



# **TRAIN-TO-NZEB**

## **Building Knowledge Hub (BKH)**

### **Romania**

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INGREES INTERNATIONAL CONFERENCE ON NZEB

24 JANUARY 2018, PRAGUE

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*Business Development Group*



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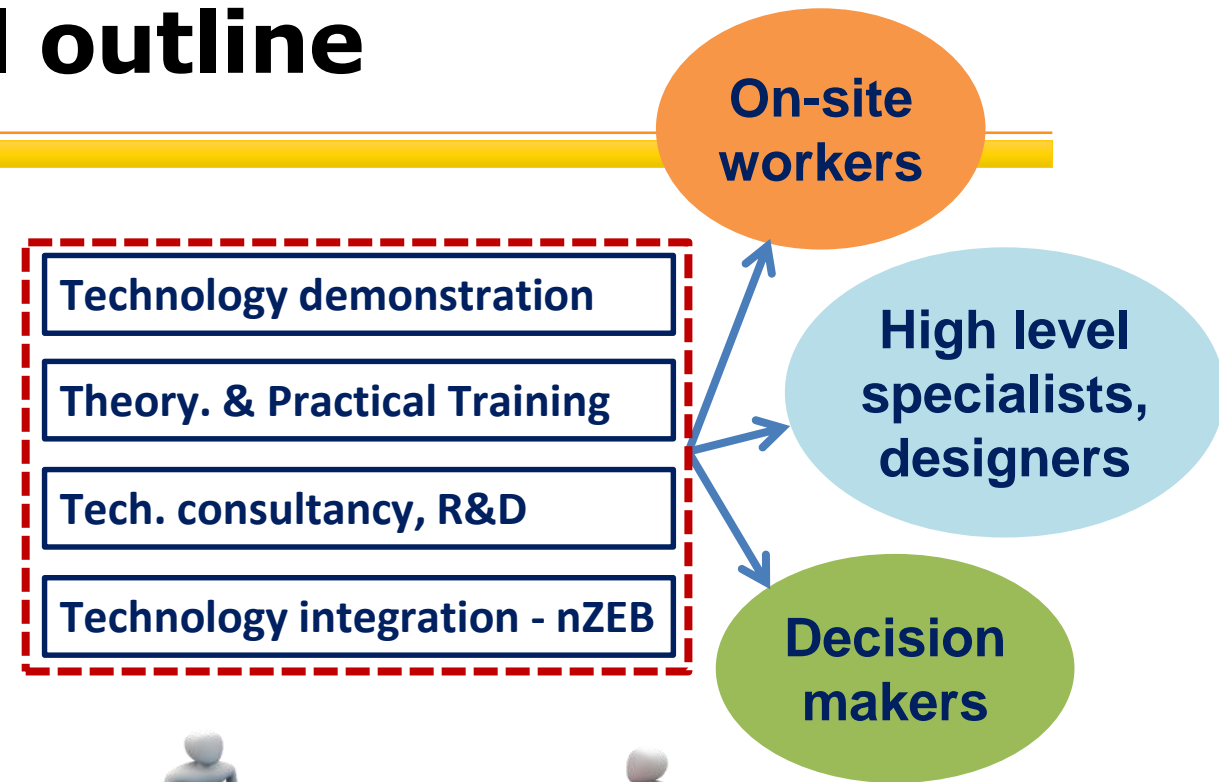
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# BKH Romania: General outline

- ❖ Planned as a network organization centred on the existing **Centre for Energy Performance of Buildings** within NIRD URBAN-INCERC
- ❖ Divided in: BKH Bucharest & BKH Brasov
- ❖ Current project support provided by partners BDG, FPIP (BKH Braşov) and other stakeholders / industry supporters



- ❖ **Experts & trainers:** in-house and external
- ❖ **Course offer:** in-house and in **partnership**



# BKH Romania offer

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## Training courses

- "Certified Passive House Tradespersons" (NIRD URBAN-INCERC as PHI official training provider)
- "Certified Passive House Designers" (NIRD URBAN-INCERC and Romanian Chamber of Architects)
- "Installers of PV Systems" (FPIP based on the programme developed within the Intelligent Energy Europe PVTRIN project)
- "Legal Framework and Concepts for nZEB" training workshop for decision makers (NIRD URBAN-INCERC & FPIP)

+ new training programs focused on nZEB knowledge and skills under development

## The Consultancy & Research Department

- a one-stop-shop department (OSS) for technical, administrative and financial consultations which is developed along with creating the demand and the development of the nZEB market.



# Technical solutions

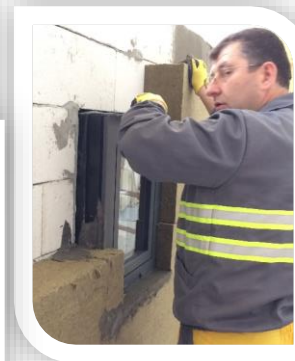
## BKH Bucharest



Mechanical Ventilation  
with Heat Recovery

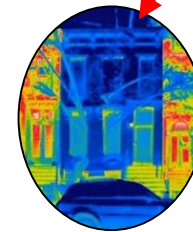


PH  
Windows

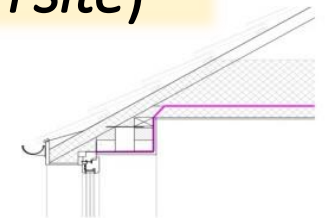
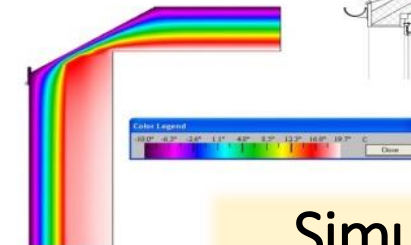


Various  
structures &  
ETICS

## Integration of nZEB solutions



IR Analysis  
(on site)



Simulation  
(numerical)

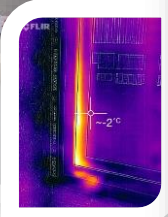




# Technical solutions



**Airtight room**



**Blower Door testing**



**Airtight exercises**

## BKH Bucharest



**Mock-ups: Insulation, Airtightness, Thermal Bridges**





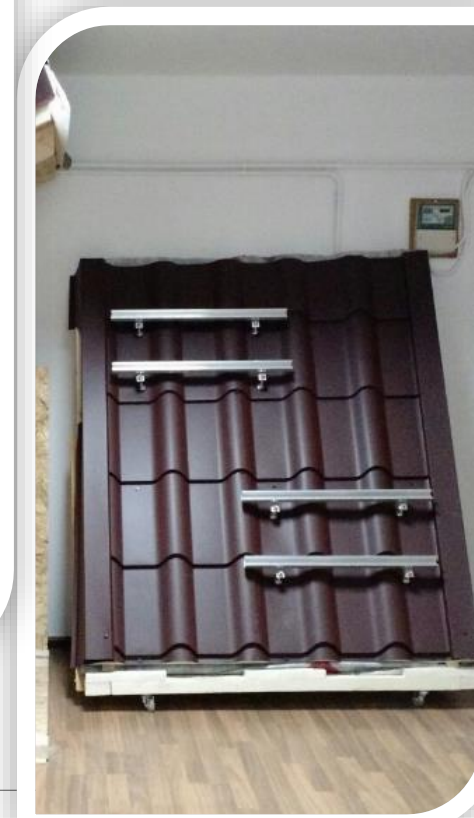
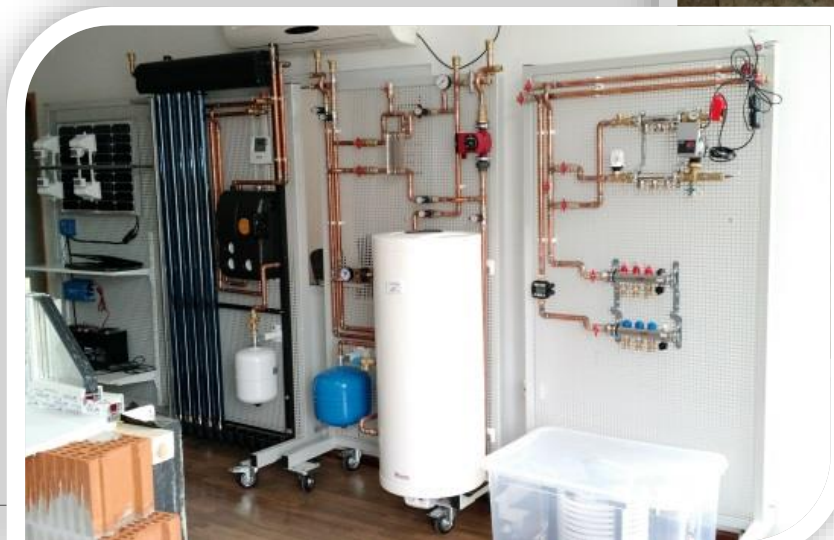
# Technical solutions

## BKH Brasov



**Thermal  
Insulation**

**PV & Solar  
Thermal Systems**





## Market uptake: Barriers

- ❖ In Romania, nZEB solutions cannot be considered affordable, the use of RES technologies in buildings - not yet common practice.
  - ❖ There is a lack of knowledge in the construction sector and the "working anyway" principle is very common.
  - ❖ nZEBs expected as a 'rarity' up to 2020, driven by few individual projects of interested private investors or a limited number of municipal projects.
  - ❖ Skills gaps experienced by the building sector, Qualification / training schemes are generally not satisfactory / underdeveloped to face the challenge of effective nZEB implementation.
- !!! There is a need of changing the attitude of :
- **building owners** in order to ask for quality instead of lower price and to be more involved in the entire construction or thermal rehabilitation process,
  - **managers of construction companies** - to understand the importance of qualification level in relation to obtained quality, efficiency and productivity,
  - **employees** – to generate a more responsible attitude (e.g. by qualification)



# Market uptake: Solutions



➤ to support the development of a healthy nZEB market

➤ for changing the attitude at both system (construction sector, decision makers ...), and individ. level (workers):

- by understanding physical and economic principles underlying the nZEB concept,
- by raising the level of competencies,
- by pursuing adequate and complete approach of the details and by assuming a responsible attitude oriented towards the comfort and health of building' occupants.





# Market uptake: Solutions

- The active marketing and communication campaigns are supporting the grow of the demand for nZEB training courses in Romania.
- The best way to promote the training courses is through the 😊 participants in **high quality training process.**
- Positive results will be seen in the near future and the demand will rise also with the approaching of the obligatory dates for legal introduction of the nZEB standard.





# Market uptake: Solutions



[www.pro-nzeb.ro](http://www.pro-nzeb.ro)



## Aim

To develop a collaboration framework to implement technological concepts and specific projects for promoting nearly zero energy buildings in Romania.

## Key objective

Construction market – R&D – public administration:

- Initiation and performance of joined activities to define and implement of research and development projects for nZEB,
- Creating the market conditions to ensure fulfilment of Romania's commitments for sustainable development and implementation of strategies for energy efficiency in the built environment.

## Members



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# BKH RO Events 2017

## 2<sup>nd</sup> National Workshop in Brasov, 20<sup>th</sup> of January 2017



## TTT Course, 8-9 February 2017, Bucharest



## Visit of students and professors from University of Catania, Italy and University of Architecture of Bucharest, April 2017





# BKH RO Events 2017

**„Certified Passive House Tradesperson”  
training course  
(15-17 May 2017)  
(8-10 November 2017)  
(14-16 November 2017)**



**“Photovoltaic Panels Installer” training course  
(12 May – 30 June 2017)  
(26 June – 15 August 2017)**



# BKH RO Events 2017

**Training session for representatives of Home-Owners Associations  
“Legal framework and concepts for nZEBs” (28 September 2017)**



**Training course “NZEB buildings – general specifications”, in partnership with the Faculty of Construction in Brasov and XELLA company (9 November 2017)**





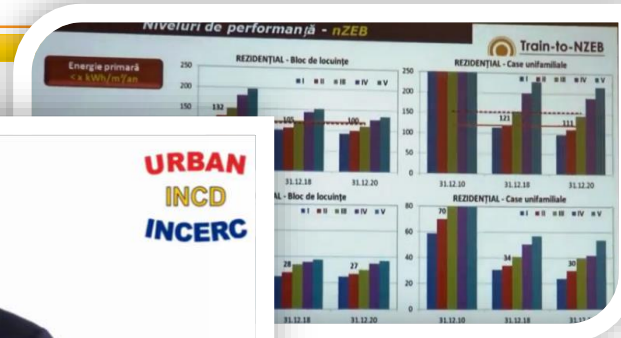
# Participation in external events 2017

- **Sustainable Development Conference**, University of Ecology in Bucharest, 29 June 2017
- **progRESsHEAT H2020 Project Workshop & Training Session for decision makers**, Brasov, 6 July 2017
- **ABRACADABRA Project 4th National Workshop**, Brasov, 5 September 2017
- **H2020 Fit-to-NZEB Project Launching Conference**, Bucharest, 15 September 2017
- **Conference on Sustainable Energy in Brasov**, 19-20 October 2017
- **CA EPBD Meeting & BUS Workshop in Bucharest**, 24-25 October 2017



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# Thank you!

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The Building Knowledge HUB Romania



BKH NZEB RO

