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# BUNG

## DEVELOPING NEARLY ZERO ENERGY BUILDING SKILLS THROUGH GAME BASED LEARNING



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## CONTEXT

In this context, the BUNG project aims at delivering knowledge, developing zero energy building skills and encouraging energy efficient behavior amongst building occupants through the development of an nZEB (nearly Zero Energy Building) learning game (BUNG game) that maximizes the learning effect of individuals, as well by introducing innovative

## PROJECT AIMS

Bearing in mind that the building sector is crucial for achieving the EU's energy and environmental goals, that governments around the world have committed to limit global warming to 2°C as part of the Paris Agreement and that there is a growing demand on green expertise in the construction sector, the BUNG project will strongly address the following challenges:

- Increased demand for attractive and innovative pedagogical methodologies and tools that facilitate learning and training processes in the building industry.
- Lack of training tools and resources with integrated attractive learning approaches based on entertainment to facilitate learning and increase students and learners motivation towards training.
- Lack of Zero-Energy Building skills in the construction, the building and the energy efficient sector, as well as lack of well-timed and well-aligned training provision that addresses these skills shortages, gaps and mismatches.

## PROJECT IMPACT



The principal idea of the project BUNG is based on the development of a digital game approach and the creation of a vibrant community that will engage multiple actors. Here are some impacts of the BUNG project:

- Increased number of construction workers with professional skills and competences in the nZEB area
- Increased number of VET educators/trainers with integrated innovative digital training tools and efficient ways of informal learning and consequently with increased capacity building
- Modernized and greener local and regional labour market adapted to meet the growing skills needs of the nZEB sector
- Construction and building works with limited environmental impact and advanced energy efficient performance
- Raised awareness of experts and stakeholders on the skills mismatches that nZEB evolution in the building sector implies.
- Increased coordination of policy makers and public authorities to align their policies on education, training and skills provision with green building innovations in the market
- Increased social dialogue for the need of nZEB building skills and a more sustainable globalized labour market
- Strengthened cooperation and better synergies among partner organizations transnationally

## TARGET GROUP



The target groups addressed range from construction workers to VET educators and providers, to the educational sector, to stakeholders and associations in the construction, the building or the energy efficient sector as well as policy and decision-makers

## OUTCOMES



The project BUNG foresees to meet the following results and outputs:

- Best Practice and Competence Framework Analysis for nZEB Skills
- BUNG learning game development, based on a curricula designed through game scenarios analyzed in learning outcomes and ensuring compatibility with EQF and ECVET.
- BUNG game technical setting, integrating the game application, which will facilitate vocational learning and training processes in the building industry and increase learner's motivation towards training, though innovative pedagogical methodologies and digital tools
- BUNG game Didactic Handbook oriented to VET educators interested in using digital games in their nZEB lessons.