

Integrated Strategies for the Energy Renovation of Public Buildings in the Mediterranean **SHERPA Final event**

**Raising capacities of public employees in
local and regional administrations**

*Different training approaches to promote and
improve energy renovation processes*

22 January 2020, Brussels

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The need of customised training programmes

- ❑ Construction industry: complex sector
- ❑ Many players at various stages
- ❑ Different roles/tasks during the building value chain
- ❑ Specific needs regarding training programmes

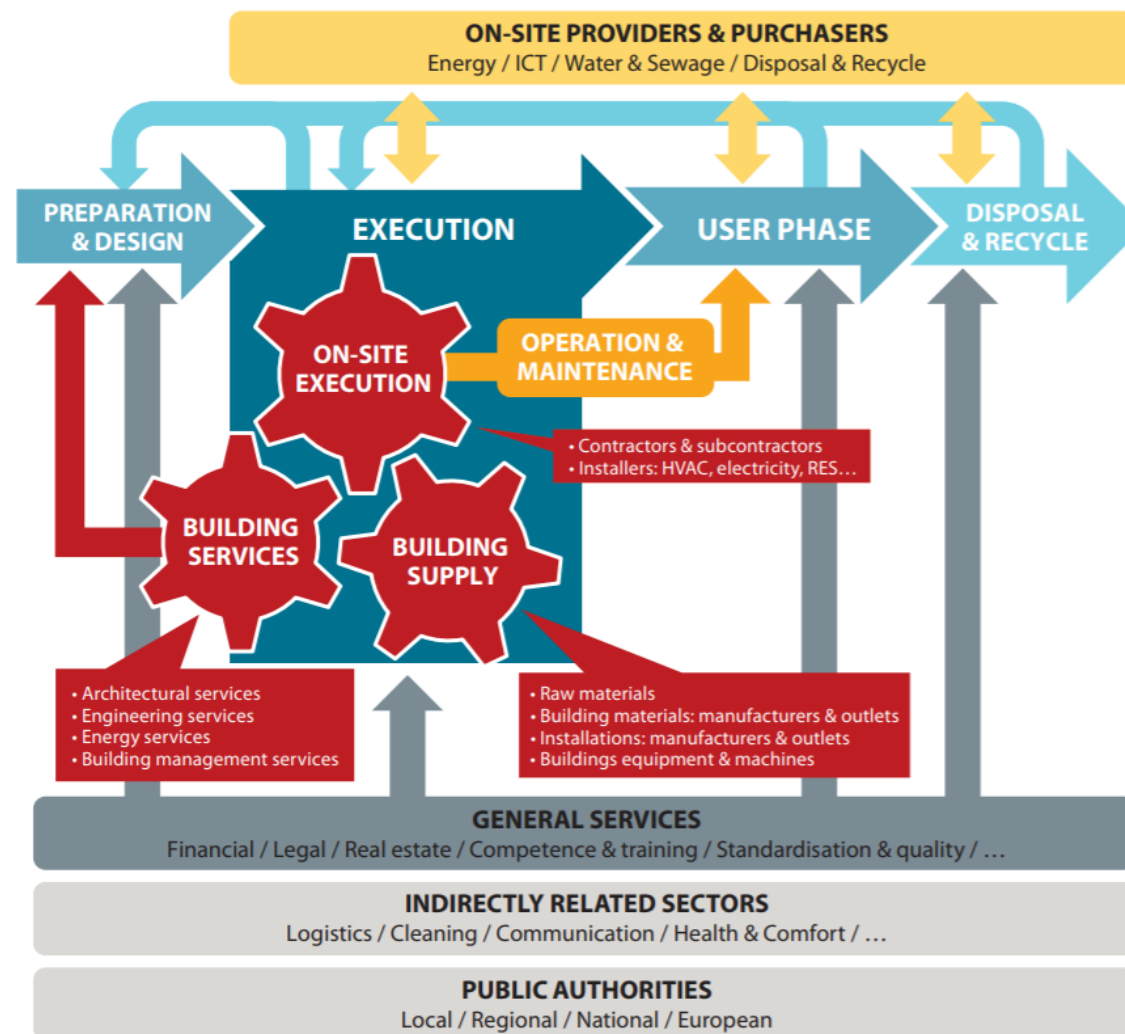


Figure: The building value chain: interactions between actors in the process of value supply. Source: Driving Transformational Change in the Construction Value Chain (BPIE)

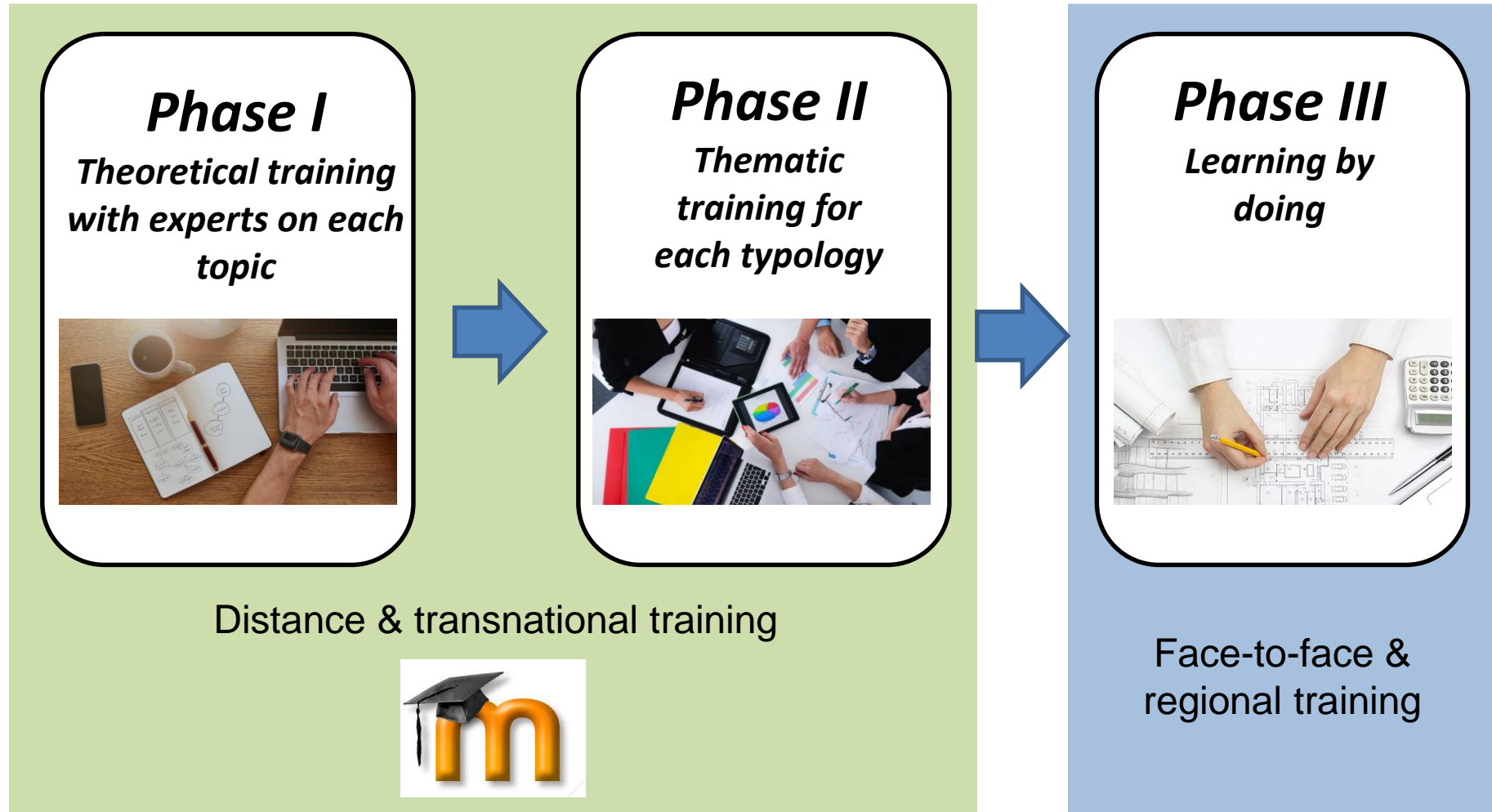


Specific training initiatives

- SHERPA (Interreg MED) : targetting public authorities**
- PROF / TRAC (Horizon 2020): targetting white collars, especially building designers**
- BIMplement (Horizon 2020): targetting white collars (building designers, construction companies) + blue collars (construction phase)**



SHERPA Methodology – How? Where?



SHERPA Methodology - Training

Methodology and content

Phase I & II

Distance & transnational training

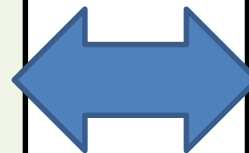
- PARTICIPANTS selection in each region.
- Specific training needs analysis for each region (competence map: knowledge + skills).
- Training content preparation (according to thematic and typology).
- Trainers' selection.
- Courses development.

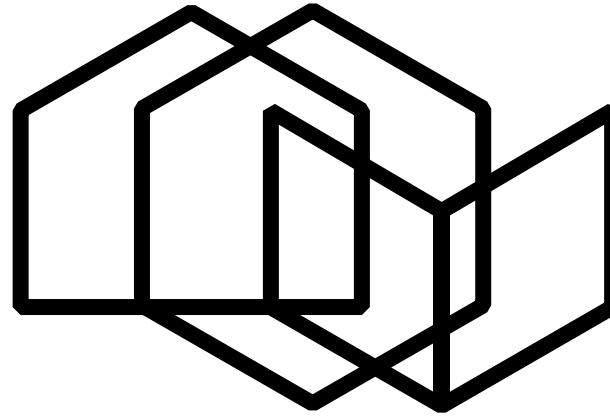


Phase III

Face-to-face & regional training

- Training based on specific projects (Learning by doing)
- Different and adapted training to each region:
 - Methodology
 - Amount of sessions
 - Structure and formative resources
 - Organization (typologies vs departments)
 - Amount of attendees



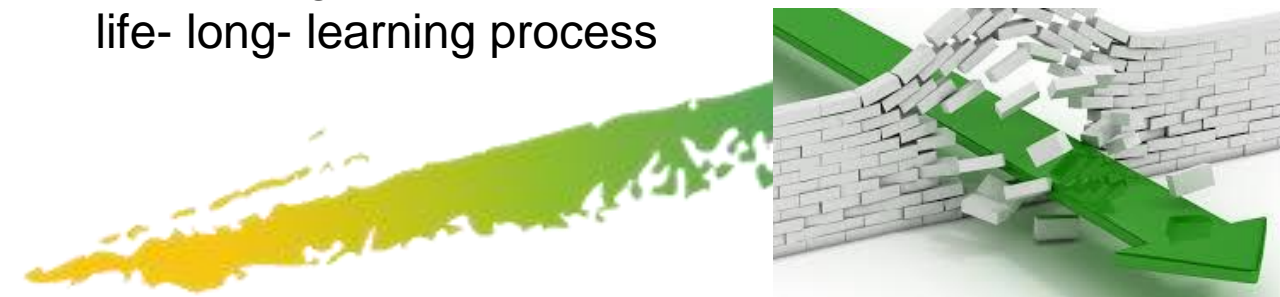


PROF / TRAC



Why PROF / TRAC? barriers to NZEB construction and retrofitting

- **Mismatch between the available and needed skills** as well as managerial capacity of professionals due to a lack in specific training and education
- Many professionals in the buildings sector have only **limited training and skills** in energy efficient building design and nZEB principles.
- **Collaboration** between the different disciplines and building professionals is still **not very common**.
- The involved building professionals are lacking the right information on available qualifications and training materials.
- There are **no mappings** and qualifications available **of the needed skills** for the specific target groups. Most of the trainings available focus on one specific target group and on one technique or concept.
- **Training materials** for education and post-initial education are now created **on an ad-hoc basis** without consensus on an underlying qualification framework.
- **Training materials** for education and post-initial education are available but **should be maintained and updated** in order to make the training sustainable and suitable for a life- long- learning process



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 engineers.**

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



7 national training programs (draft)

- DANVAK Denmark
- TVVL The Netherlands
- ATECYR Spain
- CNAPPS Italy
- CKAIT Czech Republic
- HKIS Croatia
- ZAPS Slovenia







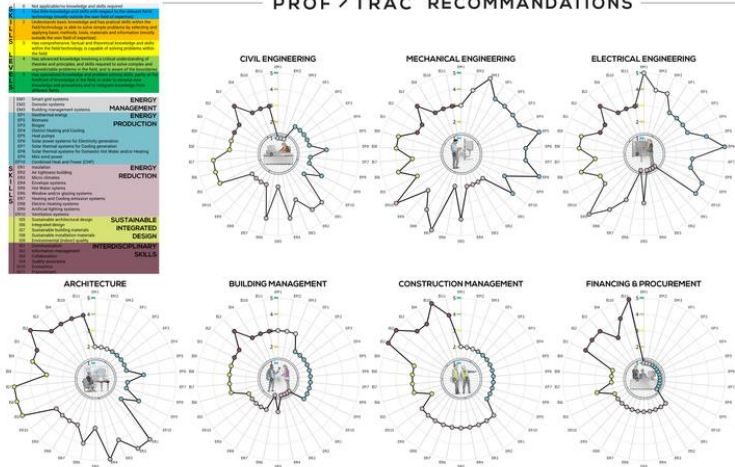



EUROPEAN TRAINING AND QUALIFICATION PLATFORM

PROF/TRAC NZEB SKILLS AND QUALIFICATION SCHEME

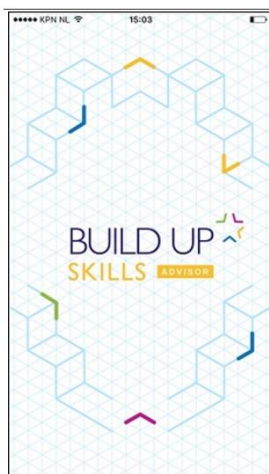


EU NZEB SKILLS LEVELS FOR BUILDING PROFESSIONALS
PROF / TRAC RECOMMENDATIONS



www.proftrac.eu

BUILD UP SKILLS ADVISOR APP



TRAINING MATERIAL REPOSITORY

Topic	Relevant report	Topic	Project
Select topic	ZenN Magazine: Nearly zero energy neighbourhoods. Energy efficient renovations of residential areas	Energy reduction	ZenN More details
Type of project	Holistic Design Kit for nZEB Renovation	Energy reduction	ZenN More details
Select one...	ZenN Guidelines: Transition of technical knowledge for nearly zero energy neighbourhoods	Energy reduction	ZenN More details
Building use	The Comfort Houses: Measurements And Analysis	Energy reduction	ZEB More details
Select one...	Of The Indoor Environment And Energy Consumption In 8 Passive Houses 2008-2011	Energy reduction	ZEB More details
Type of material	Energinøiutralt Byggeri – Definition og fremtidig rolle i samfundet	Energy management	ZEB More details
Select one...			

ONLINE TRAIN-THE-TRAINERS COURSE

N.	Session title	Speaker
1	INTRODUCTION INCL. INTRODUCTION TO IDES-EDU	Peter Op't Veld (HIA, The Netherlands)
2	MAPPING THE SITUATION	Jan Cromwijk (ISSO, The Netherlands)
3	ENERGY SYSTEMS FOR NZEB, COMPUTATIONAL TOOLS FOR THE EVALUATION OF ENERGY PERFORMANCE OF BUILDINGS, BIM	Karel Kabele (CVUT, Czech Republic)
4	MODERN TEACHING METHODS	Jan Cromwijk (ISSO, The Netherlands)
5	OVERVIEW OF TEACHING MATERIALS	Olena K. Larsen (AAU, Denmark)
6	NZEB DESIGN	Per Heiselberg (AAU, Denmark)
7	KEY FACTORS FOR NZEB AND BASIS FOR NATIONAL TRAINING PROGRAMS. ASSIGNMENT	Laura Soto, Cristina Jareño (IVE Spain)
8	FOSTERING A MARKET MOVE TOWARD NZEB ENERGY RETROFIT AND DRIVING A COST DECREASE	Sébastien Delpont (GreenFlex, France)

CERTIFIED TRAINER

PROF/TRAC Project Home Contact Links Login

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BIMplement

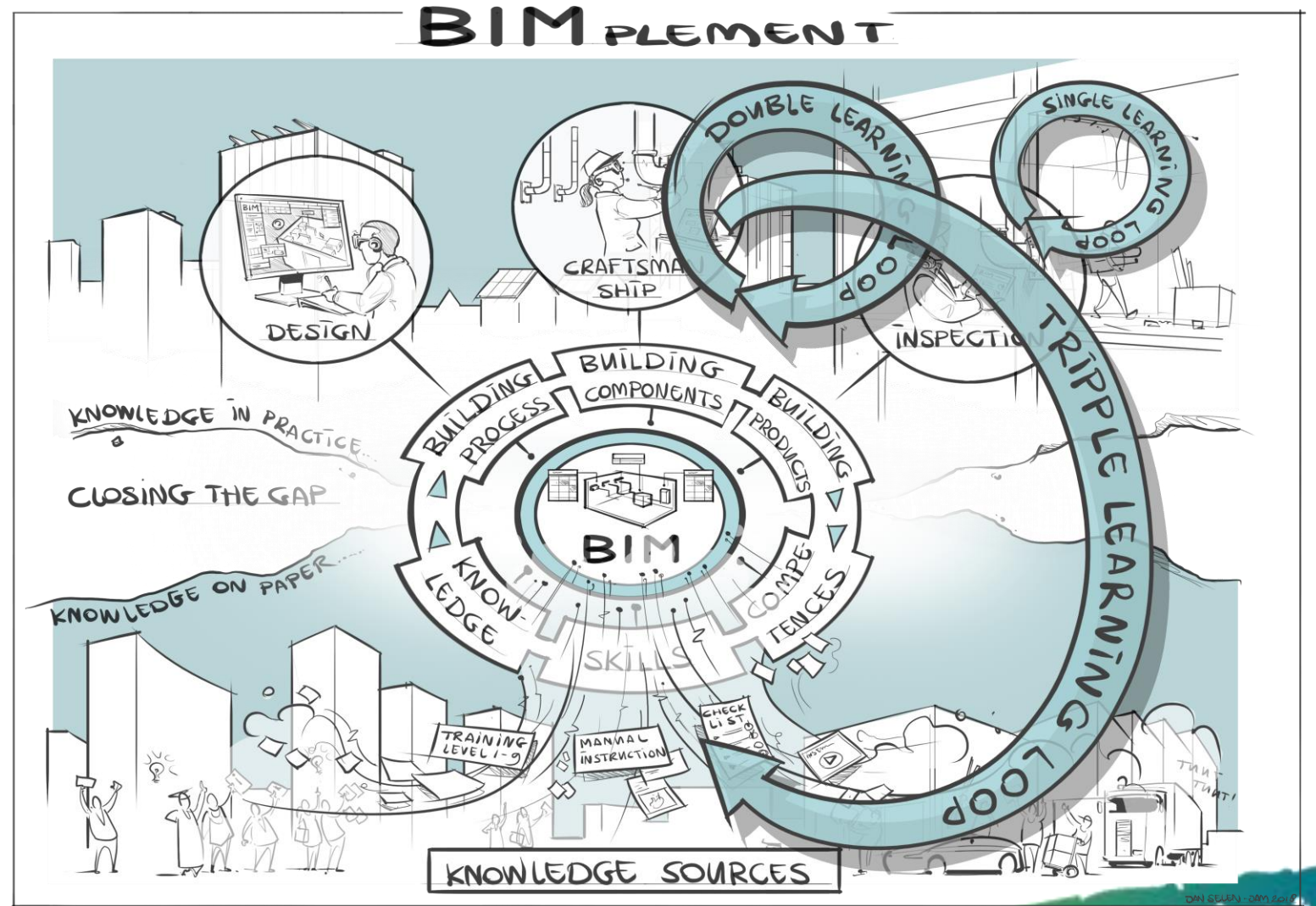


Towards a learning building sector by setting up
a large-scale and flexible qualification methodology integrating
technical, cross-craft and BIM related skills and competences



WHY?

BIMplement aims to achieve an improved quality for nZEB construction and renovation



HOW?

By creating a fully qualified and equipped workforce

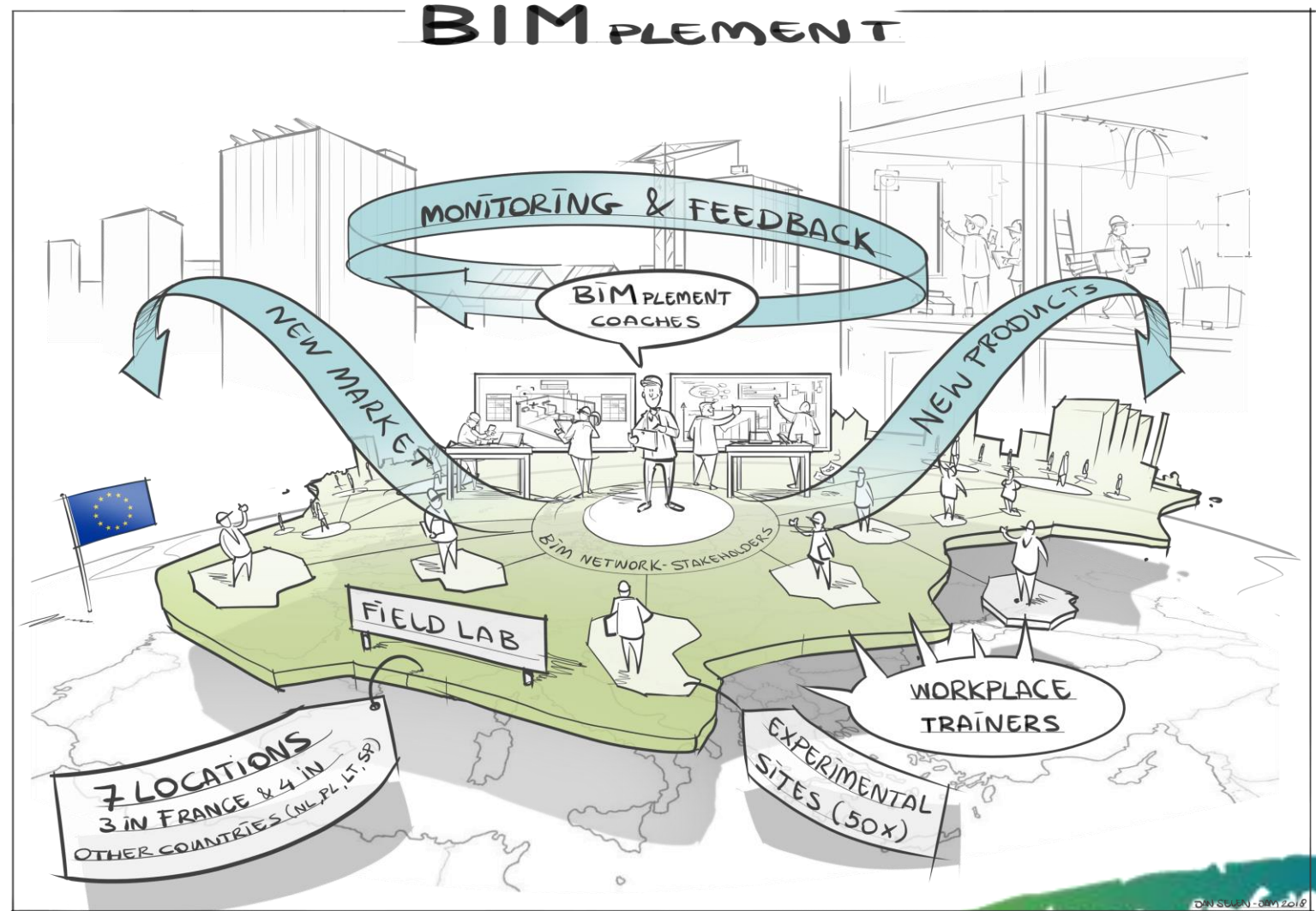


BIMplement will set up large scale **training**, Continuous Professional Development and BIM-enhanced **qualification schemes**, strengthened with hands-on and BIM-enhanced workplace learning tools



WHERE?

Pilot field labs and experimental sites



WHERE?: Spanish Pilot Field Labs

LABORA: training center in the municipality of Catarroja

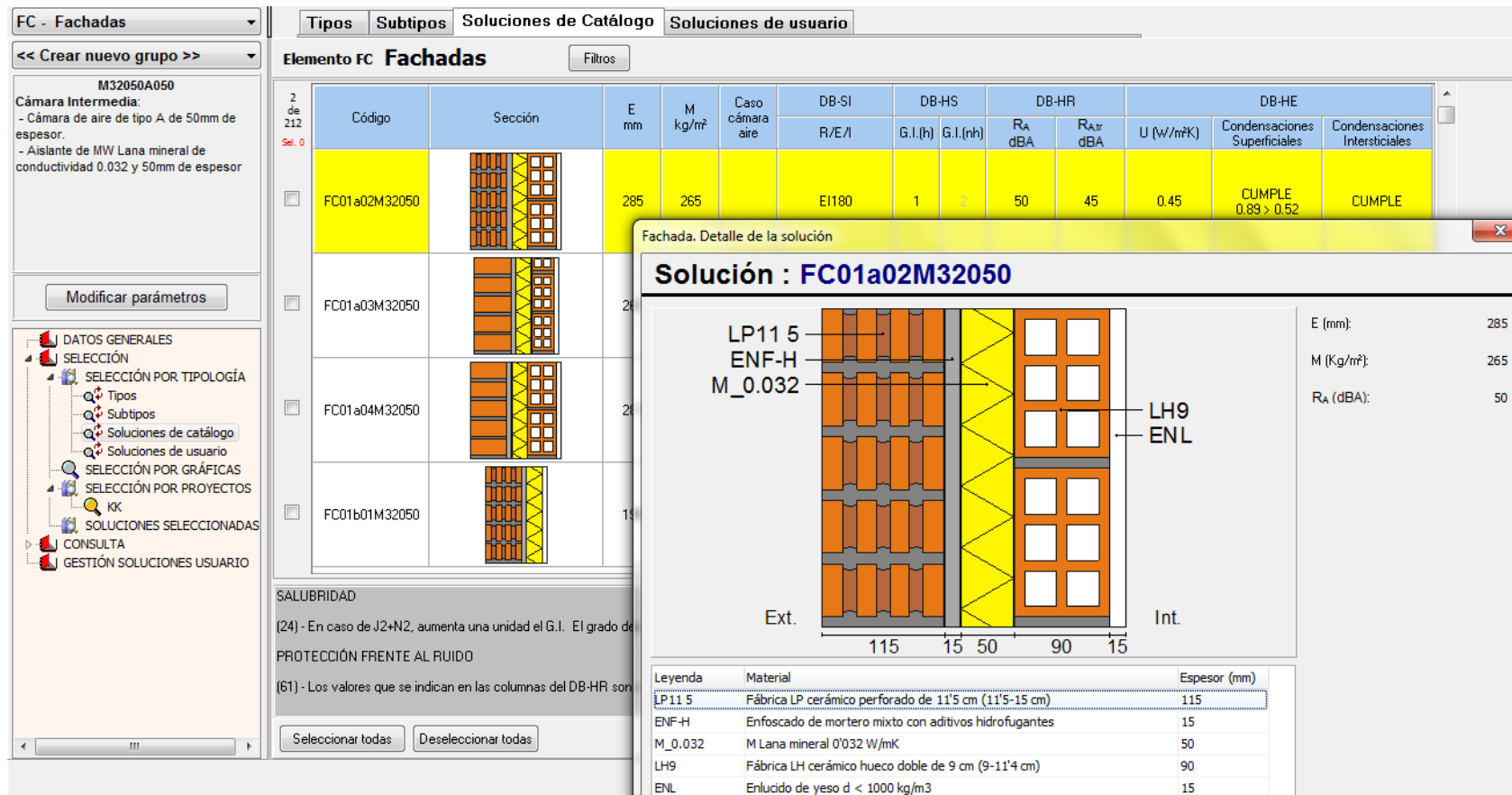


IVE premises: 2 training rooms, 1 assembly hall, 1 exhibition room



WHERE?: Spanish Pilot Field Labs

CATALOGUE: research project



The screenshot shows the IFC software interface for facade solutions. The main window displays a list of solutions with columns for Código, Sección, E (mm), M (kg/m²), and various performance metrics (DB-SI, DB-HS, DB-HR, DB-HE). A detailed view of solution FC01a02M32050 is shown, including a cross-section diagram and a material legend.

Código	Sección	E (mm)	M (kg/m²)	Caso cámara aire	DB-SI R/E/I	DB-HS G.I.(h) G.I.(nh)	DB-HR R _A dBA R _{Atr} dBA	DB-HE U (W/m²K)	Condensaciones Superficiales	Condensaciones Intersticiales
FC01a02M32050		285	265		EI180	1	50 45	0.45	CUMPLE 0.89 > 0.52	CUMPLE

Leyenda	Material	Espesor (mm)
LP11 5	Fábrica LP cerámico perforado de 11'5 cm (11'5-15 cm)	115
ENF-H	Enfoscado de mortero mixto con aditivos hidrofugantes	15
M_0.032	M Lana mineral 0'032 W/mK	50
LH9	Fábrica LH cerámico hueco doble de 9 cm (9-11'4 cm)	90
ENL	Enlucido de yeso d < 1000 kg/m3	15

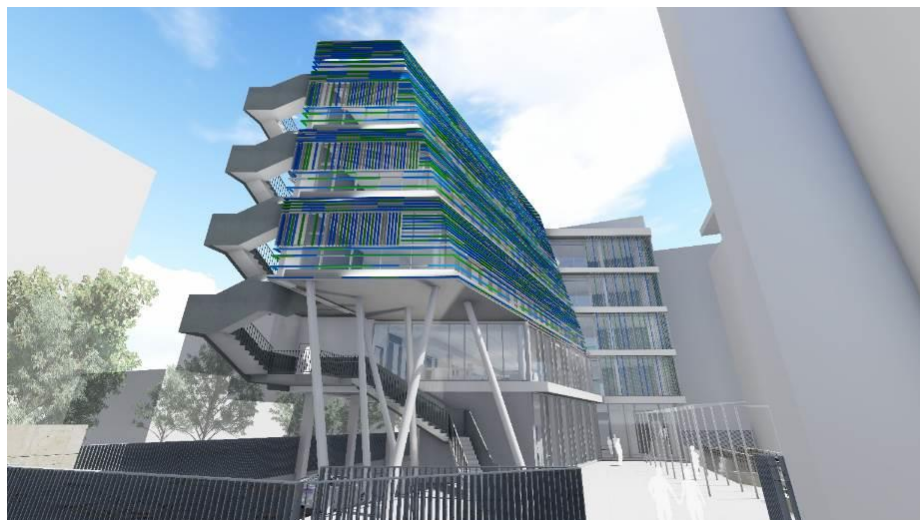
Construction solutions in IFC

Information on acoustic, thermal, condensation, waterproof, price, testing, quality control, execution, maintenance to be downloaded and imported from any BIM modeling program



WHERE? Spanish Experimental Sites

CDT: Tourism development and acceleration center of Valencia



Project presentation

- Experimental site
- Valencia (SPAIN)
- Office building
- Size (m2): 2761
- Construction phase
- New construction

Trainings

- 2, 14, 15 October 2019 + online
- 16 hours
- Obremo + AECO estudio
- 10 trainees



Builders

AECO estudio

Designers



Owners



WHERE? Spanish Experimental Sites

Employment, training and entrepreneurship office



Project presentation

- Experimental site
- Valencia (SPAIN)
- Office building
- Size (m2): 714,66 m2
- Construction phase
- New construction

BECSA

Builders



**AJUNTAMENT
DE VALÈNCIA**

Owners



Trainings

- 17, 24, 31 October 2019 + online
- 16 hours
- BECSA + Ajuntament de València
- 24 trainees



WHERE? Spanish Experimental Sites

HEVIA: residential building



Project presentation

- Experimental site
- Valencia (SPAIN)
- Multiple-dwelling units
- Size (m2): 57664
- Construction phase
- New construction



Builders



Designers

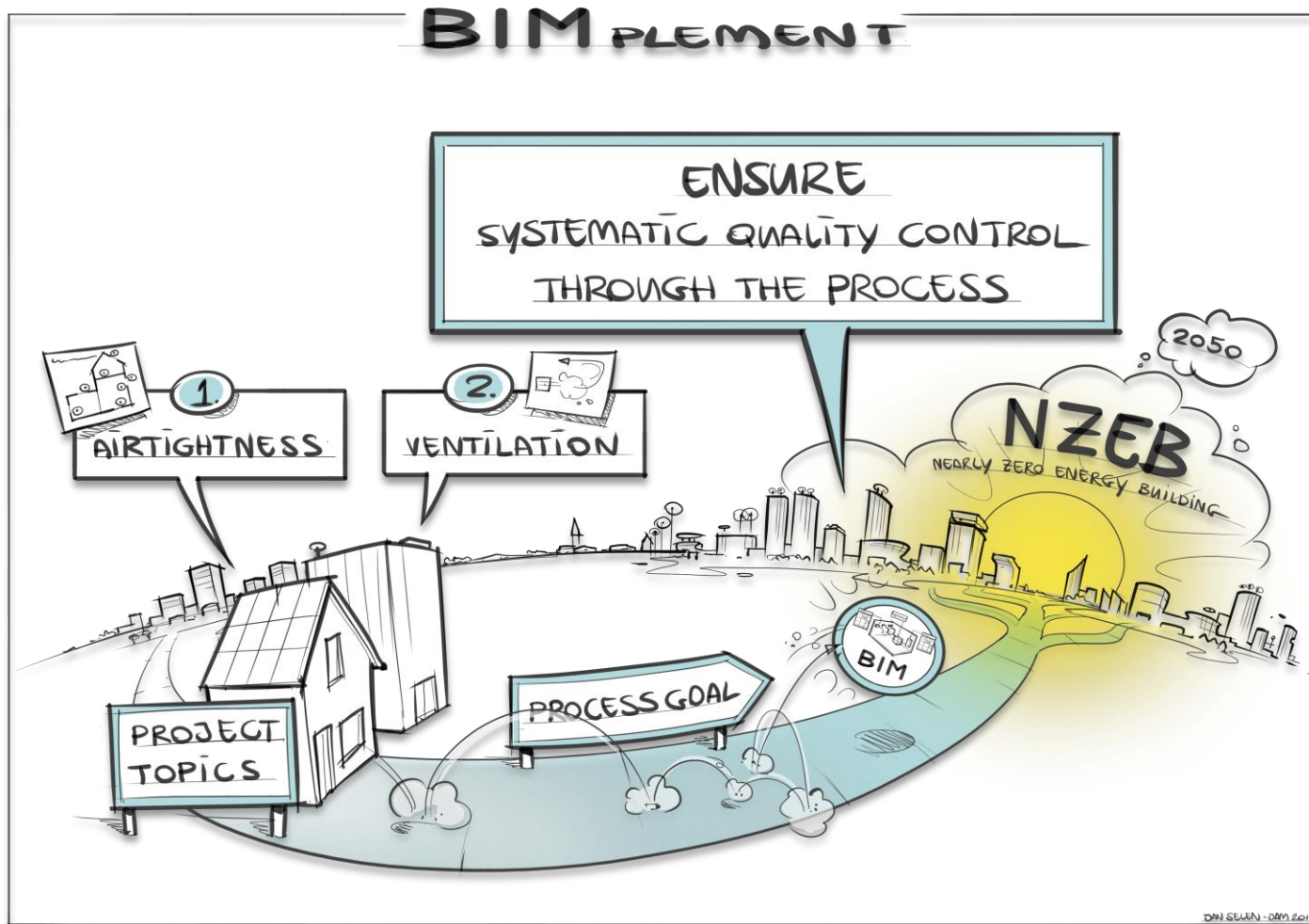


Owners

Trainings

- 28, 29 Nov., 2 Dec. + online
- 16 hours
- CLÁSICA URBANA
- 6 trainees





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