



**BUILD UP SKILLS**

ENERGY TRAINING FOR BUILDERS



**PORTUGAL**

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AGÊNCIA PARA A ENERGIA



# TRAINING BUILDING WORKFORCE ROADMAP

for Energy Efficiency and Renewable Energy Sources

## BUILD-UP SKILLS – PORTUGAL

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☾ Dissemination

● Endorsement

● Roadmap: Strategy and Action Plan

● National Qualification Platform

● Status-Quo Report

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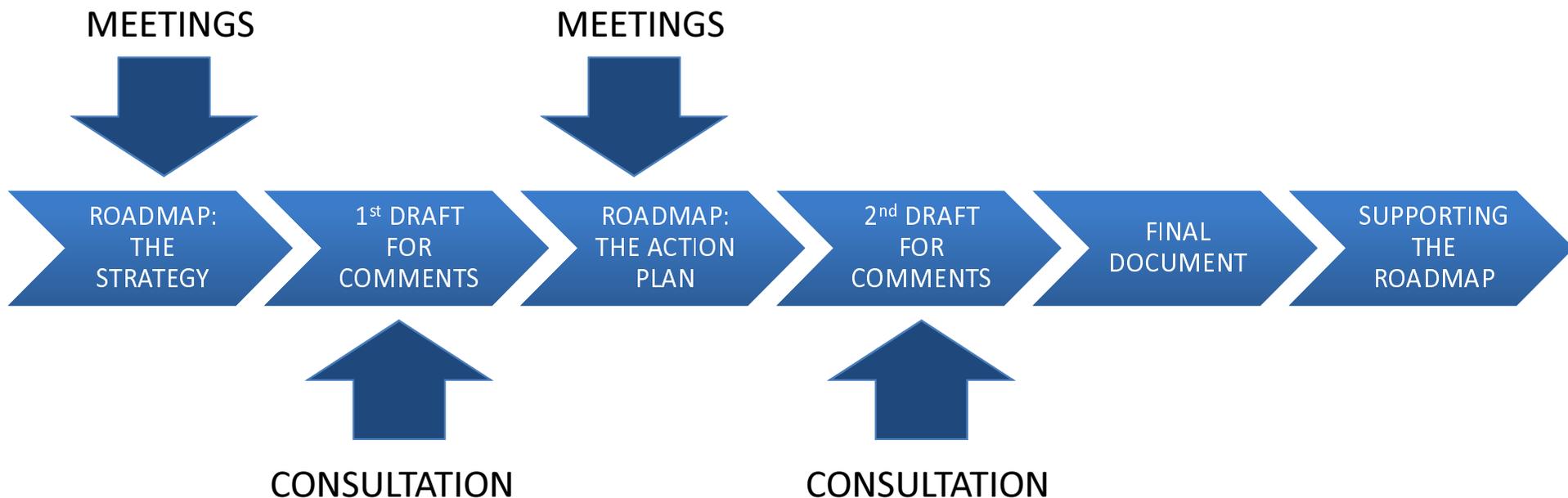
● Status-Quo Report



## NATIONAL QUALIFICATION PLATFORM (NQP)

- Stakeholders: 31
  - Training centres,
  - Industrial and commercial associations
  - Trade unions and professionals associations
  - Others
- 3 Exploratory meetings (13 stakeholders)
- 7 Working sessions (18 stakeholders)

# ROADMAP WORKING PROGRESS: THE ROLE OF NQP



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## MAIN FINDINGS

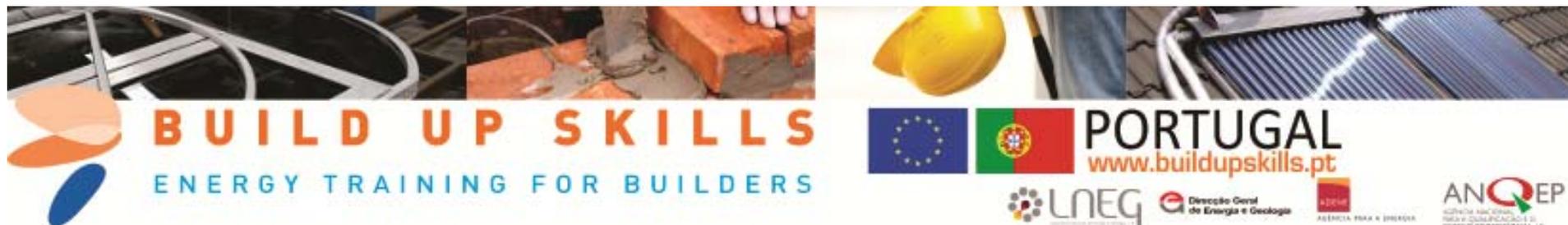
- The current workforce which skills are related to EE and RES is estimated to be in the range of **55 to 65 thousand**.
- From those, as well as from others coming from first employment or unemployment, a total of **31.2 to 46.4 thousand** should still be trained.



## MAIN FINDINGS

- This roadmap identified, in order to accomplish the Renewable Energies Directive (2009/28/EC), the need to have specific training in the following technologies:
  - 1) photovoltaic (and micro wind), 2) solar thermal, 3) biomass boilers and stoves, 4) heat pumps and 5) shallow geothermal.
- Regarding building envelope and other energy systems, with the aim of promoting the energy efficiency in buildings energy use, the focus goes to:
  - 6) windows installers, 7) thermal insulation workers (including bricklayers), 8) HVAC and 9) boilers installers, 10) lighting systems electricians, 11) energy management and buildings operation technicians.

ACTION LINE	MEASURES	TARGET	ESTIMATED COST (k€)
Renewables for electricity	PV and wind installers	<b>500-700</b>	<b>400-700</b>
Renewables for heating and cooling	Solar thermal installers	<b>8000-13000</b>	<b>6400-13000</b>
	Installers of biomass boilers and stoves	<b>3000-5000</b>	<b>2400-5000</b>
	Heat pump installers	<b>1000-2000</b>	<b>800-2000</b>
	Shallow geothermal installers	<b>50-100</b>	<b>30-100</b>
Energy systems (other than RES)	HVAC installers	<b>10700-11500</b>	<b>8560-11500</b>
	Lighting	<b>1400-2100</b>	<b>1120-2100</b>
	Boilers installers	<b>3000-5000</b>	<b>2400-5000</b>
	Energy management & buildings operation	<b>1100-2000</b>	<b>880-2000</b>
Building envelope	Windows installers	<b>1000-2000</b>	<b>800-2000</b>
	Bricklayer and insulation workers	<b>1450-3000</b>	<b>1160-3000</b>
<b>TOTAL</b>		<b>31200-46400</b>	<b>25-46 M€</b>



## MAIN FINDINGS

- The action plan for the period between 2014-2020 consists of a set of **structural, operational and supporting measures**.
- The main target of the operational action plan stands on the current workforce relevant for EE and RES (67 percent of the total to be trained). However, requalification programs for unemployed (around 10 percent) are also a leading issue to be considered in the EE and RES training strategy.
- The investment cost for the set of operational measures is in the range of **25-46 million Euros**.

# ROADMAP: THE ACTION PLAN



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## SUPPORT AND ENDORSEMENT

- 16 letters of support (work in progress)
- 3 video testimonials
- Official information to:
  - Ministry of the Economy
  - Ministry of Education

## Dissemination

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## DISSEMINATION

- E-bulletin using the stakeholders mailing list (two pages document)
- 2 workshops: about 50 participants representing stakeholders and others



# LISBON WORKSHOP





# OPORTO WORKSHOP





Thank for your attention