperature, pathology of dampness - infiltration, capillarity, condensation).  ✍ Comprehensive layout of the work and forecasting/anticipation of critical points.  ✍ Develop and propose solutions to these critical points. | ✍ Knowledge to control the execution of the elements that influence the energy performance of the building using the appropriate technology associated with the diagnosis, measurement and control of renovation works, such as thermographic cameras, sound level meters, laser levels, etc.  ✍ Regulations relating to the energy standards of buildings during their renovation.  ✍ Insulation concepts, thermal inertia, dew temperature, pathology of dampness - infiltration, capillarity, condensation).  ✍ Comprehensive layout of the work and forecasting/anticipation of critical points.  ✍ Develop and propose solutions to these critical points. |
| *Block 2 : Communication and relationship management on a renovation site* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 2.2. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | * Identify and characterise the different types of constraints or problems specific to renovation projects. * Anticipating, developing and proposing solutions and reporting to team leaders | ✍ Development of working procedures  ✍ Project management  ✍ IT (BIM, MSPROJECT...)  ✍ Energy efficiency (ventilated façades, forced ventilation with heat recovery, aerothermal energy, solar panels, photovoltaic panels, etc.). | ✍ Solutions and new materials to adopt for the renovation of energy efficient building envelopes through ventilated facades, insulation of roofs, walls and basements. |
| *Block 3 : Management of the technical and organisational aspects of the renovation work* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 3.2. Management and control of the protection of workers and buildings on site, including the erection/dismantling of scaffolding, working at heights, difficult access and the use of hazardous materials in refurbishment works. | * Identify specific and critical situations. * Identify existing rules or regulations. * Develop and propose resolution strategies. * Inform team leaders. | ✍ Organisation of work. Phases and deadlines.  ✍ Scaffolding erection management  ✍ Machinery for lifting persons  ✍ Preventive resource  ✍ Management of occupational risk prevention | ✍ Regulations for integrating health and safety at work prevention in renovation sites and to use the appropriate control tools. |
| Component 3.3. Waste management in refurbishment works: planning and management of waste bins, sorting and recycling (circular economy), and the use of appropriate monitoring tools. | * Identify specific situations. * Identify existing rules or regulations * Develop resolution strategies and apply appropriate techniques. * Informing team leaders | ✍ Environmental Management | ✍ Regulations to integrate the circular economy on renovation sites and to use the appropriate control tools. |

**RECRUITMENT OF THE TARGET GROUPS (FUTURE TEAM LEADERS)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Details of the training action in which the Renovup IO4 experiment is framed** | | | |
| **Name of the training action** | | Energy Rehabilitation Techniques for the Envelope of Residential Buildings (66956B/2022) | |
| **Total duration** | 300 hours | **RenovUP IO4** | 60 hours |
| **Training organization** | Fundación Laboral de la Construcción del Principado de Asturias | | |
| **Recruitment period** | First two weeks of December 2022 | | |
| **Access requirements** | No entrance studies required. Preferably with experience in the construction sector. | | |
| **Start date** | 11/01/2023 | **End date** | 11/04/2023 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STATUS/FUNCTION: TEAM LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalisation to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | Adrián Fernández Paz | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 2 | Alberto García Peláez | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 3 | Alfonso Fernández González | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 4 | Ángel Lobo Trapiello | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 5 | Christian Ríos Fanjul | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 6 | Daniel Cuenca Alonso | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 7 | David Pérez González | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 8 | Eloy González Tejeido | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 9 | Henry Fernando Alfonso Duarte | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 10 | Izan Fernández Gaspar | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 11 | Jean Paul F. Uribe Mogollon | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 12 | Juan Montero Jal | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 13 | Pablo Enrique Hevia Martínez | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |
| 14 | Rainer Santos Lima | 1, 2, 3 & 4 | FLC Asturias-Gijón | IO3-Renovup grides 1 & 3 |

**INDIVIDUALISED PROFESSIONALISATION PATHWAYS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of the vocational training pathway** | | **Blocks/components chosen for the tests** | | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| **1.**  **ENERGY RENOVATION OF THE BUILDING ENVELOPE** | | Description:  **Block 1: Preparing a renovation site**  Component 1.3. Visit to the site of the future renovation: Preparation, observation methods and analysis of observed elements | | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  FLC Asturias-Gijón  Name(s) of trainer(s)  and its function(s):  José Ángel García Fernández  Juan José Santos  Training hours: 20 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalization of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **RENOVUP learning objectives:**  ✍ Identify, list and locate the specific elements to be observed during the visit.  ✍ Determine the diagnostic methods to be used and any partners or materials required.  ✍ Conduct the visit, identify and report critical points  ✍ Analyse the critical points and propose the necessary solutions or adjustments.  **Content (depending on specific national contexts):**  🕮 Building systems:  Existing façade typologies  Existing roof typologies  Most common pathologies  🕮 Thermal concepts:  Near-zero energy buildings  Insulation  Thermal bridges  Condensation  🕮 Control the execution of the elements that influence the energy performance of the building using the appropriate technology associated with the diagnosis, measurement and control of renovation works:  Thermographic cameras  Sound level meters  Laser levels…  **Teaching/learning methods and tools**  Resolution of problems and real situations extracted from the work activity of a professional in the installation of a ventilated façade, SATE system or waterproofing and insulation of roofs, so that the professional learns to make decisions to resolve them.  Use of methodologies focused on the transmission of information by means of the expository and demonstrative method.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  None, the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  In order to ensure that the content of the experimentation was being followed satisfactorily, individual and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for the tests** | | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | |
| **2.**  **WORK ORGANISATION** | Description:  **Block 2: Communication and relationship management on a renovation site**  Component 2.2. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  FLC Asturias-Gijón  Name(s) of trainer(s)  and its function(s):  José Ángel García Fernández  Juan José Santos  Training hours: 10 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 | |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **Learning objectives:**  ✍ Identify and characterise the different types of constraints or problems specific to renovation projects.  ✍ Anticipating, developing and proposing solutions and reporting to the team.  **Content (depending on specific national contexts):**  🕮 Organisation of the works:  Planning of a building envelope renovation project  Systems and techniques of intervention, order of works  🕮 Solutions and new materials to adopt for the renovation of energy efficient building envelopes through ventilated facades, insulation of roofs, walls and basements.  🕮 Regulations relating to the energy standards of buildings during their renovation.  **Teaching/learning methods and tools**  Resolution of problems and real situations extracted from the work activity of a professional in the installation of a ventilated façade, SATE system or waterproofing and insulation of roofs, so that the professional learns to make decisions to resolve them.  Use of methodologies focused on the transmission of information by means of the expository and demonstrative method.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  None, the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  In order to ensure that the content of the experimentation was being followed satisfactorily, individual and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | | |
| **3.**  **OHS IN RENOVATION WORKS** | Description:  **Block 3 : Management of the technical and organisational aspects of the renovation work**  Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works. | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  FLC Asturias-Gijón  Name(s) of trainer(s)  and its function(s):  José Ángel García Fernández  Juan José Santos  Training hours: 20 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 | | |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **Learning objectives:**  ✍ Identify existing rules or regulations.  ✍ Develop and propose resolution strategies and prevention measures  **Content (depending on specific national contexts):**  🕮 Identification of risks and preventives measures to be adopted in all renovation work sites.  🕮 Risk assessment of each occupation.  🕮 Auxiliary means (scaffolding, ladders, etc.).  🕮 Work equipment and tools: risks and preventive measures.  🕮 Manual handling of loads.  🕮 Collective means of protection (placement, uses, obligations and maintenance).  🕮 Personal protective equipment (placement, uses, obligations and maintenance).  🕮 Materials and products (labelling, safety data sheets, etc.).  🕮 Identification of particularly hazardous tasks.  🕮 Drawing up instructions.  **Teaching/learning methods and tools**  Resolution of problems and real situations extracted from the work activity of a professional in the installation of a ventilated façade, SATE system or waterproofing and insulation of roofs, so that the professional learns to make decisions to resolve them.  Use of methodologies focused on the transmission of information by means of the expository and demonstrative method.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  None, the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  In order to ensure that the content of the experimentation was being followed satisfactorily, individual and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | | |
| 4.  ENVIRONMENTAL MANAGEMENT | Description:  **Block 3 : Management of the technical and organisational aspects of the renovation work**  Component 3.3. Waste management in refurbishment works: planning and management of waste containers, sorting and recycling (circular economy), and the use of appropriate monitoring tools. | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  FLC Asturias-Gijón  Name(s) of trainer(s)  and its function(s):  José Ángel García Fernández  Juan José Santos  Training hours: 10 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 | | |

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| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) |
| **Learning objectives:**  ✍ Identifying specific and critical situations  ✍ Identify the rules or regulations in force  ✍ Develop problem-solving strategies and apply them.  **Content (depending on specific national contexts):**  🕮 Integration of the circular economy in renovation projects.  🕮 Identification of the various demolition wastes (CDW) and its storage, treatment or reprocessing.  🕮 Dealing with non-routine waste, asbestos, etc.  🕮 Environment, climate change, sustainable development.  **Teaching/learning methods and tools**  Resolution of problems and real situations extracted from the work activity of a professional in the installation of a ventilated façade, SATE system or waterproofing and insulation of roofs, so that the professional learns to make decisions to resolve them.  Use of methodologies focused on the transmission of information by means of the expository and demonstrative method.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  None, the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  To ensure that the content of the experimentation was being followed satisfactorily, individual, and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. |

**SOME IMAGES**

|  |  |
| --- | --- |
| **Une image contenant intérieur, meubles, habits, tableau blanc  Description générée automatiquement** | **Une image contenant habits, personne, homme, bâtiment  Description générée automatiquement** |
| **Une image contenant habits, personne, bâtiment, Visage humain  Description générée automatiquement** | **Une image contenant personne, habits, plein air, Visage humain  Description générée automatiquement** |

**ASSESSMENT AND RECOGNITION OF LEARNING OUTCOMES WITH OPEN BADGES**

In the framework of the current experimentation no Open Badges were delivered because 50% of the components were not exceeded in any block.

However, in the future FLC may use them to validate and recognise new skills and competences not covered with the training standards and qualification framework.

**EVALUATION OF THE EXPERIENCE**

The group of participating professionals had professional experience in construction or related sectors, so it was possible to deepen their knowledge of the subject and acquire the competences linked to the professional profile. All of them were suitable.

To evaluate the quality of the experimentation carried out within the framework of the RENOVUP project, the participating professionals completed a satisfaction survey. In this survey, the following items were assessed, and the following results were obtained:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | FULLY | ENOUGH | IN PART | NOT AT ALL | NOTHING |
| **1**. Did you find the content you experienced interesting? | 12 | 2 |  |  |  |
| **2.** Are they linked to your activity? | 11 | 2 | 1 |  |  |
| **3.** Have they provided you with new knowledge to develop your professional activity? | 12 | 2 |  |  |  |
| **4.** Are you satisfied that you participated in this experimentation? | 14 |  |  |  |  |

Participants found the IO4 experience fully interesting, linked to their activity, providing them with new knowledge to develop their professional activity. All of them are satisfied for having participated in the experimentation.

### FRANCE

**BRIEF DESCRIPTION OF THE EXPERIENCE IN FRANCE**

The French approach has been to **include RenovUp training modules in the existing certificate courses for initial and continuing vocational training**, to enrich them by giving them a specific flavour to building renovation (structural work and finishing work). This choice was made in response to the expectations of local businesses, which had expressed the need for skills linked to the specific nature of renovation projects.

The experimental training activities took place between **September 2022 and June 2023** on three construction training sites, each of which integrated RenovUp modules into the following courses:

* BTP CFA Blanquefort:
* Professional Title Team Leader, option Fitting and finishing (level 4) – 6 participants
* Professional Title Team Leader, option Structural work (level 4) – 6 participants
* BTP CFA Saint-Herblain:
* Professional Title Technical Manager (Site Manager) – 15 participants
* BTP CFA Angers:
* 8-day Roofing Team Leader (continuing training) – 5 participants.

A total of **32 learners took part in the experimental actions**. Each scheme was run on a combined work and training basis, with the participation of the companies to which the learners were linked either by a work and training (apprenticeship) contract or an open-ended employment contract. Participants ranged in age from 16 to 27 for initial training, and from 32 to 45 for in-job training.

The training courses were led by instructors specialising in the construction trades for the technical side, and by experts in cross-disciplinary subjects such as communication on a renovation site, application of circular economy and energy saving rules, and implementation of health and safety rules on renovation sites.

The French experiment was conducted **in parallel with the professionalisation of trainers** (IO3). In this way, the trainers had the opportunity to try out the tools for supporting future team leaders and renovation site managers (IO1), their own training having been organised on an alternating basis, with periods in groups (face-to-face learning) and periods in the company to try out the RenovUp support tools in real life, with the learners they were responsible for.

**WORK-BASED TRAINING ACCORDING TO THE PRESCRIPTIONS RESULTING FROM IO1 OF THE PROJECT**

**BTP CFA Blanquefort (Team Leaders):** Blocks 2 and 3 experimented in full.

|  |  |
| --- | --- |
| **Block 2: Mastering communication and relations on a renovation site.** | **Breakdown into general pedagogical objectives** |
| Component 2.1. Monitoring teams on renovation sites: Anticipation of potentially conflictual situations with the team and subcontractors. | 1. Identify and characterise critical situations or problems specific to renovation sites 2. Anticipate, develop and propose solutions to your team |
| Component 2.2. Development and implementation of procedures for the proper execution of operations, including co-activity. | 1. Identify and characterise critical situations or problems specific to renovation sites 2. Anticipate, develop and propose adaptation solutions |
| Component 2.3. Follow-up of relations with the client, the hierarchy, and external partners. | 1. Characterise the specificities of the different protagonists of a renovation project 2. Integrate these specificities in exchanges with different stakeholders |
| Component 2.4. Evaluation of the working process, including evaluation, valorisation, and improvement of the team. | 1. Evaluate the final deliverables and processes implemented 2. Valuing work with team leaders and teams |
| **Block 3 : Mastering the technical and organisational aspects of teamwork.** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial, and legal aspects of the tasks entrusted to team leaders on renovation sites. | 1. Identify and collect administrative, financial and legal documents specifically related to renovation projects 2. Integrate these specificities in the management of the site |
| Component 3.2. Organisation and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, work at height, difficult access, and use of hazardous materials on renovation sites. | 1. Identify specific and critical situations 2. Identify the current standards or regulations 3. Develop and/or implement resolution strategies |
| Component 3.3. Organisation of waste treatment on renovation sites: planning and management of waste bins, sorting and recycling operations (circular economy), and the use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify the current standards or regulations 3. Implementing appropriate techniques |
| Component 3.4: Integration of energy saving standards in renovation works and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify the current standards or regulations 3. Apply resolution strategies |
| Component 3.5. Continuous quality control of the intermediate phases and the quality of the finished work. | 1. Respecting quality criteria and developing specific control procedures |

**BTP CFA Saint-Herblain (Worksite Managers)**

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| **Block 3: Management of technical and organisational aspects of the renovation site** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial, and legal management of a renovation project. | 1. Identify and collect administrative, financial and legal documents specifically related to renovation projects 2. Integrate these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, work at height, difficult access, and use of hazardous materials on renovation sites. | 1. Identify specific and critical situations 2. Identify the current standards or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.3. Waste management on renovation sites: planning and management of waste bins, sorting and recycling.  operations (circular economy), and the use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify the current standards or regulations 3. Develop resolution strategies and implement appropriate techniques 4. Informing team leaders |

**BTP CFA Angers (Team Leaders)**

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| **Block 1: Preparing a renovation site** | **Breakdown into general pedagogical objectives** |
| Component 1.1. Preparation of a renovation site and diagnostic methods of existing buildings and places before the intervention | 1. Implement specific technical protocols or diagnostic methods |
| **Block 4: Acceptance of renovation works and quality control .** | **Breakdown into general pedagogical objectives** |
| Component 4.1: Quality control of renovation results and client approval. | 1. Check the final deliverables and the processes implemented |

**PROPOSED TRAINING SEQUENCES RESULTING FROM THE OBSERVATION OF REAL WORK SITUATIONS**

**AND THE POSITIONING OF LEARNERS**

**BTP CFA Blanquefort (Team Leaders):** Professional Title Team Leader (Structural work and finishing) – EQF Level 4

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| **CORRES-PONDENCE TO RENOVUP BLOCS** | **Skills needs identified with positioning grids (GRID 03, GRID 04, or informal interviews), combined with company skills needs 🢥 LEARNING OBJECTIVES** | **TRAINING CONTENTS** | **LEARNING OUTCOMES** |
| TL BLOCK 2  Managing communication and relationships on a renovation site | NEED OF BEING ABLE TO:  \* Develop an adequate professional posture: to accompany the process of becoming a team leader and not just a skilled worker.  \* Perceive the difference between technicality (skilled worker side - knowing how to implement) and technique (becoming a good team leader - even more important aspect than technicality).  \* Match expertise in renovation and work situations (including unexpected and complex ones).  \* Understand the complexity of work situations and knowing which expert worker to call on.  \* Communicate with teams to fulfil renovation projects.  \* Consider the complexity of renovation worksites when communicating with teams.  \* Manage one's limits. | Cross-cutting learning instead of disciplinary organisation (interdisciplinary work, plus separation into project groups):  \* Renovation worksite study and principles of communication.  \* Renovation worksite preparation.  \* Project work based on professional situations, real work in the workshop, in addition to what is done in the company.  \* Work with apprentices preparing CAPs (level 3 diplomas) to improve their team leader skills: management skills, team monitoring, site monitoring.  \* Analysis of the posture of team leader in the diversity of work situations, based on concrete professional examples.  \* Analysis of means to face one’s limits.  \* Analysis of the degree of autonomy and responsibility the co-workers on the renovation site.  \* Mechanisms and tools for an efficient communication with the hierarchy and with the co-workers. | SKILLS TO BE ACTIVATED IN THE WORK SITUATION:  \* Working across sectors: becoming aware of the need to exchange ideas and "negotiate" to reach a compromise between different bodies.  \* Identify the characteristic elements of effective interprofessional negotiation (productive and cordial exchanges): posture - techniques - conflictual elements to be avoided.  \* Develop the critical thinking and reflective posture of trainee team leaders.  \* Develop the ability to self-assess and monitor work on a regular basis. |
| TL BLOCK 3  Management of the technical and organisational aspects of the renovation work | NEED OF BEING ABLE TO:  \* Master the interface between new and renovation worksites: the case of extension work.  \* Master the execution of post-disaster repair work.  \* Implement efficiently prescriptions related to technical norms, health and safety and client requirements related to concrete renovation projects.  \* Deal with the unexpected.  \* Work with technical specifications (reading and interpreting plans and technical documents, producing technical drawings, etc.).  \* Organise and prepare the team's daily work on a renovation worksite.  \* Monitor your team's work.  \* Comply with and ensure compliance with quality standards. | Cross-cutting learning instead of disciplinary organisation (interdisciplinary work, plus separation into project groups):  \* Choice of appropriate IT tools needed to carry out the project.  \* Implementation of health and safety rules of a renovation site, in line with the context.  \* Implementation of technical norms (DTU) on a renovation site, in line with the context.  \* Implementation of norms and prescriptions relates to energy saving and circular economy on a renovation site, in line with the context.  \* Criteria for measuring the degree of implementation of the technical, HES, and environmental rules. | SKILLS TO BE ACTIVATED IN THE WORK SITUATION:  \* Carry out an operating procedure and site planning based on the execution file.  \* Adapt your operating procedures and site planning for a joint operation, based on the execution file.  \* Identify the risks of a joint renovation work situation and determine the preventive measures to be implemented: own (trade), imported and exported risks. |

**BTP CFA Saint-Herblain (Worksite Managers):** Professional Title Technical Manager (Site Manager) - EQF Level 5

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| **CORRES-PONDENCE TO RENOVUP BLOCS** | **Skills needs identified with positioning grids (GRID 03, GRID 04, or informal interviews), combined with company skills needs 🢥 LEARNING OBJECTIVES** | **TRAINING CONTENTS** | **LEARNING OUTCOMES** |
| SM BLOCK 3 Management of technical and organisational aspects of the renovation site  Components 3.1, 3.2 and 3.3 considered together, with a systemic approach. | NEED OF BEING ABLE TO:  \* Prepare sales proposals for an SME in the construction industry,  \* Prepare the worksite for an SME specialising in renovation work.  \* Take account of all current standards when planning the renovation project.  \* Communicate site constraints to team leaders in a constructive manner.  \* Cope with unforeseen situations, showing control of the situation and of yourself. | Cross-cutting learning instead of disciplinary organisation (interdisciplinary work, plus separation into project groups) targeting four areas of intervention on renovation sites:  \* Preparing commercial proposals for a construction SME,  \* Preparing a renovation project for an SME.  \* Managing the site of a construction/renovation SME.  \* Managing a site team for a construction/renovation SME. | SKILLS TO BE ACTIVATED IN THE WORK SITUATION:  \* Analyse the business to prepare the study of the customer's project,  \* Design a technical solution to meet the customer's requirements,  \* Calculate the selling price to prepare the quotation.  \* Determine the conditions under which the work is to be carried out, after reading the transfer file, to organise the work by analysing the site environment, identifying interfaces, adopting operating procedures, filling in the task sheet or the PPSPS or the internal safety procedure,  \* Determine the conditions for opening the worksite so that work can start, considering the environmental impact and the management of waste and nuisances, by taking the necessary administrative steps and drawing up all or part of the execution file. |

**BTP CFA Angers (Team Leaders):** Roofing Team Leader - EQF Level 4

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| **CORRES-PONDENCE TO RENOVUP BLOCS** | **Skills needs identified with positioning grids (GRID 03, GRID 04, or informal interviews), combined with company skills needs 🢥 LEARNING OBJECTIVES** | **TRAINING CONTENTS** | **LEARNING OUTCOMES** |
| TL COMPO-NENT 1.1. Preparation of a renovation site and diagnostic methods of existing buildings and places before the intervention | NEED OF BEING ABLE TO implement specific technical protocols or diagnostic methods:  \* Read a construction file in an operational manner,  \* Identify the site environment,  \* Set up and supply the site,  \* Assess the environmental impact of the site. | Cross-cutting learning instead of disciplinary organisation (interdisciplinary work, plus separation into project groups) related to the preparation of a renovation site and methods of diagnosing existing buildings and premises prior to intervention:  \* Principles of site management,  \* Principles of company operations,  \* Site preparation: the basics,  \* Communication of site information to teams. | SKILLS TO BE ACTIVATED IN A WORK SITUATION ON A ROOFING SITE :  \* Identify how a construction company operates and the stages in a project.  \* Identify the key stages of a project and the role of the team leader at each stage.  \* Get organised to prepare your site effectively.  \* Manage your site on a day-to-day basis.  \* Know how to position yourself as a team leader. |
| TL COMPO-NENT 4.1: Quality control of renovation results and client approval. | NEED OF BEING ABLE TO check the final deliverables and the processes implemented:  \* Provide technical explanations when work is handed over,  \* Check that the work carried out complies with the customer's order and current standards,  \* Identify malfunctions and abnormal site returns,  \* Understand and assess the impact of potential non-quality, including the cost of corrections to be made. | Cross-cutting learning instead of disciplinary organisation (interdisciplinary work, plus separation into project groups) related to the quality control of renovation results and customer approval:  \* Principles of site closure,  \* Principles for checking compliance with standards.  \* Principles for checking compliance with the customer's order.  \* Communication to the teams of information on the results of the project to the customer. | SKILLS ACTIVATED IN A WORK SITUATION ON A ROOFING SITE :  \* Participate effectively in site acceptance activities.  \*Programme corrective work if necessary.  \* Know how to carry out final checks to ensure compliance with standards. |

**RECRUITMENT OF THE TARGET GROUP 1 (TEAM LEADERS)**

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| **Details of the training action in which the RenovUp IO4 experiment is framed** | | | |
| **Name of the training action** | | Professional Title Team Leader (Structural work and finishing)  Initial training  EQF Level 4 | |
| **Total duration** | 1 152 hrs, incl. 288 hrs in training centre | **RenovUp IO4** | 56 hrs, incl. 14 hrs in training centre |
| **Training organization** | BTP CFA Blanquefort (Nouvelle Aquitaine) | | |
| **Recruitment period** | May-September 2022 | | |
| **Access requirements** | Employees on one-year professionalisation contracts, financed by Constructys (sectoral body financing professional training in the construction industry).  External recruitment (prospecting) - team leaders looking for certification.  EQF Level 3 (mandatory). | | |
| **Start date** | 15/09/2022 | **End date** | 15/06/2023 |

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| **STATUS/FUNCTION: TEAM LEADER - RENOVATION** | | | | |
| **Id** | **Name and surname of the learner** | **Itinerary to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs**  **and motivation for the training**  **were identified?** |
| 1 | Erwan DESCOUBES | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 2 | Pascal FRAILLON | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 3 | Jérôme HOAREAU | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 4 | Mustafa SAZLI | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 5 | Hugo DECOMBE | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 6 | Nathan FOURMONT | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 7 | Romain OSTIZ | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 8 | Julien PUNTOUS | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 9 | Nathan MENSAH | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 10 | Matthias PINTO | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 11 | Kévin SANCHEZ | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |
| 12 | Mickaël SANCHEZ | Whole cycle | Training centre (25%)  Company (75%) | IO3-Renovup grids 1 & 3 |

**RECRUITMENT OF THE TARGET GROUP 2 (WORKSITE MANAGERS)**

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| **Details of the training action in which the RenovUp IO4 experiment is framed** | | | |
| **Name of the training action** | | Professional Title Technical Manager (Site Manager)  Initial or continuing training (both statuses were mixed)  EQF Level 5 | |
| **Total duration** | 1 152 hrs per year, incl. 288 hrs in training centre | **RenovUp IO4** | 56 hrs, incl. 14 hrs in training centre (March-May 2023) |
| **Training organization** | BTP CFA Saint-Herblain (Pays de la Loire) | | |
| **Recruitment period** | March-September 2022 | | |
| **Access requirements** | Employees on one-year professionalisation contracts, financed by Constructys (sectoral body financing professional training in the construction industry).  External recruitment (prospecting) - team leaders looking for professional advancement.  Status: Professionalisation Contract (registered by Constructys)  EQF Level 4 (mandatory). | | |
| **Start date** | 15/09/2022 | **End date** | 15/06/2024 |

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| **STATUS/FUNCTION: WORKSITE MANAGER - RENOVATION** | | | | |
| **Id** | **Name and surname of the learner** | **Itinerary to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs**  **and motivation for the training**  **were identified?** |
| 1 | AKBARY Ahmad Mirwais | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 2 | CADEAU Timothé | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 3 | CHAUVIRE Enzo | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 4 | COIGNARD Kévin | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 5 | ERTAULT DE LA BRETONNIERE GUERIN Axel | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 6 | FONTAINE Clément | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 7 | GARIN Matthieu | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 8 | GUILLON Aurélien | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 9 | JOURDAIN Evan | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 10 | LAVENIER Matthis | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 11 | LOISON Elvis | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 12 | OPACAK Ivan | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 13 | PESNOT Killian | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 14 | ROBARD Clément | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |
| 15 | TRUDELLE Matéhys | Whole cycle | Training centre (25%)  Company (75%) | Interviews with RenovUp Grids 1 & 3 |

**RECRUITMENT OF THE TARGET GROUP 3 (TEAM LEADERS)**

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| **Details of the training action in which the RenovUp IO4 experiment is framed** | | | |
| **Name of the training action** | | Professional Title Team Leader specialised in Roofing works  Continuing training  EQF Level 4 | |
| **Total duration** | 8 days - 56 hours  (2 days per month) | **RenovUp IO4** | 56 hrs (theoretical course plus analysis of practice made in company) |
| **Training organization** | BTP CFA Angers (Pays de la Loire) | | |
| **Recruitment period** | Permanent (the courses are proposed periodically) | | |
| **Access requirements** | Employees (workers)  External recruitment (prospecting) - team leaders looking for specialisation in roofing.  Status: In-job training  EQF Level 3 (mandatory). | | |
| **Start date** | December 2022 | **End date** | March 2023 |

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| **STATUS/FUNCTION: TEAM LEADER – RENOVATION - ROOFING** | | | | |
| **Id** | **Name and surname of the learner** | **Itinerary to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs**  **and motivation for the training**  **were identified?** |
| 1 | BELLEVILLE Sylvain | Whole cycle | Training centre | Interviews with RenovUp Grid 3 |
| 2 | CAPELLE Brice | Whole cycle | Training centre | Interviews with RenovUp Grid 3 |
| 3 | GAVEAU Maxime | Whole cycle | Training centre | Interviews with RenovUp Grid 3 |
| 4 | JEANNE Dimitri | Whole cycle | Training centre | Interviews with RenovUp Grid 3 |
| 5 | POIRIER Benjamin | Whole cycle | Training centre | Interviews with RenovUp Grid 3 |

**PROFESSIONALISATION PATHWAYS**

SESSION 1 – BLANQUEFORT TRAINING CENTRE - Team Leaders – EQF Level 4

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| **SESSION 1 PROCEDURE SHEET** | | | |
| **Trainers:** Caroline PENNERON: fittings & finishing and Frédéric BOUTON: structural work | **Location:** BTP CFA  Blanquefort | **Date:** 11-04-23 | **Duration:** 3h30 |
| **Objective:** Prepare (organise, plan, and prevent risks) a renovation site and adapt its preparation to a co-activity operation. | | | |

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| **Occupations concerned:**  Structural works team leader: CEGO  Fitting & finishing team leader : CEAF | | **Diploma/certification concerned:** Level 4 certifications in 1 year | **Year:**  2022-2023 | **Groups:**  23 TP4CEGO1  23 TP4CEAF1 |
| **Targeted skills**  **and knowledge** | **Learning objectives** | **Learning situation** | | **Prerequisites**  **in relation to the learning situation** |
| • RenovUp C2-2  • Identify the various documents and elements to be designed in preparation for a renovation project  • Draw up an operating procedure and a site plan based on the file execution specifications (CCTP and execution plans) | Drawing up operating procedures and schedules for a renovation project | The team leaders have been asked by their respective employers to prepare, organise and plan the site, which involves creating external openings with a view to converting a separate function room into a holiday home for rent.  For this preparation, each employer provided their team leader with the execution file (CCTP, Cahier des Clauses Techniques Particulières and execution plans) and a post-it note indicating the period during which their team would be working on the site.  ***Identifying the problem :***  Initially, the 2 team leaders organised and planned their respective worksites separately, but then they realised that the worksite intervention period was the same for both trades. The 2 teams will therefore have to work together on the site.  The 2 team leaders therefore had to find ways of adapting their operating methods and site planning to work together, so that they could carry out quality work on time and in complete safety. | | • Designing an operating procedure for a new, relatively uncomplicated site with no co-activity  • Drawing up a provisional schedule for a new, relatively straightforward site with no co-activity |

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| **PROCEDURE FOR SESSION 1** | | **INTENDED LEARNING APPROACH**: Inductive approach | | | |
| **STEPS** | TRAINER’S ACTIVITIES | **LEARNER’S ACTIVITIES** | **PEDAGOGICAL METHODS** | **MATERIALS AND TEACHING AIDS** | **DURATION**  **ESTIMATED** |
| **ROLE PLAY** | • Places the learners directly in the reference work situation and gives them the instructions orally.  Boss: their employer has asked them to prepare the site on which they and their team will be working and has given them the file to do execution drawings (CCTP + execution drawings) with a post-it note stuck on it (period of the team's intervention), without giving any further details.  • Identifies needs in terms of site preparation and organisation: operating procedures and planning in compliance with the SCC, plans and company ratios, routing of equipment and materials, safety prevention and waste management, etc.  • Guides the discussion and notes the elements mentioned on the paperboard.  • Suggest that they work in sub-groups to prepare the site.  • Announcement of the research analysis part: work in sub-groups set up by the team duration: identification of the reporter(s) and distribution of the performance file with post-it notes.  • Ensures that the work instructions are clear: draw up operating instructions and site planning on the support from  their choice based on the information available to them. | • Take ownership of their "mission"  as team leaders in the proposed work  situation  • Identify and name the different elements  • Rephrase the instructions and organise themselves to designate a rapporteur.  • Organise the room into work areas for group work | Oral questions/answers as a group (large group): open, guiding questions designed to help learners identify the elements on their own. | ✓ U-shaped room configuration  ✓ Flipchart  ✓ Site execution file | 8.45am -  9.15am  30 minutes |

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| **ANALYSIS - RESEARCH** | • Supports and guides the various groups in their analysis, research, and production work. | • Read the execution file individually, then analyse it in pairs or trios and identify the elements to be used to produce the documents requested.  • Agree on a suitable production medium and format and may use a framework if they wish.  suggested by the trainer during previous sessions.  • Discuss the content and produce the 2 documents  • Digitally send their production to the trainer by e-mail to be pooled. | Work in sub-groups: find a solution adapted to the situation.  Oral exchanges, comparing solutions and points of view.  Collaborative and written production. | ✓ Configuration of the room into islands (work in sub-groups)  ✓ Site organisation and execution file: 1 per the boss)  - 1 CCTP per learner  4 execution plans (1 set per learner)  ✓ 1 computer per group to produce digital documents for site preparation | 2 hours  9h15-11h15  (Including a  10-minute break) |
| **STEPPING BACK** | • Regulates exchanges  • Provides expertise where necessary  • Guides the debate based on knowledge and skills to be identified and understood by each learner  • Make notes as you go along, either digitally or on a whiteboard /...  paperboard, the elements to be retained under the dictation of the learners and/or guide the learners in the preparation of shared renovation site preparation documents | • A reporter from each pair or trio presents and justifies their group's work.  •The other learner’s comment on the production and ask questions.  • Discuss and debate collectively and compare the various solutions identified  • Lead to a shared production or the shared identification of invariant elements to be included  in the 2 preparatory documents (operating procedure and schedule for this renovation project) | Group oral discussions based on the presentations by the confrontation of solutions and points of view with a view collectively at a relevant solution adapted to the situation. | ✓ U-shaped room configuration  ✓ Video projector / large screen projection and computers for projecting work and producing shared documents  ✓ Whiteboard / flipchart to record key points  ✓ Execution file | 1 hour  11h15-12h15 |

SESSION 2 – BLANQUEFORT TRAINING CENTRE - Team Leaders – EQF Level 4

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| **SESSION 2 PROCEDURE SHEET** | | | |
| **Trainer:** Amine SADAOUI: work supervision | **Location:** BTP CFA  Blanquefort | **Date:** 11-04-23 | **Duration:** 3h30 |
| **Objective:** Prepare (organise, plan, and prevent risks) a renovation site and adapt its preparation to a co-activity operation. | | | |

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| **Occupations concerned:**  Structural works team leader: CEGO  Fitting & finishing team leader : CEAF | | **Targeted diploma/certification:**  Level 4 certifications in 1 year | **Year:**  2022-2023 | **Groups:**  23 TP4CEGO1  23 TP4CEAF1 |
| **Targeted skills**  **and knowledge** | **Learning objectives** | **Learning situation** | | **Prerequisites**  **in relation to the learning situation** |
| • RenovUp C2-2  • Adapting your operating procedures and site planning to work alongside others, based on the execution file (CCTP and execution plans) | Drawing up the operating procedure and schedule for a renovation project involving joint activity | The team leaders have been asked by their respective employers to prepare, organise and plan the site, which involves creating external openings with a view to converting a separate function room into a holiday home for rent.  For this preparation, each employer provided their team leader with the execution file (CCTP, Cahier des Clauses Techniques Particulières and execution plans) and a post-it note indicating the period during which their team would be working on the site.  ***Identifying the problem :***  Initially, the 2 team leaders organised and planned their respective worksites separately, but then they realised that the worksite intervention period was the same for both trades. The 2 teams will therefore have to work together on the site.  The 2 team leaders therefore had to find ways of adapting their operating methods and site planning to work together, so that they could carry out quality work on time and in complete safety. | | • Designing a procedure for a complex, low-activity building site  • Drawing up a provisional schedule for a new, relatively straightforward site with no co-activity |

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| **PROCEDURE FOR SESSION 2** | | | **TYPE OF LEARNING APPROACH** : Inductive approach | | | |
| **STEPS** | **TRAINER’S ACTIVITIES** | **LEARNER’S ACTIVITIES** | | **PEDAGOGICAL METHODS** | **MATERIALS AND TEACHING AIDS** | **DURATION**  **ESTIMATED** |
| **ROLE PLAY** | • Ask the learners orally what they did during session 1.  • Ask the learners orally about the period during which each tradesperson will be working on the renovation site.  • Asks orally about the adaptations to be made and highlights the need to organise a "site meeting" between team leaders from the 2 trades to find "common ground" as in a real work situation.  • Suggest that they work in sub-groups to carry out this "site meeting" and announce that they will be filmed during their discussions for the purposes of session 4 of their sequence.  • Announce the procedures for the research analysis part: work in sub-groups set up by the teaching team; duration; identification of the reporter(s).  • Ensures that the work instructions are clear: adapts the renovation site's operating procedures and schedules to a joint operation, based on the information available to them. | • Learn that each trade worked on the preparation of the same renovation site during the previous session.  • Realise that they have no choice but to work together on the site over the same period.  • Identify the elements that need to be adapted to be able to work together while respecting deadlines and the requirements of the CCTP: align their respective operating procedures and work schedules to produce a shared document.  • Become aware of the need to discuss and "negotiate" to reach a compromise between different trades.  • Rephrase the instructions and organise themselves to designate a rapporteur.  • Organise the room into work areas for group work. | | Oral questions/answers as a group (large group): open, guiding questions designed to encourage learners to identify the elements on their own. | ✓ U-shaped room configuration  ✓ Flipchart  ✓Site execution file + employer's post-it note. | 15 minutes  1.30pm - 1.45pm |
| **ANALYSIS - RESEARCH** | • Accompanying and guiding the various groups in their "site meeting" discussions and their search for a relevant solution that suits the 2 trades.  • The communication and management trainer films certain exchanges for use in his session. | • Outline the requirements of their trades.  • Exchanging views with a view to agreeing to coincide their respective interventions over the same period.  • Produce a joint, shared schedule at the end of the discussions.  • Digitally send their production to the trainer by e-mail for pooling | | Work in sub-groups: find a solution adapted to the situation.  Oral exchanges, comparing solutions and points of view.  Collaborative written production. | ✓ Configuration of the room into islands (work in sub-groups)  ✓ Site execution file: 1 per group + post-it template.  ✓Each group's productions and/or shared productions from session 1  ✓ 1 computer per group to produce digital site preparation documents.  ✓ Camera for video recording of exchanges between team leaders of the 2 trades. | 2 hours  1.45pm - 3.45pm  (Including a 10-minute break) |
| **STEPPING BACK** | • Regulates exchanges.  • Provides expertise where necessary.  • Guides the debate according to the knowledge and skills targeted, so that each learner can identify and understand them.  • As the discussion progresses, either digitally or on a whiteboard / flipchart, under the dictation of the learners, note down the elements and rules of action to be retained to design the documents for preparing a co-activity renovation site. | • A rapporteur presents and justifies his group's work.  • The other learner comment on the production and ask questions.  • Discuss and debate collectively and compare the various solutions identified.  • Produce a shared product and/or identify invariant elements and rules of action to be used in designing documents for preparing a joint renovation project. | | Collective oral discussions based on presentations of the various renovation worksites.  Confronting solutions and points of view with a view to collectively arriving at a relevant solution and/or rules of action adapted to the situation. | ✓ U-shaped room configuration  ✓ Video projector / large projection screen and computers for projecting work and producing shared documents.  ✓ Whiteboard / flipchart to record key points.  ✓ Execution file.  ✓ Memo sheet for sessions 1 & 2. | 1h15  3.45pm - 5pm |

SESSION 3 – BLANQUEFORT TRAINING CENTRE - Team Leaders – EQF Level 4

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| **SESSION 3 PROCEDURE SHEET** | | | |
| **Trainer:** Florent TORREGARAY: occupational risk prevention | **Location:** BTP CFA Blanquefort | **Date:** 12-04-23 | **Duration:** 3h30 |
| **Objective:** Prepare (organise, plan, and prevent risks) a renovation site and adapt its preparation to a co-activity operation. | | | |

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| **Occupations concerned:**  Structural works team leader: CEGO  Fitting & finishing team leader : CEAF | | **Diploma/certification:**  CEGO professional qualification & CEAF professional qualification  Level 4 qualifications in 1 year | **Year:**  2022-2023 | **Groups:**  23 TP4CEGO1  23 TP4CEAF1 |
| **Targeted skills**  **and knowledge** | **Learning objectives** | **Learning situation** | | **Prerequisites**  **in relation to the learning situation** |
| * RenovUp C3-2 * Identify the risks of a co-active renovation work situation and determine the preventive measures to be implemented: own risks (job), imported and exported risks * Completing a "PPSPS-type" document | Identifying and preventing the risks of a joint renovation project | A structural works team leader and a plastering team leader have been asked by their respective employers to prepare, organise, and plan the site, which involves creating external openings with a view to converting a separate function room into a holiday home for rent.  For this preparation, each employer provided his team leader with the execution file (CCTP, *Cahier des Clauses Techniques Particulières* and execution plans) and a post-it note indicating the period during which their team would be working on the site.  ***Identifying the problem :***  Initially, the 2 team leaders organised and planned their respective worksites separately, but then they realised that the worksite intervention period was the same for both trades. The 2 teams will therefore have to work together on the site.  The 2 team leaders therefore had to find ways of adapting their operating methods and site planning to work together, so that they could carry out quality work on time and in complete safety. | | * Identify the main safety rules in force on a worksite * Identify the different elements of a PPSPS |

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| **PROCEDURE FOR SESSION 3** | | **TYPE OF LEARNING APPROACH** : Inductive approach | | | | |
| **STEPS** | **TRAINER’S ACTIVITIES** | | **LEARNER’S ACTIVITIES** | **PEDAGOGICAL METHODS** | **MATERIALS AND TEACHING AIDS** | **DURATION**  **ESTIMATED** |
| **ROLE PLAY** | • Orally question the learners about what they did during session 2 to get them to focus on the renovation in co-activity.  • Orally question the learners about the implications of working together on a renovation site and note down the key points on a whiteboard/paperboard or digitally.  • Brings out the concepts linked to the prevention approach to co-activity on a renovation site: identifying and preventing own, imported, and exported risks.  • Suggest that they work in sub-groups to carry out a risk analysis of the co-active work situation on the renovation worksite, and provide them with a "PPSPS type" digital form in which they must :   * *Complete the administrative section.* * *Define the resources deployed.* * *Detail the operating procedure.* * *Associate the risks with the tasks carried out on the site.* * *Plan preventive measures.*   • Announcement of the procedures for the research analysis part: work in sub-groups set up by the teaching team; duration; identification of the reporter(s).  • Ensures that work instructions are clear. | | • Discuss, identify, and quote the different elements.  • Rephrase the instructions and organise themselves to designate a rapporteur.  • Organise the room into work areas for group work. | Oral questions/answers as a group (large group): open, guiding questions designed to encourage learners to identify the elements on their own. | ✓ U-shaped room configuration  ✓ Flipchart  ✓ Renovation worksite execution file + employer's post-it note.  ✓ Output from session 2.  ✓ PPSPS type" document to be completed. | 30 minutes  8.15-8.45 am. |
| **ANALYSIS - RESEARCH** | • Assists and guides the various groups in analysing and identifying risks and preventive measures, based on their site preparation documents | | • Discuss and agree on the specific, imported and exported risks for the 2 trades in relation to the co-active operating mode and the appropriate means of prevention.  • At the end of the discussions, produce an individual document based on the common elements identified.  • Digitally send their production to the trainer by e-mail for pooling | Work in sub-groups: find a solution adapted to the situation.  Oral exchanges, comparing solutions and points of view.  Individual written production. | ✓ Configuration of the room into islands (work in sub-groups)  ✓ Renovation worksite execution file: 1 per group + post-it template  ✓Each group's productions and/or shared productions from session 2  ✓ 1 computer per learner to produce digital site preparation documents.  ✓ Digital "PPSPS type" form to be completed. | 2 hours  8.45 a.m. to 10.45 a.m.  (Including a 10-minute break) |
| **STEPPING BACK** | • Regulates exchanges.  • Provides expertise where necessary.  • Guides the debate according to the knowledge and skills targeted, so that each learner can identify and understand them.  • As the discussion progresses, write down digitally or on a whiteboard / flipchart, with the learners dictating, the elements and rules of action to be retained to Identify the risks of a co-active renovation work situation and determine the preventive measures to be implemented. | | • A rapporteur presents and justifies his group's work.  • The other learner comment on the production and ask questions.  • Discuss and debate collectively and compare the various solutions identified.  • Identify the invariant elements and rules of action to be adopted to Identify the risks of a co-active renovation work situation and determine the means of prevention to be implemented. | Group oral discussions based on presentations of the various renovation worksites.  Confronting solutions and points of view with a view to collectively arriving at a relevant solution and/or rules of action adapted to the situation. | ✓ U-shaped room configuration  ✓ Video projector / large projection screen and computers for projecting work and producing shared documents.  ✓ Whiteboard / flipchart to record key points.  ✓ Learners' work  ✓ Session 3 memo sheet | 1 hour  10.45 a.m. to 11.45 a.m. |

SESSION 4 – BLANQUEFORT TRAINING CENTRE - Team Leaders – EQF Level 4

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| **SESSION 4 PROCEDURE SHEET** | | | |
| **Trainer:** Maxime KHRITARI : communication & management | **Location:** BTP CFA Blanquefort | **Date:** 12-04-23 | **Running time:** 1 hour 45 minutes |
| **Objective:** Prepare (organise, plan, and prevent risks) a renovation site and adapt its preparation to a co-activity operation. | | | |

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| **Occupations concerned:**  Structural works team leader: CEGO  Fitting & finishing team leader : CEAF | | **Diploma/certification:**  CEGO professional qualification & CEAF professional qualification  Level 4 qualifications in 1 year | **Year:**  2022-2023 | **Groups:**  23 TP4CEGO1  23 TP4CEAF1 |
| **Targeted skills**  **and knowledge** | **Learning objectives** | **Learning situation** | | **Prerequisites**  **in relation to the learning situation** |
| * RenovUp C2-2 * Identify the characteristic elements of effective cross-industry negotiation (productive and cordial exchanges): stance - techniques - conflictual elements to be avoided. | Identifying and preventing the risks of a joint renovation project | A structural work team leader and a plastering team leader have been asked by their respective employers to prepare, organise and plan the renovation worksite, which involves creating external openings with a view to converting a separate function room into a holiday home for rent.  For this preparation, each employer provided his team leader with the execution file (*CCTP, Cahier des Clauses Techniques Particulières* and execution plans) and a post-it note indicating the period during which their team would be working on the site.  ***Identifying the problem :***  Initially, the 2 team leaders organised and planned their respective worksites separately, but then they realised that the worksite intervention period was the same for both trades. The 2 teams will therefore have to work together on the site.  The 2 team leaders therefore had to find ways of adapting their operating methods and site planning to work together, so that they could carry out quality work on time and in complete safety. | | * Master the technical terms specific to the building shell and plasterer trade. * Identifying the basics of oral communication (verbal and non-verbal) |

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| **PROCEDURE FOR SESSION 4** | | **TYPE OF LEARNING APPROACH** : Inductive approach | | | |
| **STEPS** | **TRAINER’S ACTIVITIES** | **LEARNER’S ACTIVITIES** | **PEDAGOGICAL METHODS** | **MATERIALS AND TEACHING AIDS** | **DURATION**  **ESTIMATED** |
| **ROLE PLAY** | • Get the learners to look back at their discussions during the "site meetings" in session 2 by asking them orally and collectively how they felt about these discussions: "pleasant/unpleasant discussions; did you feel effective, convincing, did you get what you wanted?".  • Then, in connection with the experience of these exchanges, reactivate the learners' knowledge of the key elements of the postures and basic techniques of verbal and non-verbal oral communication by open questioning.  • Make a note on the board/paperboard or numerically of the key elements that will be used to guide the forthcoming analysis/  • Suggest that learners :   * Confirm or refute their feelings by viewing the video footage of their discussions. * Analyse these extracts by identifying the positive and negative points to draw up a "memo of effective practices" for negotiation during a meeting on a co-activity renovation site.   • Suggest that they carry out this analysis in sub-groups and announce the procedures for the research analysis part: work in sub-groups set up by the teaching team; duration; identification of the reporter(s), etc.  • Ensures that work instructions are clear | • Reactivate their memory and express their feelings by justifying their answers.  • Discuss their feelings collectively.  • Discuss, identify, and quote key elements.  • Rephrase the instructions and organise themselves to designate a rapporteur.  • Organise the room into work areas for group work | Oral questions/answers as a group (large group): open, guiding questions designed to encourage learners to identify the elements on their own. | ✓ U-shaped room configuration  ✓ Flipchart  ✓ Video projector or large projection screen and computer  ✓ Digital support for session 4 | 20 mn  1pm-1.20pm |
| **ANALYSIS - RESEARCH** | • Accompany and guide the various groups as they analyse, identify negative and positive points, and identify "effective practices", based on the viewing of extracts from their discussions. | • Watch extracts from the discussions in session 2  • Discuss and compare their points of view, then agree on the negative and positive points and the "effective practices" to be drawn from them.  • Produce a shared summary of their analysis.  • Digitally send their production to the trainer by e-mail for pooling | Work in sub-groups: find a solution adapted to the situation.  Oral exchanges, comparing solutions and points of view.  Collaborative written production. | ✓ Configuration of the room into islands (work in sub-groups)  ✓ Renovation worksite execution file: 1 per group + post-it template  ✓Each group's productions and/or shared productions from session 2  ✓ 1 computer per group for viewing extracts and writing up the analysis;  ✓ Video clips taken from the discussions in session 2 | 40 minutes  1.20pm-2pm |
| **SETTING BACK** | • Regulates exchanges.  • Provides expertise where necessary.  • Guides the debate according to the knowledge and skills targeted, so that each learner can identify and understand them.  • As the discussion progresses, either numerically or on a whiteboard / flipchart, under the dictation of the learners, note down the elements and rules of action to be retained in a "memo of effective practices" for negotiation at a joint renovation site meeting. | • A rapporteur presents and justifies his group's work.  • The other learner comment on the production and ask questions.  • Discuss and debate collectively and compare the various solutions identified.  • Identify the invariant elements and rules of action to be adopted to Identify the risks of a co-active renovation work situation and determine the means of prevention to be implemented. | Group oral discussions based on presentations of the various renovation worksites.  Confronting solutions and points of view with a view to collectively arriving at a relevant solution and/or rules of action adapted to the situation. | ✓ U-shaped room configuration  ✓ Video projector / large projection screen and computers to project the various projects and produce a shared document.  ✓ Whiteboard / flipchart to record key points.  ✓ Video clips taken from the discussions in session 2.  ✓ Analyses produced by each sub-group.  ✓ Session 4 memo sheet. | 30 minutes  14h-14h30 |
| **EVALUATION** | • On-the-spot assessment of learners' ability to memorise and understand the key elements of "effective practices" for negotiating at a joint renovation site meeting | • Take an online quiz. | Short multiple-choice questions and clarification of the answers orally to check and consolidate what has been learnt | ✓ U-shaped room configuration  ✓ Video projector / large projection screen and 1 computer.  ✓ Online quiz.  ✓ Smart phones for learners. | 10 minutes  2.30 pm - 2.45 pm  (5 minute break) |

SESSION 5 – BLANQUEFORT TRAINING CENTRE - Team Leaders – EQF Level 4

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| **SESSION 5 PROCEDURE SHEET** | | | |
| **Trainers :** The entire teaching team | **Location:** BTP CFA Blanquefort | **Date:** 12-04-23 | **Running time:** 1 hour 45 minutes |
| **Objective:** Prepare (organise, plan, and prevent risks) a renovation site and adapt its preparation to a co-activity operation. | | | |

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| **Occupations concerned :**  Structural works team leader: CEGO  Fitting & finishing team leader : CEAF | | **Diploma/certification:**  CEGO professional qualification & CEAF professional qualification  Level 4 qualifications in 1 year | **Year:**  2022-2023 | **Groups:**  23 TP4CEGO1  23 TP4CEAF1 |
| **Targeted skills**  **and knowledge** | **Learning objectives** | **Learning situation** | | **Prerequisites**  **in relation to the learning situation** |
| * RenovUp C2-2 * Develop the critical thinking and reflective posture of apprentice team leaders. * Develop the ability to self-assess and check your work regularly. | Self-evaluate the group's performance during the sequence and draw up an assessment of the experiment. | A structural work g team leader and a plastering team leader have been asked by their respective employers to prepare, organise, and plan the renovation worksite, which involves creating external openings with a view to converting a separate function room into a holiday home for rent.  For this preparation, each employer provided his team leader with the execution file (CCTP, *Cahier des Clauses Techniques Particulières* and execution plans) and a post-it note indicating the period during which their team would be working on the site.  ***Identifying the problem :***  Initially, the 2 team leaders organised and planned their respective worksites separately, but then they realised that the worksite intervention period was the same for both trades. The 2 teams will therefore have to work together on the site.  The 2 team leaders therefore had to find ways of adapting their operating methods and site planning to work together, so that they could carry out quality work on time and in complete safety. | | * Not identified. |

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| **PROCEDURE FOR SESSION 5** | | **TYPE OF LEARNING APPROACH** : Inductive approach | | | | |
| **STEPS** | **TRAINER’S ACTIVITIES** | | **LEARNER’S ACTIVITIES** | **PEDAGOGICAL METHODS** | **MATERIALS AND TEACHING AIDS** | **DURATION**  **ESTIMATED** |
| **EVALUATION**  **THE RESULTS OF THE EXPERIMENT** | • Recontextualise the experimentation of the sequence by outlining the framework of the RenovUp project  • Question the learners orally on the spot about how they felt about taking part in this sequence and their experience of the experiment.  • Suggest that the learners refine their impressions by identifying the positive and negative points or points to watch out for, to come up with suggestions for improvement ("if I could do it again") with a view to repeating the experiment with other sequences.  • Numerically record and project the key elements that will be used to inform the review report.  • They also express their feelings and explain and justify their teaching choices. | | • Express their feelings collectively and individually, justifying their answers.  • Discuss their feelings collectively.  • Discuss, identify, and express their proposals. | Oral questions/answers as a group (large group): open questioning | ✓ U-shaped room configuration  ✓ Flipchart  ✓ Video projector or large projection screen and computer | 20 mn  1pm-1.20pm |
| **LEARNER SELF-ASSESSMENT** | • Present the grid (context - objectives) and explain how it works and how to use it.  • Accompany and guide the different groups of learners in assessing their performance during the sequence, using targeted criteria linked to the sequence, on RenovUp grid 4. | | • Discuss and compare their points of view on their level of performance in groups for each criterion related to the sequence.  • Agree on a score from 1 to 4 for each item and complete the grid. | Work in sub-groups  Oral exchanges, comparing points of view.  Collaborative written production. | ✓ Configuration of the room into islands (work in sub-groups)  ✓ 1 computer per group to consult their work from sessions 1 to 4 if necessary.  ✓ RenovUp evaluation grid n°4 adapted: 1 game per sub-group of learners. | 40 minutes  1.20-2pm |
| **CONCLUSION** | • Ask each learner orally to give a general opinion in 2 or 3 words by way of conclusion of these exchanges.  • Specify whether they are prepared to experiment with this "device" in another sequence. | | • Express an opinion. | Oral questions and answers as a group (large group). | ✓ U-shaped room configuration  ✓ Flipchart  ✓ Video projector or large projection screen and computer | 15 minutes  2.30-2.45 pm |

Professional Title Technical Manager (Site Manager) – EQF Level 5 - SAINT HERBLAIN TRAINING CENTRE

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| **Course Title** | **Components of the French Professional Title** | **Correspondence with RenovUp Blocks/Components** | **Course Description** |
| Professional qualification: Technical Manager - 24 month initial training | Selected blocks of the Technical Manager course:  **TP Block 1: Drawing up sales proposals for an SME in the construction industry** :   * Analysing the business in preparation for the customer project study, * Design a technical solution to meet the customer's project, * Calculate the selling price in order to prepare the quotation.   **TP 2 block: Prepare for work on the site of a construction SME :**   * Determining the conditions under which the works will be carried out, after reading the transfer file, in order to organise the work by analysing the site environment, identifying interfaces, adopting operating procedures, filling in the task sheet or the PPSPS or the internal safety procedure, * Determining the conditions for opening the worksite to allow work to begin, taking into account the environmental impact and the management of waste and nuisances, by carrying out the administrative procedures and drawing up all or part of the execution file. | **RENOVUP Block 3: Mastering the technical and organisational aspects of teamwork** :   * 3.1: Administrative, financial and legal management of a renovation project * 3.2: Organisation and control of the protection of workers and buildings on site, including the erection/dismantling of scaffolding, work at height, difficult access and the use of dangerous materials on renovation sites. * 3.3: Waste management on renovation sites: planning and management of waste bins, sorting and recycling (Circular Economy), and the use of appropriate monitoring tools. | At the end of the course, trainees were able to :   1. Drawing up sales proposals for a construction SME, 2. Preparing for intervention on the site of a construction SME, 3. Managing a construction site for an SME, 4. Managing a site team in a construction SME.   Trainer: Mickaël Pirioux (training cycle leader)  Contents:   1. Administrative and legal environment for construction, 2. Administrative management of a project, 3. Economic study, 4. Planning, 5. Resource management, 6. Organising, monitoring, and closing the site, 7. Risk prevention, health, and safety at work, 8. Building science and technology, 9. Environmental issues, 10. Quality, 11. Technical communication, 12. Written communication, 13. Oral communication, 14. Management.   Teaching methods : The course combines theoretical input, feedback, collaborative work, and role-playing.  Assessment of learning outcomes :   1. Formative assessments throughout the course: questionnaires, case studies, practical exercises. 2. Certifying assessments submitted to a jury :  * Case studies, * Professional portfolio with oral presentation, * Re-enactment of the situation. |

Professional Title Team Leader specialised in roofing – EQF Level 4 - ANGERS TRAINING CENTRE

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| **Course Title** | **Components of the French Professional Title** | **Correspondence with RenovUp Blocks/Components** | **Course Description** |
| Professional qualification: Team Leader – 8 day continuing training | **Component 1: Preparing the site with appropriate methods, and tools.**  **Component 3: Closing the worksite with appropriate procedures and indicators.** | **TL COMPONENT 1.1**. Preparation of a renovation site and diagnostic methods of existing buildings and places before the intervention.  **TL COMPONENT 4.1**. Quality control of renovation results and client approval. | At the end of the course, trainees were able to :   1. Identify how a construction company operates and the stages involved in a renovation of roofs, 2. Identify the key stages of a worksite and the role of the team leader at each stage, especially regarding the preparation of the worksite including roofing, 3. Get organised to prepare the roofing site effectively, 4. Prepare the positioning of themselves as team leaders, 5. Communicate the preparation issues to co-workers with appropriate means, 6. Ensure final quality control of the work done with appropriate evaluation criteria, 7. Communicate the results to co-workers and analysing the final acceptance of the work done with them.   Trainer: Patrice Marie Surelly (training cycle leader)  Contents:   1. Reading and analysing an execution file in an operational manner, 2. Identifying the site environment, 3. Setting up and supplying the site, 4. Assessing the impact of improvisation on a worksite, 5. Identifying the key stages of a worksite and the role of the team leader 6. Meeting deadlines, 7. Reporting with appropriate methods and tools, 8. Checking the conformity of the work carried out according to the initial order, required standards, means attributed and external conditions, 9. Identifying malfunctions and abnormal site returns, 10. Understanding and assessing the impact of non-quality.   Teaching methods : The course combines theoretical input, feedback, collaborative work, and role-playing.  Assessment of learning outcomes :   * Internal certificate. Possible Open Badge (RenovUp). |

**SOME IMAGES**

Une image contenant intérieur, personne, Immeuble de bureaux, habits

Description générée automatiquementUne image contenant intérieur, mur, personne, Immeuble de bureaux

Description générée automatiquement

Une image contenant intérieur, personne, habits, mur

Description générée automatiquement

**ASSESSMENT AND RECOGNITION OF LEARNING OUTCOMES WITH OPEN BADGES**

In the framework of the current experimentation no Open Badges were delivered because 50% of the components were not exceeded in any block.

However, in the future it is planned to make use of them to validate and recognise new skills and competences not covered with the training standards and qualification framework.

In parallel, Open Badges will be accessible by **equivalence procedures**.

The system for the delivering Open Badges, based on Open Badges Factory platform, is operational from June 2023.

**EVALUATION OF THE EXPERIENCE**

**Teaching team**

The experiment strengthened the dynamics and cohesion of the teaching team, thanks to shared work on a stimulating interdisciplinary project. The collaborative work and exchanges between colleagues at the BTP CFA of Blanquefort, as well as with their counterparts at BTP CFA Pays de Loire (Saint-Herblain and Angers), were rich in human resources and very constructive.

The deadlines and deliverables required by this training-action have been a real accelerator of progress for the teaching team, who have been able to take advantage of this opportunity to question their practices with a view to optimising them, by precisely identifying the areas for improvement.

The project also enabled the teaching team to discover and experiment with innovative and relevant tools (for observing, positioning, monitoring, evaluating and self-evaluating), and to become even more aware of the importance of the link between the real work situation and the learning situation.

**Learners**

The fact that the learning situation was anchored in the real world made sense to the learners, which had a direct positive impact on their commitment to the project and their motivation to learn. Their mobilisation around a common project "Renovating as a co-activity mason/plasterer" and teamwork gave rise to active and positive collaboration that was very constructive. On the one hand, putting them to work on a "real" renovation project helped to develop their autonomy, and on the other, analysing their activity at the end of the sequence enabled them to work on their reflective posture.

The support on which the self-assessment was based was a version of grid 4 adapted to the experimental sequence: the cells corresponding to the skills used during the sequence and which the learners had to consider assessing themselves, were highlighted using a colour code linked to the theme covered:

- Preparation: method/method of operation and planning for their trade and in the context of a joint operation

- Prevention: hygiene, health, and safety at work for your trade and in the context of a joint operation

- Communication and management: exchanges and negotiation between trades as part of a coactivity project.

The description of certain skills has been clarified or modified to make it easier for our learners to understand (written in blue on the grid).

Based on the content of this grid, the learners carried out a reflective analysis of their performance, based on exchanges between sub-groups, guided by the trainers. For the most part, the learners were able to correctly assess their level of performance, identify their strengths and areas for improvement and become aware of the contribution of the sequence to their acquisition of skills.

**Companies**

The companies that took part in the project found it of real benefit that their needs and the reality of the work sites were considered in the training. They also felt valued and strengthened in their position as tutors, at the idea of contributing to the design of training for their future supervisors.

Lastly, the exchanges between the BTP CFA and the companies were mutually enriching, in that each of the two players learned from the other to provide better training.

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Overall, the results of this experiment have been very positive for all those involved. The proof of this is that learners and trainers are all keen to repeat the experiment with other reference work situations.

### ITALY

**BRIEF DESCRIPTION OF THE EXPERIENCE IN ITALY**

The experimental professionalisation programme implemented by Formedil in Italy was fundamentally based on the principles of the *Superbonus*, a tax allowance for the implementation of specific interventions aimed at energy efficiency and static consolidation or reduction of seismic risk of buildings. Therefore, the objective was to train or retrain site managers and team leaders on the subjects covered by the tax deduction (installation of insulating systems, ventilated facades, re-roofing, installation of window frames, installation of photovoltaic systems and electric car charging systems as well as the structural reinforcement of buildings and the proper management of waste recycling and reuse). The experimentation ran from January 2023 until mid-April 2023 and involved **6 site managers, 6 team leaders, 6 construction companies and 5 trainers** from the Avellino construction school.

**MODULAR WORK-LINKED TRAINING ACCORDING TO THE PRESCRIPTIONS RESULTING FROM IO1 OF THE PROJECT**

The experimentation with team leaders was based on the training scheme proposed in IO1.3 and focused on the four components highlighted in yellow: one corresponding to Block 1 (Preparing a renovation site), another to Block 2 (Managing communication…), and the rest to Block 3 (Management…).

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| **Block 2: Managing communication and relationships on a renovation site** | **Breakdown into general pedagogical objectives** |
| Component 2.1. Team management in renovation works: Monitoring of assignments and tasks and anticipation of complex and potentially conflicting situations with internal staff and subcontractors. | 1. Identify and characterise critical situations or specific problems in renovation works. 2. Anticipating, developing, and proposing solutions 3. Informing team leaders |
| Component 2.2. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | 1. Identify and characterise the different types of constraints or problems specific to renovation projects. 2. Anticipating, developing, and proposing solutions and reporting to team leaders |
| Component 2.3. Follow-up of relations with the client, the company director, the architect, the project office, and the CSS (health and safety coordinator). | 1. Characterise the specificities of the different actors involved in a renovation project. 2. Integrate these specificities in the exchanges/procedures between stakeholders. |
| Component 2.4. Mental workload management, including the management of stress and strain at work. | 1. Identify the particularities and specificities of the tensions linked to renovation projects. 2. Develop facilitation or anticipation strategies. |
| **Block 3 : Management of the technical and organisational aspects of the renovation work** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial and legal management of a renovation project. | 1. Identify and compile administrative, financial and legal documents specifically related to renovation projects. 2. Integrating these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access, and use of hazardous materials in renovation works. | 1. Identify specific and critical situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.3. Waste management in refurbishment works: Planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools. | 1. Identify specific situations. 2. Identify existing rules or regulations. 3. Develop resolution strategies and apply appropriate techniques. 4. Informing team leaders |
| Component 3.4: Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools. | 1. Identify specific situations. 2. Identify existing rules or regulations. 3. Develop and propose resolution strategies. 4. Informing team leaders. |
| Component 3.5. Continuous quality control of renovation works: Quality of intermediate stages and quality of finished works. | 1. Identify the critical points to be considered. 2. Determine quality criteria and develop specific control procedures. |

**PROPOSED TRAINING SEQUENCE RESULTING FROM THE OBSERVATION OF REAL WORK SITUATIONS (QUESTIONNAIRE 1) AND THE POSITIONING OF THE STUDENTS (QUESTIONNAIRE 3) IN RENOVUP IO3**

Based on the observations made during the site visits and the conversation with the interviewees, a series of training needs were identified that served as the basis for the following training proposal to be implemented in RENOVUP IO4:

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| **RENOVUP IO1** | | **RENOVUP IO3** | **RENOVUP IO4** |
| *Block 2 : Communication and relationship management on a renovation site* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 2.1. Team management in renovation works: Monitoring of assignments and tasks and anticipation of complex and potentially conflicting situations with internal staff and subcontractors. | * Identify and characterise critical situations or specific problems in renovation works. * Anticipating, developing and proposing solutions * Informing team leaders | ✍ managing the team correctly  ✍ problem solving  ✍ Knowing the work phases and committing the right resources | ✍ knowing workloads  ✍ knowing how to handle conflict situations  ✍ correct communication |
| Component 2.2. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | * Identify and characterise the different types of constraints or problems specific to renovation projects. * Anticipating, developing and proposing solutions and reporting to team leaders | ✍ Development of working procedures  ✍ Know how to read and interpret projects on paper or using digital tools (BIM, CAD, etc.)  ✍ The elements of the Superbonus and the energy improvement of existing buildings through the installation of insulation panels, the installation of window frames, the installation of photovoltaic systems, the elimination of critical points | ✍ Solutions and new materials for the renovation of existing buildings to improve their energy efficiency through the installation of state-of-the-art insulation elements  ✍ use of technological tools to read the plans and monitor the work carried out |

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| *Block 3 : Management of the technical and organisational aspects of the renovation work* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 3.2. Management and control of the protection of workers and buildings on site, including the erection/dismantling of scaffolding, working at heights, difficult access, and the use of hazardous materials in refurbishment works. | * Identify specific and critical situations. * Identify existing rules or regulations. * Develop and propose resolution strategies. * Inform team leaders. | ✍ Site organisation in relation to falls from height.  ✍ Correct assembly of scaffolding and scaffolding lifting equipment.  ✍ Lifeline and anchorage systems when working on roof materials hazards management.  ✍ Management of risk situations during work on roofs containing asbestos.  ✍ Management of occupational risk prevention. | ✍ Knowledge of standards for work at height  ✍ Be able to develop and propose solutions to reduce workers' risks |
| Component 3.3. Waste management in refurbishment works: Planning and management of waste bins, sorting and recycling (circular economy), and the use of appropriate monitoring tools. | * Identify specific situations. * Identify existing rules or regulations. * Develop resolution strategies and apply appropriate techniques. * Informing team leaders | ✍ Managing the circular economy.  ✍ Manage reusable, recyclable and landfill waste. | ✍ knowing the regulations on the circular economy  recognise waste.  ✍ Use monitoring tools for proper waste management. |

**RECRUITMENT OF THE TARGET GROUPS (FUTURE TEAM LEADERS)**

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| **Details of the training action in which the Renovup IO4 experiment is framed** | | | |
| **Name of the training action** | | MICSxCAPO - energy edition | |
| **Total duration** | 240 hours | **RenovUP IO4** | 80 hours |
| **Training organization** | Formedil in cooperation with CFS Avellino | | |
| **Recruitment period** | The end of November and beginning of December 2022 | | |
| **Access requirements** | No entrance studies required. Preferably with experience in the construction sector. | | |
| **Start date** | 09/01/2023 | **End date** | 30/03/2023 |

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| **STATUS/FUNCTION: SITE MANAGER LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalisation to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | STEFANO PARRELLA | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 2 | DI GIACOMO DAVIDE | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 3 | GIROLAMO ACCURSO | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 4 | GEROSO DAVIDE MARIA | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 5 | MARCO ZECCHINO | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 6 | AGOSTINO LEONE | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |

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| **STATUS/FUNCTION: TEAM LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalisation to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | PEPICELLI GIUSEPPE | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 2 | PICARIELLO MICHELE | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 3 | BALZANO FILIPPO PAOLO | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 4 | CINTI GUIDO | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 5 | LO RUSSO ANGELO | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |
| 6 | ARIANNA ANDREA | 1, 2, 3 & 4 | CFS AVELLINO | IO3-Renovup grides 1 & 3 |

**INDIVIDUALISED PROFESSIONALISATION PATHWAYS**

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| **Name of the vocational training pathway** | | **Blocks/components chosen for the tests** | | **Audience** | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| **1.**  Management of teams on renovation sites | | Description:  **Block 1:** Management of teams on renovation sites  Component 2.1. Management of teams on renovation sites: Monitoring of assignments and tasks and anticipation of complex and potentially conflictual situations with internal staff and subcontractors. | | Team leader  And site manager | | Name and address of the training  centre/vocational school/other  organisation:  CFS Avellino  Name(s) of trainer(s)  and its function(s):  Christian Speranza  Sabino Della Sala  Training hours: 24 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 (PARRELLA PELLEGRINO SRL - DI.GI LAVORI SRL  SOCOTEC ITALIA S.R.L - ADRENALIN DRILLING SRL - PRAGMA COSTR.NI GENERALI SRL - COAP SRL) |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalization of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | |
| **RENOVUP learning objectives:**  ✍ Knowing how to manage work teams and distribute tasks correctly  ✍ Knowing how to identify critical points  ✍ Develop communication techniques with workers and all stakeholders  **Content (depending on specific national contexts):**  🕮 The Organisation of the Worksite  The organisation of the site  The site layout and management and organisation of equipment, materials and human resources  Team organisation and management  Case Study  🕮 Scheduling of work  Supervision and control activities Identification of the main risks present on the site  coordination of site resources  production progress  Case Study  🕮 On-site Communication  Communicate and relate correctly with the figures on site;  being able to explain how to do a job and be understood by team leaders  Proper conflict management  **Teaching/learning methods and tools**  Lectures and in parallel to the theoretical lectures, exercises are carried out in the classroom and on the school's simulated construction site. Another part of the training will be carried out directly on the site where the site manager is actually working. Use of methodologies focused on the transmission of information by means of the expository and demonstrative method.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  Several trainers analysed the behaviour of the workers and at the end of the observation showed the trainees some practices to be carried out in order to achieve good communication without ever entering into their specific actions to avoid raising a wall between trainers and trainees  **Assessment of learning outcomes**  In order to ensure that the contents of the experiment were satisfactorily followed, individual and continuous monitoring and daily attendance checks were carried out, as well as the use of the RENOVUP 3 questionnaire and an evaluation test. | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for the tests** | | **Audience** | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | |
| **2.**  **WORK ORGANISATION** | Description:  **Block 2: Communication and relationship management on a renovation site**  Component 2.2. Development and implementation of procedures for the correct execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | | Team leader  And site manager | | Name and address of the training  centre/vocational school/other  organisation:  CFS Avellino  Name(s) of trainer(s)  and its function(s):  Luciano De Palma  Fabio Casarella  Training hours: 16 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 (PARRELLA PELLEGRINO SRL - DI.GI LAVORI SRL  SOCOTEC ITALIA S.R.L - ADRENALIN DRILLING SRL - PRAGMA COSTR.NI GENERALI SRL - COAP SRL) | |

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| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | |
| **Learning objectives:**  ✍ Identify and characterise the different types of constraints or problems specific to renovation projects.  ✍ Anticipate, develop and propose solutions and report to foremen  Develop working procedures  ✍ Know how to read and interpret projects on paper or with digital tools (BIM, CAD, etc.).  ✍ The elements of the Superbonus and the energy improvement of existing buildings through the installation of insulation panels, the installation of window frames, the installation of photovoltaic systems, the elimination of critical points  **Content (depending on specific national contexts):**  🕮 energy efficiency: insulating panels and their properties  🕮 the correct installation of panels  🕮 doors and windows: structure and characteristics  🕮 The different types of glass  🕮 Basic elements of BIM and CAD  **Teaching/learning methods and tools**  The teaching methodology was based on real case studies of work on the energy efficiency of existing buildings. Case studies were proposed where the participant (site manager and team leader) had to organise the work and make decisions on which elements to use and especially how to install them.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  Several trainers analysed the workers' behaviour and at the end of the observation showed them how to use the insulating elements on their construction site. They taught them how to read the technical data sheets of the elements and their correct assembly. The experimental training process was completed in the training centre.  **Assessment of learning outcomes**  In order to ensure that the content of the experimentation was being followed satisfactorily, individual and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | **Audience** | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| **3.**  **OHS IN RENOVATION WORKS** | Description:  **Block 3 : Management of the technical and organisational aspects of the renovation work**  Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works. | Team leader  And site manager | Name and address of the training  centre/vocational school/other  organisation:  CFS Avellino  Name(s) of trainer(s)  and its function(s):  Luciano De Palma  Fabio Casarella  Training hours: 24 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 (PARRELLA PELLEGRINO SRL - DI.GI LAVORI SRL  SOCOTEC ITALIA S.R.L - ADRENALIN DRILLING SRL - PRAGMA COSTR.NI GENERALI SRL - COAP SRL) |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | |
| **Learning objectives:**  ✍ Identify existing rules or regulations for working at height  ✍ knowing how to use safety devices against falls from height  ✍ Develop and propose resolution strategies and prevention measures.  ✍ knowing how to manage dangerous situations  **Content (depending on specific national contexts):**  🕮 Site organisation in relation to falls from height.  🕮 Correct assembly of scaffolding and lifting equipment.  🕮 Anchoring systems and lifelines when working on roofs.  🕮 materials risk management  🕮 Management of risk situations when working on roofs containing asbestos.  🕮 Management of occupational risk prevention  🕮 Risk assessment of each occupation.  **Teaching/learning methods and tools**  The teaching methodology was based on real case studies of work on the energy efficiency of existing buildings. Case studies were proposed in which the participant (site manager and foreman) had to organise the work and make decisions on which elements to use and especially how to install them.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  Several trainers analysed the workers' behaviour and at the end of the observation showed them how to use individual and collective safety equipment correctly and how to handle dangerous situations. the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  In order to ensure that the content of the experimentation was being followed satisfactorily, individual and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | **Audience** | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| 4.  ENVIRONMENTAL MANAGEMENT | Description:  **Block 3 : Management of the technical and organisational aspects of the renovation work**  Component 3.3. Waste management in refurbishment works: planning and management of waste containers, sorting and recycling (circular economy), and the use of appropriate monitoring tools. | Team leader  And site manager | Name and address of the training  centre/vocational school/other  organisation:  CFS Avellino  Name(s) of trainer(s)  and its function(s):  Luciano De Palma  Fabio Casarella  Training hours: 8 hours  Profile of the companies involved  in planned work-based learning:  Construction and Renovation works companies participating in RenovUp IO3 (PARRELLA PELLEGRINO SRL - DI.GI LAVORI SRL  SOCOTEC ITALIA S.R.L - ADRENALIN DRILLING SRL - PRAGMA COSTR.NI GENERALI SRL - COAP SRL) |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | |
| **Learning objectives:**  ✍ Knowing and being able to apply current regulations  ✍ Knowing how to recognise the quantity and type of waste  ✍ Knowing how to manage pre-demolition audits  ✍ Knowing how to compile a waste management work plan  ✍ Knowing how to select materials using the LCA method  **Content (depending on specific national contexts):**  🕮 Waste legislation and environmental records  🕮 Waste management on site  🕮 Construction and Demolition Waste Management and Recycling  🕮 LCA building materials and environmental sustainability  **Teaching/learning methods and tools**  Lectures and in parallel to the theoretical lectures, exercises are carried out in the classroom and on the school's simulated construction site. Another part of the training will be carried out directly on the site where the site manager is working.  Mode: Face-to-face  Didactic resources: PowerPoint, images, videos, and workshop practices.  Each professional was provided with the appropriate work clothes and the necessary didactic material, as well as the necessary PPE for strict compliance with occupational health and safety regulations.  Likewise, each professional was provided with the tools, equipment and means necessary for the development of the practical activities.  **Organisation of the training process in companies**  Several trainers analysed the workers' behaviour and at the end of the observation showed them how to manage waste on the construction site. They analysed how to separate waste to be reused and recycled from waste to be taken to landfill. the experimental training process was completed in the training centre.  **Assessment of learning outcomes**  To ensure that the content of the experimentation was being followed satisfactorily, individual, and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | |

**SOME IMAGES**

Une image contenant personne, habits, mur, intérieur

Description générée automatiquementUne image contenant habits, homme, personne, intérieur

Description générée automatiquementUne image contenant personne, mur, Post-it, habits

Description générée automatiquementUne image contenant habits, personne, porte, intérieur

Description générée automatiquement

**ASSESSMENT AND RECOGNITION OF LEARNING OUTCOMES WITH OPEN BADGES**

In the framework of the current experimentation no Open Badges were delivered because 50% of the components were not exceeded in any block. However, Formedil may use them to validate and recognise new skills and competences , including through the equivalence system.

### POLAND

**BRIEF DESCRIPTION OF THE EXPERIENCE IN POLAND**

**Coherence** with other IOs

Polish experimentation (IO4) was planned and executed with cooperation with the Association of Finishing Work Specialists – SSRW. The experimental scheme was designed and implemented in cohesion with results of IO3 experimentation (support for teachers/trainers), especially:

- the results of observation of the work situations on construction sites where renovation works were carried out (pilot work observations were made with the use of Grid 2 ) and

- the results of the diagnosis of training needs of current or future foremen participating in the training done by the trainers with the use of Grid 3.

It was based also on the training scheme proposed in IO1.3 .

**Participants (7 learners – team leaders)** in the experimental implementation of the professional development scheme for foremen/ team leaders in the construction industry were employees of construction companies associated in the SSRW association (current or future foremen). They were:

- people with little or no experience in performing a management role on the construction site or

- people who, despite their experience as team leaders, have faced some problem situations / challenges in their work (precisely identified) that requires developing their competences

**Trainers**: employees or owners of companies associated in SSRW, who completed the preparation of teacher/ trainers as part of RenovUp (IO3).

**Place** of the experimental trainings: construction sites (specified below)

We followed few steps strategy:

- Identification: which training blocks/components can be tested with learners, in real life (as autonomous training program) and selection of the educational objectives corresponding to the blocks/components chosen as the object of experimentation.

- Identification what problem we want to solve – what is objective of our training?

- Analysis: What are work situations faced by team leaders (observed on the construction sites).

- Development: of the training program for chosen units/components.

**Developed training units (nuggets) are new, independent training units, responding to the identified needs.** It **was not possible to "fit in" into the already running training for foremen, because there are no such courses in Poland.**

**MODULAR WORK-LINKED TRAINING ACCORDING TO THE PRESCRIPTIONS RESULTING FROM IO1 OF THE PROJECT**

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| **Block 3 : Management of the technical and organisational aspects of the renovation work** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial, and legal management of a renovation project. | 1. Identify and compile administrative, financial and legal documents specifically related to renovation projects. 2. Integrating these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access, and use of hazardous materials in renovation works. | 1. Identify specific and critical situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.3. Waste management in refurbishment works: Planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop resolution strategies and apply appropriate techniques. 4. Informing team leaders |
| Component 3.4: Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.5. Continuous quality control of renovation works: Quality of intermediate stages and quality of finished works. | 1. Identify the critical points to be taken into account 2. Determine quality criteria and develop specific control procedures. |

**PROPOSED TRAINING SEQUENCE RESULTING FROM THE OBSERVATION OF REAL WORK SITUATIONS**

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| **RENOVUP IO1 (for TL)** | | **RENOVUP IO3** | **RENOVUP IO4** |
| *Block 3 : Mastering the technical and organisational aspects of teamwork* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 3.4. Integration of energy saving standards in renovation works and use of appropriate monitoring tools. | * Identify specific and critical situations. * Identify existing rules or regulations. * Develop and propose resolution strategies. | ✍Ensuring that the requirements of the energy audit are met and that the client obtains an energy certificate  ✍ Convincing customers/ investors in favour of energy-efficient solutions  ✍ The importance of the building envelope in ensuring the energy efficiency of the whole building | ✍Significance of insulation damage in heat loss  ✍ Type of damage to interior thermal insulation and methods of its identification  ✍ Selection of repair methods for damaged insulation and management of repair works. |
| Component 3.5. Continuous quality control of the intermediate phases and the quality of the finished work. | * Respect quality criteria and develop specific control procedures | ✍ Supervising the various stages of the work, in particular quality assurance and acceptance of hidden works | ✍ Ways of preparing substrates for large-format tile flooring  ✍ Insulation for large-size tile floors  ✍ Criteria for assessing the quality of large format tile flooring (possible defects due to inadequate subfloor preparation). |

**RECRUITMENT OF THE TARGET GROUPS (FUTURE TEAM LEADERS)**

In the case of Poland, all training took place directly on construction sites where the companies from which the trainers came were currently carrying out renovation work. In each case, this required the consent of the site owner/ investor.

It was not possible to "fit in" into the already running training for foremen (as is the case, for example, in Spain), because there are no such courses in Poland. Developed training units (nuggets) are new, independent training units, responding to the identified needs.

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| **Details of the training action in which the Renovup IO4 experiment is framed** | | | |
| **Name of the training action** | | ***Procedure to control the preparation and suitability of substrates for large-format tile flooring*** | |
| **Total duration** | Not applicable (independent training unit) | **RenovUP IO4** | 6 hours |
| **Training organization** | construction companies specified below in the 4th column | | |
| **Recruitment period** | March 2023 | | |
| **Access requirements** | Preferably with experience in the subject of training - tiling | | |
| **Start date** | 13/05/2023 | **End date** | 13/05/2023 |

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| **STATUS/FUNCTION: TEAM LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalization to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | Bogusław Płoński | Not applicable; the training is strictly tailored to individual needs and is an independent training unit | BIK- BLACHOWSKI | IO3-Renovup grids 1 & 3 |
| 2 | Piotr Wiśniewski | BIK- BLACHOWSKI | IO3-Renovup grids 1 & 3 |
| 3 | Mariusz Pilarski | Astmedia, Śrem | IO3-Renovup grids 1 & 3 |
| 4 | Mieczysław Aleksandrowicz | Astmedia, Śrem | IO3-Renovup grids 1 & 3 |

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| **Details of the training action in which the Renovup IO4 experiment is framed** | | | |
| **Name of the training action** | | ***How to improve the energy efficiency of the building? Strategy for internal thermal insulation repair works*** | |
| **Total duration** | Not applicable (independent training unit) | **RenovUP IO4** | 6 hours |
| **Training organization** | construction companies specified below in the 4th column | | |
| **Recruitment period** | March 2023 | | |
| **Access requirements** | Preferably with experience in the subject of training - internal thermal insulations | | |
| **Start date** | May 2023 | **End date** | May 2023 |

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| --- | --- | --- | --- | --- |
| **STATUS/FUNCTION: TEAM LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalization to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | Ryszard Szczęśniak | Not applicable; the training is strictly tailored to individual needs and is an independent training unit | BUDOSKI  37-45 Stalowa Wola | IO3-Renovup grids 1 & 3 |
| 2 | Grzegorz Sil | Ma-RES  37-100 Łańcut | IO3-Renovup grids 1 & 3 |
| 3 | Dariusz Sołtysek | PPHU “KACPER”  95- 082 Dobroń k. Pabianic | IO3-Renovup grids 1 & 3 |

**INDIVIDUALISED PROFESSIONALISATION PATHWAYS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | **Audience** | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| *How to improve the energy efficiency of the building - Strategy for internal thermal insulation repair works* | Description:  **Block 3 Mastering the technical and organisational aspects of teamwork**  Component 3.4: Integration of energy saving standards in renovation works and use of appropriate monitoring tools. | Team leader | Name and address of the companies organising the training and name of the trainer(s):   1. Company: BUDOSKI   37-45 Stalowa Wola, Ul. Narutowicza 30/40  Trainer: Mr Bogusław Sikorski  Learner: Ryszard Szczęśniak   1. Company: Ma-RES   Wysoka 250B 37-100 Łańcut  Trainer: Mr Marek Surmacz  Learner: Grzegorz Sil   1. Company: PPHU “KACPER” firma remontowo budowlana   95- 082 Dobroń k. Pabianic  Trainer: Mr Kacper Witczak  Learner: Dariusz Sołtysek  Training hours: 6 hours  Profile of the company(ies) involved in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | |
| **Learning objectives:**  ✍ Identifying inadequate/damaged internal thermal insulation as a cause of heat loss in buildings.  ✍ Develop and propose resolution strategies how to repair them  **Content (depending on specific national contexts):**  🕮 Significance of insulation damage in heat loss  🕮 Type of damage to interior thermal insulation and methods of its identification.  🕮 Selection of repair methods for damaged insulation  🕮 Management of repair works.  **Teaching/learning methods and tools**   * Discussion (focussed on the participants’ experience concerning thermal insulation of buildings) * Demonstration of an example of faulty / damaged insulation system (real example on site+ possibly videos) * Development of a plan how to repair it. * Job shadowing (management of the repair works).   **Organisation of the training process in companies**  Trainings were conducted in f2f form, directly on building construction sites, during the renovation works’ implementation.  Conducting training on actual construction sites required a major organisational effort. It mainly concerned the adaptation of the possible training topics to the type of work currently being carried out on the construction site in question. It was also necessary to obtain the owner's/property manager's permission to carry out the training on their building site.  To minimise the impact of the training on other refurbishment works, the training took place in a 1 trainer - 1 trainee arrangement. In wider practice, this is unlikely to be realistic due to costs. So, such a solution is regarded by the Polish RenovUp project partnership as a temporary solution. From June 2023, the **first sectoral training centre** for the construction industry in Poland is created (with the active participation of Ł-ITeE and SSRW). One of its aims is to enable professional training for construction workers under simulated building site conditions.  **Assessment of learning outcomes**  To ensure that the content of the experimentation was being followed satisfactorily, individual, and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | **Audience** | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| *Procedure to control the preparation and suitability of substrates for large-format tile flooring* | Description:  **Block 3 : Mastering the technical and organisational aspects of teamwork**  Component 3.5. Continuous quality control of the intermediate phases and the quality of the finished work. | Team leader | Name and address of the companies organising the training and name of the trainer(s):   1. Company: BIK- BLACHOWSKI,   ul. Wałbrzyska 91, 91-865 Łódź  Trainer: Mr Jacek Blachowski  Learners: Bogusław Płoński, Piotr Wiśniewski   1. Company: ASTMEDIA   ul. Gierymskiego 5, 63-100 Śrem  Trainer: Mr Piotr Jura  Learners: Mariusz Pilarski, Mieczysław Aleksandrowicz  Training hours: 6 hours  Profile of the company(ies) involved in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | |
| **Learning objectives:**  ✍ Assessing the suitability of the substrate (its specifics) for large-format tile flooring.  **Content (depending on specific national contexts):**  🕮 Ways of preparing substrates for large-format tile flooring (a an example of so called “hidden works”).  🕮 Insulation for large-size tile floors.  🕮 Criteria for assessing the quality of large format tile flooring (possible defects due to inadequate subfloor preparation).  **Teaching/learning methods and tools**   * Discussion (focussed on the participants’ experience concerning the large-format tile flooring). * Demonstration of examples of the consequences of laying large-format tiles on an improperly prepared substrate (real example on site+ possibly videos). * Development of a list of criteria assessing the suitability of the substrate (its specifics) for large-format tile flooring.   **Organisation of the training process in companies**  Trainings were conducted in f2f form, directly on building construction sites, during the renovation works’ implementation.  Conducting training on actual construction sites required a major organisational effort. It mainly concerned the adaptation of the possible training topics to the type of work currently being carried out on the construction site in question. It was also necessary to obtain the owner's/property manager's permission to carry out the training on their building site.  To minimise the impact of the training on other refurbishment works, the training took place in a 1 trainer - 1 trainee (or 2 trainees) arrangement. In wider practice, this is unlikely to be realistic due to costs. So, such a solution is regarded by the Polish RenovUp project partnership as a temporary solution. From June 2023, the **first sectoral training centre** for the construction industry in Poland is created (with the active participation of Ł-ITeE and SSRW). One of its aims is to enable professional training for construction workers under simulated building site conditions.  **Assessment of learning outcomes**  To ensure that the content of the experimentation was being followed satisfactorily, individual, and continuous monitoring and daily attendance control was carried out, as well as the use of RENOVUP Questionnaire 3 and an evaluation test. | | | |

**ASSESSMENT AND RECOGNITION OF LEARNING OUTCOMES WITH OPEN BADGES**

Trainings for construction site team leaders tested within RenovUp (IO4) in Poland are single training units rather than comprehensive training covering any specific block (RenovUp). This does not allow us (at this moment) to meet the criteria for issuing Open Badges for Polish team leaders.

We plan to develop the RenovUp model, including didactic tools, in the new- created sectoral training centre.

**EVALUATION OF THE EXPERIENCE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | FULLY | ENOUGH | IN PART | NOT AT ALL | NOTHING |
| **1**. Did you find the content you experienced interesting? | 7 |  |  |  |  |
| **2.** Are they linked to your activity? | 7 |  |  |  |  |
| **3.** Have they provided you with new knowledge to develop your professional activity? | 6 | 1 |  |  |  |
| **4.** Are you satisfied that you participated in this experimentation? | 6 | 1 |  |  |  |

### GREECE

**BRIEF DESCRIPTION OF THE EXPERIENCE IN GREECE**

The Greek RenovUp experimentation was conducted with the support of Techniki Ekpaideutiki (Training Center located in Athens), since PEDMEDE is not a VET provider and does not include the training staff needed for the implementation of such training. The experimentation scheme was based on the results of IO3 and especially (1) the results of observation of the working situations on renovation sites (Grid 1 and 2) and the results of the identification of training needs of the RenovUP learners (Grid 3).

Trainers: The two (2) trainers have an educational and professional background in construction sector they conducted the following tasks: (i) two (2) visits on construction sites to observe the working situation on the Former Royal Palace of Greece -renovation site operated by NIRIKOS SA and ERETBO SA- (August 2022 and February 2023); (ii) the identification of training needs through a one-to-one online interviews on March 2023; (iii) developement of training content; (iv) conduction of experimentation path; (v) evaluation of learing outcomes.

Learners: In total, twenty three (23) learners participated in the greek experimentation: eleven (11) site managers and twelve (12) team leaders. They are all involved in the renovation works at the former Royal Palace of Greece working either for ERETBO or NIRIKOS companies/members of PEDMEDE.

The experimental professionalisation programme was conducted online during May 2023.

**MODULAR WORK-LINKED TRAINING ACCORDING TO THE PRESCRIPTIONS RESULTING FROM IO1 OF THE PROJECT**

|  |  |
| --- | --- |
| **Block 3 : Management of the technical and organisational aspects of the renovation work** | **Breakdown into general pedagogical objectives** |
| Component 3.1. Administrative, financial and legal management of a renovation project. | 1. Identify and compile administrative, financial and legal documents specifically related to renovation projects. 2. Integrating these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works. | 1. Identify specific and critical situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.3. Waste management in refurbishment works: planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop resolution strategies and apply appropriate techniques. 4. Informing team leaders |
| Component 3.4: Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools. | 1. Identify specific situations 2. Identify existing rules or regulations 3. Develop and propose resolution strategies 4. Informing team leaders |
| Component 3.5. Continuous quality control of renovation works: quality of intermediate stages and quality of finished works. | 1. Identify the critical points to be taken into account 2. Determine quality criteria and develop specific control procedures. |

**PROPOSED TRAINING SEQUENCE RESULTING FROM THE OBSERVATION OF REAL WORK SITUATIONS**

|  |  |  |  |
| --- | --- | --- | --- |
| **RENOVUP IO1** | | **RENOVUP IO3** | **RENOVUP IO4** |
| *Block 3 : Management of the technical and organisational aspects of the renovation work* | *Breakdown into general pedagogical objectives* | *Training sequence detected by SM and TL trainers based on RENOVUP qualification IOA1.3 and using RENOVUP tools IOA1.4* | *Knowledge selected to be experimented with SM and/or TL* |
| Component 3.1. Administrative, financial and legal management of a renovation project. | * Identify and collect administrative, financial, and legal documents specifically related to renovation projects * Integrate these specificities in the management of the site | ✍ Knowledge of project management  ✍ Knowledge of the documentation of a renovation project | This component was assessed at the end of the training experiment in order to acquire the open badge and it was not part of the training phase. |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, working at heights, difficult access and use of hazardous materials in renovation works. | * Identify specific and critical situations * Identify the current standards or regulations * Develop and/or implement resolution strategies | ✍ Development of working procedures  ✍ Problem solving  ✍ Knowledge to integrate occupational health and safety prevention into renovation sites  ✍ Use appropriate control tools | This component was assessed at the end of the training experiment in order to acquire the open badge. |
| Component 3.3. Waste management in refurbishment works: planning and management of waste containers, sorting and recycling operations (circular economy) and use of appropriate monitoring tools. | * Identify specific situations * Identify the current standards or regulations * Implementing appropriate techniques | ✍ Development of an operational plan for the reuse and recovery of waste  ✍ Decision making process of waste treatment  ✍Monitor the operational plan for the reuse or recovery of waste | ✍ Knowing the regulations on the circular economy  recognise waste  Knowing waste management specificities  ✍ Using of monitoring tools for the waste management plan |
| Component 3.4: Integration of energy saving standards in retrofitting projects and use of appropriate monitoring tools. | * Identify specific situations * Identify the current standards or regulations * Apply resolution strategies | ✍ Integration of the energy savings standards  ✍ Monitor the energy efficiency plan | ✍ Knowing the regulations on energy efficient application and energy standards  ✍ Using of monitoring tools for the energy efficiency |

**RECRUITMENT OF THE TARGET GROUPS (SITE MANAGERS AND TEAM LEADERS)**

In Greece, the RenovUP training was conducted online in May 2023. The participants are part of the workforce of the companies NIRIKOS and ERETBO SA that there were also conducted the observations.

|  |  |  |  |
| --- | --- | --- | --- |
| **Details of the training action in which the Renovup IO4 experiment is framed** | | | |
| **Name of the training action** | | **RenovUP training for site managers and team leaders** | |
| **Total duration** | 45 hours   * 24 hours for SM * 21 hours for TL | **RenovUP IO4** | 45 hours |
| **Training organization** | NIRIKOS & ERETBO SA | | |
| **Recruitment period** | February 2023 | | |
| **Access requirements** | No entrance studies required. Preferably with experience in the construction sector. | | |
| **Start date** | 05/05/2023 | **End date** | 27/05/2023 |

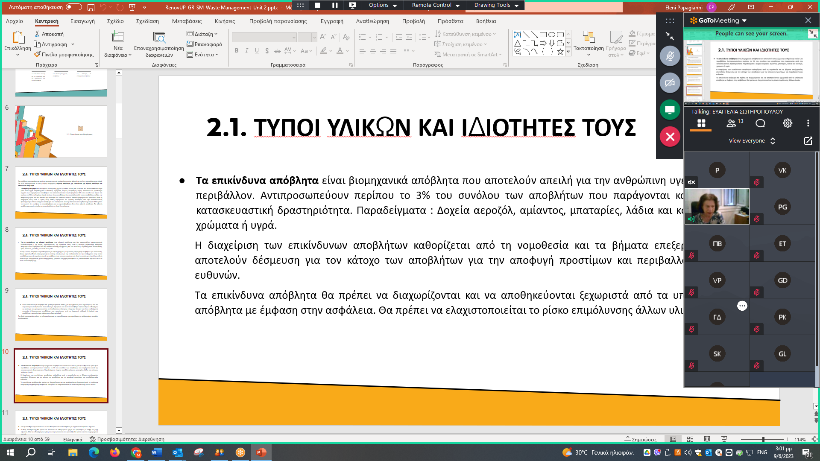
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STATUS/FUNCTION: SITE MANAGER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalization to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | Dedikousis Ioannis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 2 | Katsikaris Panagiotis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 3 | Koutroubas Spyridon | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 4 | Lagis Georgios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 5 | Papagiannis Ioannis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 6 | Papakostopoulos Ioannis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 7 | Theopoulou Eleni | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 8 | Dimitriadis Ioannis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 9 | Karkatzos Vasilios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 10 | Vassou Pamela | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 11 | Papadopoulou Vassiliki | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STATUS/FUNCTION: TEAM LEADER** | | | | |
| **Id** | **Name and surname of pupil** | **Itinerary of professionalization to be followed** | **Venues of the Professionalisation: Training Centre and/or Company** | **How their specific needs were identified**  **and their motivation for the proposed training** |
| 1 | Alexakis Georgios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 2 | Anastasopoulos Anastasios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 3 | Anesti Eleni | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 4 | Gousi Amalia | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 5 | Kalogeropoulos Nikolaos | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 6 | Moustis Vasilios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 7 | Pantoleon Georgios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 8 | Papadimitriou Ioannis | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 9 | Patsiamanis Antonios | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 10 | Rafailidis Rafail | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 11 | Stavropoulou Stavroula | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |
| 12 | Theodorakopoulou Ipatia | Week 1, 2, 3 & 4 | Online | IO3-Renovup grids 1 & 3 |

**INDIVIDUALISED PROFESSIONALISATION PATHWAYS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of the vocational training pathway** | | **Blocks/components chosen for the tests** | | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. |
| 1.  CDWaste management on renovation sites | | Description:  **Block 3: Management of technical and organisational aspects of the renovation site**  Component 3.3. Waste management on renovation sites: planning and management of waste bins, sorting and recycling.  operations (circular economy), and the use of appropriate monitoring tools. | | | Site Managers | | | Name and address of the training  centre/vocational school/other  organisation:  Online  Name(s) of trainer(s)  and its function(s):  Evangelia Sotiropoulou  Kyrkos Vasileios  Training hours: 12 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in  Renovup IO3 – IO4: NIRIKOS and ERETBO SA |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalization of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **RENOVUP learning objectives:**  ✍ Acquire knowledge to apply existing national regulations to carry out activities related to waste management and classification of waste  ✍Acquire knowledge regarding the appropriate actions to be undertaken on site concerning, waste identification, security measures and waste classification  ✍Acquire knowledge regarding CDW treatment and the importance of minimization and prevention of CD waste generation on site  ✍ Acquire knowledge regarding the environmental damage could occur in the absence of a good assessment and failure to recover materials from CDWaste and the LCA assessment  **Content (depending on specific national contexts):**  🕮 Regulations and requirements for the management and reuse of CDWaste  European legislation on waste  National waste management plans  National regulations transposing the revised Waste Framework Directive (WFD)  🕮 Waste management on renovation sites  Type of materials and their properties  The EWC CODE and the classification of CDW in the European List of Waste  Main differences between demolition and deconstruction  On-site norms for managing and recycling of CDWaste  Quality waste management  Waste recovery & treatments  🕮 Waste management activities in practice  Minimization and prevention of CD waste on site  Best practices for construction waste & demolition waste  🕮Life Cycle Assessment and environmental sustainability  Non-recovery of CDWaste: Environmental implications  Material Selection with the LCA method  **Teaching/learning methods and tools**  The training course combined theoretical and practical parts, multimedia resources and professional situations.  Mode: Online  Didactic resources: Power point, Q&A, assessments  **Organisation of the training process in companies**  None, the experimental training process was completed online with the participation of the workers.  **Assessment of learning outcomes**  Assessments on the Block 3 that were distributed after the end of the training to assure successful learning outcomes. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for the tests** | | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | |
| Energy saving standards in renovation projects | Description:  **Block 3: Management of technical and organisational aspects of the renovation site**  Component 3.4: Integration of energy saving standards in renovation projects and use of appropriate monitoring tools. | | | Site manager | | | Name and address of the training  centre/vocational school/other  organisation:  Online  Name(s) of trainer(s)  and its function(s):  Evangelia Sotiropoulou  Kyrkos Vasileios  Training hours: 6 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 – IO4: NIRIKOS and ERETBO SA | |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **Learning objectives:**  ✍ Acquire knowledge on the key policy and legislative drivers, relevant to energy saving renovation  ✍ Explain the key construction principles, techniques and products for sufficient energy renovation  ✍ Acquire knowledge on the energy profile of buildings and the role of heat  ✍ Acquire knowledge regarding energy monitoring tools  **Content (depending on specific national contexts):**  🕮 Regulations and requirements of energy saving renovation  Key policy and legislative drivers of Energy Saving Renovation  Explain the key energy terms and units associated with energy efficient buildings  🕮 Construction principles, techniques, and products for sufficient energy renovation  Continuous Insulation, Thermal Bridging and Air Permeability  Techniques for primary energy demand reduction  🕮 The energy profile of Buildings and the role of heat  The modes of heat transfer and the principles of heat transferring  Factors affecting energy use in buildings  🕮Energy saving monitoring tools  Principles of heat loss mechanisms and calculations on building components  The role and importance and the Energy Assessment Procedures (EAP)  **Teaching/learning methods and tools**  The training course combined theoretical and practical parts, multimedia resources and professional situations.  Mode: Online  Didactic resources: Power point, Q&A, assessments  **Organisation of the training process in companies**  None, the experimental training process was completed online with the participation of the workers.  **Assessment of learning outcomes**  Assessments on the Block 3 that were distributed after the end of the training in order to assure successful learning outcomes. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | | |
| CDWaste management on renovation sites | Description:  **Block 3 : Management of technical and organisational aspects of the renovation site**  Component 3.3. Waste management on renovation sites: planning and management of waste bins, sorting and recycling.  operations (circular economy), and the use of appropriate monitoring tools. | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  Online  Name(s) of trainer(s)  and its function(s):  Evangelia Sotiropoulou  Kyrkos Vasileios  Training hours: 12 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 – IO4: NIRIKOS SA and ERETBO SA | | |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **Learning objectives:**  ✍ Acquire knowledge to apply existing national regulations to carry out activities related to waste collection and treatment.  ✍ Acquire knowledge regarding the appropriate actions to be undertaken on site concerning requirements and  procedures, the Selective demolition and recycling plan and procedures regarding Inert materials from CDW activities  ✍ Acquire knowledge regarding General Treatment Techniques for CDW  ✍ Acquire knowledge regarding on sustainability assessment tools on CDW  **Content (depending on specific national contexts):**  🕮 Waste management standards  National Framework: Current regulations on waste collection and treatment  🕮CDWaste Management and Recycling in practice  Waste treatment activities on-site  On-site reuse and recovery: Requirements and Procedures  Selective demolition and recycling plan  Inert materials from CDW activities (identification, source separation and collection)  🕮General Treatment Techniques for CDW  Dismantling and demolition waste: An introduction  On-site sorting and safe storage of CDWaste  Processing on-site for re-use and recycling  🕮 Sustainability Assessment tools in practice  LCA, LCC and ELCC methods: An introduction  Applying LCA, LCC and ELCC methods  **Teaching/learning methods and tools**  The training course combined theoretical and practical parts, multimedia resources and professional situations.  Mode: Online  Didactic resources: Power point, Q&A, assessments  **Organisation of the training process in companies**  None, the experimental training process was completed online with the participation of the workers.  **Assessment of learning outcomes**  Assessments on the Block 3 that were distributed after the end of the training in order to assure successful learning outcomes. | | | | | | | | |
| **Name of the vocational training pathway** | **Blocks/components chosen for testing** | | **Audience** | | | **Training places**  Note: If you are NOT able to provide specific names at this stage, please define at least the profiles. | | |
| Energy saving standards in renovation projects | Description:  **Block 3 : Management of the technical and organisational aspects of the renovation work**  Component 3.4: Integration of energy saving standards in renovation projects and use of appropriate monitoring tools. | | Team leader | | | Name and address of the training  centre/vocational school/other  organisation:  Online  Name(s) of trainer(s)  and its function(s):  Evangelia Sotiropoulou  Kyrkos Vasileios  Training hours: 9 hours  Profile of the company(ies) involved  in planned work-based learning:  Construction and Renovation works companies participating in Renovup IO3 – IO4: NIRIKOS SA and ERETBO SA | | |
| **Teaching and learning process**  (Resulting from RENOVUP IO3, experimenting with SM & TL trainers the "Didactic tools for the professionalisation of site managers and team leaders in building renovation works, designed in relation to work situations" (IO1-A3b & A4 and IO2-A1) | | | | | | | | |
| **Learning objectives:**  ✍ Acquire knowledge on the key policy and legislative drivers, relevant to energy saving renovation  ✍ Explain the key construction principles, techniques and products for sufficient energy renovation via case studies ✍ Explain Construction principles, techniques and products for energy saving renovation  **Content (depending on specific national contexts):**  🕮 Regulations and requirements of energy saving renovation  Key policy and legislative drivers of Energy Saving Renovation  Explain the key energy terms and units associated with energy efficient buildings  🕮Construction principles, techniques and products for energy saving renovation  Continuous Insulation Thermal Bridging and Air Permeability  Ventilation systems and case studies  🕮The energy profile of Buildings and the role of heat  The modes of heat transfer and the principles of heat transferring  Factors affecting energy use in buildings  **Teaching/learning methods and tools**  The training course combined theoretical and practical parts, multimedia resources and professional situations.  Mode: Online  Didactic resources: Power point, Q&A, assessments  **Organisation of the training process in companies**  None, the experimental training process was completed online with the participation of the workers.  **Assessment of learning outcomes**  Assessments on the Block 3 that were distributed after the end of the training in order to assure successful learning outcomes. | | | | | | | | |

**SOME IMAGES**



**ASSESSMENT AND RECOGNITION OF LEARNING OUTCOMES WITH OPEN BADGES**

After the completion the RenovUp trainings, an online questionnaire with assessment regarding each component was distributed to the participants to address the learning outcomes.

The trainees successfully completed the assessment, thus PEDMEDE will provide the Open Badge of the Block 3 to the 23 participants.

**EVALUATION OF THE EXPERIENCE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | FULLY | ENOUGH | IN PART | NOT AT ALL | NOTHING |
| **1**. Did you find the content you experienced interesting? | 12 | 11 |  |  |  |
| **2.** Are they linked to your activity? | 11 | 12 |  |  |  |
| **3.** Have they provided you with new knowledge to develop your professional activity? | 9 | 13 | 1 |  |  |
| **4.** Are you satisfied that you participated in this experimentation? | 11 | 12 |  |  |  |

# **Conclusion: Conditions for the Sustainability of Results**

The training pathways conceived with the RenovUp project take as their starting point and as their end point very real and contextualised professional situations, linked to the real constraints of renovation sites in each country of the partnership. It is therefore in taking these situations into account, in a pragmatic way, that the greatest innovation of the RenovUp project lies. However, throughout its implementation, the partners have realised that focusing training courses on the acquisition of a "competence in situation" is undoubtedly a more complex task than the transmission of knowledge and experimentation with no direct link to the unpredictable and complex situations experienced by building renovation companies.

If the effort and innovation initiated with the RenovUp project are to continue, the partners have identified questions to which answers must be found at each national level. First, the partners consider that it is unrealistic to design a single transnational model for training site managers and team leaders for building renovation sites, given that there are different and complex job approaches from one country to another concerning these professional profiles. Moreover, the complexity of finding a common definition for “renovation works” implies the necessity to diversify the training objectives, contents, and methods.

A huge effort made by the partners to work with the practitioners (from companies and training centres) from the very beginning was the essential condition of the success of the project. Therefore, the collaboration initiated with them must continue, as the reality of the learning provided in vocational schools are often far from the complexity of renovation worksites in many partnership countries. This has not prevented the two from working effectively together, fostering a better understanding of each party's constraints. This joint effort should be continued, with the presence of trainers in companies and tutors in training centres being formalised, even if some teachers are not sufficiently motivated for going to companies, and some company tutors are not fully convinced that their visits to VET schools could be fruitful.

RenovUp was line with new regulations in the partnership countries related to the work based-learning, specific trainings in response to energy saving, circular economy and adjusted health and safety rules applicable to renovation worksites, combined with an in-depth analysis of the professional profiles of renovation site managers and team leaders, and with a clear identification of what will be needed in terms of skills and competences. This constitutes a sound basis for a further implementation of the project outcomes in the partnership countries and beyond, on the condition that the stakeholders know the added value brought by the project.

Therefore, it is essential to continue dissemination and valorisation actions at each national level, based on several pragmatic principles: promotion of goods practice of work-based learning initiated within the framework of RenovUp when meeting VET teachers, trainers and company tutors, publication of articles in the specialised revues on the experience made, as well as development of contacts with local and regional VET stakeholders and decision makers to demonstrate them the benefits from the RenovUp methodology for a better satisfaction of company needs in terms of skills and competences of the related audience.

The experimental phase has demonstrated that RenovUp has a robust methodology where real work situations are fully considered to identify the needed skills and competences. This point justified a frequent enthusiasm of company owners from the building renovation sector to participate in the experimental trainings. Moreover, these experimental trainings made it possible to pragmatically update many of existing curricula, to touch still more the reality of the professional profiles concerned. From the methodological point of view, the experimental actions contributed to develop a more dynamic educational relationship with companies, thanks to a common design of additional methods and tools for the analysis of work situations and evaluation of learners’ progress on renovation worksite (a real innovation of the project).

On the other hand, the experimental phase has also demonstrated the difficulty of involving technicians and workers from the renovation worksites in the reflection of the skills to be developed, due to the workload. In parallel to this, the experimentation has demonstrated that many VET trainers/teachers are not very used to practice work-based training and learning, and their preference goes to traditional courses, even if the situation varies from one country to another. However, these audiences are curious about the potential benefits of increasingly individualised teaching methods, enabling them to move away from the reference frameworks and focus more closely on the specific expectations of companies and learners. This is why the development of truly modular training pathways that can be adapted to specific professional situations and needs is, according to the partners, one of the strategic areas to be explored in the context of VET. RenovUp contributes to this.