

METAclustered, SME oriented European Open Innovation Test Bed for the BUILDING envelope materials industrial sector using a harmonised and upgraded technical framework and living LABS'



Framework



Coordinator

2021 - 2026

Duration

Objective

METABUILDING Labs (MBLabs) aims to reach SMEs and provide support and access to an innovation ecosystem and testing platforms. The open innovation testbeds (OITBs) aim to serve this innovation ecosystem, lowering the market entry barriers, notably technical, in a proactive approach. The project will design, develop and provide 12 innovative testing facilities across the EU, namely the MBLabs O3 Building Envelope Testbeds (O3BET).

- The MBLabs brokerage service will be provided to innovators to overview the existing test facilities and related services, the real-time availability of slots in testing facilities and Living Labs, and their pricing structure

- MBLabs is a comprehensive, accessible both physical and digital OITB, open to EU stakeholders and non-European users and is set to encompass the whole innovation process from lab prototype to Market, providing innovators with matchmaking, testing, living labs, quantitative verification, and technical support throughout the process. It delivers reach and collaboration with the testbed facilities supported with a cloud platform that enables the digital process and knowledge management.

Innovative Aspects & Technologies

- Reaching out Universal SMEs by metaclustering that helps to organize regional clusters, gain critical mass, boost international visibility, and develop joint internationalization strategies and providing Open Innovation Digital Platform for SMEs

- O3 Building Envelope Testbench: In the form of an industrialized, timber-based, mountable/dismountable low environmental impact kit, including all necessary sensors, hardware, BIM and



Digital Twin model and connection to the OITB platform for data gathering, exchange, performance simulation (virtual testing) and monitoring of systems and component solutions Open Source/Data/Access Building Envelope Testbench will be improved.

- The connection to user and societal needs will be implemented through testing in Pilot buildings as Living Labs enabled by the innovative matchmaking module of the MBLabs Digital platform, where innovators can find suitable pilot space in demonstration building as Living Labs to test their innovations with users in real-life situations and gain critical impact to facilitate later market uptake and penetration.

- At least a 20% increase in the number of new SME users for existing testbeds.
- At least 20% improved industrial process parameters
- 30% faster verification of materials performance for highly promising applications and at least 30% reduction in energy consumption across the entire life cycle.

Impacts

- Realisation of open & upgraded facilities at the EU level for the design, development, testing, safety assessment, and upscaling of materials & components for building envelopes, easily accessible across different EU region.
- Facilitated access to building testing/monitoring equipment & finance (in particular for SMEs) via single entry point.

Ekodenge's Role

Partner

- Contribute to innovation ecosystem tasks in Turkey for WP1
- Support the architectural design of O3BET solution in WP4
- All pilot activities of Başakşehir Municipality in WP7
- Contribute to environmental assessment-related activities in the development of "MBLabs platform digital services development & integration" in the scope of T8.3.

Partners



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