

## Circular EcoBIM

### Summary

Circular EcoBIM wants to exploit the potential of BIM to improve the choice of material and the assembly of constructive elements so that, at the end of life of the building, the materials can be reclaimed, reused and recycled, and the environmental impacts reduced. This will be accomplished with the development of three tools. The first tool is a database that collects information about the environmental performance and circularity potential of construction materials. A product data template allows organizing and directing the collection of data for the specific application of the remaining tools of Circular EcoBIM. The second tool are software plugins for existing BIM software that allow calculating a circularity passport, LEVEL(s) system indicators for sustainable

buildings, and Environmental Product Declarations (EPD) based on the building design. The third tool is a digital twin platform that enables the visualization and interaction with the BIM model and the environmental performance in a digital environment. Information gets synchronized between the Digital Twin, BIM software and the database, which allows the building manager to access all project data, rather than having to browse through multiple data sources. The Circular EcoBIM is supported by the EEA Grants, a close cooperation between Iceland, Liechtenstein and Norway and the EU through the Agreement on the European Economic Area (EEA) towards a green, competitive and inclusive Europe.

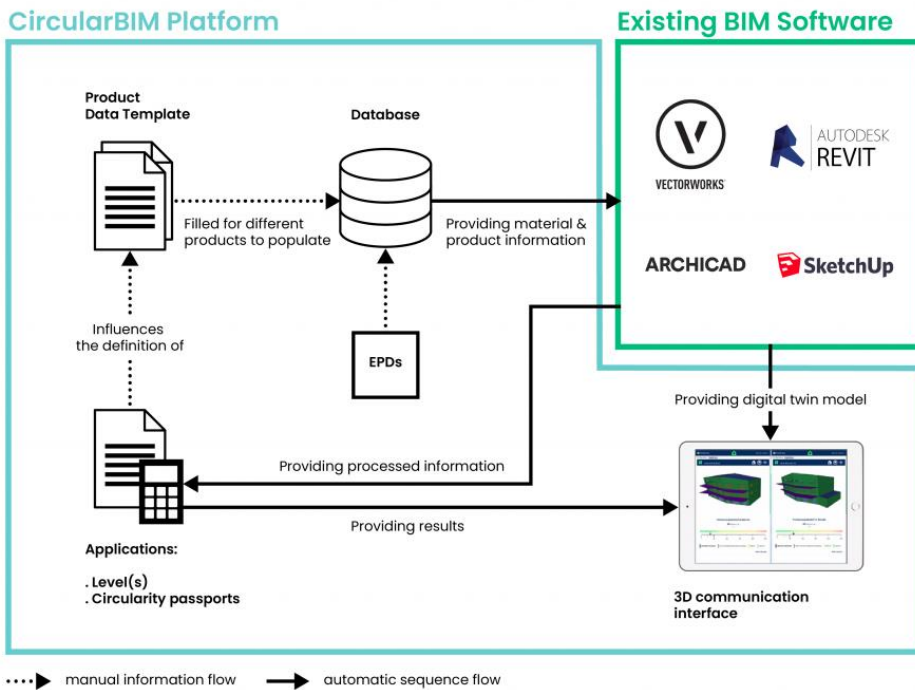


Figure 1. Circular EcoBIM project.

### Project Reference

12\_Call#2

### Leading Institution

3drivers – Engenharia Inovação e Ambiente (Portugal)

### Partners

CERIS – Civil Engineering Research and Innovation for Sustainability (Portugal), IN+ – Center for Innovation, Technology and Policy Research (Portugal), CentralBIM (Portugal), ATREM – Atelier dos Remédios Arquitectura (Portugal), VIC Properties (Portugal), NTNU – Norwegian University of Science and Technology (Norway)

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### CERIS Research Team

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### Funding

EEA Grants

### Period

2020-2022

### Total

586 560.93€

### CERIS

162 630.27€

### Project Website

[circularecobim.eu](http://circularecobim.eu)