

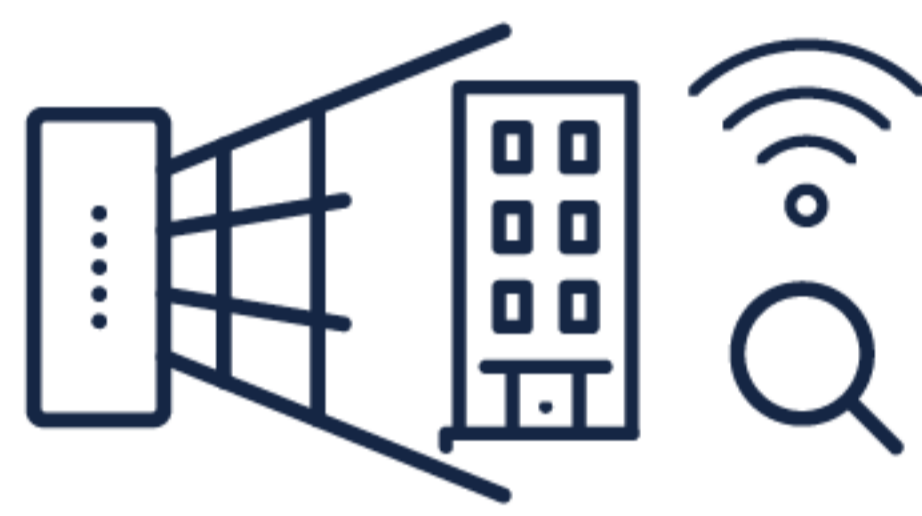


SUM4Re

Creating materials banks from digital urban mining

PILLAR 1

IDENTIFICATION TECHNIQUES & TECHNOLOGIES



Utilising remote and embedded technologies with AI to identify and analyse construction entities in existing buildings and CDW.

UC1
3D geometric models



UC2
Characterisation of ageing timber



UC3
Detection of harmful materials, compounds, or coatings



UC4
Identification and modelling of concealed materials and components



UC5
Detection of hidden elements and concealed facilities, and condition of wood components



UC6
Characterisation of structural health



UC7
Optimum CDW upcycling



PILLAR 2

ANALYSIS SOFTWARE TOOLS FOR CIRCULARITY C-BIM



Applying digital tools to analyse construction entities for better interoperability and integration.

UC8
C-BIM generation for information management



UC9
Interoperability of the project platforms



Information management based on **open standards** to promote interoperability in construction, focused on existing and demolished built works.

SECURE STORAGE DATABASE



PILLAR 3

CONTRIBUTION TO CIRCULARITY



Enhancing the value of construction entities and developing market strategies with blockchain technology to address information gaps and establish property rights.

3.1. SMART/DIGITAL STRATEGIC PLANNING

UC10
Product/Waste Condition Analysis



UC11
High-quality reuse of secondary materials through LCA



UC12
Go-to-market strategies and constrains



UC13
EU legal framework analysis



3.2. GO-TO-MARKET +UPSKILLING

UC14
Outcomes and solutions



UC15
Co-creation strategies for skills development



EXISTING/DEMOLISHED BUILT WORKS

Universida de Vigo

tecnal:a
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

THE HAGUE
UNIVERSITY OF APPLIED SCIENCES

SINTEF

BLOCK MATERIALS

R2M
RESEARCH TO MARKET SOLUTION

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VTT

Den Haag
VREDE EN RECHT

MOYUA

AF
Decom

STORE NORSKE

Concular

OLAR SOLUTIONS

GSCAN

EBC
CONSTRUCTION DIGITAL EUROPE

SCREENING EAGLE

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