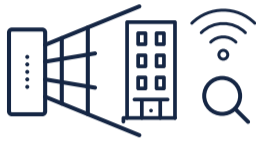


# SUM4Re

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

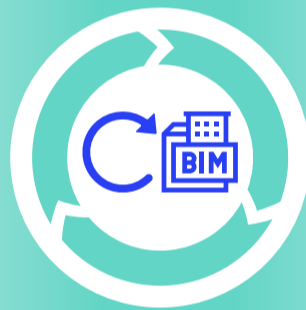


Applying digital tools to analyse construction entities for better interoperability and integration.

**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

Universidade de Vigo

tecnal:a  
MEMBER OF BASQUE RESEARCH  
& TECHNOLOGY ALLIANCE

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