

# BIMERR Newsletter #1

December 2019

## BIMERR

[www.bimerr.eu](http://www.bimerr.eu)



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



## In a nutshell

BIMERR is related to the Building Information Modelling (BIM) and its main target are stakeholders from the AEC (Architecture, Engineering & Construction) field. The project has the intention to design and develop a new toolkit to support renovation stakeholders during the renovation process of existing buildings, from concept to delivery. It should comprise of various tools:

- An automated creation of enhanced building information models
- A renovation decision support system to aid the designer in exploring available renovation options through an accurate estimation of renovation impact on building performance
- A process management tool which will optimize the design and on-site construction process toward optimal coordination and minimization of renovation time and cost.
- Finally, the project is about an interoperability framework among BIMERR tools as well as with third-party legacy ICT tools in order to enable seamless BIM creation and information exchange among AEC stakeholders in an effort to enhance the rapid adoption of BIM in the renovation of the existing building stock in the EU countries, as a start.



## ABOUT THE PROJECT



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Building Information Modelling is a critical element in the digitalization of the construction industry, which is necessary in order to unleash huge efficiency and productivity improvements. BIMERR will design and develop a Renovation 4.0 toolkit which will comprise tools to support renovation stakeholders throughout the renovation process of existing buildings, from project conception to delivery. It comprises tools for the automated creation of enhanced building information models, a renovation decision support system to aid the designer in exploring available renovation options through an the accurate estimation of renovation impact on building performance as well as a process management tool that will optimize the design and on-site construction process toward optimal coordination and minimization of renovation time and cost.

At the heart of the BIMERR toolkit lies an interoperability framework, which will enforce semantic interoperability among BIMERR tools as well as with third-party legacy ICT tools to enable seamless BIM creation and information exchange among AEC stakeholders in an effort to enhance the rapid adoption of BIM in renovation of the existing EU building stock. The BIMERR toolkit will be validated and demonstrated in 4 buildings in 3 European Member States. Two buildings are used for pre-validation and implementation refinement and the refined BIMERR toolkit will support the actual renovation design and works in one residential building in Poland and a second one in Spain.

## LIVING LABS

The Living Lab concept is a user-centered, open-innovation environment integrating concurrent research and innovation processes within public-private-users partnership. The concept of Living Lab is based on the user co-creation approach integrating research and innovation processes. The Living Lab activities are integrated through the co-creation, exploration, experimentation and evaluation of innovative ideas, scenarios, concepts and related technological artefacts in real life use cases. These specific use cases involve user communities, not only as passive observers but also as main source of formation of the final outcome of the project.

Moreover, the Methodology of the BIMERR Living Lab is based on the User Engagement concept that aims to the constant and effective engagement of the end-users to the BIMERR project. Therefore, the end-users and main project beneficiaries are collectively placed at the center of all research, innovation, demonstration and communication activities of the BIMERR project, which adopts a User-Driven Innovation Approach towards addressing emerging end-user and market needs, critical for the successful project implementation and the realization of its anticipated impacts. The main aim of the User-Driven Innovation Approach is to involve renovation professionals and building residents/owners throughout all stages of the project life-cycle, as the key enablers of the BIMERR innovation process, towards encouraging active and collaborative contributions in the development of a BIM-based ICT system to accelerate energy efficiency renovation across Europe.

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## NEWS

### LIVING LAB WORKSHOP IN SPAIN

This workshop was organized in the context of the Living Labs. On the 19th of June, in Ferrovial Agroman's offices in Madrid, and on the 12th of July in the IVE's offices (Instituto Valenciano de la Edificación), Ferrovial Agroman's Urban rehabilitation Area and its R&D Department organized two different requirements workshops in the framework of the BIMERR project.

The aim of the workshops was to lead debates and conversations about the state and need of the renovation industry. In the early stages of the project, it is indeed fundamental to gather concrete and clear information about how things are done nowadays and how the new tool should be developed to meet the requirements and needs of the end-users, so that BIMERR's effectiveness and future impact is as big as possible.



### LIVING LAB WORKSHOP IN POLAND

In May 2019, the BIMERR project workshops were held in Warsaw, Poland by BUDIMEX. The meetings were attended by representatives of selected organizations, focused around the construction industry, as well as BIM experts and construction supervision employees.

Information on the methods, tools and technologies currently used in the process of planning, implementation, as well as research on the effectiveness of thermal modernization of residential buildings are crucial for the success of the project. The aim of the workshops was to determine the expectations and needs of potential users and recipients of innovative tools, which will be the result of BIMERR's design work.



During the workshops, participants determined the most important elements of the process of energy renovation of buildings, such as: methodologies, processes, communication and information systems, currently used devices, technologies, relations between stakeholders, as well as budget for potential benefits, etc.

# Contact Us

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

Third workshop which was held in August 2019 had totally different formula. This time BUDIMEX focused on feedback from the construction site in Bydgoszcz, Poland. The construction site was related to the renovation and construction works of the building Rother Mill and Granary, which was converted in multifunctional facility. The discussion with participants were moderated based on questions from the Questionnaires. All the participants have working experience, most of them are familiar with BIM models and renovation technology.



## QUESTIONNAIRES

**Apart from the Living Lab Workshops, an online questionnaire is in place in order to** gather the stakeholder specifications and requirements, which will be used during the development of the BIMERR system. Those requirements will be used as a core for the open-innovation design methodology of BIMERR tools and the main target will be to meet those requirements by the end of the project, giving the opportunity to accelerate collaborative knowledge generation and technology integration against real market and user needs. One of the main characteristics of the User-Driven Innovation approach is the continuous interactions between different beneficiaries, end-users and project team members that will be encouraged to minimize deviations between expectations and final outcomes. In addition, the target is to divide the project final outcomes into intermediate marketable results.

**Your contribution would be very valuable, so we are kindly asking you to complete the Questionnaire.** The Questionnaire is online in a secured dedicated space at the BIMERR website in the following link – <https://bimerr.eu/questionnaire-language-selector/> and is available in English, Greek, Spanish and Polish.

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*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.*

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