



European  
Commission

# EASME

Executive Agency for Small and Medium-sized Enterprises

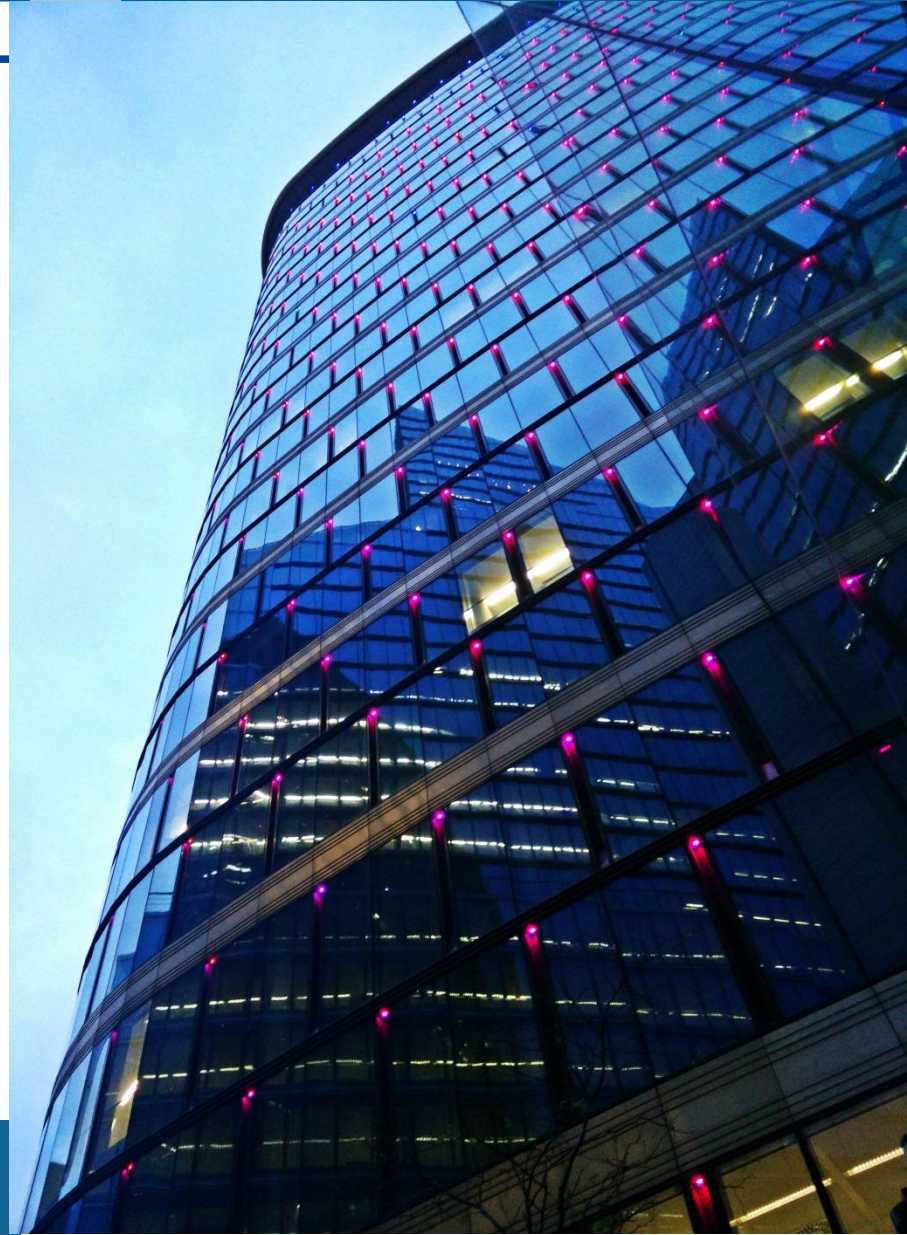
## Professionalisation of the Construction Sector

from the European Energy  
Efficiency Perspective

Rzeszów 2017

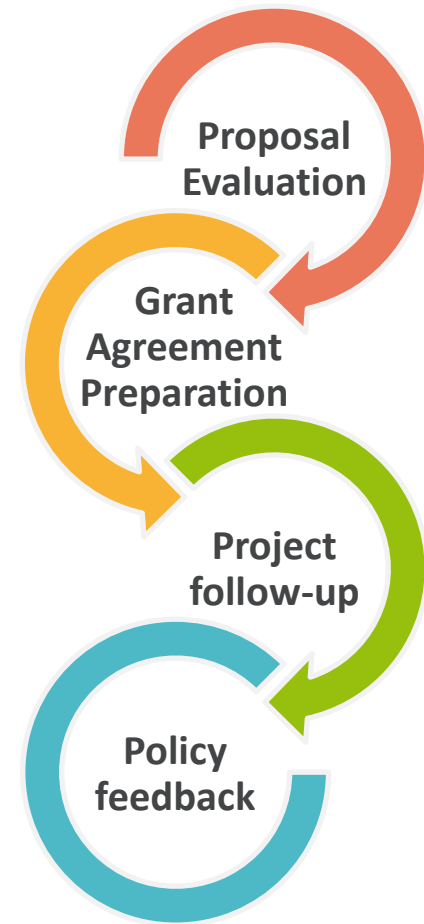
Agata Kotkowska,  
Head of Buildings and Heating/Cooling  
Sector  
H2020 Energy Unit

Executive  
Agency  
for SMEs



## EASME's role within the European Commission

- Manage EU programmes
- Feed project outcomes into EU policymaking



## Content of the presentation

- Clean Energy for All Europeans: a focus on building smartness – Proposal for amending the Energy Performance of Buildings Directive
- Digitalisation's potential for the construction
- Construction sector challenges
- Innovative approaches for energy efficient construction
- Useful information sources

# Clean Energy for All Europeans: a focus on building smartness – Proposal for amending the Energy Performance of Buildings Directive

## Proposed:

- Building automation and monitoring replacing inspections
- New Smartness Indicator: building able to manage itself, interact with building occupants and contribute to grid operation
- E-mobility: Recharging points in non-residential buildings and pre-cabling of residential buildings
- Creating market demand for building energy management through IT products

# Smartness Indicator in the EPBD Proposal

## New Article 8(6) advocates the definition of a Smartness Indicator for buildings

- Will characterize the ability of a building to manage itself,
- To interact with its occupants,
- And to take part in demand response and contribute to smooth, safe and optimal operation of connected assets
- The need for training of the current workforce is much
- Progress towards 'smarter' buildings systems can support a more efficient implementation of the EPBD and result in additional benefits for building users, energy consumers and future grids.
- The Smartness indicator will support the uptake of technical innovation in the building sector, where there is a lack of investment despite short payback periods.

# Future Trends

- New energy services for commercial and residential buildings
  - Building energy management more and more affordable and bringing potential financial benefits
  - Internet of Things replacing current building automation → less inconvenience related to building installation for building occupants
  - Greater interest from consumers due to improved comfort, user-friendliness and interoperability
- Smart homes, e-mobility becoming mainstream
- Need for improved skills across the building sector

# Is the workforce ready to meet the energy targets?



## EU28 construction industry\*

- 3.2 million enterprises (95% with <20 workers)
- 8.5% of GDP
- 6.4% of total employment

## Common lack of energy skills

\*Source: FIEC (European Construction Industry Federation) 2016



# Construction sector skills challenges

- 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





European  
Commission

# Current challenges



**High  
quality  
insulation**



**Minimal  
thermal  
bridges**



**Heat  
recovery**



**Very good  
airtightness**

- Standardised, affordable mass passive house retrofits in record time with minimal disturbance of the tenants and performance guarantee
- Successful Dutch model 'Energiesprong' scaled-up and transferred to the UK and French markets working with social housing associations, suppliers and financiers



# REVALUE (649705)

## *Recognising energy efficiency value in residential buildings*

Develop international guidance for property appraisers, incorporating the collection and easy analysis of transparent energy data. This will help valuers to reflect the market value of energy efficiency (EE), in their appraisals of social and private houses

### Partners

- **BAX & WILLEMS B&W (ES):** consulting business in exploiting science and technology - <http://www.baxcompany.com>
- **SAVILLS LTD (UK):** real estate services provider - [www.savills.co.uk](http://www.savills.co.uk)
- **UNIVERSITEIT MAASTRICHT (NL):** real estate finance and economics - **RICS (UK):** professional body that accredits professionals within the land, property and construction sectors - [www.rics.org](http://www.rics.org)
- **LUWOGÉ consult GmbH (DE):** real estate consultancy of the local housing association  
**VANHIER BV (NL):** accountancy organisation - [www.vanhier.nl](http://www.vanhier.nl)

# 50000&1 SEAPs



The 50000&1 SEAPs project provides a coherent approach to integrate Energy Management Systems (EnMS) with Sustainable Energy Action Plans (SEAPs) according to energy management standards such as ISO 50001.



# NeZeR NeZeR

- Promotion of smart and integrated NZEB renovation measures in the European renovation market
- Coordinator: VTT (Finland)
- Partners in NL, SE, RO, ES
- <http://www.nezer-project.eu/>





European  
Commission

# BUILD UP – the EU portal for energy efficiency in buildings

[www.buildup.eu](http://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


**BUILD UP** The European Portal For Energy Efficiency In Buildings

Home News & Events Practices Learn Explore Topics Skills

## Skills

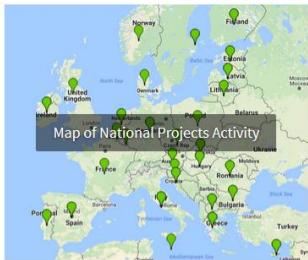
Build Up Home / BUILD UP Skills Initiative

About BUILD UP Skills Eu Exchange Meetings National Pages Thematic working groups



**BUILDUP Skills**  
9<sup>th</sup> EU exchange meeting  
6 - 7 Dec 2016 @ATHENS  
Executive Agency for SMEs European Commission

The 9<sup>th</sup> EU Exchange meeting of the BUILD UP Skills initiative will take place in Athens on 6-7 December 2016.



Map of National Projects Activity

NEWS

Agenda of the 9th BUILD UP Skills EU exchange meeting is online!

EVENTS

No contents.

Executive  
Agency  
for SMEs



European  
Commission



# SUSTAINABLE ENERGY WEEK

An initiative  
of the  European  
Commission



19-25 JUNE 2017



## SAVE THE DATE

[www.eusew.eu](http://www.eusew.eu)

Executive  
Agency  
for SMEs





European  
Commission

# EASME

Executive Agency for Small and Medium-sized Enterprises

**THANK YOU  
FOR YOUR ATTENTION**

Find out more

<http://ec.europa.eu/easme/en/energy>

EASME on Twitter



@H2020EE

Executive  
Agency  
for SMEs