EASME
Executive Agency for Small and Medium-sized Enterprises

Research, Innovation and Market Uptake for Energy Efficient Buildings under Horizon 2020:
Example of on-going projects - the BUILD UP Skills Initiative

4th QUALICHeCK conference | EPBD perspectives for compliant and smart buildings
21 February 2017, Brussels

Amandine LACOURT
Project Adviser, EASME

EASME's role within the European Commission

- Manage EU programmes
- Feed project outcomes into EU policymaking
1. Health, demographic change & well-being
2. Food security, sustainable agriculture, marine research & the Bioeconomy
3. Secure, clean & efficient energy **EUR 5.9 Billion**
4. Smart, green & integrated transport
5. Climate action, environment & raw materials
6. Europe in a changing world
7. Secure societies
Secure, Clean and Efficient Energy

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<th>Main areas</th>
<th>2017, Million EUR</th>
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H2020 Energy Efficiency 2016 call results

- **€ 96 M**
  - 44 projects
  - 38 countries
  - 500 participants
  - 23% SMEs
- Heating & cooling: 7 projects, ~24 ME
- Local Authorities: 4 projects, ~15 ME
- Consumers: 8 projects, ~14 ME
- Buildings: 15 projects, ~26 ME
- Innovative Financing: 10 projects, ~15.5 ME
Secure, Clean and Efficient Energy

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Types of action

- **Research**: 100% funding
- **Demonstration**: 70% funding
- **Market Uptake**: 100% funding

![Diagram of energy production, grid, and demand](www.sim4blocks.eu)

- **Demonstration**: 70% funding
  - Variable renewable generation makes it more difficult to maintain a stable frequency in the power grid.
  - This can be offset by activating demand response potential.
  - “Use power when the wind is blowing”

www.sim4blocks.eu
"Smart Buildings for a greener Europe: Emerging policy and practices", EPBD Concerted Action, 14 February

- Presentations available from: http://www.epbd-ca.eu/archives/1363
- Recordings soon available from BUILD UP portal
http://enerfund.eu

An ENERgy Retrofit FUNDing rating tool to be made available as a interactive map

Builds on success of projects funded under the IEE programme: Episcope, Request2Action, ...

Analysed EPC status and databased in 12 EU countries: AT, BG, CY, DK, ES, FR, EL, IE, RO, SK, SI, UK + 46 past initiatives (projects)

The BUILD UP Skills initiative

Is the workforce ready?
BUILD UP Skills

Pillar I
National Qualification Platforms & Roadmaps
Call for proposals 2011, 2012

Pillar II
Qualification and Training Schemes
Call for proposals 2012, 2013, 2014

European Exchange Activities organised by EASME

BUS Pillar I
Gathers stakeholders from the energy, education/training and buildings sectors

National Qualification Platform

Status Quo Analysis
Mapping existing workforce
Future needs for 2020
Gaps and barriers analysis

National Roadmap
Measures
Endorsement
BUS Pillar I: main findings

- Slight shortage of building workers by 2020 in most European countries
- The need for training of the current workforce is much stronger than the estimated need for additional workers
- More than 3 million workers would require up-skilling on energy efficiency or renewable energy sources by 2020
- Importance of transferable and cross-trade knowledge and skills
BUS Pillar I evaluation – May 2016

- About **1800** people were involved in the initiative
- **84%** of the people surveyed found the initiative very relevant
- First time that stakeholders from the education, energy and construction sectors were meeting at such scale
- Provided a large and unique gap analysis
- **30** National Roadmaps of high quality, with concrete suggestions
- Endorsement of these roadmaps was a key achievement
- Use of BUILD UP Skills findings in other national initiatives (e.g. Austrian National Climate Initiative; Slovakian National Plan for Renovation of Buildings)


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BUS Pillar II - from strategy to action:

- **10** Pillar II projects started in October 2013: AT, CY, DE, EE, ES, FI, IE, LV, NL, RO

- **12** Pillar II projects started in September 2014: BG, EL, HR, HU, IT, LT, LU, MK, PT, SE, SK
"Construction Skills" under Horizon 2020

- Scope expanded to "white collar" professionals (e.g. designers, architects, engineers, building managers, etc)
  - ingREeS: training of middle and senior level professionals on EE and REs in buildings (CZ, SK)
  - MEnS and PROF/TRAC: enhancement of skills for engineers and architects to build nZEB
  - Train-to-NZEB: set up and upgrade of training curricula for trainers, construction workers, designers and others based on the Passive House concept
  - BUSToB: creation and update of qualification and training schemes for EQF4, craftsmen and other on-site workers in The Netherlands

Outlook

- 2016 World Economic Forum report "Shaping the Future of Construction: A Breakthrough in Mindset and Technology" → BUILD UP Skills as best practice
- The EU Strategy on Heating & Cooling (February 2016) recommends to extend the work of BUILD UP Skills to other construction professionals
- The Pillar I evaluation recommends to keep developing synergies with other EU programmes
- Support to be provided under the H2020 Energy Efficiency Calls
- The "Clean Energy for All Europeans" Package stresses the need to upskill the building workforce
EE14-2017: Construction Skills

- Support for upgrading or setting up training schemes for professionals of the building value chain
- New challenges e.g. BIM, RES integration, new products and processes
- Proposals between 0.5 and 1 million EUR (does not preclude submission and selection of proposals requesting other amounts)
- Type of Action: Coordination & Support Action
- Deadline: 7 June 2017

Examples of successful BUS projects:

Construye2020 (Spain)
http://construye2020.eu
- Design and implement 9 training actions
- Training simulator: app for mobile devices showing good practices for the different steps in renovation
- Pilot courses involving 430 workers
- Outreach campaign in 15 major Spanish cities + national media campaign → estimated impact 12 million people
BUILD UP Skills BEEP (Finland)

http://www.motiva.fi/buildupskillsfinland

Innovative training toolbox including:

- sets of **slides** and didactic **videos** in 5 languages (FI, SE, EST, RU, EN)
- **instruction cards** for workers self-learning
- pilot training for ‘**change agents**’ (experienced workers/mentors)
- Training **Ambassador**: helping to attract workers and companies

BUILD UP Skills SWEBUILD

http://energibyggare.se/

**E-learning platform** with six interactive modules:

a) introduction
b) the building as a system
c) thermal insulation
d) air tightness
e) moisture issues
f) installation of technical building systems

- combination of didactic texts (with voice-over) and interactive drawings
- to be used individually by workers (at home/on-site) or used during group training courses
- all modules can be followed within 4 hours
- self-assessment test at the end of each module
BUILD UP Skills
QualiBuild (Ireland)
www.qualibuild.ie/

- Irish construction worker skills register. Qualified workers can advertise their skills, the public can search for them
- 59 trainers trained, 195 workers trained and certified in pilots
- National programme for roll-out
- Effective communication via variety of channels: YouTube, slideshare, Twitter, radio shows, pub conversations...

PROF-TRAC
www.profrac.eu

- Skills gaps have been mapped across Europe, using BUILD UP Skills methodology
- New European Open Training and Qualification Platform for NZEB – over 100,000 entries: case studies, lecture notes, MOOCs, video tutorials, workshops
- European Train the Trainers programme. Trained people can use the platform to design and deliver their own courses across EU
BUILD UP – the EU portal for energy efficiency in buildings

www.buildup.eu

- Latest news, research, live webinars, data tools
- Upload material, collaborate
- Follow on LinkedIn
- Now in 7 major EU languages
- Integration of BUILD UP Skills

Agenda of the 10th BUILD UP Skills EU exchange meeting is available

BUILD UP Skills
10th EU exchange meeting
10 – 12 May 2017 @Rotterdam

Executive Agency for SMEs
European Commission
THANK YOU FOR YOUR ATTENTION

Amandine LACOURT
Project Adviser
Horizon 2020 Energy (Buildings)

Amandine.Lacourt@ec.europa.eu

EASME on Twitter @H2020EE • @H2020SME • @EEN_EU • @EU_ECOINNO