PROYECTO I+D+i

Project title

Industrial research project for the conceptualization, development, and prototyping of a technological system to enable the reuse of construction materials and products through the use of disruptive Industry 4.0 technologies

Acrónym

Building Legacy Fase 2

Project content

The second phase of the project will focus on improving and expanding the digital platform developed during the first stage, transforming it into a more comprehensive and adaptable tool for the construction lifecycle, from logistics to on-site execution. Work will be carried out along three main lines: expanding functionalities to meet logistical and operational needs; incorporating asset managers as key agents for early building characterization using top-down methodologies; and opening the marketplace to new ecosystem actors, enabling their integration into architectural project processes. Additionally, three new flows of reused materials will be tested to validate the scalability, interoperability, and sustainability of the model.

General objectives

The general objective of the project is to promote the circularity of materials in the construction sector through the development of a comprehensive digital platform. The aim is to identify the barriers, needs, and opportunities of the various stakeholders in the value chain, as well as to analyze the technologies and services that enable the extension of the useful life of construction products. The project seeks to design a traceability and transparency model applicable to the entire material life cycle, supported by an advanced data management system that ensures the reliability of the information. Finally, a proof of concept will be implemented to validate the model and assess its potential for scalability and replicability in different contexts within the sector."

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Work Packages

WP1 Project management and coordination
WP2 Research and integration of logistics and construction phases
WP3 Material and economic assessment at building scale
WP4 Environmental assessment at building scale
WP5 AI agents for BIM
WP6 Integration of solutions into the platform
WP7 Testing and iteration of functionalities and user experience for incremental development
WP8 Evaluation of results and final documentation
WP9 Project communication and dissemination

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BUSINESS AREAS
Área técnica de Innovación I+D+i COMSA

PROJECT DURATION
1/9/2025 a 30/7/2026

BUDGET
TOTAL: 258.689 €

KEYWORDS
Recycling, construction materials, digitalization, circular economy.

COORDINATOR
Daniel Sachez
(COMSA)

IN COLLABORATION WITH
CEEC, Clúster MAV, Funitec, Inèdit, Intemic, Holon

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