



# Closing the performance gap through the upskilling of building professionals

**Anita Derjanecz, Federation of European HVAC Associations**

**BUILD UP Skills online event, 9 December 2020**

# 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

CEN-CE ✓

CEN Standards Certified Experts EU-wide qualification and training scheme based on EPBD mandated CEN standards



PROF / TRAC



# CHALLENGE: building professionals to deliver the Renovation Wave

We need to build buildings for people.  
**HEALTHY BUILDINGS TRANSFORMATION**



Credit: BPIE

Design - construction - operation of

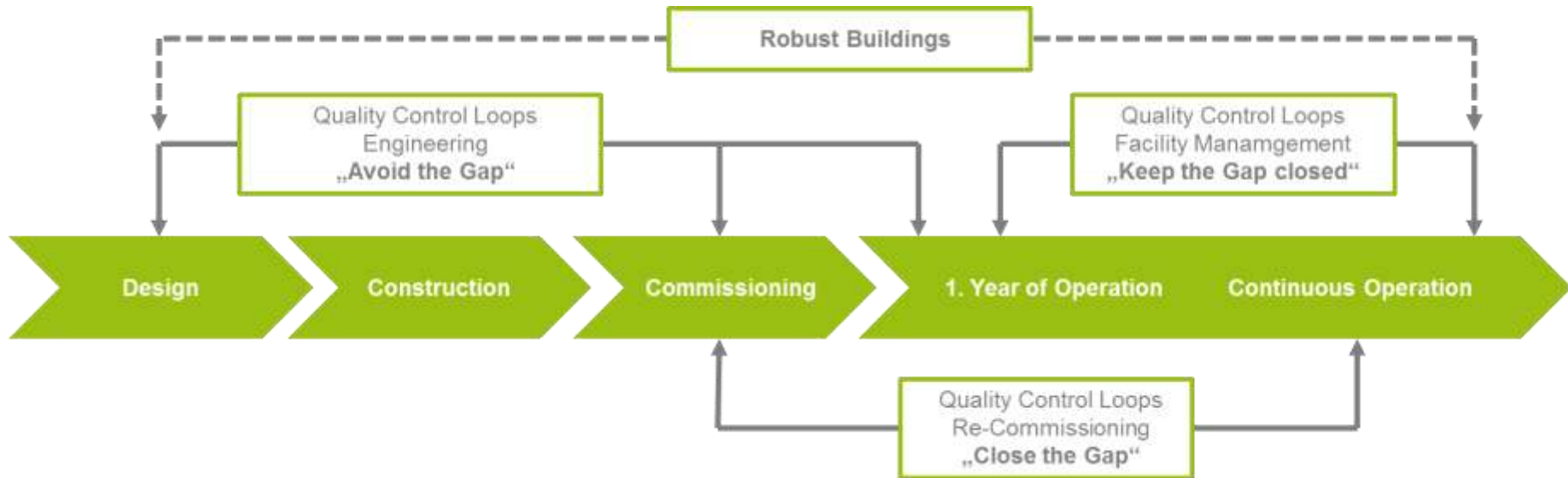
high performing & sustainable & connected buildings

- nZEB
- IEQ
- health & wellbeing

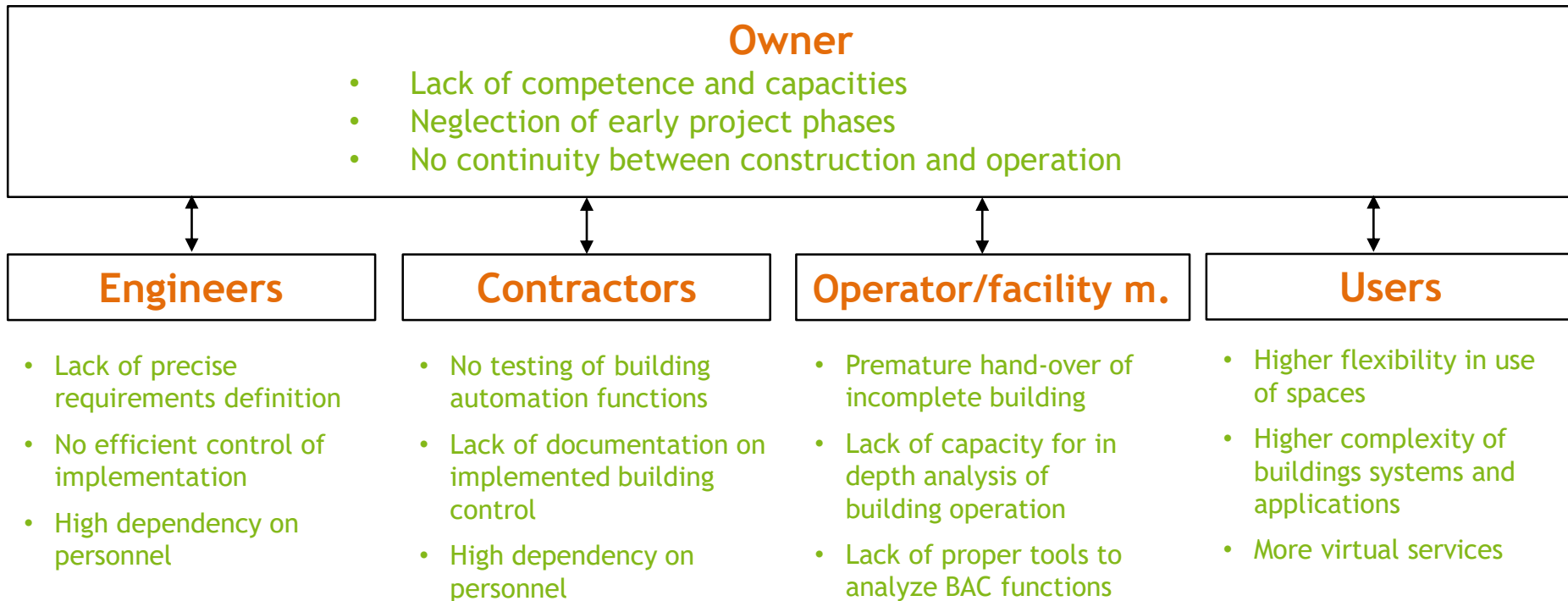
- zero-carbon
- RES integration
- circular

- digital & smart
- in-use monitoring
- districts & grids

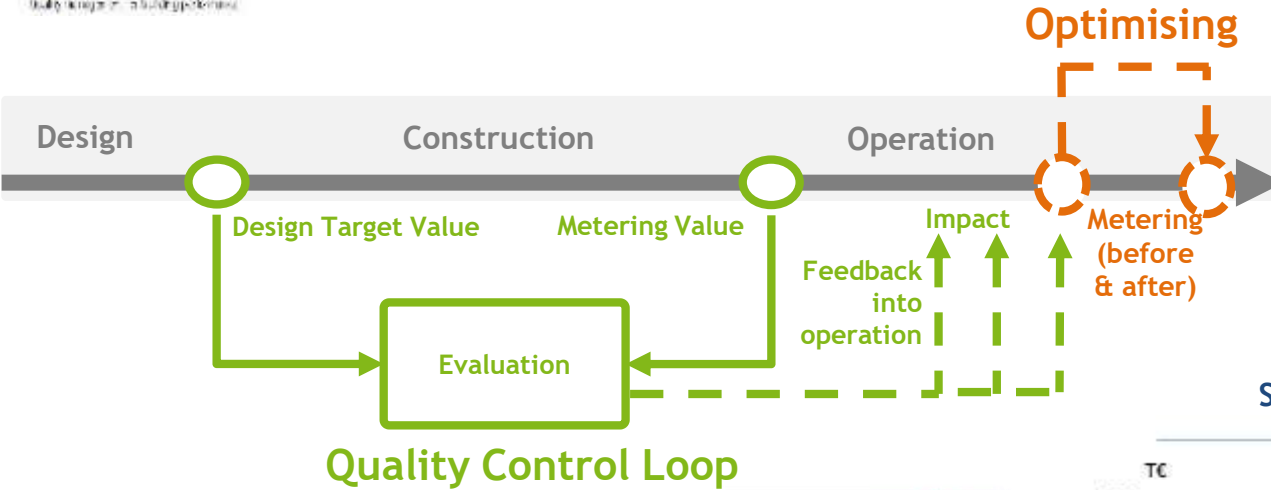
# THE PERFORMANCE GAP



# PERFORMANCE GAP

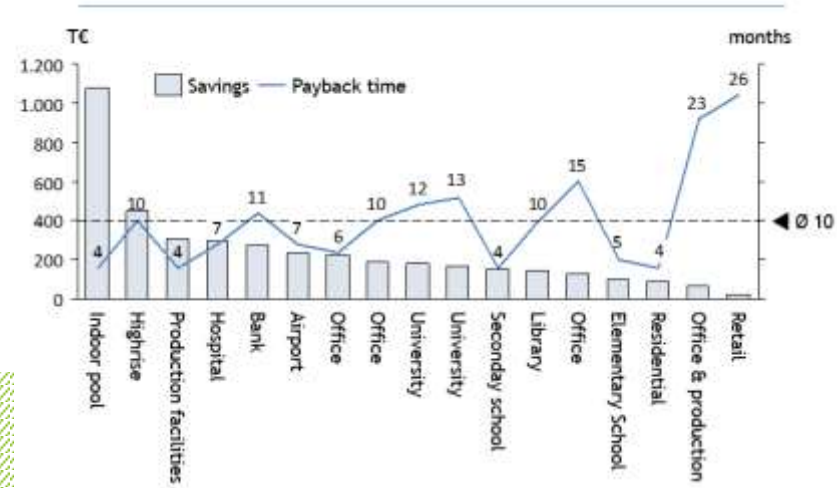


# CLOSING THE PERFORMANCE GAP



## DIGITAL TECHNICAL MONITORING

Savings potential & payback times



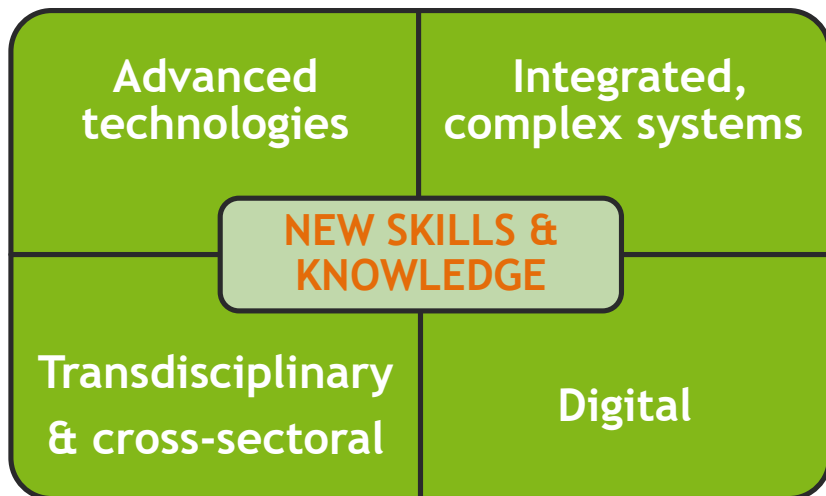
## GUIDELINES FOR BUILDIGN OWNERS

**EUROPEAN GUIDEBOOK**  
**Quality Management for Buildings**  
 Improving Building Performance Through Technical Monitoring and Commissioning

**Technisches Monitoring 2017**  
 Technisches Monitoring als Instrument zur Qualitätssicherung  
 Empfehlung Nr. 106

**AMEV**  
 Arbeitskreis Maschinen- und Elektrotechnik abstrakter und kommunaler Verwaltungen

# 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

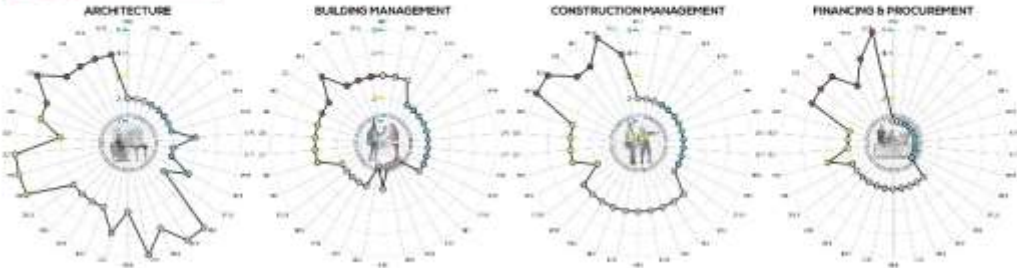
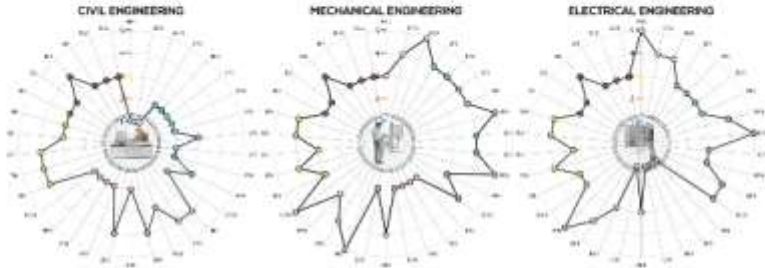
<https://www.cen-ce.eu/>

# EU level qualification & certification schemes



## EU NZEB SKILLS LEVELS FOR BUILDING PROFESSIONALS PROF / TRAC RECOMMENDATIONS

10	10	10	10
9	9	9	9
8	8	8	8
7	7	7	7
6	6	6	6
5	5	5	5
4	4	4	4
3	3	3	3
2	2	2	2
1	1	1	1
0	0	0	0



TRAINING PROVIDERS  
TRAINERS AREA  
TRAINING MATERIAL

### TRAINING MATERIAL REPOSITORY WEBPAGE



On this page you can find all relevant training materials on NZEB. Use the filter form on the left to narrow the results.

**nZEB knowledge to share?**

Upload your training material in the repository and make it available to the PROF/TRAC Community.

[UPLOAD MATERIAL](#)

Topic:

Type of project:

Building use:

Type of material:

Language:

Relevant report	Topic	Project	
Speakers Notes to Accompany Slides for Owners	Energy management	TRB	<a href="#">More details</a>
Toolkit UK Adaptation	Energy management	TRB	<a href="#">More details</a>
D2.1 EeB technologies for MEP systems of healthcare buildings	Energy management	Stumper	<a href="#">More details</a>
D2.7 EeB technologies for synergy between building and neighbourhood energy systems	Energy management	Streamer	<a href="#">More details</a>
Tools and methods for the management of healthcare real estate assets	Energy management	Streamer	<a href="#">More details</a>
Case-studies database	Energy management	POWHOUSE	<a href="#">More details</a>

<http://proftrac.eu/>