

# **BUILD UP SKILLS SPAIN**

## ***Construye 2020***

### **WP1. Gestión. Seguimiento y Calidad. Comunicación interna**

#### **D1.3 Final results oriented publishable report**



**Intelligent Energy-Europe Programme**

Build Up Skills - Call 2013

Contract number:

**IEE/12/BWI/346/SI2.659665**

This project has been funded with support from the European Commission.

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This report was created within the programme Intelligent Energy Europe under the initiative Build Up Skills Pillar II. The name of the project is **BUILD UP SKILLS SPAIN**, Construye 2020, contract number IEE/12/BWI/346/SI2.659665.

**Fundación Laboral de la Construcción** is the promoter of this project.

The partners of this Project are:

- ✓ Instituto Nacional de las Cualificaciones Profesionales (INCUAL)
- ✓ Centro de Investigaciones Científicas (CSIC-Instituto Torroja)
- ✓ Fundación Tripartita para la Formación en el Empleo (FTFE)



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## Introduction

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In line with Directive 2009/28/CE (RES directive) of the European Parliament and of the Council, 23 April 2009, on the promotion of the use of energy from renewable energy sources, as well as the requirements for achieving “nearly zero-energy” buildings indicated in Directive 2010/31/EU, 19 May 2010, on the energy performance of buildings, the Spanish national strategy responded to the principle of sustainability, considered from three angles, economic efficiency, social equality and environmental quality. This strategy gives priority to actions aimed at renovating buildings.

To cover the training needs derived from the launch of the different strategies, the Spanish state has a specific legislation and several instruments, such as the Training System for Employment, which regulates vocational training for the employed and unemployed, the National System of Professional Qualifications, which is developing the National Catalogue of Qualifications, and designing the procedures to assess, acknowledge and accredit professional competences, as well as initial and formal training.

But, despite the legislation and instruments, the status quo<sup>1</sup> analysis stated that the VET system and the energy restoration activity needed:

- Key competences related to EE and RES such as geothermal and biomass heating installations, insulation, carpentry installation, etc.
- New training actions and schemes to cover training needs on EE and RES
- Implementation of some mechanisms to improve the performance of the VET system.
- Stimulation of the demand of energy restoration activities.

All these needs became concrete actions set up in the roadmap. The BUSSII project wanted to put into motion the most relevant ones to overcome the detected barriers and contribute that way to attain 20-20-20 targets.

To develop the BUSSII project, a work programme was organised around 8 phases, which were translated and grouped into sequential and operational development tasks.

The consortium created to develop BUSSII perfectly covered all the possible perspectives and approaches of the project, being the best suited partnership in Spain to carry out the actions proposed in this initiative, was made of:

- **Labour Foundation for Construction (FLC):** Bipartite non-profit foundation that provides training for construction workers at a national scope.
- **National Qualifications Institute – Ministry of Education (INCUAL):** National Public Authority in charge of developing professional qualifications.
- **National Research Council (CSIC):** Multidisciplinary public research organization

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<sup>1</sup> Developed under BUILD UP SKILLS SPAIN PILLAR I

- **Tripartite Foundation for Training for Employment (FTFE):** National public entity in charge of managing permanent training



# National background

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## (a) National strategies in the building sector to contribute to the EU 2020 energy targets

The Spanish national strategy responded to the principle of sustainability, considered from three angles, economic efficiency, social equality and environmental quality, giving priority, at the present time, to actions aimed at renovating buildings, improving urban spaces and territorial cohesion, as the existing buildings are the ones that contribute the most to energy expenditure and it is foreseen that a lot less new buildings will be constructed than in the previous economic cycle.

Given that the building sector has traditionally been orientated in Spain towards the construction of new buildings, especially insofar as the residential sector is concerned, the policy development of strategies aimed at the restoration of buildings is much less important than that of strategies related to new construction. These strategies are materialised in:

### **Improvement of the existing urban fabric in order to improve the environmental quality and reduce energy consumption and CO2 emissions:**

- Creation of new areas of centrality, fostering the mix of urban uses and proximity.
- Prioritisation of the recuperation and restoration of the city with respect to the creation of new expansion sectors, absorbing the growth within it, in agreement with physical and functional proximity and compactness criteria, and the rational use of infrastructures, equipment and amenities.
- Promotion of measures aimed at integrating those uses that are compatible with the residential function into the urban fabric, in order to favour the approximation of amenities and equipment to the residential community, avoiding unnecessary travelling and its subsequent environmental impact.
- Preparation of a Bill on Energy Efficiency and Renewable Energies within three months from its entry into force, in order to adopt the necessary measures to advance in the compliance with its objectives.
- Promotion of the Local Agenda 21 for tourism and Tourist Facilities Renovation Plan (Tourism Plan Renove).

### **Improvement of the energy performance of the building stock:**

- Promotion of actions to increase energy efficiency in old buildings via subsidies or incentives (national or regional).
- Renovation of the Thermal Envelope of Existing Buildings

- Improvement of the Energy Efficiency of Thermal Installations of Existing Buildings. Promotion of the use of biomass for thermal uses in buildings and Plan Renove of high-energy performance boilers.
- Improvement of the Energy Efficiency of Indoor Lighting Systems of Existing Buildings.
- Renovation of the municipal public lighting system to achieve energy efficiency.
- Plan RENOVE for Household appliances.
- Cogeneration Potential Development. Aid to non-Industrial Cogenerations and micro-cogeneration.
- Tax relief and economic aid to owners who start restoration works.

**Establishment of minimum energy performance in new buildings and in those that undergo major reforms, evidencing this by means of energy efficiency labels:**

- Reform of the current Spanish Technical Building Code (CTE) in order to increase energy saving and performance of new construction buildings and considerable work involving the extension, modification, reform or renovation that is carried out in existing buildings, via:
- Promotion of the application of the Regulation on Thermal Installations in buildings (RITE) which complements the CTE as it constitutes the basic regulatory framework whereby the demands for energy efficiency and safety is regulated, and which the thermal installations in buildings must satisfy: Heating, ventilation and air-conditioning, and domestic hot water, foreseeing a progressive replacement of less energy efficient installations.
- Energy certification of new construction buildings in order to evaluate the energy efficiency of the property and its CO2 emissions, which is evidenced by means of energy labels placed at the disposal of the purchasers or users of those buildings when these are sold or rented.
- Energy certification project for existing buildings that must possess an energy efficiency certificate within certain time intervals.
- Transposition of the Directive 2010/31 on Nearly Zero-Energy Buildings.

**Associated Regulations:**

- Technical Building Code in 2012
- Sustainability Strategies of Autonomous Communities and municipalities (A21L)
- Spanish Energy Saving and Efficiency Strategy
- Spanish Climate Change and Clean Energy Strategy 2007-2112-2020
- Spanish Sustainable Development Strategy
- Spanish Sustainable Mobility Strategy
- Spanish Urban and Local Sustainability Strategy
- Law 2/2011, 4 March, on Sustainable Economy
- Law 45/2007, for the sustainable development of the rural environment
- Energy Saving and Efficiency Action Plan 2008-2012
- Energy Saving and Efficiency Contingency Plan 2011
- State Housing and Renovation Plan 2009-2012
- Tourism Plan 2020
- Bill on Energy Efficiency and Renewable Energies.

- Royal Decree 47/2007, 19 January, whereby the basic procedure for the certification of energy efficiency of new construction buildings is approved.
- Regulation on thermal installations of buildings (RITE)

**(b) Current education and continuing training system relevant for building sector in the concerned country/countries**

Vocational Training is currently regulated by Organic Law 5/2002 (19 June), on Qualifications and Vocational Training, and by Organic Law 2/2006 on Education, which develops Vocational Training within the Education system, respecting the aspects established in Organic Law 5/2002.

Thus, its objective is to facilitate the integration of the different forms of certification and accreditation of the competences and professional qualifications, fostering life-long learning and integrating the different education offers. It also aims to develop a comprehensive system for vocational training, qualifications and accreditation, which will efficiently and transparently respond to the social and economic demands, adapting to the different personal and professional expectations and situations.

The reference for the organisation of the entire education offer, aimed at qualifications and vocational training, is the National Qualifications and Vocational Training System. This national system has different instruments:

- The National Institute of Professional Qualifications: launch and maintain the catalogue of qualifications and establish procedures to accredit competences, among other functions.
- The National Catalogue of Professional Qualifications: this instrument is a benchmark to develop the offers of formal vocational training qualifications (Ministry of Education) and the professional certificates (Ministry of Work). Three professional families have to do with energy efficiency and renewable energies applicable in the building sector, namely: Family of Building and Civil Works (EOC), Family of Energy and Water (ENA) and Family of Installations and maintenance (IMA)
- A procedure to acknowledge, assess, accredit and register vocational qualifications acquired through formal training-education or informal training and/or professional experience.

On the other hand, Royal Decree 395/2007, 23 March, regulates the different continuous training initiatives that make up the vocational training sub-system for employment, whose aim is to favour lifelong training of both employed and unemployed workers, improving their professional and personal development. The management of the different initiatives, as well as of the public funds available is carried out by the Tripartite Foundation for On-the-job Training, which coordinates initiatives such as:

- Demand training that encompasses company training actions and individual training authorisations.
- Supply training, which includes training plans aimed mainly at employed and unemployed workers, whose training offer is established via sectoral reference plans prepared by representative entities of the different sectors. In the construction sector, it is the **Labour Foundation for Construction Sector** that prepares this proposal each year, after previously detecting the needs. An important part of the training offer established in the reference plan, sets out to cover the training needs in activities related to energy efficiency and, where appropriate, renovation.
- The support and accompanying actions related to training and training alternating with employment, such as, for instance, the education simulator on energy efficiency currently being developed by the FLC.

### (c) Upgrading of existing schemes

#### Vocational Training qualifications

Professional training in the educational system regulated by **Royal Decree 1538/2006, 15th of December**, consists of a combination of training cycles organised into professional modules of a variable length and with theoretic and practical content, suitable for various professional fields including a training module in work centres.

Training cycles are mid-grade and higher-grade and are referred to the National Catalogue of Professional Qualifications. The curriculum of this training is adjusted to the demands derived from the NQTS.

The aim of this vocational training is that students acquire the capabilities, among others, to allow them to develop the general competence relating to one or more qualifications from the studies conducted. The degree that would be aimed by this project is the mid-grade degree:

	Mid-grade Training Cycle
EOC2	Construction Finishes
EOC	Construction
EOC	Bricklaying Work
IMA3	Heat production installations
IMA	Air-Conditioning and Cooling Installations
IMA	Assembly and maintenance of cooling, heating and air-conditioning

This training is provided specially by public institutions but there are quite a few private providers homologated by the Ministry of Education given this kind of training as well (for instance the Labour Foundation for Construction)

#### Certificates of Professional Standards

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<sup>2</sup> Civil Building Works

<sup>3</sup> Installations and maintenance

Certificates of professional standards regulated by **Royal Decree 34/2008, 18th of January**, consist of training courses aimed at the gaining and improvement of professional skills and qualifications. Training aimed at obtaining certificates of professional standards is carried out in a modular manner with the aim of favouring partial accreditation which can be accumulated which allows the worker to advance in their vocational training program regardless of their working situation at any given moment.

Each professional certificate accredits a professional qualification from the NQC. Professional certificate training modules are those in the Vocational Training Modular Catalogue.

Family	Code	Level	Professional certificate
EOC	EOCB0108	2	Bricklaying
EOC	EOCB0109	1	Auxiliary functions relating to continuous coating in construction
EOC	EOCB0208	1	Auxiliary functions relating to bricklaying in factories and roofs.
EOC	EOCI10	2	Plumber
EOC	EOCL50	2	Plasterer
ENA4	ENAE0108	2	Assembly and maintenance of photovoltaic solar installations
ENA	ENAE0208	2	Assembly and maintenance of solar thermal installations
ENA	ENAS0110	2	Assembly, implementation, maintenance, inspection and review of gas equipment installations
IMA	IMAI0108	1	Functions relating to plumbing and domestic air-conditioning and
IMA	IMAR0208	2	Assembly and maintenance of air-conditioning and ventilation-extraction installations
IMA	IMAR0408	2	Assembly and maintenance of heating installations

This training is mostly provided by private institutions homologated by the Ministry of Labor.

### Permanent training

Apart from official paths there is a permanent or continuous training offer that is organized around training programmes proposed annually by social agents. This offer is launched every year but the majority of the cases its definition does not pay attention to building sectors needs, so sometimes it is fragmented and lacks accuracy.

Bear in mind the explanation above and according to the roadmap some of these professional qualifications, training schemes and training offers needed to be either developed, upgraded or organized due to several factors stated in the analysis on skills gaps and training needs described in the status quo report. This important action had to do with at least the following occupations and skills:

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<sup>4</sup> Energy and water

## Occupations

Joint sealant operator

PVC and aluminium installer

Installer of solar thermal systems

Bricklayer

Installer of geothermal energy systems

Installer of biomass energy systems

Plumber

Installer of photovoltaic systems

## Skills

Carpentry installation and assembly

Hot water installations

External closures and facades

Insulation of roofings

Plumbing installations

Electricity generation

Conventional partitions

Air-conditioning installations

## General objective

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**To provide building workers in Spain with the competences and skills required in the fields of Energy Efficiency (EE) and Renewable Energy Systems (RES) in order to contribute to achieve 2020 energy objectives.**

This proposal aimed to attain this general objective by implementing the activities identified in the roadmap developed in the BUILD UP Skills Spain Pillar I. These actions were designed to improve the Vocational Education and Training system and the qualifications framework as well as to develop training tools and schemes that allowed to train and qualify workers in EE and RES, considered as key matters to reach 20-20-20 targets.

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graph TD; A[Improve competences and skills of building workers] --> B[As an effective way to contribute to achieve 2020 energy objectives]
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Improve competences  
and skills of building  
workers

As an effective way  
to contribute to  
achieve 2020 energy  
objectives

## Specific objectives

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The specific objectives were:

### **1. To develop training schemes that have been prioritized in the roadmap, in order to be put into motion by training centers and building companies:**

- To design training actions.
- To select and develop training resources.
- To design new training itineraries.
- To validate the training that has been developed within the project from a technical and pedagogical point of view.

### **2. To improve the design of the existing qualifications as well as associated training.**

It aimed to incorporate key competences considered as necessary in the field of EE and RES in those current qualifications related to the achievement of 2020 goals. It also aimed to design the training contents of each new competence and to adapt professional certificates already available to on-line modality.

- To review the existing qualifications.
- To design new competences to be included in the National Catalogue of Professional Qualifications.
- To design new training contents related to new competences.
- To adapt the training contents to on-line modality.

### **3. To develop an educative simulator to serve as an interactive training resource in order to be used in training courses on installation of RES**

- To design and develop an educative simulator to train and qualify trainees in the installation of geothermal energy heat systems.
- To design and develop a training simulator to train and qualify trainees in the installation of heating systems by combustion of biomass.

### **4. To develop those mechanisms identified on the roadmap in order to improve the Vocational Education and Training Spanish system.**

- To design, plan and implement an observatory for prospecting the evolution of occupations, qualifications and training needs in the EE and RES field.
- To improve the quality of the National Qualification and Training System.
- To create an integrated platform of information and guidance in the NQTS field

### **5. To inform and to raise awareness of users of buildings in order to incentivize demand of restoration activities in the EE and RES field.**

- To launch a campaign about different solutions available on EE and RES.



- To carry out the awareness campaign “Build Up Green”, by using a mobile unit to reach Spanish key cities and their citizens.

#### **6. To design and plan the communication actions that will be carried out during the implementation of the whole project.**

It required the involvement of stakeholders from the field of EE and RES in buildings on one hand, and qualification and vocational training on the other hand. This interaction contributed to exchange good practices and to get synergies between BUSSII project and other initiatives already into motion both at national and European level, thereby improving the diffusion of project’s outcomes, its sustainability and its final impact.

#### **7. To monitor and evaluate systematically the quality of the project, in a planned and systematic way, counting on the participation of all the partners.**

On one hand, this monitoring aimed to ensure that the planned objectives were achieved, since efficacy, efficiency, relevance and coherence of the activities were evaluated according to the foreseen impacts. On the other hand, the quality procedures set up in the plan guaranteed an easier systematic correction.

- To design a monitoring and quality plan.
- To plan the collection of information during project life time.
- To design and plan the internal communication plan.



# Activities

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## **WP1. Management**

### *1.1 Objectives*

The main objectives of this phase were developed to carry out the initial planning as well as the global coordination of the project, as well as:

- Managing global and internal meetings, dissemination, seminars.
- Reviewing and controlling the project team roles, tasks and responsibilities. Following up the Quality Plan.
- Updating the dissemination plan. Upgrading the project website.

### *1.2 Mayor activities and achievements:*

#### **Follow-up and Quality**

- *Project quality and follow-up plan including project meetings*

The Quality Plan was developed by the coordinator and approved by the partnership, providing constant information regarding the project progress at physical, financial and technical level. The methodology was based on the product and the management system.

#### **Internal communication**

- *Collaborative working space 2.0.*

The internal communication between partners was established through a Google free application (<https://sites.google.com/site/buildupconstruye2020/>) where the partners shared internal documentation of the project as working files, financial documentation, agenda, etc..., as well as other useful tools for the joint management of the project.

Furthermore, other communication channels were used such as videoconferences to overcome any implementation pitfalls and continuous internal meetings between a partner and the coordinator.

## **WP2. Development of training actions and didactical resources.**

### *1.1 Objectives*

WP2 was devoted to design training actions in order to cover short-term needs of workers on EE and RES, gaps that Spanish VET system already presented that were detected in the Status quo analysis carried out during BUS Pillar I, considered as key topics to reach 20-20-20 energy targets.

### *1.2 Mayor activities and achievements:*

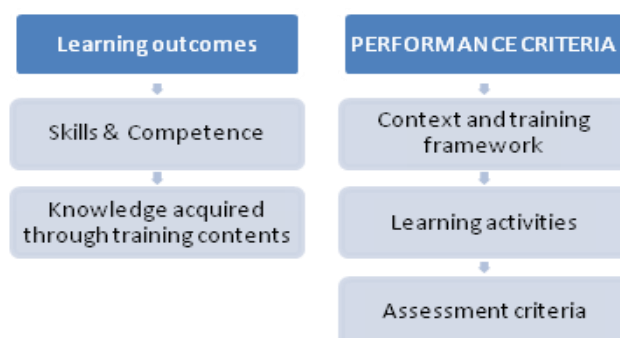
#### **New training schemes and actions**

- *Collection of actions developed:*

TRAINING ACTIONS	Documentary analysis	Competences map	Training designs <sup>5</sup>	Developed by
Profitable economic parameters in EE	✓	✓	✓	AIDICO
Placement of insulation	✓	✓	✓	ANDYMAT
Aluminum and PVC carpentry	✓	✓	✓	ASEFAVE
Heating and air-conditioning	✓	✓	✓	Santiago Durán
Energy efficiency in buildings	✓	✓	✓	Oscar Redondo
Renewable energy systems in buildings	✓	✓	✓	Oscar Redondo
Geothermal energy installations	✓	✓	✓	GEOPLAT
Biomass energy installations	✓	✓	✓	BIOPLAT
Retraining trainers in EE and RES.	✓	✓	✓	FLC

Qualification programs were developed following the methodology established for the definition of the Qualifications **according to the National Qualification Framework (NQTS) and the European Qualification framework (EQF)**

These skills were acquired through that training designed to get professional competences.



All this training actions are described in detail on the following link:

<http://construye2020.eu/construye2020/descargas/coleccion-acciones-formativas>

### ***Selection and development of didactical resources***

- *Didactic guides for trainer and trainee by training action.*

In order to facilitate the teaching and learning process both trainers and trainees, the project produced a didactic guide for each training action *that gathered all the key information to provide the course.*

- *Contents manual by training action*

We have developed 9 training manuals, one per training action.

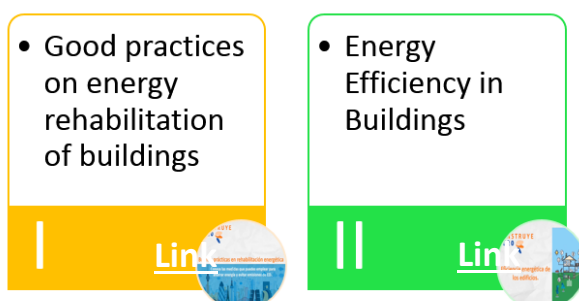
<sup>5</sup> Formulation of objectives; Definition of contents; Didactic methods; Assessment system



The contents were adapted to blue collar workers, so they have lots of pictures, diagrams, photos, and so on and little wording.

These manuals are available for free on the following link:  
<http://construye2020.eu/plataforma-sobre-formacion-profesional/recursos-de-formacion>

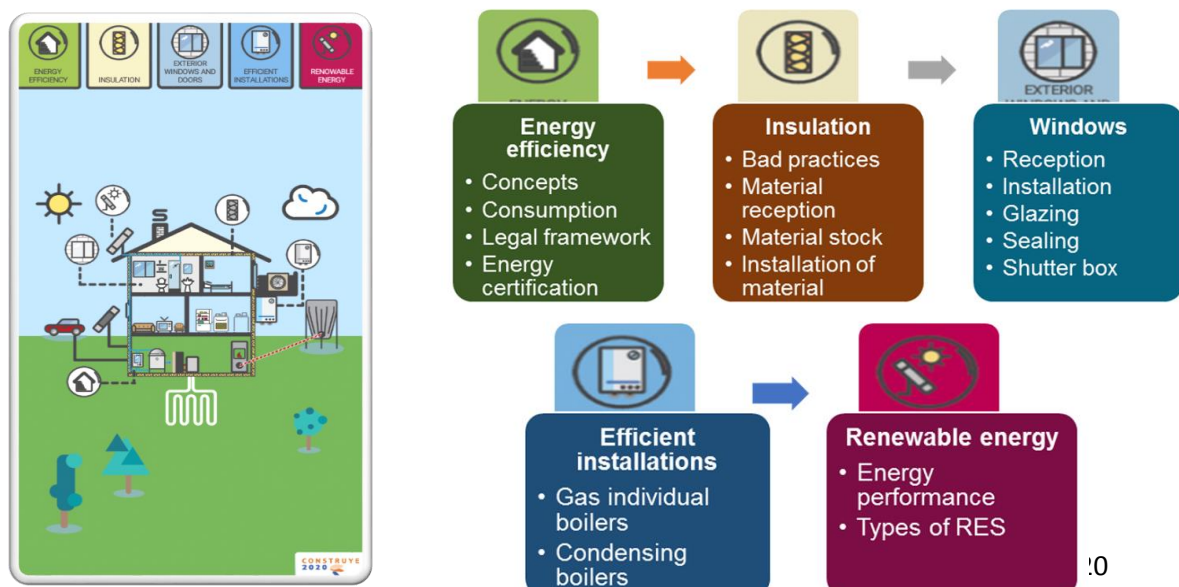
The project also developed two open webinar in order to support face-to-face training actions and foster self-learning:




- App with the training simulator

### App “Construye 2020”

One of the best results achieved during the project was the implementation and launching of the APP “Construye 2020” about good practices on EE that included not only the training simulator on geothermal and biomass energy systems foreseen in the initial proposal, but also another important parts for energy renovation such as insulation, energy efficiency, installations, etc.



APP is available for free on Google Play (ANDROID) and Apple Store (IOS).

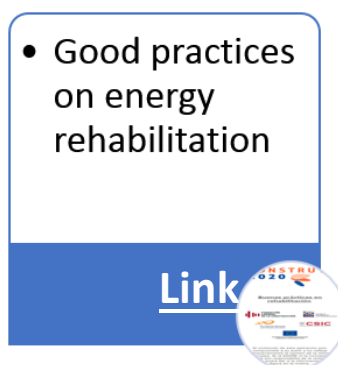
Platform	Languages available	Links	Downloads
 Google play	Spanish	<a href="#">Construye 2020</a>	2.369
	English	<a href="#">Build up 2020</a>	68
 App Store	Spanish	<a href="#">Construye 2020</a>	119

Another easy way to find it is by typing “Construye 2020” for the Spanish version and “Build up 2020” for the English one on each platform browser.

The overall number of downloads, especially for ANDROID devices (far more popular in Spain than pretty expensive IOS devices) shows the sound success of the APP.

### Good practices on rehabilitation

Based on the contents from the App explained above, we also developed a shorter version for PC on good practices on rehabilitation<sup>6</sup>:



## WP3. Pilot trials.

### 1.1 Objectives

In order to evaluate the quality of the work carried out in WP2, it was essential to put into practice the training actions developed, with the aim of validating them from a technical and pedagogical point of view.

### Mayor activities and achievements:

#### Experts validation

The trainer played a very important role during the execution of the trial actions, because they were judge and jury of the training process. Their tasks have been:

\*To validate the training schemes and pedagogical material developed.

<sup>6</sup> [http://web2020.anedma.com/microsites/que-sabes-de-ee/Inicio\\_r.html](http://web2020.anedma.com/microsites/que-sabes-de-ee/Inicio_r.html)



\*To adequate the training schemes to the learning group.

### ***Pedagogical validation***

As displayed in the table below, we developed 25 courses with a participation of 429 trainees for more than 1.400 hours of training. The table also shows that five of these courses were financed by the project, while the rest 20 were financed by national funds, concretely by the National VET Plan for Permanent Training for Employment.

Nº	Training actions	Nº Courses	Hours/ course	Total hours	Trainees	Pilot financed by
1	Placement of insulation	1	60	60	17	BUSSII
2	Aluminum and PVC carpentry	1	60	60	17	BUSSII
3	Renewable energy systems in buildings	1	30	30	17	BUSSII
4	Geothermal energy installations	1	90	90	17	BUSSII
5	Retraining trainers in EE and RES.	1	30	30	17	BUSSII
6	Profitable economic parameters in EE	1	20	20	15	National VET Plan
7	Heating and air-conditioning	3	60	180	45	National VET Plan
8	Energy efficiency in buildings	15	60	900	268	National VET Plan
9	Biomass energy installations	1	60	60	16	National VET Plan
<b>TOTAL</b>		<b>25</b>		<b>1430</b>	<b>429</b>	



*Aluminum and PVC carpentry, Madrid*



*Renewable energy systems, Albacete*



*Geothermal energy, Zaragoza*



*Insulation works, Córdoba*

## **WP4. Upgrading of existing qualifications and training.**

### **1.1 Objectives**

The main aim of this phase was to review and upgrade those existing qualifications that, as it was stated in the SQ analysis, need updating. Besides, the SQ showed that the NQTS lacked competences related to the installation of geothermal systems, so this WP aimed to develop these new competences as well. Finally, another important goal of this phase was to adapt some contents to on-line modality.

### **1.2 Mayor activities and achievements:**

#### **Revision of existing qualifications**

- *Report with the adaptations made to the qualifications related to EE and RES*

As stated in the report provided by INCUAL and signed by its Managing Director, several qualifications were reviewed following the considerations and recommendations emanated from the Build up Skills initiative. During project lifetime 15 qualifications were fully upgraded and 6 more were reviewed.

#### **Development of competencies on geothermal systems**

- *New qualification on geothermal energy systems developed and adopted in the NQS*

As geothermal system seemed not to have sufficient substance to become a complete qualification compare with the “weight” of others qualifications of the Spanish Catalogue of Qualifications” (conclusion defined in accordance with all the partners), INCUAL decided to create a “competence unit” (set of competencies) to be attached to an existing related qualification.

During the project we managed to take the following steps:

- \*We initiated the legal procedure
- \*We started up the documentary analysis
- \*We created the working groups, which included GEOPLAT (the entity that designed the training scheme and didactical material of geothermal activities in the project).

#### **Adaption of professional certificates to on-line modality**

- *Collection of professional certificates adapted to e-learning*

Several contents related to professional certificates were adapted to e-learning, with the aim of starting to provide the theoretical part of the training throughout this mean.

This on-line materials can be found on the following link:

<https://www.campusfundacion.org>

Usuario: EASME

Contraseña: Construye2020

## **WP5. Mechanisms to enhance the VET system.**

### **1.1 Objectives**

The main objective of this work package was to improve the Spanish VET system by launching some actions that experts identified in the roadmap as key drivers to have a system that could quickly anticipate changes in the labor market as well as reacting swiftly to adapt the qualifications and their associated training to these unexpected movements.

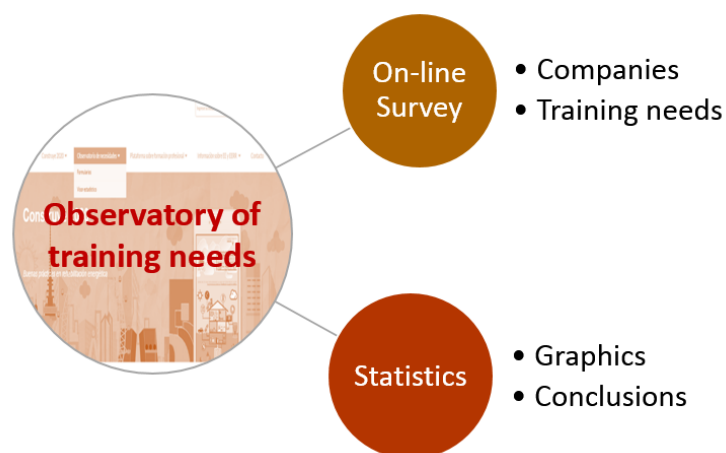
### *1.2 Mayor activities and achievements:*

#### ***Observatory and networks to anticipate changes in the market***

- *Prospective labor market observatory on EE and RES*

The project created a permanent observatory that aimed to anticipate changes in the labor market and related training needs, allowing that way to adjust the qualifications and training thereof.

That way, the building sector can count on with skilled workers well in advance to match real market demands. The observatory was composed of two tools:



#### ***On-line survey***

The on-line survey was a complete questionnaire that tried to gather information concerning training needs from companies from the construction sector, but also others aspects such as the utility of the training already provided, demand of new occupations, innovation, new labor contracts, etc.

#### ***Statistics visor***

The on-line survey was answered by 350 companies. The key results were shown on the statistics visor, which displayed the most important features and figures from the survey.

The observatory can be found by clicking on the following link:

<http://construye2020.eu/observatorio-necesidades/formularios/lorem-ipsum>

#### ***Integrated on-line platform to provide information and guidance***

- *Integrated on-line platform of information and guidance*

The RM came up with the conclusion that there are lots of webs that provided information and documentation about VET training courses. Most of these webs provided vague and



fragmented information, being really difficult to find out the course that the user is interested in. On top of all this, there were not webs specialized in informing exclusively about training related to energy topic.

For that reason, the project created an on-line platform about the training available related to EE and RES topics.



The VET platform contains a complete browser to guide the user in the selection of the most suitable VET course for him/her. Also, users can find detailed information on:

<http://construye2020.eu/plataforma-sobre-formacion-profesional/que-curso-necesito>

- \*Access requirements
- \*Objectives
- \*Career opportunities
- \*Availability of the course

This platform contains also the training resources section already explained in WP2.

## **WP6. Endorsement by stakeholders.**

### **1.1 Objectives**

The aim of this phase was to get the involvement of the market actors and stakeholders relevant to the topics covered in the “Construye 2020” project. To achieve this, several activities were implemented to get the endorsement of these key players, with the final aim of guarantying the impact of project’s outcomes and its sustainability.

### **1.2 Mayor activities and achievements:**

#### **Stakeholders communication**

- *BUS commitment document*

During the first stages of the project, the “BUS commitment” was signed by 21 key actors in which they declared their endorsement to the project as well as their intention to put into practice the outcomes and results got during project execution.

Also, during the Construye 2020 mobile we got the endorsement of 100 regional stakeholders (councils, Autonomous Communities, VET public entities, etc.)

It is noteworthy to highlight that best endorsement to project outcomes was the integration of the new training actions within the **National Reference Plan for Training for Employment**. This plan is directly managed by the Ministry of Labour and FUNDAE, and serves as the basic reference to work out the permanent training offer for the construction industry.

### ***BUS qualification platform***

- *Report on the activities of the BUS qualification platform – foro “Construye 2020”*

During BUS Pillar I, we started up an online platform to provide stakeholders with a tool to share opinions, information, suggestions, and the like. This on-line tool was transitorily implemented on Blackboard, a well-known platform to provide e-learning courses.

For better results, we launched a new tool, more flexible and open to any sort of participant (workers, stakeholders, experts, etc.), on which they could ask any question related to EE and RES applied to buildings and/or share practical and technical information.

The “Construye 2020” forum is on the following link:

<http://foro.construye2020.eu/>

### ***Endorsement seminars***

- *Report on the seminars hold*

The partnership carried out three endorsement seminars during project lifetime, which had a very sound success.



The first seminar was held in Valencia in September 2014 and counted on the attendance of 78 participants (70 in the venue and 8 more from different countries on-line). During this seminar AIDICO mainly introduced the project to different kinds of stakeholders.

The second one took place in Madrid in March 2015. The seminar gathered 120 stakeholders coming from different fields: energy, education, construction, etc. This seminar was particularly devoted to present the new App “Construye” 2020

The last one was organized in Madrid in December 2015. In this case, we summoned 102 attendees mainly from public bodies. The seminar was devoted to present the new didactic materials created, the pilot experiences carried out and the first draft of the new “Construye 2020” platform.

## WP7. Communication.

### 7.1. Objectives

The main objective of this work package was to ensure the dissemination and communication of the Construye 2020 project in order to reach all the key actors and target groups related to the actions proposed in the project

### 7.2 Mayor activities and achievements:

#### Project communication plan

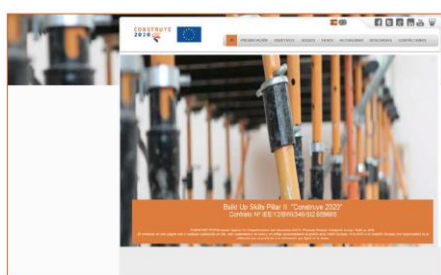
- *Project exploitation and dissemination plan*

The partnership worked out, approved and followed the dissemination plan of the project, which has guaranteed a very good dissemination thereof.

#### Project website

- *Website*

During the first months of the initiative, the website of the project was only a dissemination one, but after the platform became a reality all the contents from the former web were integrated on the new one.



First Construye 2020 website



New Construye 2020 website

Also, each partner included an specif space on their corporate websites to inform about the project.

### **Continuous dissemination of the project**

- *Project newsletters*
- *Press releases*

The project had a massive dissemination with more than 250 news published in different media. It is noteworthy the publication of "Construye 2020" project in really relevant general press such as El Mundo, La Vanguardia and 20 minutos, and specialized press such as Obras Urbanas, Construnario or Idealista.

### **BUILD UP Skills Construye 2020: information campaign**

- *BUILD UP Skills Construye 2020 in printed material*
- *Report on the outreach campaigns*

#### *"BUILD UP Skills Construye 2020" in printed material*

We produced two products to inform about project results:

\*Leaflet construye 2020

\*Poster construye 2020

This items are available on: <http://construye2020.eu/construye2020/descargas>

#### **"BUILD UP Skills Construye 2020" virtual"**

The construye 2020 platform ([www.construye2020.eu](http://www.construye2020.eu)) consisted in a green on-line point to inform all target groups about EE and RES. Also, it contained all the outcomes, tools and products developed in the project. It was made of 6 sections:

\*Construye 2020: Project information

\*Observatory of needs: online survey and statistics visor

\*Training platform: training course browser and didactic materials.

\*Information on EE and RES:

- Good practices about rehabilitation: online seminars, downloads and link to [www.construyeficiente.com](http://www.construyeficiente.com), a new platform that put in contact clients and building companys.
- Technical documentation
- Interesting links

\*Contact

\*Forum

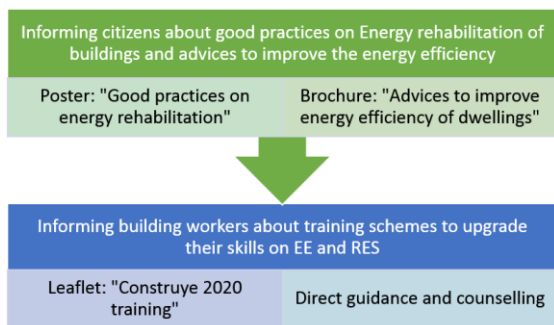
#### **"BUILD UP Skills Construye 2020" hot line**

The partnership created a specialized on-line forum on EE and RES and the [www.construyeficiente.com](http://www.construyeficiente.com) tool, in order to provide this consultative service and guarantee its sustainability beyond project end.

#### **"BUILD UP Skills Construye2020" mobile**

- *D7.8. Report on the activities undertaken under BUILD UP Skills Construye 2020 mobile*

The Construye 2020 mobile consisted in a customized small truck that visited during almost two months several Spanish cities, with the aim of:



All this material can be downloaded on the following link:

<http://construye2020.eu/informacion-sobre-ee-eerr/buenas-practicas-en-rehabilitacion>

As the graph below shows, the “Construye 2020” route was really succesful:



### Final dissemination day

- Report on the dissemination Day

The final dissemination day was held in Madrid in the Official College of Architects of Madrid (COAM), located in Calle de Hortaleza, 63 (28004). The event was organized as a part of the the “Architecture week”, a yearly well-known set of conferences and others activities related to architectural issues.

This final event of the project had a sound impact on stakeholders and media.

120 attendees

Published in 20  
written media +  
1 radio interview

Trending topic in  
Twitter in Spain

## Involvement key indicators

The project and its activities had an outstanding impact on its targeted objective groups. This table shows the main data of involvement and attendance, presented through activities.

	Building workers	Companies /professionals	Social agents	VET providers	Public bodies	Dwellings' owners	Other s	Proof
<b>WP2. Development of training actions and didactical resources</b>								
Design of actions		27						Project documents
App construye 2020							2.369	Google play
Webinars	214					140		Youtube
Textbooks		16						Project
<b>WP3. Pilot trials</b>								
Pilot trials	429							Project documents
<b>WP4. Upgrading of existing qualifications and training</b>								
Revision of qualifications		20						Project documents
<b>WP5. Mechanisms to enhance the VET system</b>								
Observatory		350						Google analytics
Training platform	807							Google analytics
Information on EE and RES		213				171		Google analytics
<b>WP6. Endorsement by stakeholders</b>								
Endorsement commitments					121			Project documents
Endorsement seminars	17	49	40	34	76		6	Project documents
<b>WP7. Communication</b>								
Website							4.438	Google analytics
Continuous dissemination	2.954.466	1.969.644	1.575.715	590.893	1.181.786	10.045.184	1.378.750	Estimation based on audiences
Construye 2020 mobile	363	225	114	58	70	1.189	120	List of adhesions
Final diffusion day	2	75	74	8	20	4	7	List of attendees