





BIM4EEB TOOLKIT


BIM4EEB project has developed a complete BIM-based toolkit for the renovation of existing residential buildings. It encompasses the BIM Management System (BIMMS) and the six tools that create a more efficient flow of information, while improving building performance, quality, and comfort for inhabitants.

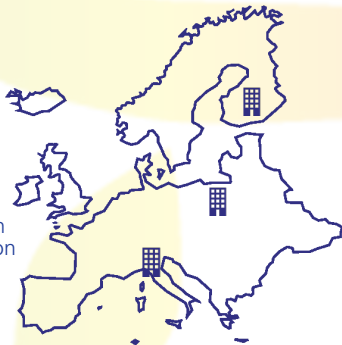
BIM4EEB toolkit and method is expected to reduce

-  **50%** of the energy audit time*
-  **20%** of construction time*
-  **15%** of renovation costs*
-  **10%** of net primary energy*

*Compared to a traditional building renovation method

The toolkit and methods will be validated in three demonstration cases in Italy, Finland and Poland.

- Jan 2019 ● Project starts
- Jun 2021 ● Toolkit delivered
- Dec 2021 ●  Demonstration Cases validation
- Jun 2022 ● Project ends



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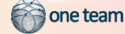
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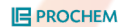
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BIM TOOLKIT FOR EFFICIENT BUILDING PERFORMANCE RENOVATION



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IS BIMMS FOR YOU?

Architects, engineers, construction companies, technicians, owners and end users are able to work collaboratively across all the stages in a building renovation project.

WHAT IS BIMMS?

BIMMS is an online platform for Building Information Modelling (BIM) data management. The platform provides an environment for easy exchange and use of information gathered from different sources throughout the building's life cycle.

WHAT ARE THE MAIN FEATURES?

- Common Data Environment (CDE) able to store and share data between users,
- 3D IFC BIM Model and data visualisation viewer and
- set of six digital tools:



BIM4EEB fast mapping toolkit,



BIM4EEB BIMeaser,



BIM4EEB BIM4Occupants,



BIM4EEB Auteras,



BIM4EEB BIMcpd,



BIM4EEB BIMplanner.

BIM4EEB Fast Mapping Toolkit



It is a toolkit and methodology that speeds-up the scan-to-BIM process and improves the data visualisation of an existing building by using Augmented Reality (AR).

BIM4EEB BIMeaser



It stands for a BIM **Early Stage Energy Scenario** tool. The tool is designed to support the decision-making process in the early design stage of the renovation process. The tool allows the assessment of several energy refurbishment design options to provide solutions that best fit to the client requirements while optimising the energy use and the indoor comfort for the occupants.

BIM4EEB BIM4occupants



It is a web responsive application that provides residents and/or owners with information related to their building renovation activities performed, as well as with personalised information related to their indoor home conditions, comfort preferences and energy consumption.

BIM4EEB AUTERAS

It supports building services designers to design Room Automation Systems (as part of Building Automation Control Systems-BACS) with a semi-automated process of a functional requirement survey and the generation of function block-based designs, which use standardised symbols to ensure a high comprehension from professionals in different trades.



BIM4EEB BIMcpd

It stands for BIM **Constraint Checking, Performance Analysis and Data Management**. The tool is a user-friendly intuitive software suite designed to reduce processing time for constraint checking, increase building energy performance knowledge, standardise building energy data and help users to make informed and better decisions.

BIM4EEB BIMplanner



It provides a digital environment to share up-to-date information about the plans and site progress operations with all participants of a renovation project. Applying the Location-based management system (LBMS), the tool links data from familiar planning and tracking desktop tools with BIM models to allow more effective management of renovation site operations.