

## **BUILD UP Skills: European collaboration on improving the competence of the building workforce - Ventilation and airtightness aspects**

*Horia Petran*

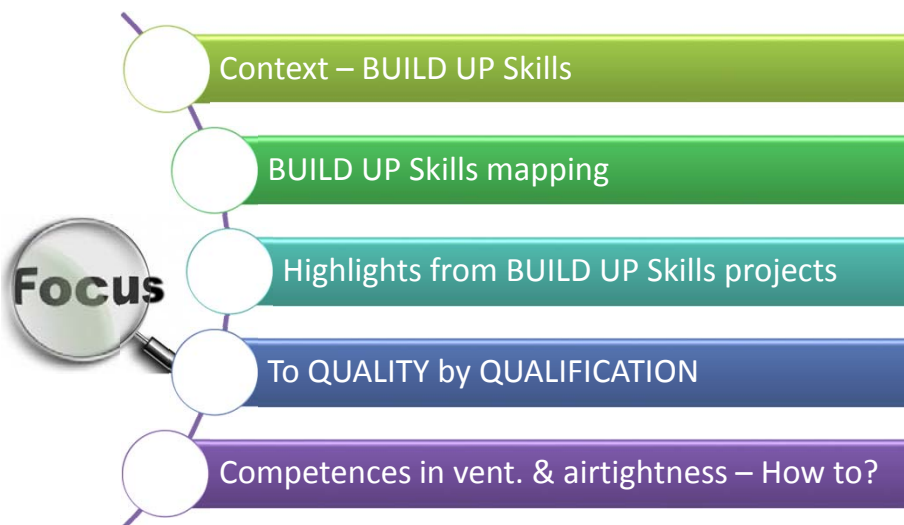
*Coordinator BUILD UP Skills QualiShell*



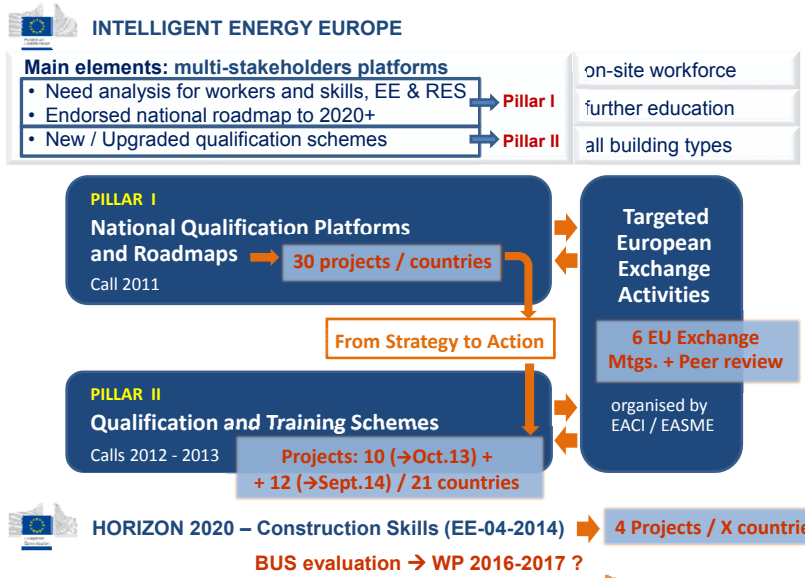
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International Workshop on Ventilation and Airtightness in Buildings  
Voluntary and Regulatory Frameworks to Improve Quality and Compliance  
16 March 2015 – Lund, Sweden

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# BUILD UP Skills - Background



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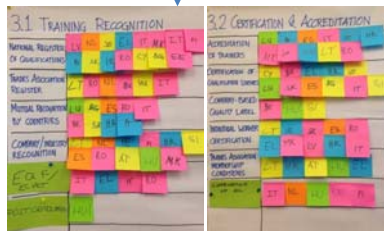


# Mapping BUILD UP Skills projects

Mapping exercise during 6<sup>th</sup> EU Exchange Meeting – Brussels 12 Nov. 2014



- 1.1 Tradesman: Building fabric
- 1.2 Tradesman: Building services
- 1.3 Tradesman: Energy sources
- 2.1 Types of training
- 2.2 Training methodology
- 3.1 Training recognition
- 3.2 Certification and accreditation
- 4.1 Sources of finance
- 5.1 Stimulating demand
- 6.2 Exchange activities



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## Mapping BUILD UP Skills projects

Activities	AT	BG	CY	DE	EE	EL	ES	FI	HR	HU	IE	IT	LT	LU	LV	MK	NL	PT	RO	SE	SK
<b>1.1 Tradesmen: building fabric</b>																					
Insulation																					
Windows, glazing, doors																					
External walls																					
Roofs																					
Internal finishes																					
All of the above																					
<b>1.2 Tradesmen: Building services</b>																					
Lighting																					
Ventilation, air conditioning																					
Electrics																					
Control systems																					
Plumbing																					
Heating																					



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## Highlights BUILD UP Skills projects

### Luxembourg's Building skills for 2020 targets LUXBUILD2020

- Accompanying measures such as **mind changing** campaigns - mobilize the companies in order to **push** their **interest** and **responsibility** for **better qualification** of their workforce,
- **Centre of excellence** for building crafts and a qualification framework → 2020 targets
- **Multi-step** qualification schemes for blue collar workers
- Training facilities and materials for **practical** training (upgrade)
- In-company tutoring and **training the trainers** and coaches/tutors
- Website - **repository** for the teaching tools

### BUILD UP Skills Bulgaria II

- **National Centre of Excellence** for EE and RES in buildings - professional capacity of trainers
- Set of technological competences (**training contents**) - Civil & Electric (RES in buildings).
- State Educational Requirements - Review and update
- 10 **new** training programs for selected professions + **cross-craft training**



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## Highlights BUILD UP Skills projects

### BUILD UP Skills CROSSCRAFT - Qualification scheme for across-the-crafts training of professionals in the construction (Austria)

- **Modular** qualification scheme for professionals in the construction industry
- Competences (imparted by the developed courses):
  - **Understanding** the importance of nearly zero energy building **standards**
  - Understanding of the interplay of the trades
  - Avoiding the most common **faults** and **errors** and their impact

### BUILD UP Skills BRICKS - Building Refurbishment with Increased Competence, Knowledge and Skills (Italy)

- Start develop. **national standards** (UNI/CEI) for the different workers profiles based on EQF and produce the first draft standards
- Certification procedure with **accredited bodies**
- Produce **learning content** for VET systems
- Promote/implement:
  - local **good practices** at national level
  - **training of trainers** + their qualification
  - pilot studies - **on site** training of workers
  - **quality label** for the enterprises recruiting qualified workers
- **endorsement** campaign and **mutual recognition** (Italian regions & chambers of commerce, EU)



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## Highlights BUILD UP Skills projects

### BUILD UP Skills BEET - BUILD UP Skills - Builders' Energy Efficiency Training (FYR Macedonia)

- **Focus:** building envelope, glassing, roofing, energy infrastructure & HVAC systems
- Developing **large scale** training schemes:
  - by **upgrading national** education system with **voluntary** qualification schemes,
  - by ensuring **recognition** of skills obtained in non-formal/informal contexts
- Building **capacity of trainers** and **training providers**
- Designing **incentives** to boost the demand for qualified workers (incl. proposal for a paritarian **fund for training** – EEB).

### BUILD UP Skills QualiShell - National Qualification Scheme for Construction Workers to Ensure High Performance Building Envelopes (Romania)

- Cont. involvement of relevant stakeholders (**Romanian Qualification Platform**) - support implementation of Qualification Roadmap
- **National** qualification schemes for:
  - **Opaque building envelope insulation systems installers** (ETICS installers)
  - **Window system fitters** (installers of thermal insulation carpentry and efficient glazing)
- **Mechanisms** for **large-scale** and **long lasting** implementation of the qualification scheme:
  - use of **existing networks**,
  - **evaluation of competences** acquired in non-formal and informal environments,
  - effective **partnerships** between **education** system and **construction** sector

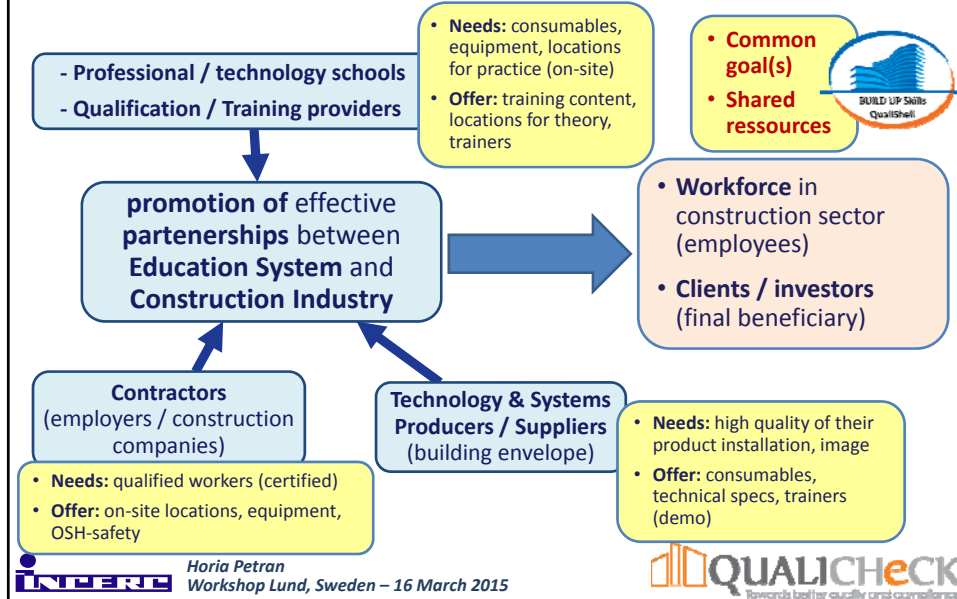


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## Partnerships for education

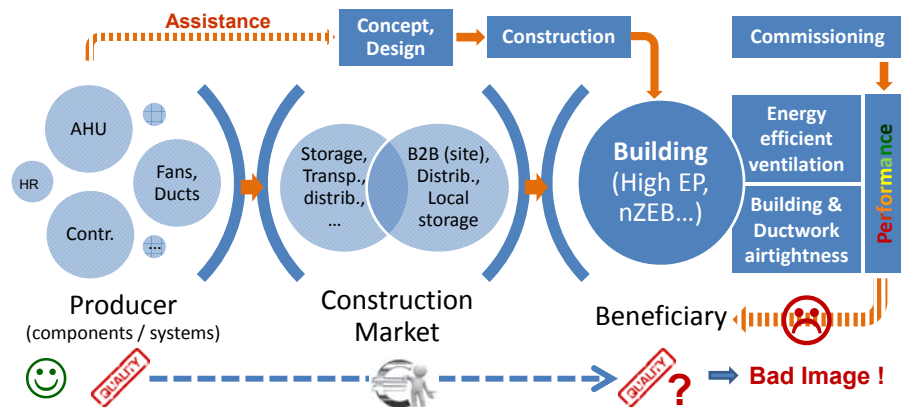
Voluntary agreement for qualification (based on 'natural drivers') → **large scale + long lasting**



## Towards Quality (works) by Qualification (people)

- Quality = conformance to requirements (Crosby)
  - Relative to requirements (expectations):
    - Poor requirements → low quality,
    - Ambitious requirements → high quality
- **QUALITY CHECK:**
  - **By compliance & control:** (∃) reliable system - procedures
    - 'Policeman' at every 'street corner'?
  - **By developing skills and competences** – understanding concept (e.g. comfort, efficiency, nZEB) and technology
    - Development of **self-control** by qualification & **productivity**
- Paradigm shift among builders:
  - 'What if I **train** them and they **leave** / ask more money?'
  - 'What if I do **not train** them and they **stay**?'

## Competences in vent. & airtightness – How to?



- Pressure on sales targets → complaints → more time spent ↘
- Investing in qualification pays back ! → **training fund** (%sales)



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## Competences in vent. & airtightness – How to?

- Certification of competences:
  - ✓ Basic competences related to ventilation systems installer,
  - ✓ Add. competences → EE & RES (understanding concept),
  - ✓ Add. competences embedded in other occupations (insulator, window fitter, roofer etc.) → cross-craft
- Recognition of competences:
  - **Who:** EDU system, industry (producers, builders) consumers,
  - **How:** approved training or evaluation in authorized centres,
- Stimulating quality request → beneficiaries
- Financing qualification schemes:
  - **Who:** employer, employee, external source (public/private),
  - **How:** taxes for training, producers fund, quality labels etc.

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## ESCO Portal – facilitating dialogue LABOUR – EDU ?

- ESCO = Multilingual classification of European Skills, Competences, Qualifications and Occupations.
- part of the Europe 2020 strategy.
- Project launched by EC in 2010 - open stakeholder consultation
- first version published on 23 October 2013
- will be completely revised until 2017

- Identifies and categorises skills, competences, qualifications and occupations relevant for the EU labour market and education and training:
  - relationships between different concepts
  - open IT format,
  - available for use free of charge (everyone)
  - can be accessed via the ESCO portal

### ESCO\_v0: occupations & skills 'Ventilation' 'Airtightness'

#### Occupations:

- Plumbing, heating and ventilation instructor
- Insulation installer (ventilation systems)
- Piping insulator (heating, ventilation and air conditioning)
- Ventilation duct cleaner
- Sheet metal worker (ventilation systems)
- Ventilation installer
- Ventilation technician

#### Skills / Competences:

- Heating, ventilation and air cond. (fitting)
- Insulation (heating/ ventilation/sanitation)
- Ventilation adjustment
- Ventilation cleaning
- Ventilation fitting
- Ventilation insulation
- Ventilation sheet metal work
- Ventilation systems (maintenance)



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## Thank you !



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