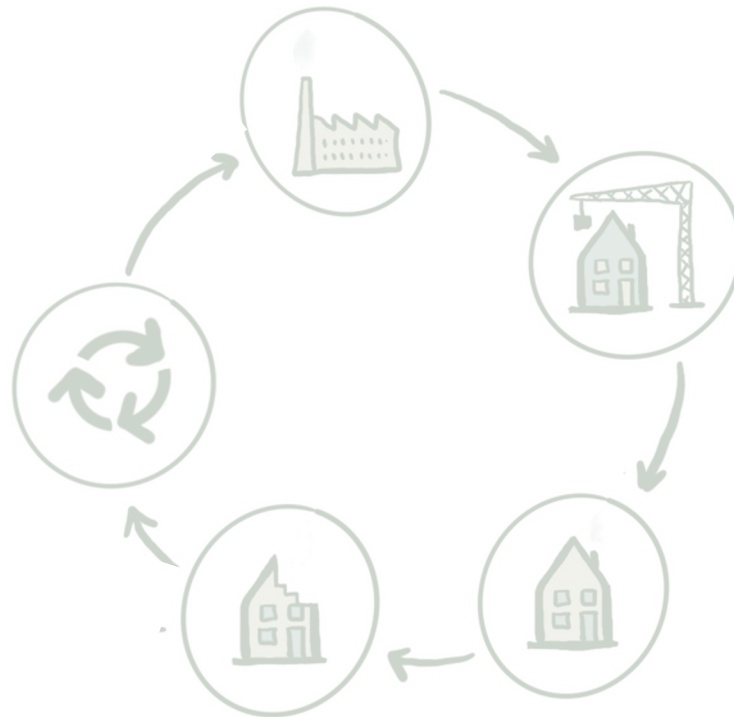


Circularity in Architectural Design





Sharina Alves
M. Eng.

sharina.alves@jade-hs.de



Sina Hage
M. Sc. & M. Arch.

sina.hage@jade-hs.de





8.073.805.580
(04.04.2023 5pm)



Industrial countries: 430 t per Capita

Source: Werner Sobek, non nobis

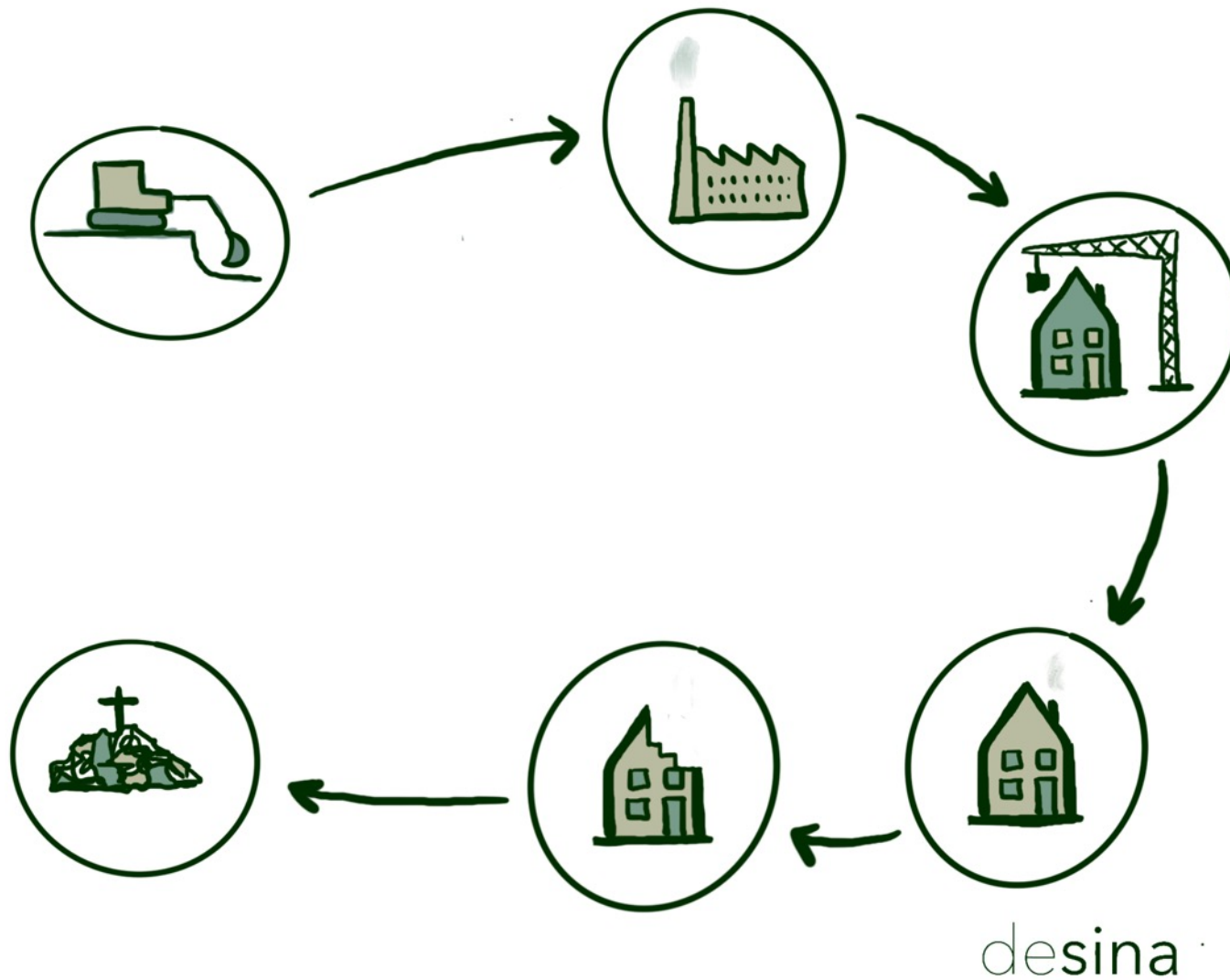


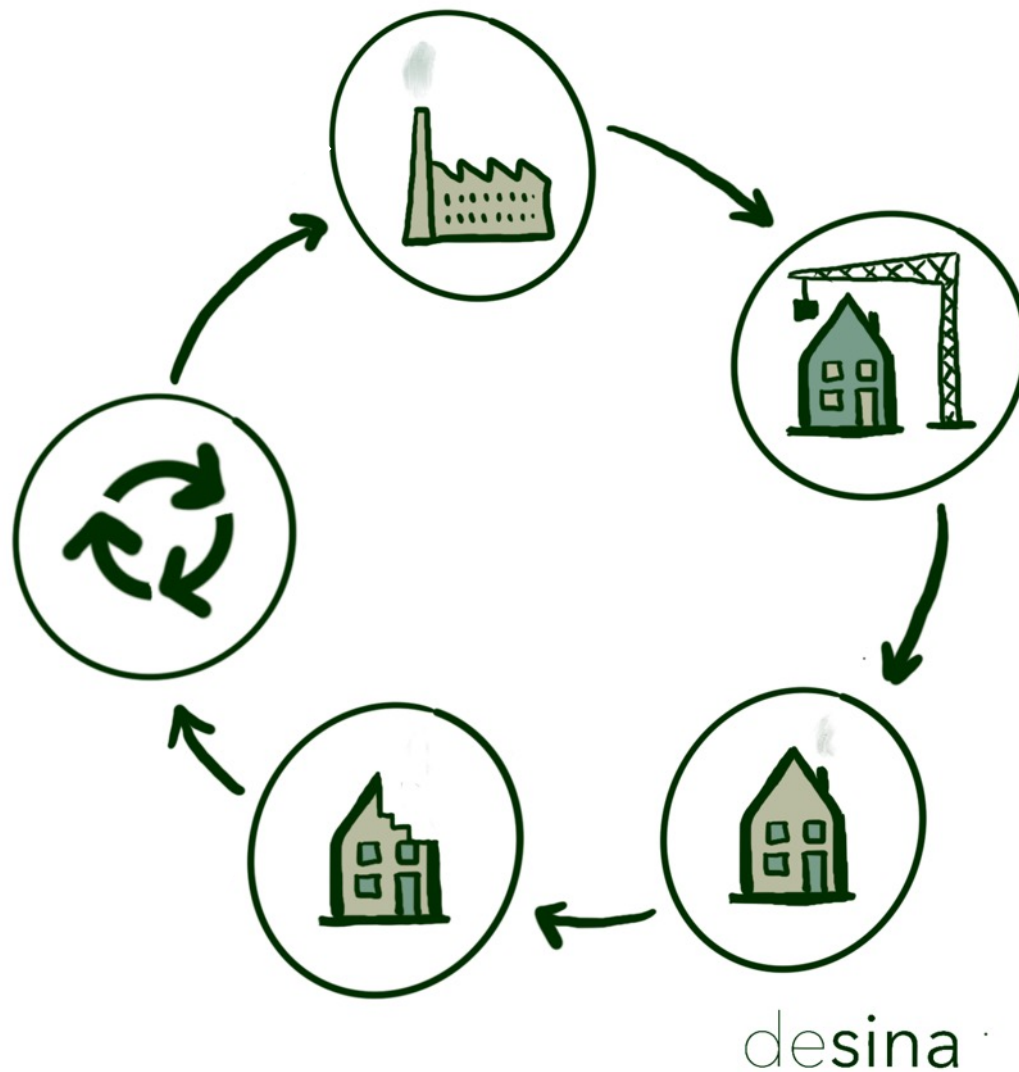
Industrial countries: 430 t per Capita

World: 148 t per Capita

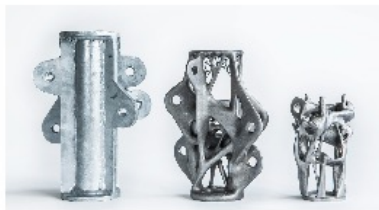
„developing countries“: 76 t per Capita

Source: Werner Sobek, non nobis

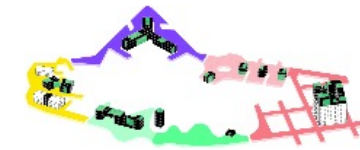




Case studies



Additive manufactured struct... Digital Solution



ADPT - modular system for c... Component



Facade system - BioBuild Component



FORESTA Acoustic Panel Sy... Component



Modular Luminaire Product ... Component



Recyclinghaus am Kronsberg Projects
Hanover, Germany



WikiHouse - digitally manufac... Digital Solution

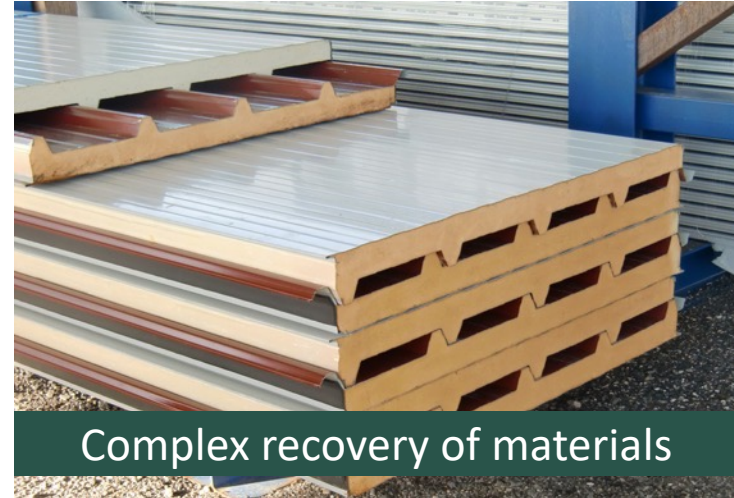


<https://www.gundlach-bau.de/zuhause-finden/infos-fuerinteressierte/mietinteressiert/referenzen/recyclinghaus>

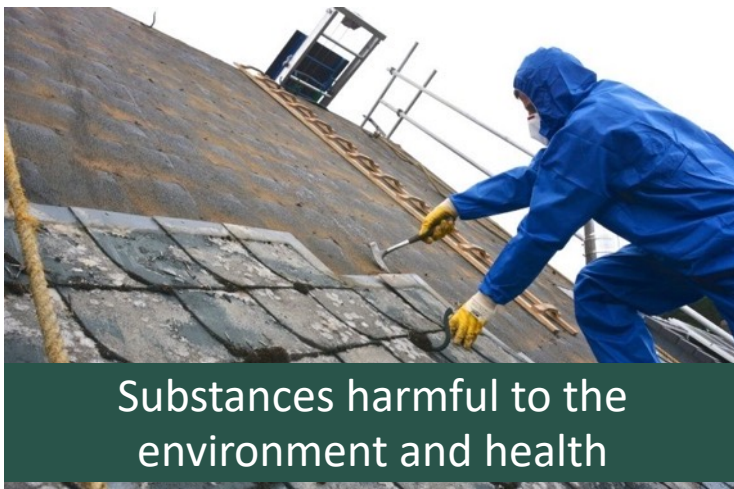
What are the problems with reusing materials?



baubüro in situ



trapezblech-direkt.de

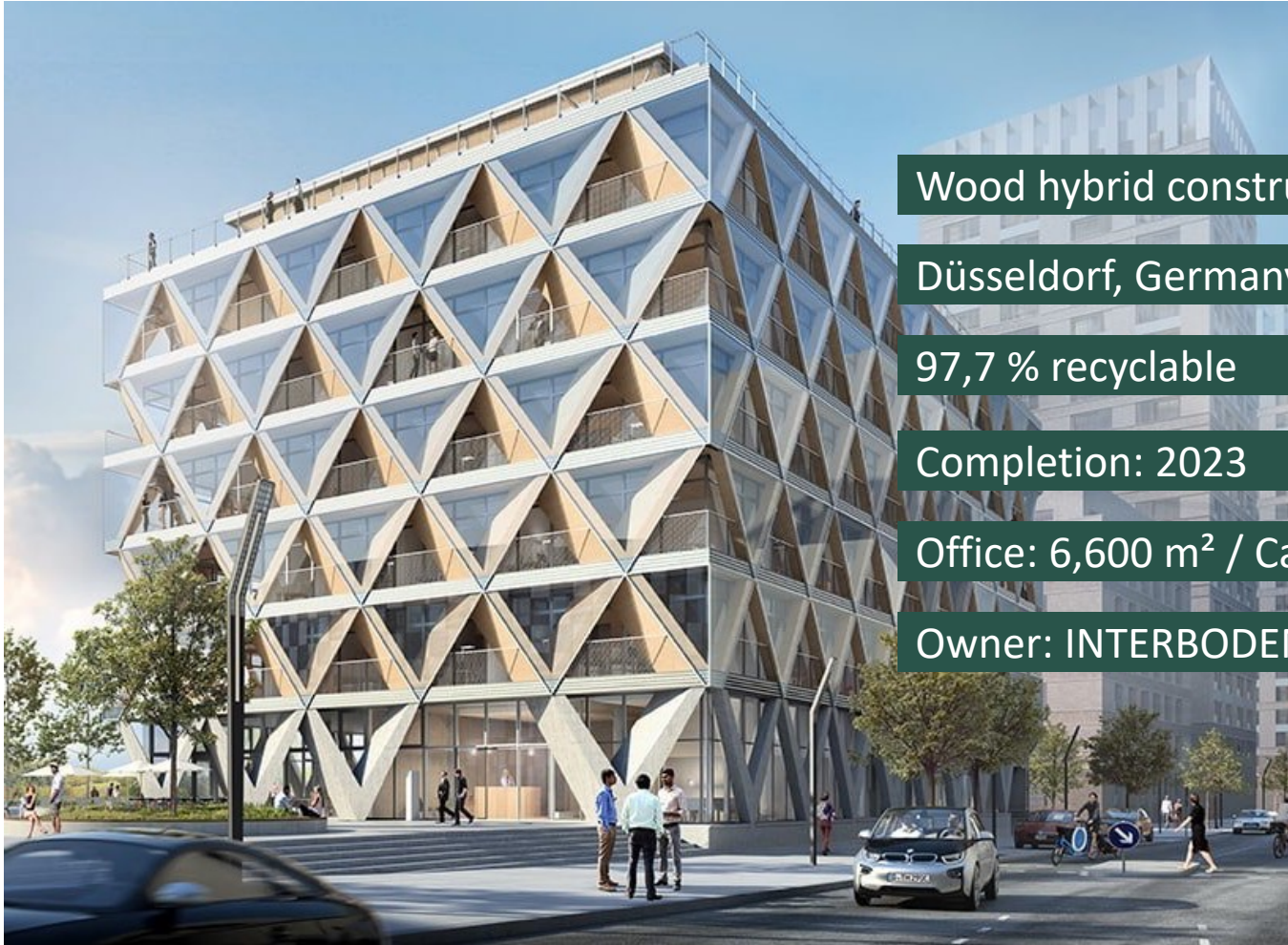


rathscheck.de



baubüro in situ

The Cradle



Wood hybrid construction

Düsseldorf, Germany

97,7 % recyclable

Completion: 2023

Office: 6,600 m² / Catering: 600 m²

Owner: INTERBODEN

INTERBODEN

How does the Architectural Design change through C2C?

Choice of materials is limited



keralitpaneele.de



Wohnhaus Vorarlberg, Beat Bühler



Villa Garbald, Karin Bürki



INTERBODEN

How does the Architectural Design change through C2C?

Plug-in instead of glued connections



INTERBODEN



HPP Architekten

How does the Architectural Design change through C2C?

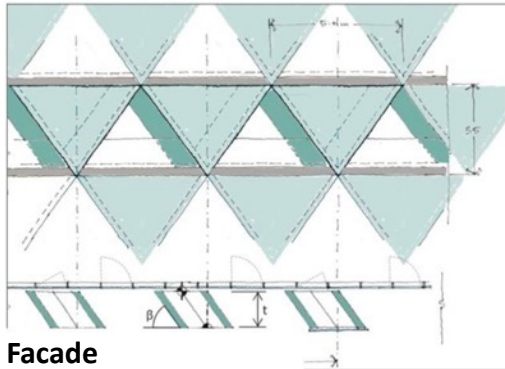
Modularity before individuality



Derix Gruppe

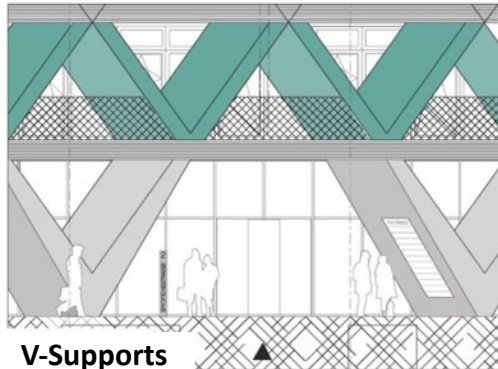
How does the Architectural Design change through C2C?

Renewable energy and efficient energy use

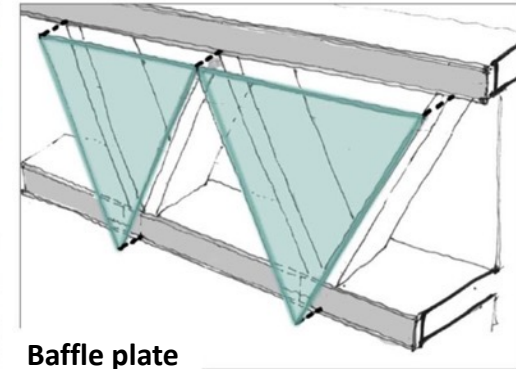


Facade

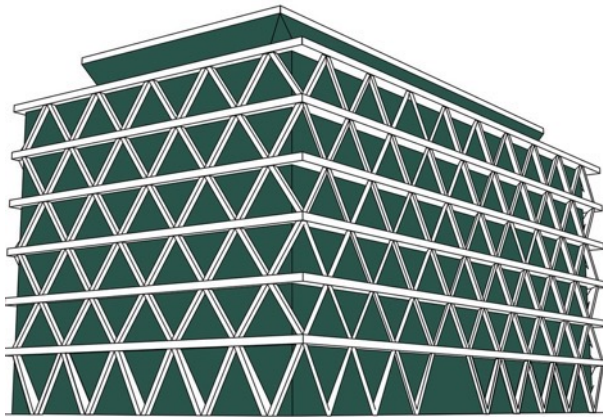
HPP Architekten



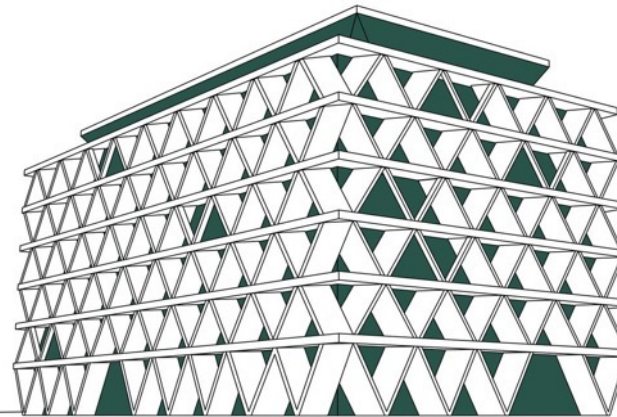
V-Supports



Baffle plate



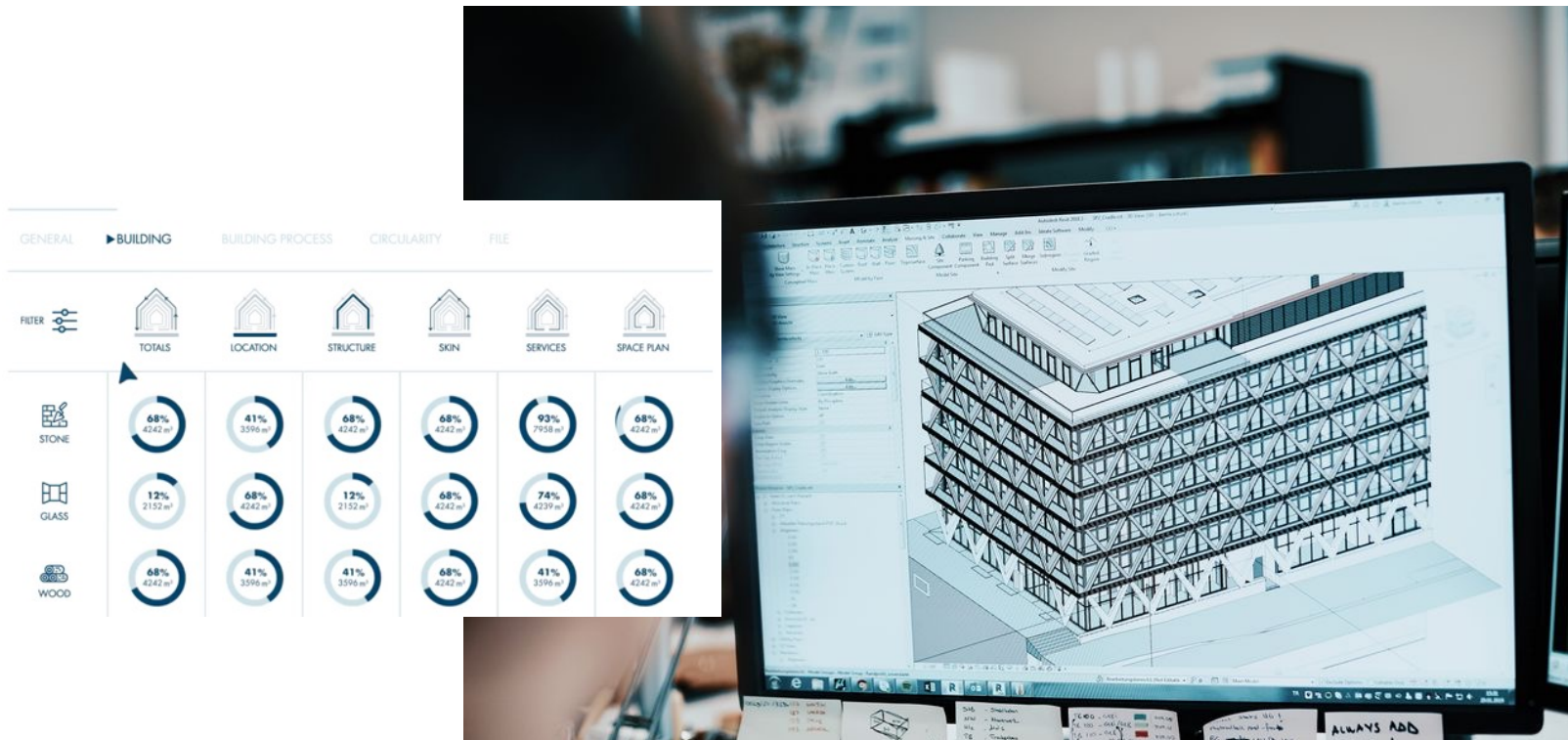
HPP Architekten



solardarity.de

How does the Architectural Design change through C2C?

Better availability of recycled materials



HPP Architekten

Thank you for your attention

