

BIMERR

Newsletter #2

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 820621

Call identifier: LC-EEB-02-2018



BIMERR PILOT SITES

The BIMERR toolkit will be validated and demonstrated in 4 buildings in 3 European Member States in a 2-step approach. Firstly, a pre-validation phase will take place, and then a validation phase on real renovation sites will be executed.

PRE-VALIDATION PHASE

The pre-validation phase will take place in actual buildings, which are however not going to be renovated. The intention is to use the BIMERR tools in a context that enables:

- full experimentation with the as-is digital building model creation tools and evaluation by comparing their results with digital models obtained from other sources and in-situ inspection.
- experimentation with the renovation-support tools using the digital models that will allow their users to assess the applicability to real-life situations, their usability and provide feedback to the development partners for improvements.

Site 1: KRIPIS home – Thessaloniki, Greece

KRIPIS home, owned by CERTH, is a smart home facility, representative of a single-family detached residential building, equipped with IoT, Smart Home solutions which provide several layers of information about its operational characteristics. KRIPIS as the first Smart Near-Zero Energy Building in Greece, combines enhanced construction materials and intelligent ICT solutions creating a future-proof, sustainable and active testing, validating, and evaluating ecosystem.



The KRIPIS home



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Site 2: Residential building – Athens, Greece

A residential building from the portfolio of project partner CONKAT has been selected, as the second pre-validation site. Based on testing needs, during the project implementation, access to building will be provided whereby audits, surveys, and digital model population activities (e.g. scanning and/or walkthroughs using AR glasses) will take place for testing purposes. The selected building is in the north-east suburbs of Athens built in 2000. It belongs to a building complex consisting of one ground floor and two floors having 9 separate apartments, 3 on each floor. The selected apartment is on the second floor with South East orientation.



Conkat pre-validation house

VALIDATION PHASE

During this phase, the entire BIMERR tools value chain will be demonstrated in two real-life renovation projects to quantify and validate their impact throughout the renovation process: from design and planning to the actual construction works. For this purpose, Budimex and Ferrovia-Agroman, have selected two sites, one in Spain and one in Poland, which will serve as the demonstration testbeds. Each site will involve a multi-family residential building. These buildings reside in two very different climatic regions, comply with diverse building codes and regulations, were built using very different construction components & tools and are equipped with different HVAC system and other building amenities.

Site 1: Multi-family residential building – Bilbao, Spain

The Spanish pilot site is a residential building built in 1960, located in a neighbourhood called Otxarkoaga, in the suburbs of Bilbao. This neighbourhood is a corner stone of a larger rehabilitation program called Opengela (2019-2022), which is a project that looks to spread urban regeneration in the Basque Country, creating neighbourhood offices which provide advice and support to the neighbourhood community. The building is 15 storeys high with 60 apartments that serve as social housing.

The main objective of the renovation measures that will take place, is an improvement of the energy class, from G to C. To reach that objective, 5 main intervention types are anticipated:

- Improvement in thermal insulation
- Improvement of the accessibility
- Improvement of the ACS and heating installations (Viability study of the incorporation of renewable energies).
- Energy monitorization
- Improvement of fire protection system

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The Otxarkoaga validation site

Site 2: Multi-family residential building – Warsaw, Poland

The Polish pilot site is a residential building (social housing) built in 1995 located in a district called Praga Południe, close to industrial areas and railway sidings, in an average distance from the Warsaw city center. The building, which will be used as pilot, is an L-shape residential and 4-storey building with a basement floor.

The main objective of the renovation measures is an improvement of the energy class of the building. To reach that objective, the following main intervention types are anticipated:

- Improvement in thermal insulation
- Roof renovation and insulation
- Verification of the condition of the windows, replacement of the old or damaged ones
- Insulation of basement rooms



The Warsaw validation site

Contact Us

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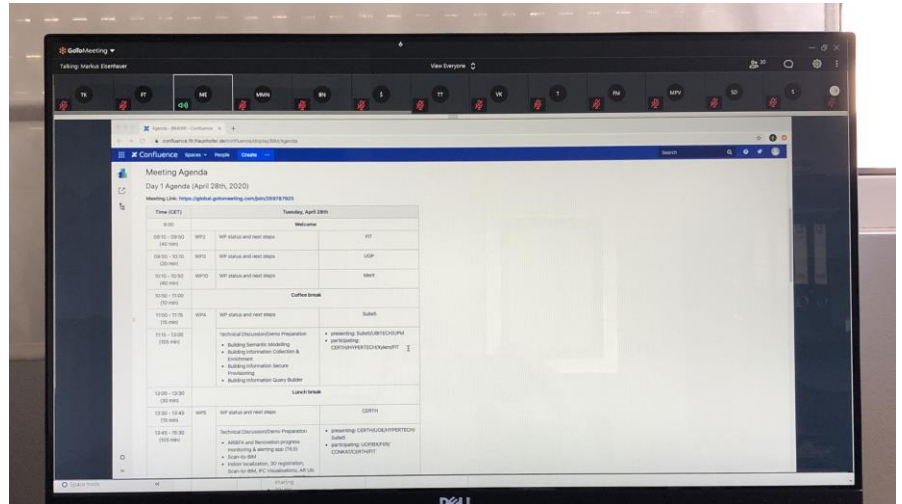


Contact us to share your feedbacks and ideas on this page.

NEWS

5th consortium meeting

The 5th BIMERR consortium meeting took place on April 28th and 29th. During this meeting, the project partners had the chance to discuss and evaluate the progress of the project and agree on the next implementation steps. Of course, as the health and safety of all participants and of the society is a top concern for the project partners, this meeting was held online, with consortium members joining from their homes.



5th Consortium meeting held on-line

BIMERR paper accepted

The BIMERR Occupancy Profile Ontology has been accepted as research paper at the “8th Linked Data in Architecture and Construction Workshop”, which will take place from 17 to 19 June 2020. You can follow online the presentation “From obXML to the OP Ontology: Developing a Semantic Model for Occupancy Profile”, by Serge Chavez-Feria, Giorgos Giannakis, Raul García-Castro, and María Poveda-Villalón, on June 17th, in this [link](#)

The mission of the BIMERR project is to design and develop an ICT-enabled Renovation 4.0 toolkit comprising tools for Architecture, Engineering & Construction (AEC) stakeholder support throughout the energy efficiency renovation process of existing buildings.