

BUILD UP Skills 10th EU Exchange Meeting

‘Connecting People for Green Skills’

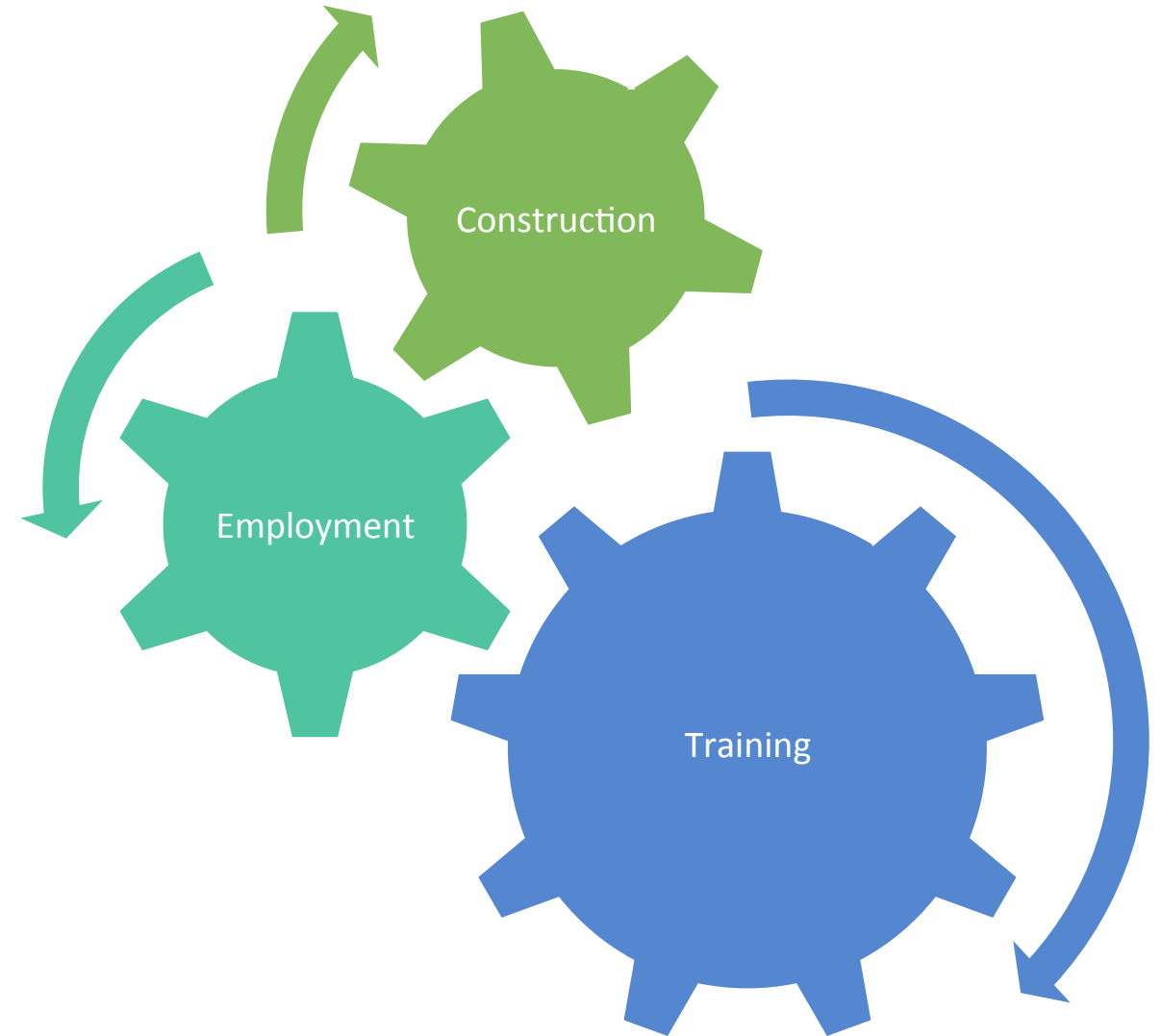
**Delivering on skills for growth and jobs:
Green Jobs in the construction sector**

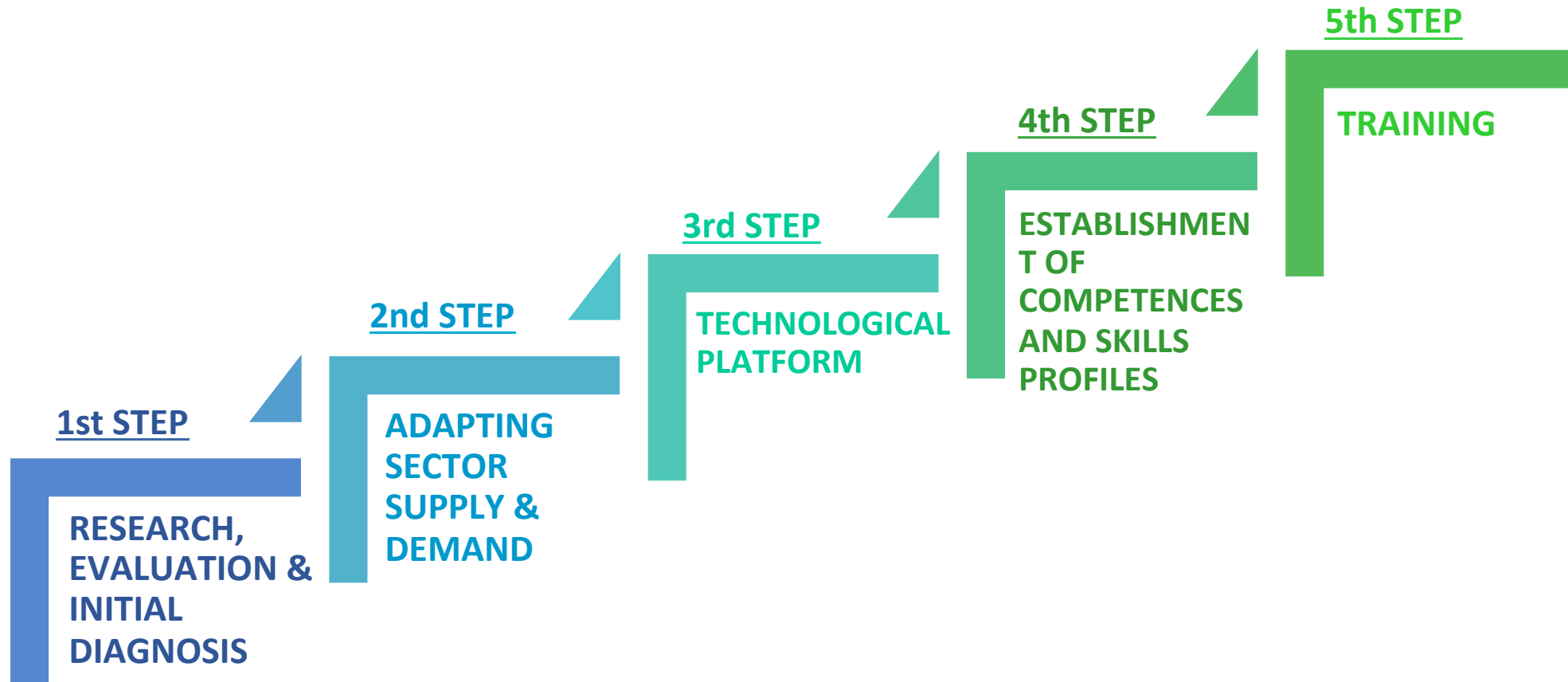
Laura Bas Marián

ROTTERDAM - 31st May 2017

What is the project for?

1. To identify green **skills lacks** and **training needs** in the construction sector.
2. To detect the professional and educational factors that make impossible for professionals of construction sector to get jobs that require **new qualifications** and skills **based** on **sustainability**.





1) RESEARCH, EVALUATION & INITIAL DIAGNOSIS

National research	Good practices	Surveys	1. SYNTESIS REPORT
<p>5 research on:</p> <ul style="list-style-type: none"> •Economical aspects, •Employment/unemployment •Construction sector after crisis •Sustainable construction 	<p>24 good examples of sustainable to generate green jobs and able to be exported to other countries</p>	<p>100 National surveys about green jobs in construction sector:</p> <ul style="list-style-type: none"> •50 answered by companies •50 answered by employment agencies 	<p>What: Study of current situation of construction sector and its workforce (employed/unemployed, growth taxes, regulations, etc.).</p> <p>Aim: To define a new model of sustainable construction sector that creates jobs specialized in new market demands.</p>

1) RESEARCH, EVALUATION & INITIAL DIAGNOSIS

2. CATALOGUE OF JOB OPPORTUNITIES

AIM

To identify job niches and list potential job opportunities

22 new feasible jobs, classified into three categories:

1. **Specialists in installation and maintenance of new processes and technologies** to use energy, water, application of bioclimatic criteria in construction, waterproofing systems and insulation, etc., of new housing and existing housing parks.
2. **Consulting services** on the implementation of new technologies to achieve energy efficient buildings.
3. **Expert audit**, certification and quality control.

CATALOGUE
OF JOB
OPPORTUNI
TIES

1. Specialists in installation and maintenance of new processes and technologies to use energy, water, application of bioclimatic criteria in construction, waterproofing systems and insulation, etc. of new housing and existing housing park:

1. Installation and maintenance of biomass systems and power plants.

INSTALLER OF BIOMASS POWER PLANTS

•Level of qualification based on Europe (EQF):

Level EQF 5–6

•Special requirements:

University degree in Energy engineering or qualification of a plumber (VET);

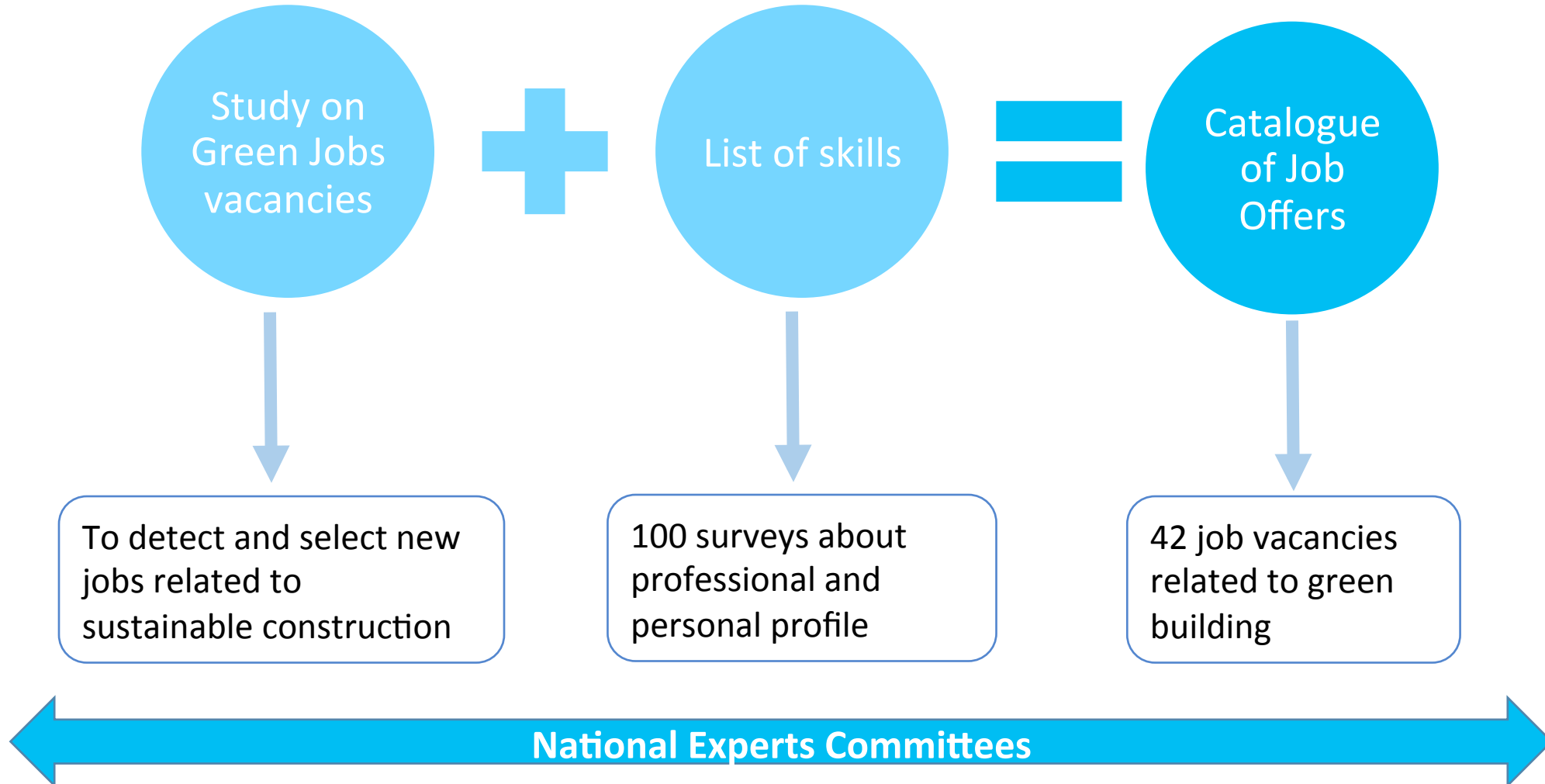
•Main training areas/ modules:

- A.Current state in the market of the biomass energy products;
- B.Environmental aspects;
- C. Main characteristics of biomass fuel and its transportation;
- D.Combustion techniques and systems;
- E.Optimal hydraulic solutions;
- F.Planning, installation and maintenance of biomass power plants/boilers;
- G.Standards and norms applied to biomass power plants and related national and EU regulations;
- H.Fire protection;
- I.Occupational health and safety.

•Skills and competences to be acquired:

- Organizing one's own work site in compliance with health and safety as well as fire protection regulations, environmental protection rules in relation to biomass power plants;
- Ability to use tools and equipment with regard to health and safety measures;
- Ability to identify the system and its component parts, including mechanical structure, and to select the necessary configuration and arrangement of biomass power plants;
- Ability to select the most suitable methods of assembling, installation and tuning of the system.

2) ADAPTING SECTOR SUPPLY & DEMAND





List of skills

Surveys were conducted in five countries: Spain, Poland, Lithuania, Denmark, and Cyprus. Ten employed and ten unemployed participants took part in each research


Level of interest in %					
	Spain	Lithuania	Cyprus	Denmark	Poland
Photovoltaic Energy	90	87	90	80	95
Renewable Energies	95	82	95	50	85
Hydropower	84	59	70	10	30
Passive home device programmer	68	77	60	30	90
LEED and BREEAM accreditation auditor/evaluator	90	45	60	5	90
Air conditioning systems	85	59	85	0	95

Lack of knowledge in %					
	Spain	Lithuania	Cyprus	Denmark	Poland
Photovoltaic Energy	90	87	9,5	25	95
Renewable Energies	25	82	4,7	35	95
Hydropower	90	59	90	20	90
Passive home device programmer	30	77	10	30	90
LEED accreditation auditor/evaluator	25	45	10	5	90
Air conditioning systems	50	59	50	0	70


Catalogue
of Job
Offers

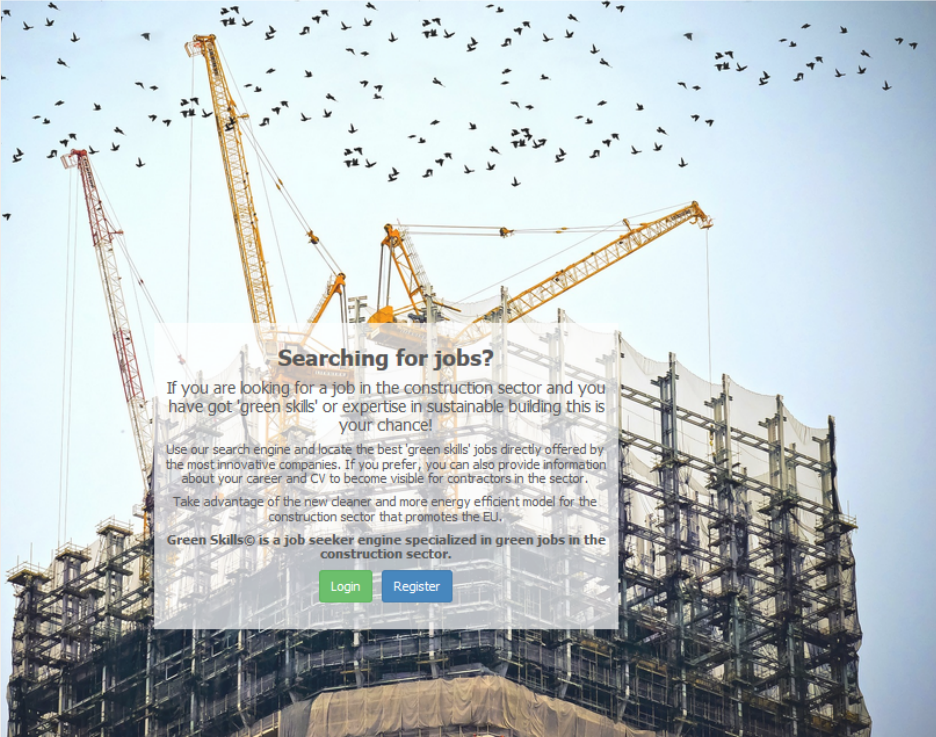
	Spain	Lithuania	Cyprus	Denmark	Poland
Energy engineer	X				
Prevention and/or quality and/or environmental technician	X				
Product definition and innovation manager (r&d)	X				
Installation and energy efficiency engineer	X				
Energy certification auxiliary technician	X				
Heating sales technician	X				
Installation and energy efficiency engineer	X				
Technical architect / energy efficiency certification	X				
TBE architect technical building inspection	X				
Building architect-engineer (opinion leader)	X				
Building envelope design technician	X				
Thermal installer	X				
Building biomass boiler operator	X				
Heating and hot water pipe installer	X				
Waterproofing material installer	X				
Energy efficiency sales advisor	X				
Renovating buildings for improved energy	X				
Waste management labourer	X				
BIM construction manager/bim technician		X			X
Building architect		X			
HVAC installer		X			
Roofer		X			
Installer of heat pumps and geothermal systems		X			X
Installer of solar heating system		X			X
Thermal insulation installer		X			X
Installer of biomass power plants		X			
Better Housing Counsellor				X	
Architect, Engineer or Bachelor in Architectural Technology and Construction Management obtaining certification standards				X	
Energy Advisor				X	
Technical inspection of buildings and energy certification				X	
Building envelope design technician				X	
Sustainability Manager/Director			X		
Energy and Sustainability Analyst/Consultant			X		
Renewable Energy Planning Manager			X		
Green Building Project Manager			X		
Green Building Engineering Consultant			X		
Solar Process Engineer			X		
Wind Energy Engineer			X		
Waste Reduction and Recycling Consultant			X		
Wastewater Engineer			X		
Environmental Training Specialist/Coordinator			X		
Timber frame construction worker					X

Match of supply and demand to link “Green skills workers” with “Green skills Jobs vacancies”



Connecting
People for
Green Skills





Searching for jobs?

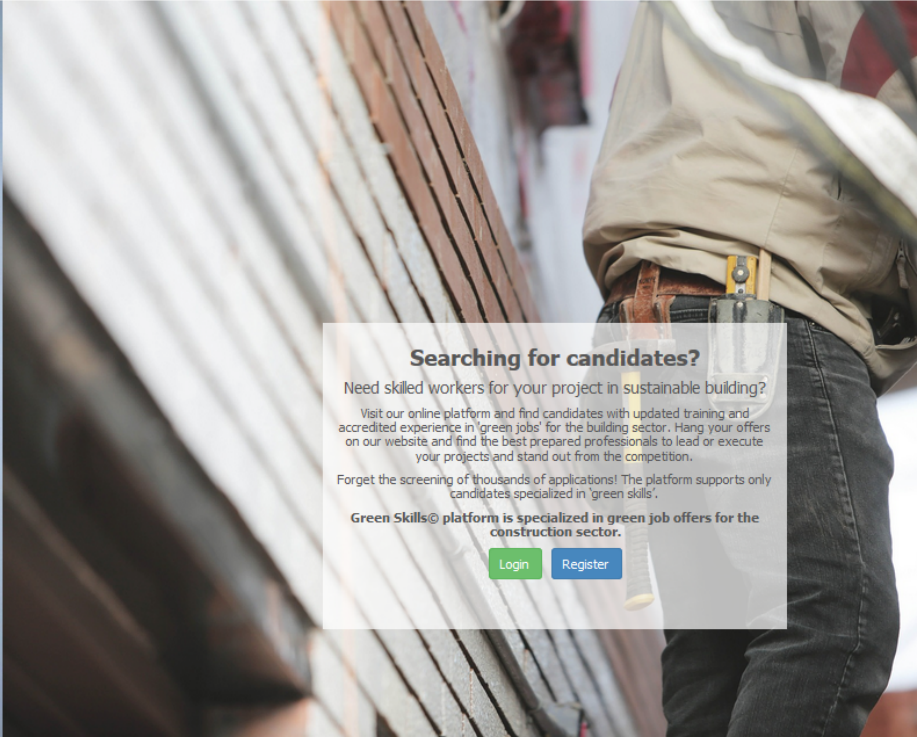
If you are looking for a job in the construction sector and you have got 'green skills' or expertise in sustainable building this is your chance!

Use our search engine and locate the best 'green skills' jobs directly offered by the most innovative companies. If you prefer, you can also provide information about your career and CV to become visible for contractors in the sector.

Take advantage of the new cleaner and more energy efficient model for the construction sector that promotes the EU.

Green Skills® is a job seeker engine specialized in green jobs in the construction sector.

[Login](#) [Register](#)



Searching for candidates?

Need skilled workers for your project in sustainable building?

Visit our online platform and find candidates with updated training and accredited experience in 'green jobs' for the building sector. Hang your offers on our website and find the best prepared professionals to lead or execute your projects and stand out from the competition.

Forget the screening of thousands of applications! The platform supports only candidates specialized in 'green skills'.

Green Skills® platform is specialized in green job offers for the construction sector.

[Login](#) [Register](#)

What are 'green skills'?

The construction industry is changing. The European Union promotes a less polluting model of sustainable construction, more responsible with the environment and able to optimize the consumption of energy or implement the use of renewal sources. This new model requires specialized tasks and a prepared workforce with updated training and experience to tackle these challenges.

Updated skills and specializations in sustainable construction, new materials, insulation, sanitation, energy savings or rehabilitation with sustainable criteria, among other fields, can be considered as 'green skills'. This area records one of the

Am I 'green skills' gifted?

This search engine is one of the results of the European project 'Connecting People for Green Skills'. As part of this initiative we have developed a list of jobs which record an intensive demand for workers with special skills in the field of sustainability applied to construction. The report indicates the skills related to each of the jobs studied. You can consult it [here](#).

Experience in the field of sustainable construction and with energy saving criteria in the design, planning and the execution of the different tasks necessary to carry out with this kind of projects can be understood as 'green skills'. If you are in this case, you may be

Join the training and make a difference!

Looking for employment in the construction sector?

Update your training in construction and acquire competences in 'green skills', one of the fields of specialization with the most promising future prospects of the sector.

'Connecting People for Green Skills' project has developed a curriculum in various specialties and a pilot program with 10 semi-face courses in Spain, Poland, Lithuania, Denmark and Cyprus.

4) ESTABLISHMENT OF COMPETENCES AND SKILLS PROFILES

LIST OF COMPETENCES

Description of the training requirements, specialisation, experience and psychological profile for green Jobs identified.

- 30 “Skills Profile”
- European Qualification Framework(EQF)



**SKILLS
PROFILE**

Skills profile by country

Country	Skills profile
CYPRUS	<ol style="list-style-type: none"> 1. Technician for installation and maintenance of photovoltaic (PV) systems 2. Engineer- planner in photovoltaic (PV) systems 3. Green Building Engineering Consultant 4. HVAC technician 5. Energy efficiency Sales Advisor
DENMARK	<ol style="list-style-type: none"> 1. Construction strategist 2. Counsellor 3. Teacher at vocational school 4. Construction manager 5. Construction worker
LITHUANIA	<ol style="list-style-type: none"> 1. Installer of solar heating system 2. Installer of heat pumps and geothermal systems
POLAND	<ol style="list-style-type: none"> 3. HVAC technician 4. Thermal insulation installer 5. BIM technician
SPAIN	<ol style="list-style-type: none"> 1. Installer of solar heating system 2. Installer of heat pumps and geothermal systems 3. Timber frame construction worker 4. Thermal insulation installer 5. BIM technician
	<ol style="list-style-type: none"> 1. Installation And Energy Efficiency Engineer 2. Thermal Installer 3. Prevention and/or quality and/or environmental technician 4. Product definition and innovation manager (R&D) 5. Architect or construction engineer 6. Energy efficiency sales advisor 7. Energy Efficiency Certifying Agent 8. Energy engineer 9. Sales agent of renovating building for improved energy performance 10. Technical Building Inspector

Skills profile by EQF levels

EQF level	Occupation
3	<ul style="list-style-type: none"> Thermal insulation installer
4-5	<ul style="list-style-type: none"> Installer of solar heating system
	<ul style="list-style-type: none"> Timber frame construction worker HVAC technician Thermal Installer Technician for installation and maintenance of photovoltaic (PV) systems (Solar panel electricity systems)
5	<ul style="list-style-type: none"> Energy efficiency sales advisor Sales agent of renovating building for improved energy performance
5-6	<ul style="list-style-type: none"> Installer of heat pumps and geothermal systems BIM technician Energy efficiency Sales Advisor
5-7	<ul style="list-style-type: none"> Prevention and/or quality and/or environmental technician Product definition and innovation manager (R&D)
5-8	<ul style="list-style-type: none"> Engineer- planner in photovoltaic (PV) systems
6	<ul style="list-style-type: none"> Installation And Energy Efficiency Engineer Energy Efficiency Certifying Agent Technical Building Inspector
6-8	<ul style="list-style-type: none"> Green Building Engineering Consultant
7	<ul style="list-style-type: none"> Architect or construction engineer Energy engineer

1. GENERAL DETAILS				
Job Title: Installation And Energy Efficiency Engineer				
Position in the Organisation: Technical Staff				
Description of the Job:				
Designing, planning and managing installation maintenance execution, as well as quantitative control according to saving and energy efficiency criteria.				
Level of Qualification (EQF): 6				
2. REQUIREMENTS OF THE JOB (APTITUDES)				
Duties of the Job:	Not required	Low	Medium	High
• Languages			X	
• Computer skills				X
• Manage energy WEB platform				X
• Lead the material execution of installations, verifying layouts and materials according to the project				X
• Set and assign precise instructions for personnel assigned to maintenance				X
• Prepare offers and projects				X
• Prepare an offer for public and private costumers: diagnosis of installations and specifications (global and specific vision), drafting, requesting budgets, price database management, etc)				X
• Deal and negotiate with				X

manufacturers and suppliers				
• Monitor and control project planning				X
• Monitor and control project execution				X
• Economic monitor and control of a project				X
• Coordinate subcontractors on site; Deal with customers				X
Education:				
Qualifications required:	Formal University Training			
Preferred specialisation:	Industrial Engineer- Mechanical Engineering			
Level of experience: At least 2 years (years)				
Specific Knowledge	Not required	Elementary	Average	Superior
Knowledge of thermal installations, low voltage, energy efficiency, renewable energies (photovoltaic and solar thermal/biomass/wind)			X	
Scada and PLC control, Office and Autocad 2			X	
Physical Requirements	Not required	Low	Medium	High
Stress			X	
Working Conditions	Not required	Low	Medium	High
Available to travel			X	
Organizational capacity			X	
Responsibility Requirements	Not required	Low	Medium	High
Following site health and safety rules and procedures				X
Quality control				X
Supervise other workers				X
3. SKILLS OF THE JOB (ATTITUDES)				
Organisational Culture				
Quality Standards				

5) TRAINING

- providing resources to both up skill and increase the potential employability of the work force according to new market demands
- 30 educational guides on the basis of employment opportunities regarding to new market demands.
- 12 pilot courses from November 2015 to March 2016
- 584 of semi-attendance training and benefited 303 professionals of the construction sector, employed and unemployed.

JOB TITLE	Counselor (Better Housing Counselor)
COUNTRY	Denmark
COURSE LEADER	Danish Technological Institute
PROFILE RECOMMENDED	<p>The Danish Technological Institute is a self-owned and not-for-profit institution. They develop, apply and disseminate research- and technologically-based knowledge for the Danish and International business sectors. As such, they participate in development projects, which are of use to society in close collaboration with leading research and educational institutions both in Denmark and abroad.</p> <p>On top of this, they carry out consultancy and standardisation services, which contribute to a dynamic and harmonious development of society.</p> <p>The Institute's most important task is to ensure that new knowledge and technology quickly can be converted into value for our customers in the form of new or improved products, materials, processes, methods and organisational structures. They work together with new and existing companies, either individually or in groups, on ways to enhance technological and management restructuring and efficiency, across a broad range of industries as well as in leading edge sectors.</p>
TARGET GROUP	This course is ideal for Better Housing Counselors, including engineers, architects and construction workers.
ENTRY QUALIFICATIONS	Better Housing Counselor
OBJECTIVE(S)	<p>The objective is to develop the following skills:</p> <ul style="list-style-type: none"> - Sale of their counseling as a Better Housing Counselor - Sale of a Better Housing plan - Up-selling of contractor services
CONTENTS	<p>Brief examination of the Better Housing Scheme</p> <p>Communications of sale and up-selling</p> <p>Supporting tools in the sales process</p> <p>Role plays</p>
EXPECTED OUTCOME	Participants are expected to learn techniques used in energy efficiency of single-family houses as well as the basics of sales communication and therefore we will hopefully see more people investing in a Better Housing Plan which will eventually lead to a more energy efficient society.
TRAINING METHODS (RECOMENDED)	The course is a mix of theoretical background, practical application, group discussions and role play.



lbas@manra.org

www.pater.es

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