

# PROF / TRAC

*PROFessional multi-disciplinary TRaining and Continuing development in skills  
for NZEB principles*

**PROF/TRAC: Open Training and Qualification Platform for nZEB  
Construction & Renovation**



Jan Cromwijk

## WHAT IS OUR OVERALL GOAL?:

Overall goal of PROF-TRAC is to offer a solution for these barriers by developing and maintaining **an Open Education Platform for Continuing Professional Development** for professionals in the building sector.

This platform addresses **technical experts, architects and managers**.

The developed **European qualification scheme** will be part of a life- long-life learning process for continuing development and up-skilling of professionals.



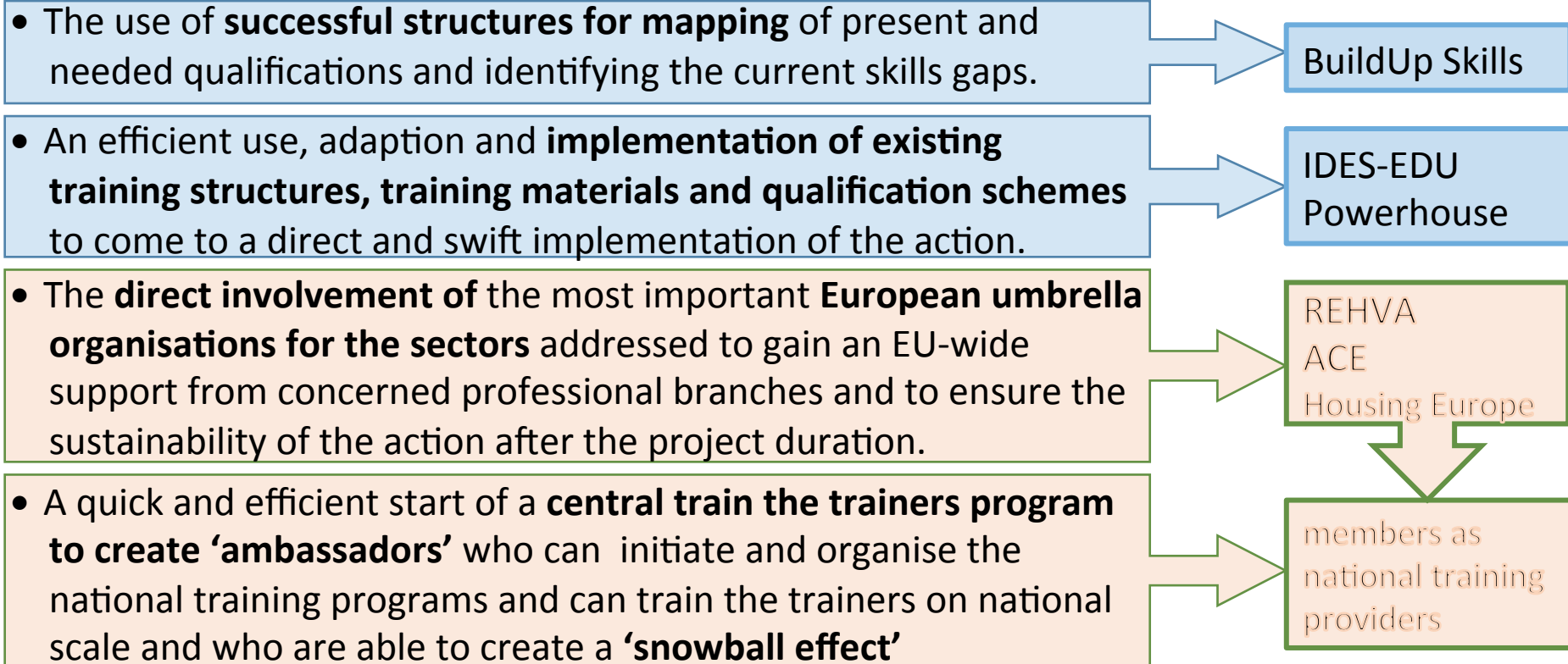
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# THE OVERALL APPROACH OF PROF/TRAC:



The overall approach is based on the following four pillars:


















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# WHO ARE WE?:

The PROF/TRAC consortium

Participant No	Participant organisation name	Country	Role	
1	 Huygen Installatie Adviseurs	HIA	NL	Coordinator
2	 Federation of European Heating, Ventilation and Air Conditioning Associations	REHVA	EU (NL)	EU associations representing their branch
3	 Architects' Council Europe	ACE	EU (BE)	
4	 Housing Europe	HE	EU (BE)	
5	 ISSO	ISSO	NL	
6	 Valencia Institute of Building	IVE	ES	Knowledge and methodology providers
7	 Czech Technical University Prague	CVUT	CZ	
8	 Aalborg University	AAU	DK	
9	 DANVAK	DANVAK	DK	Training providers
10	 Croatian Chamber of Mechanical Engineers	HKIS	HR	
11	 Spanish Technical Association of HVAC and Refrigeration	ATECYR	ES	
12	 TVVL	TVVL	NL	
13	 Czech Chamber of Chartered Engineers and Technicians	CKAIT	CZ	
14	 Chamber of Architecture and Spatial Planning of Slovenia	ZAPS	SI	
15	 Italian Chamber of Architects	CNAPPC	IT	



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# OUTCOMES:

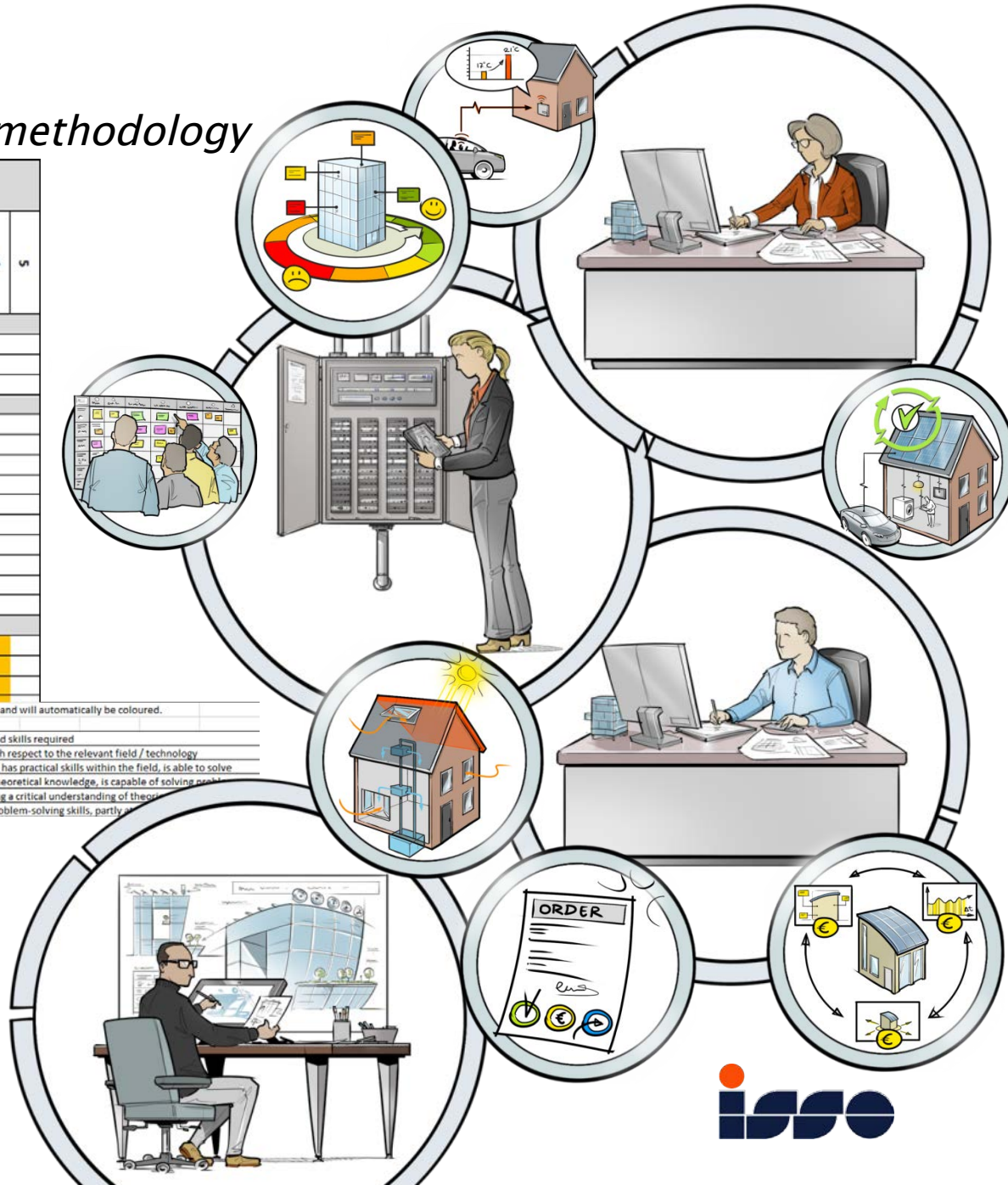
## PROF/TRAC skills mapping methodology

CODE	TECHNOLOGY, INTERDISCIPLINARY SKILLS AND PROFESSIONS	Architect								
		current	nZEB	Gap	1	2	3	4	5	
<b>M</b>	<b>ENERGY MANAGEMENT</b>									
EM1	Smart grid systems	1	1	0						
EM2	Domotic systems	1	3	2						
EM3	Building management systems	1	2	1						
<b>P</b>	<b>ENERGY PRODUCTION (on-site and nearby)</b>									
EP1	Geothermal energy	0	1	1						
EP2	Biomass	0	1	1						
EP3	Biogas	0	1	1						
EP4	District heating and cooling	1	2	1						
EP5	Heatpumps	1	2	1						
EP6	Solar power systems for electricity generation	2	3	1						
EP7	Solar thermal systems for cooling generation	1	1	0						
EP8	Solar thermal systems for domestic hot water	2	1	0						
EP9	Mini wind power	0	1	1						
EP10	Combined Heat and Power (CHP)	0	1	1						
<b>R</b>	<b>ENERGY REDUCTION</b>									
ER1	Insulation	3	4	1						
ER2	Air tightness building	3	4	1						
ER3	Micro climates	2	4	2						
ER4	Envelope systems									

Skills levels can be estimated from level 0 to 5, and will automatically be coloured.

Explanation of the levels 0-5:

0	Not applicable / no knowledge and skills required
1	Has little knowledge and skills with respect to the relevant field / technology
2	Understands basic knowledge and has practical skills within the field, is able to solve
3	Has comprehensive, factual and theoretical knowledge, is capable of solving problems
4	Has advanced knowledge involving a critical understanding of theory and practice
5	Has specialised knowledge and problem-solving skills, partly autonomous



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# OUTCOMES:

## PROF/TRAC Database – keyword structure

Profession	Code	Topic(T)	Subtopic	Code	Type of project	Code	Building use	Code	Type of the material	Code	Language	Code
Architect	P1	<b>Energy management</b>		<b>EM</b>	New construction	E1	Office buildings	B1	PPT	M1	Danish	L1
Engineer	P2		Smart grid systems	EM1	Renovation	E2	Apartment houses	B2	Lecture notes	M2	Dutch	L2
Project manager	P3		Domotic systems	EM2			Single-family houses	B3	Reports/publications	M3	English	L3
Project developer	P4		Building management systems	EM3			Educational building	B4	Video tutorials	M4	French	L4
Building manager	P5	<b>Energy production</b>		<b>EP</b>			Other	B5	Workshops	M5	German	L5
Building owner	P6		Geothermal energy	EP1			Hospitals	B6	Guidelines/Toolkits	M6	Italian	L6
Financial manager	P7		Biomass	EP2			Wholesale and retail	B7	Software	M7	Spanish	L7
Procurer	P8		Biogas	EP3			Sport facilities	B8	Case studies	M8	Bulgarian	L8
PROF-TRAC trainer	P9		District heating and cooling	EP4					Databases/resources	M9	Croatian	L9
			Heatpumps	EP5					MOOCs	M10	Czech	L10
			Solar power systems for electricity generation	EP6							Estonian	L11
			Solar thermal systems for cooling generation	EP7							Finnish	L12
			Solar thermal systems for domestic hot water and/or heating generation)	EP8							German	L13
			Mini wind power	EP9							Greek	L14
		Combined Heat and Power (CHP)	EP10							Hungarian	L15	
		<b>Energy reduction</b>		<b>ER</b>							Irish	L16
			Insulation	ER1							Latvian	L17
			Air tightness building	ER2							Lithuanian	L18
			Micro climates	ER3							Maltese	L19
			Envelope systems	ER4							Polish	L20
			Hot water systems	ER5							Portuguese	L21
			Window and/or glazing systems	ER6							Romanian	L22
			Heating and cooling emission systems	ER7							Serbian	L23
			Electric heating systems	ER8							Slovak	L24
			Artificial lighting systems	ER9							Slovenian	L25
		Ventilation systems	ER10							Spanish	L26	
		<b>Interdisciplinary skills</b>		<b>IS</b>							Swedish	L27



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# OUTCOMES: PROF/TRAC Database - Online

<http://proftrac.eu/training-materials.html>

## TRAINING MATERIAL REPOSITORY



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



Topic  
Select topic ▼

Type of project  
Select one... ▼

Building use  
Select one... ▼

Type of material  
Select one... ▼

Language  
Select one... ▼

[Filter result >>](#)

Relevant report	Topic	Project	
The Comfort Houses: Measurements And Analysis Of The Indoor Environment And Energy Consumption In 8 Passive Houses 2008-2011	Energy reduction	ZEB	<a href="#">More details</a>
Energineutralt Byggeri - Definition og fremtidig rolle i samfundet	Energy management	ZEB	<a href="#">More details</a>
Energineutralt Byggeri - Designprincipper og byggede eksempler for enfamiliehuse	Energy management	ZEB	<a href="#">More details</a>
Energineutralt Byggeri - Tekniske løsninger	Energy management	ZEB	<a href="#">More details</a>
Zero Energy Buildings - DESIGN PRINCIPLES AND BUILT EXAMPLES	Energy management	ZEB	<a href="#">More details</a>
Survey Findings Report	Awareness of energy efficiency	TRB	<a href="#">More details</a>
Final conclusions report	Awareness of energy efficiency	TRB	<a href="#">More details</a>



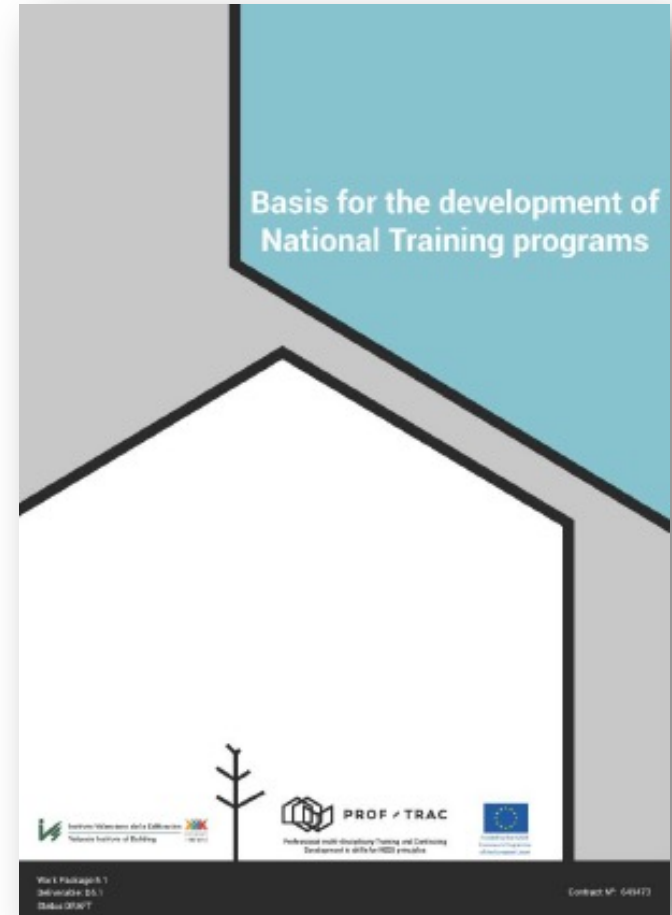
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## OUTCOMES:

### *PROF/TRAC Educational guide*

- Basis for the development of national training programs
- Available for training providers to be used as a support to design the pilot courses



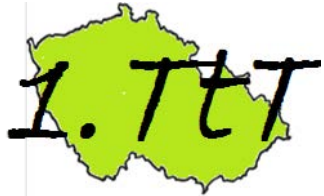
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# OUTCOMES:

*PROF/TRAC Train the Trainer sessions*

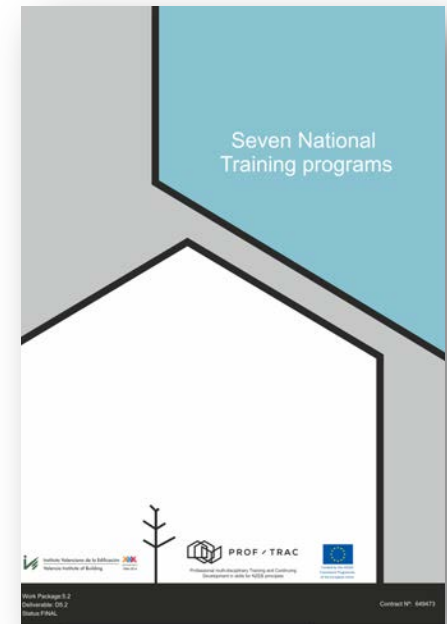


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# OUTCOMES:

*PROF/TRAC Seven national training programs  
Denmark, The Netherlands, Spain, Italy, Czech Republic, Slovenia and  
Croatia*



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## PROF/TRAC COMING ACTIVITIES:

- Creating an EU-Qualification framework for **C**ontinuing **P**rofessional **D**evelopment
- Integration of the skillsmapping and the EU-Qualification Framework in the BUILD UP Skills advisor-app
- Promotion of the PROF/TRAC database on training materials to use in other training and education projects
- Next round of trainings, in non PROF/TRAC countries, for REHVA and ACE members: 3<sup>rd</sup> Train the Trainer session in Valencia, Spain, January 25 -26



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## *Collaboration with other EU-projects*

- **BUSToB** – Build Up Skills to Business
- **ingREeS** – Setting up Qualification and Continuing Education and Training Scheme for Middle and Senior Level Professionals on Energy Efficiency and Use of Renewable Energy Sources in Buildings (Slovakia and Czech Republic)
- **MEnS** – Meeting of Energy Professional Skills – addresses engineers and architects as well (in 10 EU countries)
- **B.U.G.S.** – Building Green Skills; Austria, Italy, Croatia and Slovenia; funded by PROGRESS

**BUILD UP Skills**  
The Netherlands

**ingREeS**



**BUGS**



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# COLOFON

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



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# Thank you for your attention

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