PRACTICAL EDUCATION
TRAIN-TO-NZEB PROJECT

ingREeS International Conference on nearly Zero Energy Buildings

Jiří Karásek, SEVEn

24th of January 2018, Prague

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649810.

PRACTICAL EDUCATION

1. **Goals of Train-to-NZEB project**
2. Practical education for nZEB
3. Training center in Prague
4. Equipment of training center

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GOALS OF TRAIN-TO-NZEB PROJECT

- Set up **network of training and consulting centers** (Building Knowledge hubs, BKH) for practical training and consulting services focused on **nearly Zero Energy Buildings** (nZEB)

- Set up 4 training and consulting centers (BKHs) in Europe

- Training programs for different target groups

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PRACTICAL EDUCATION

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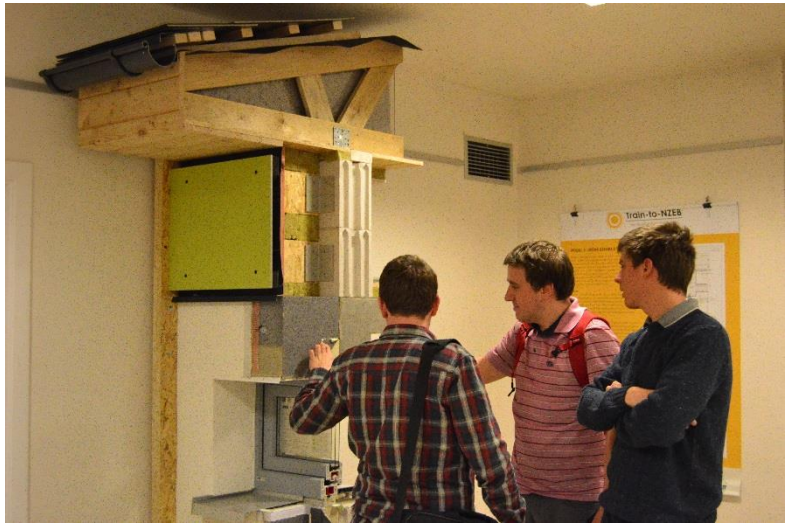
2. **Practical education for nZEB**



3. Training center in Prague

4. Equipment of training center

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PRACTICAL EDUCATION

Key elements for education

Visual

Something you learn through vision
– diagrams, presentations, models

Audio

Something you learn through listening
– spoken words and other sounds

Physical

Something you learn by doing
– be active and learn by testing, making mistakes and correct mistakes

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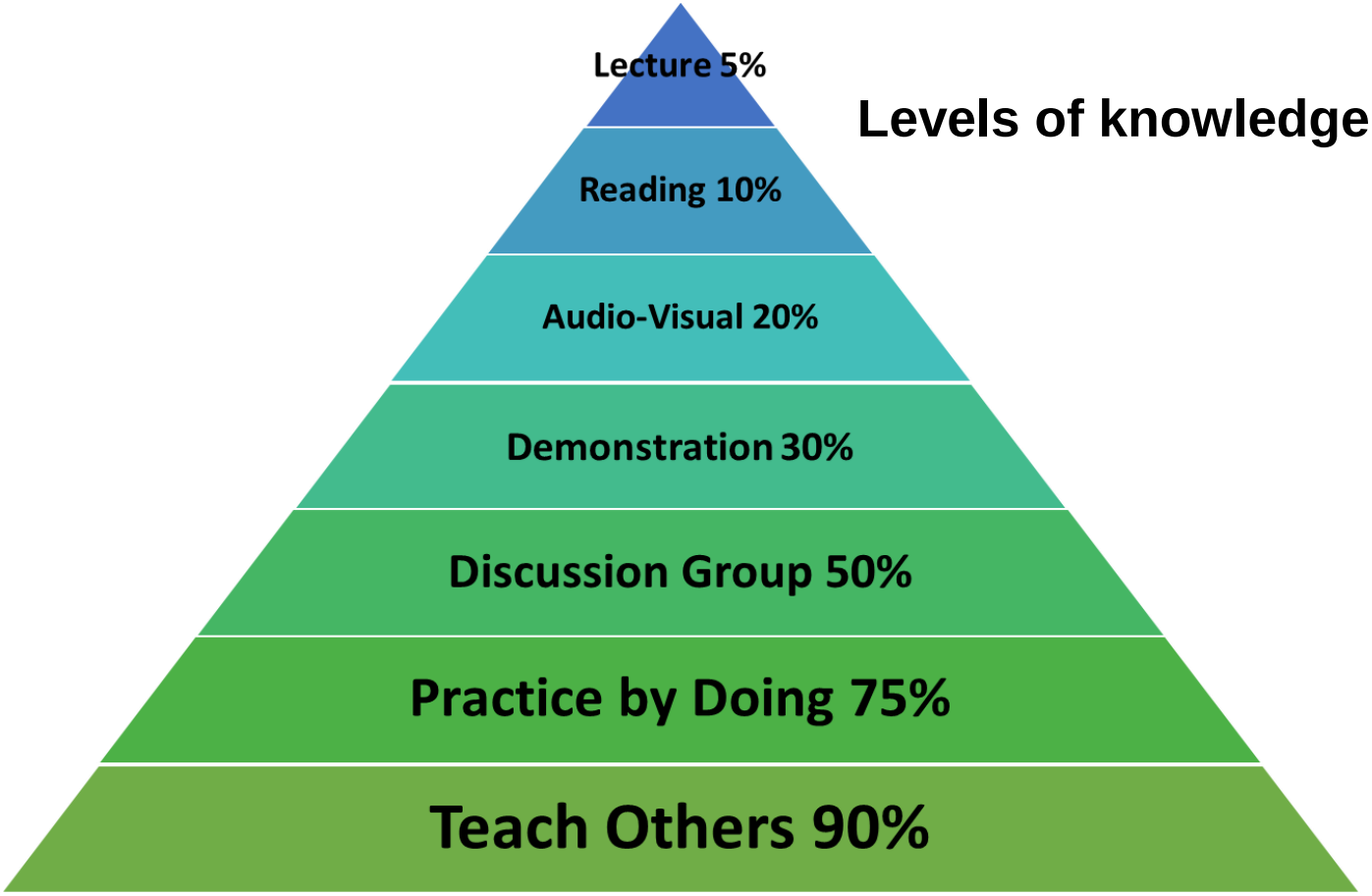
PRACTICAL EDUCATION

Train-to-NZEB
The Building Knowledge Hubs



Levels of knowledge retention

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PRACTICAL EDUCATION

In-class training

Practical training

Equipment

High quality experts

Support of trainers

Exchange of knowledge

EU experience

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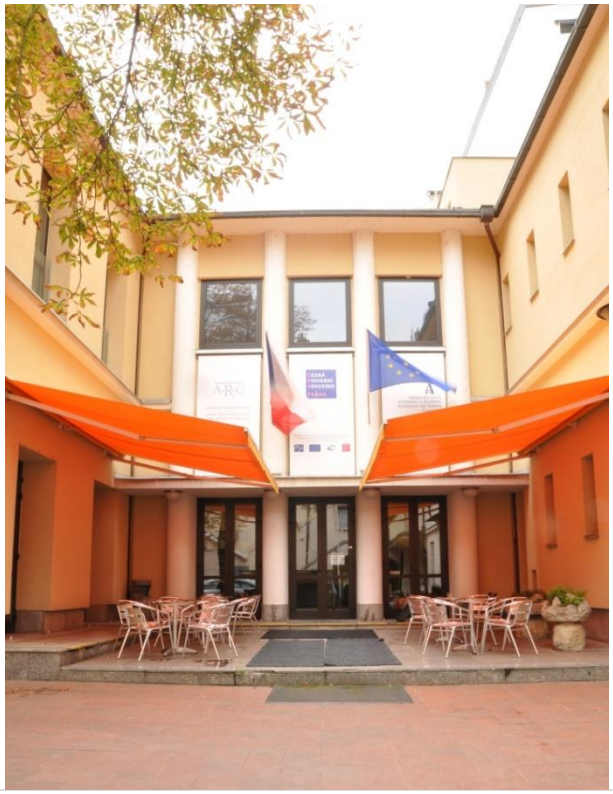
TRAINING CENTER IN PRAGUE

- Cooperation with Architecture and Building Foundation (ABF)
- Conference nZEB



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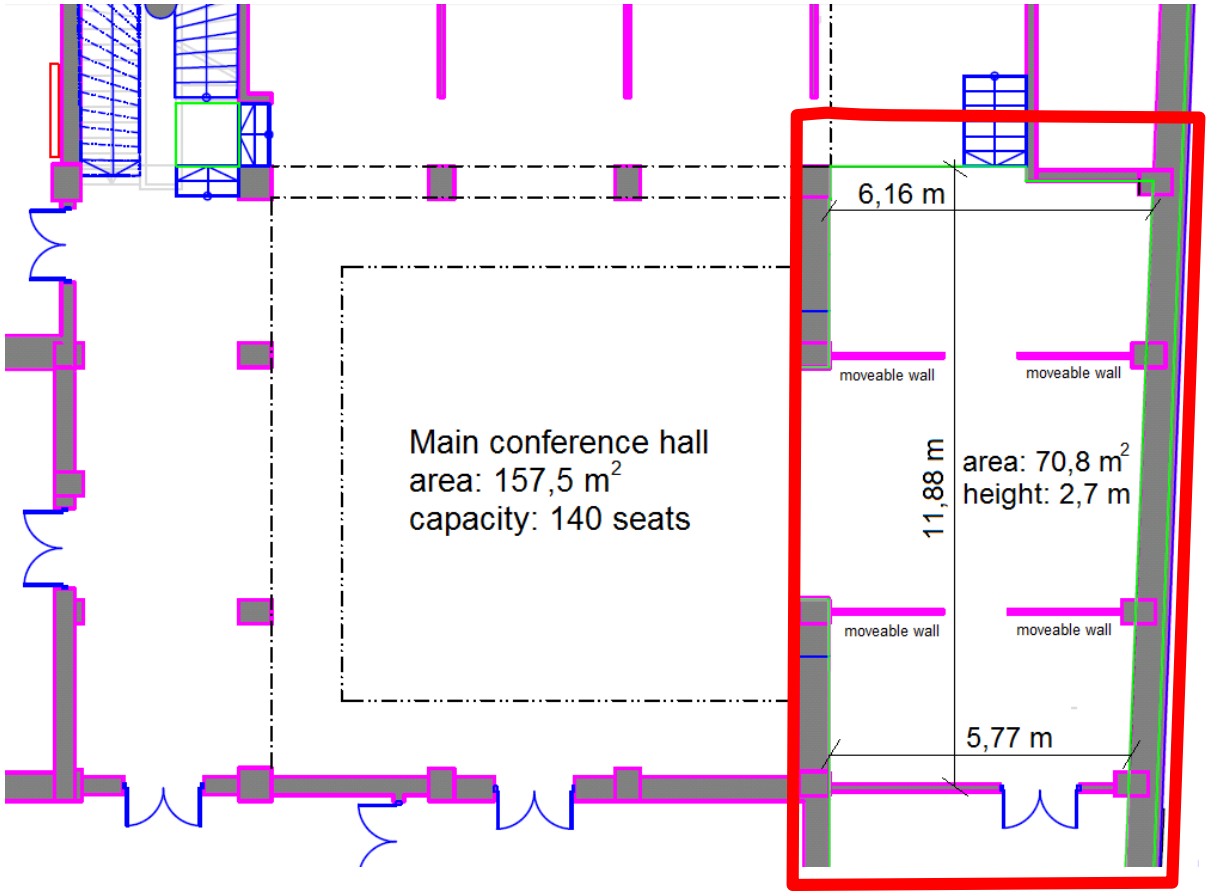
TRAINING CENTER IN PRAGUE



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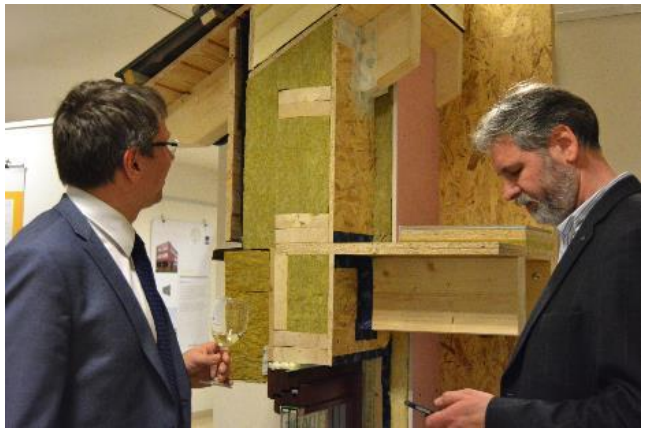
TRAINING CENTER IN PRAGUE

- The conference on the occasion of opening of the Czech Building Knowledge Hub, which took place in **Prague on the 2nd of March 2017.**



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4. **Equipment of training center**

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EQUIPMENT OF TRAINING CENTER

- 4 demonstration models of nZEB building construction (2 wooden buildings and 2 masonry construction) made by UCEEB
- Measuring instrument for Blower Door test (Minneapolis BlowerDoor MiniFan)
- 2 infrared cameras (FLIR ONE and FLIR E6)
- CO_2 concentration meter (Wöler CLD 210)
- Ventilation unit with heat recovery by ATREA
- 8 information panels with description of equipment
- 2 project roll-ups

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EQUIPMENT OF TRAINING CENTER

- 4 different types of building construction

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EQUIPMENT OF TRAINING CENTER

- Design and construction of the models by UCEEB (University Center for Energy Efficiency Buildings)

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EQUIPMENT OF TRAINING CENTER

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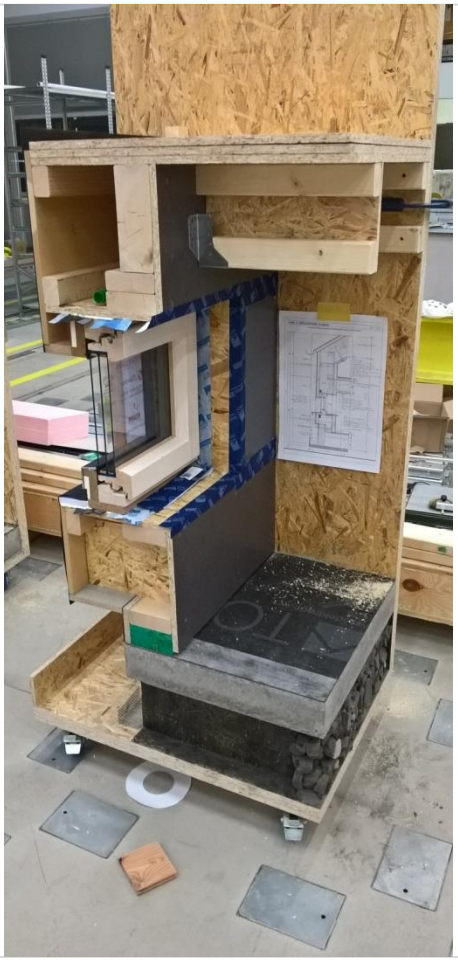

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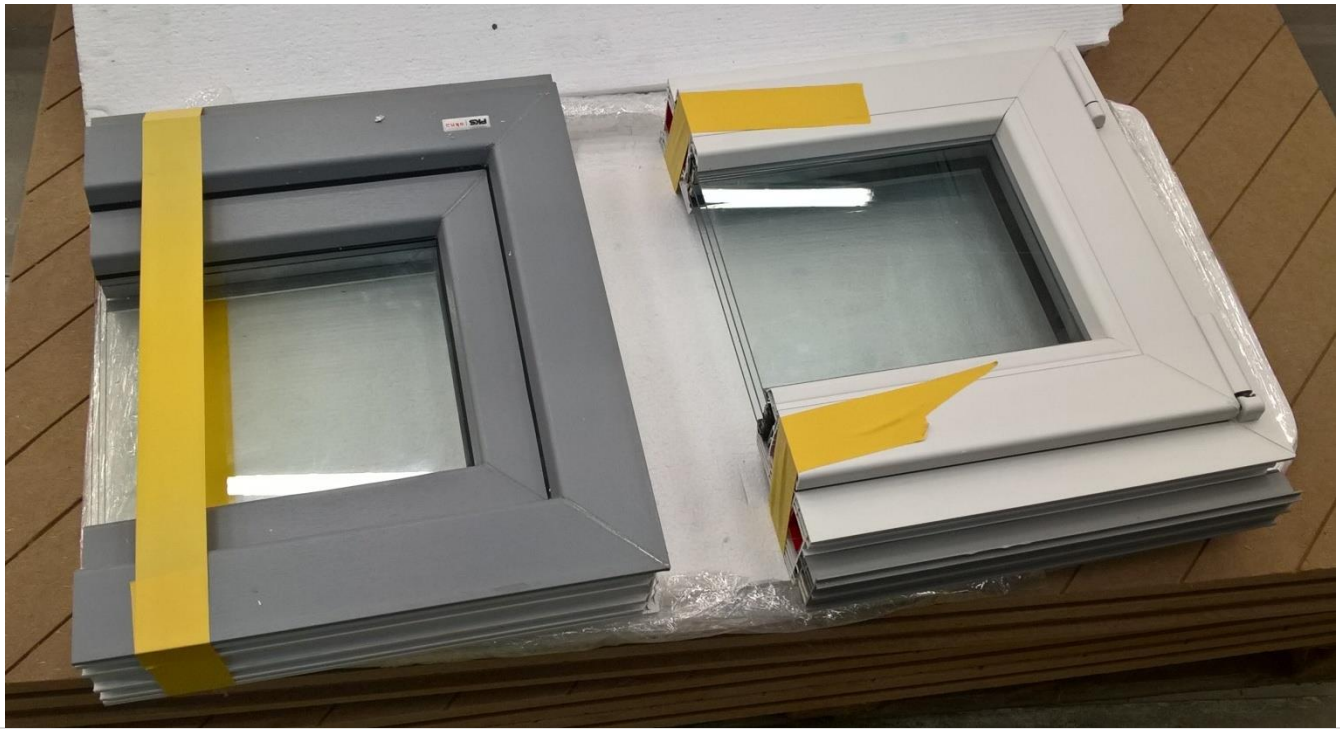
EQUIPMENT OF TRAINING CENTER

- Emphasis on high-quality progressive construction and components



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EQUIPMENT OF TRAINING CENTER

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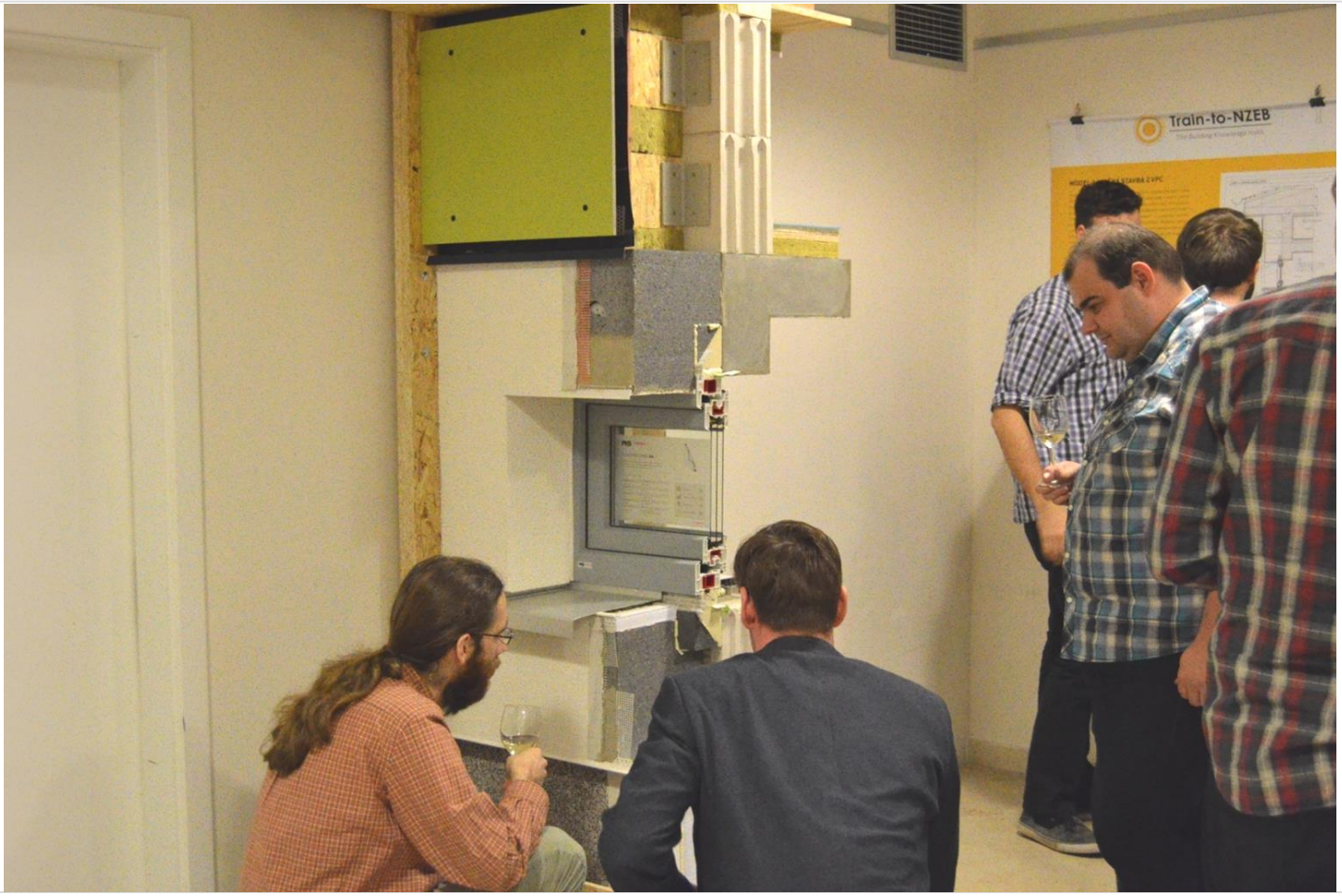

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EQUIPMENT OF TRAINING CENTER

- measuring instrument for Blower Door test

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- CO_2 concentration meter

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EQUIPMENT OF TRAINING CENTER

- 2 infrared cameras

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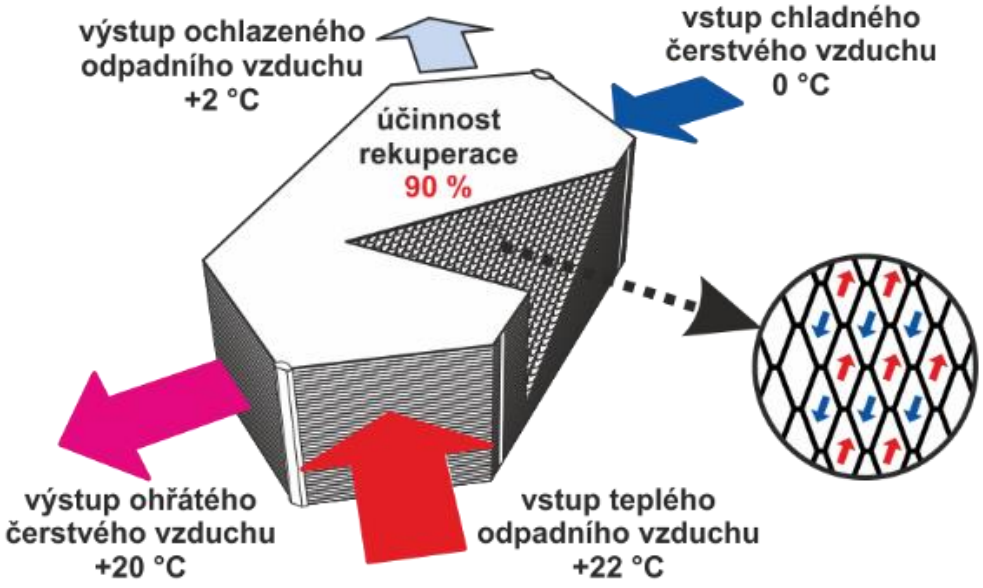
EQUIPMENT OF TRAINING CENTER

- Ventilation unit with heat recovery



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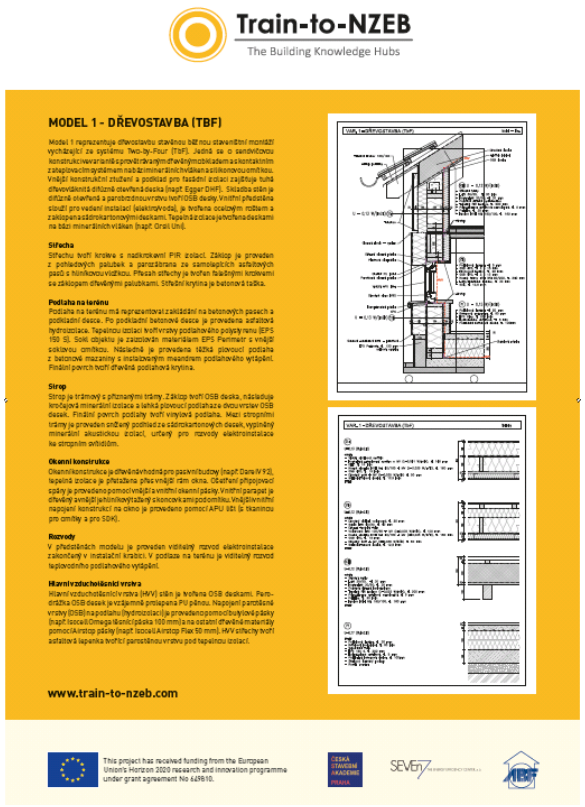
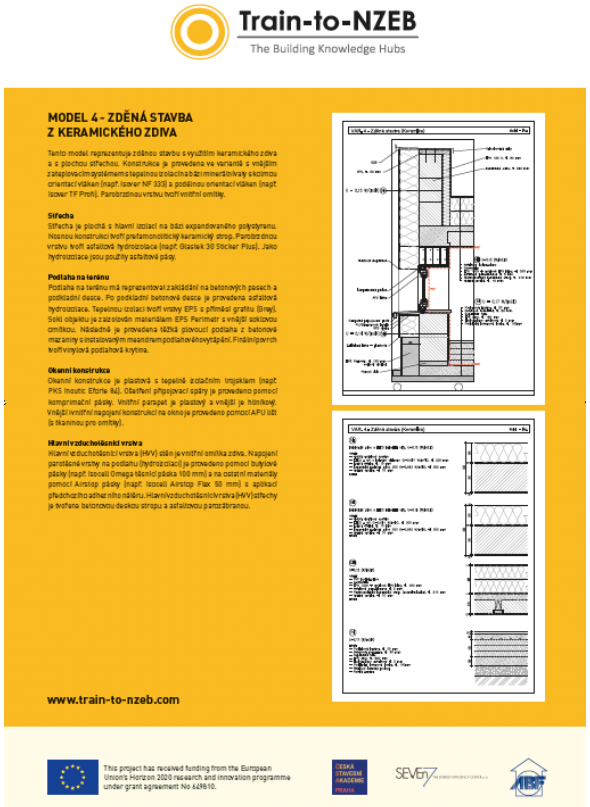
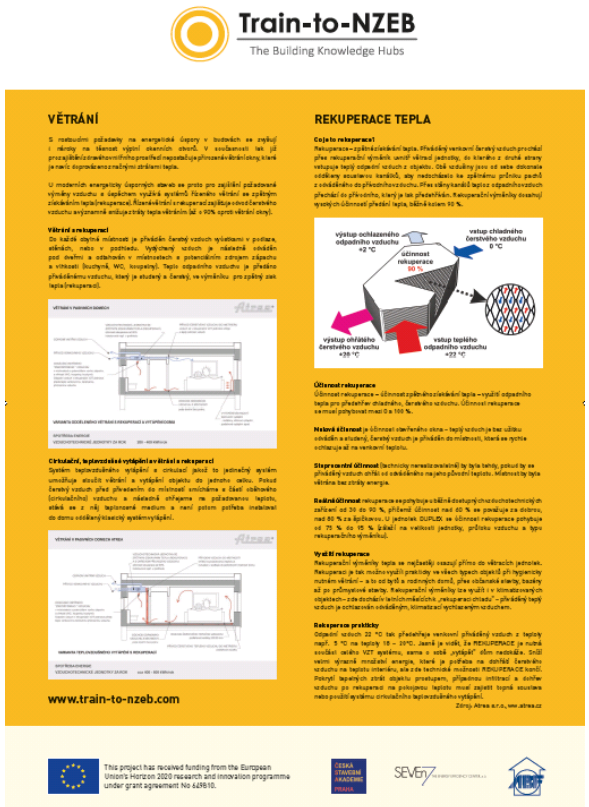
EQUIPMENT OF TRAINING CENTER

- 8 information panels







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EQUIPMENT OF TRAINING CENTER

- 8 information panels

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EQUIPMENT OF TRAINING CENTER

- 2 roll-ups

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SEVEn THE ENERGY EFFICIENCY CENTER, z. ú.

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Thank You for your attention!

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