Closing the performance gap through the upskilling of building professionals

Anita Derjanecz, Federation of European HVAC Associations
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WHO ARE WE?

- ~60 years of research, technical guidance & advocacy for Better Health, Indoor Climate Quality and Energy Performance in all Buildings and Communities
- Member Association are CPD training providers from 26 countries across Europe representing 200,000 building services engineers & technicians
- A transnational knowledge platform between academics, HVAC designers & manufacturers/building technology industry
We need to build buildings for people. **HEALTHY BUILDINGS TRANSFORMATION**

**CHALLENGE:** building professionals to deliver the Renovation Wave

Design - construction - operation of high performing & sustainable & connected buildings

- nZEB
- IEQ
- health & wellbeing

- zero-carbon
- RES integration
- circular

- digital & smart
- in-use monitoring
- districts & grids
THE PERFORMANCE GAP
PERFORMANCE GAP

Owner
- Lack of competence and capacities
- Neglection of early project phases
- No continuity between construction and operation

Engineers
- Lack of precise requirements definition
- No efficient control of implementation
- High dependency on personnel

Contractors
- No testing of building automation functions
- Lack of documentation on implemented building control
- High dependency on personnel

Operator/facility m.
- Premature hand-over of incomplete building
- Lack of capacity for in depth analysis of building operation
- Lack of proper tools to analyze BAC functions

Users
- Higher flexibility in use of spaces
- Higher complexity of buildings systems and applications
- More virtual services
CLOSING THE PERFORMANCE GAP

Design Target Value → Metering Value → Impact → Metering (before & after) → Optimising

Evaluation → Feedback into operation → Savings potential & payback times

DIGITAL TECHNICAL MONITORING

GUIDELINES FOR BUILDING OWNERS
KNOWLEDGE & SKILL GAPS

- New technologies to operate at system level
- Integrated design & design for performance
- Digital skills: BIM, IoT, digital monitoring
- Quality management & technical monitoring (design till operation)
- Proper system maintenance, continuous commissioning
- Cross-sectoral & multi-stakeholder cooperation
- Smart users: enabling, educating, interacting
Structural challenges

- Fragmented construction sector value chain - concerted & harmonised actions for upskilling
- Fragmented construction lifecycle - independent QM & TA along the process
- Breaking down silos (education, policy making, trans-sector cooperation)
- Updating educational programmes, qualifications, occupations & skill definitions (ESCO)
- Attracting young professionals & STEM students in the building sector
- Supporting EU level / harmonised qualification & certification schemes
EU level qualification & certification schemes

EU-wide common training and qualification scheme for building professionals based on CEN EPB Standards

EQF levels 4-6

https://www.cen-ce.eu/
EU level qualification & certification schemes

EU NZEB SKILLS LEVELS FOR BUILDING PROFESSIONALS
PROF TRAC RECOMMENDATIONS

http://proftrac.eu/