

Digitalisation as a tool for sustainable architecture?

Madaster

Madaster documents the components and materials used. The tool performs a financial and circular calculation that always takes the entire value chain into account. The tool is offered by the company of the same name and is owned by a non-profit foundation.
www.madaster.de

This knowledge was donated by:

Background

Madaster documents and analyzes components and materials. So-called Material Passports are generated from material registers: they provide information on which components and material quantities can be released and sent for high-quality reuse or recycling. This makes the deconstruction process more efficient because it is more closely aligned with the planning. Information about released components is communicated before the actual deconstruction, which enables regional value creation and at the same time significantly reduces the amount of waste. The input (BIM/Excel) automatically reads the uploaded data and links it to internal and external databases (e.g. Ökobaudat). The evaluation shows where what was installed, how circular the building is and what environmental impact the installed parts have. The financial framework is also calculated. Madaster operates globally, but attaches great importance to regional roots. There are numerous collaborations with national and international partners as well as good relationships with regulatory and academic authorities.

What?

- Documentation of the building as a material depot in relation to the raw materials used in it
- Goal: Establish circular real estate in the construction industry
- Cloud platform: material passport, CO₂ calculator, circularity index, financial assessment
- Potential for sustainable financing or sustainable finance (e.g. green bonds)

Who?

- Planners
- Real estate managers
- Building owners / construction industry

When?

- Usable from LP2, LP9 (as built) desirable

How?

- Cost based on license
- Cloud hosted in the EU
- Interface: IFC-BIM / Excel