

# PROYECTO I+D+i



## BUSINESS AREAS

Área técnica de Innovación I+D+i  
COMSA

## PROJECT DURATION

1/9/2024 a 30/6/2025

## BUDGET

TOTAL: 229.412,00 €

## KEYWORDS

Recycling, construction materials,  
digitalization, circular economy.

## COORDINATOR

Miquel Morata  
(COMSA)

## IN COLLABORATION WITH

BCD, Clúster MAV, Funitec, Inèdit,  
Intemic.

## GRANT NUMBER

AEI-010500-2024-19

## WITH THE SUPPORT OF

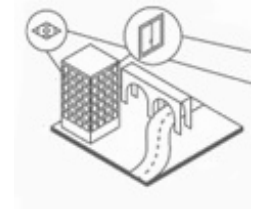


## Project title

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

## Acrónimo

**Building Legacy**



## Project content

Industrial research project that aims to generate evidence for the design, development and prototyping of a technological system that effectively and efficiently allows for extending the useful life of products for the construction sector, ensuring their traceability and transparency throughout the entire life cycle supported by the implementation of disruptive technologies of Industry 4.0. A digital platform architecture will be defined to be developed as a prototype solution, which will include the services and software components necessary for its operation. The platform will be hosted on a server, including as main software components a database, a system for its management and processing, including functions based on artificial intelligence, and a set of interfaces to facilitate interaction with each type of user, providing connection for capturing data on materials and construction components with BIM design environments (Revit). BUILDING LEGACY's industrial research is framed within the intersection of the design and habitat sectors, as well as construction materials and components, as a framework for action by the two participating AEIs.

## General objectives

**Generate** the necessary knowledge to be able to design a flow of experience that makes the reuse of construction components possible. This will include all the stages and agents involved in the life cycle of a construction project, taking into account its needs, barriers and levers of action. In addition, a platform based on the model will be prototyped at a functional level, covering the functionalities of digitization and characterization of architectural components, as well as the capture in a real construction environment or selective deconstruction.

## Project phases

**Phase 1** Project management and coordination. Market analysis, users and technological panorama. Design of the model and experience flow. Development of the proof of concept. Adaptation and exploitation of the solution. Evaluation of results and final validation. Communication and dissemination of the project. **Phase 2** (pending award) The exploration of the opening of the platform to other agents, whether suppliers or buyers, through a marketplace that can be integrated into the workflow of new architectural construction projects.