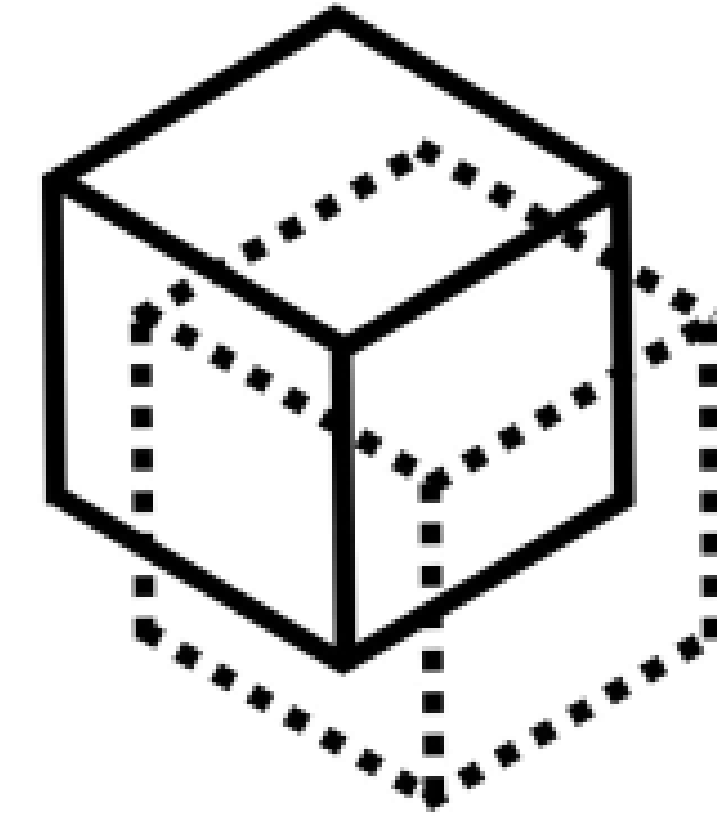




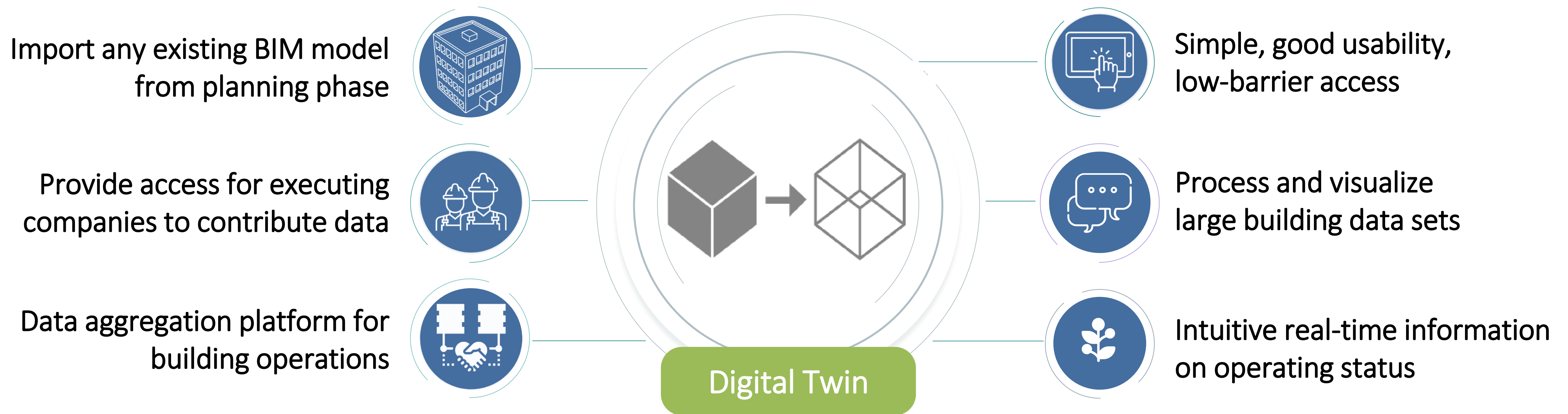
buildingTwin

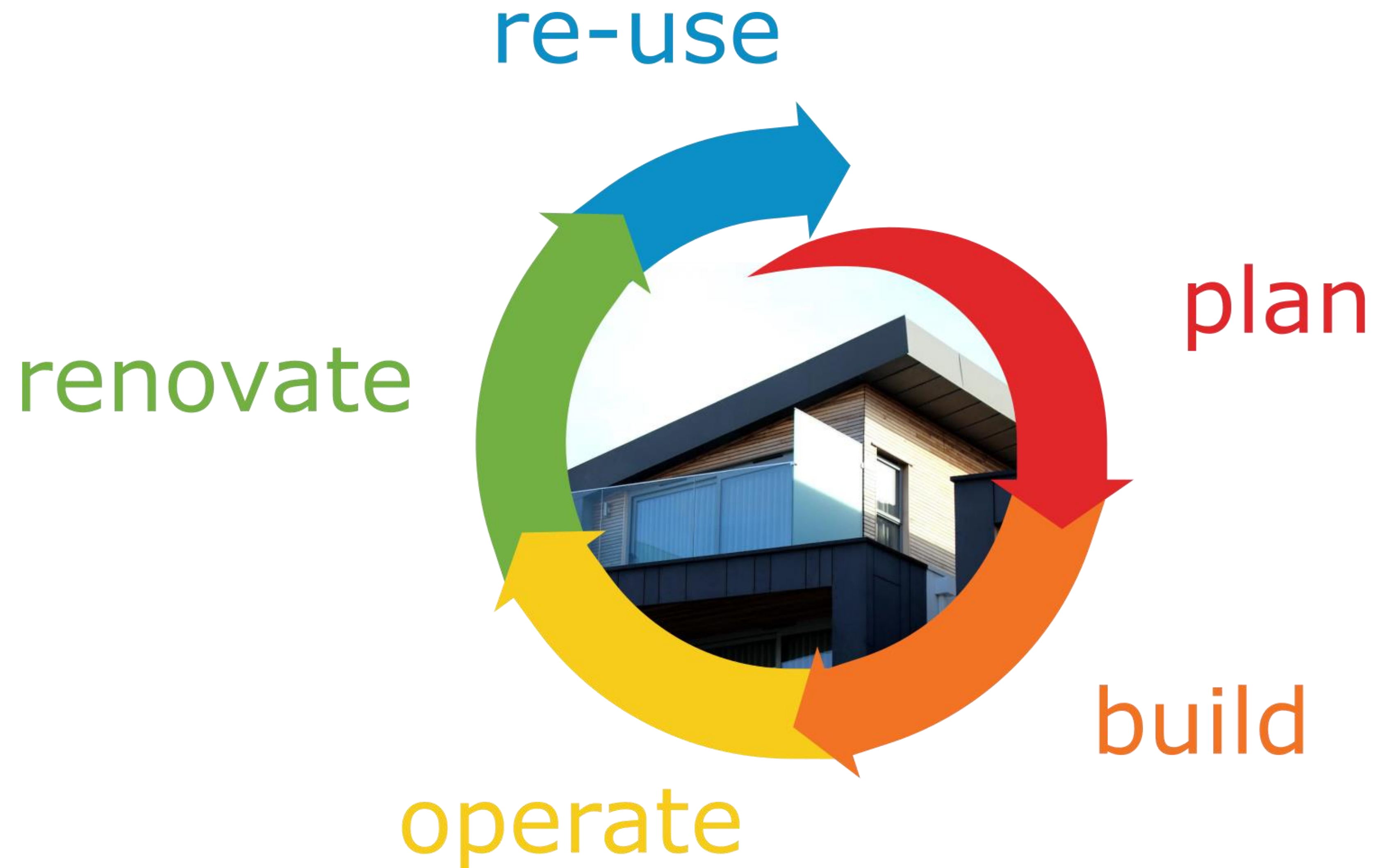
Open Platform for Monitoring, Evaluation
and Optimization of Building Operation

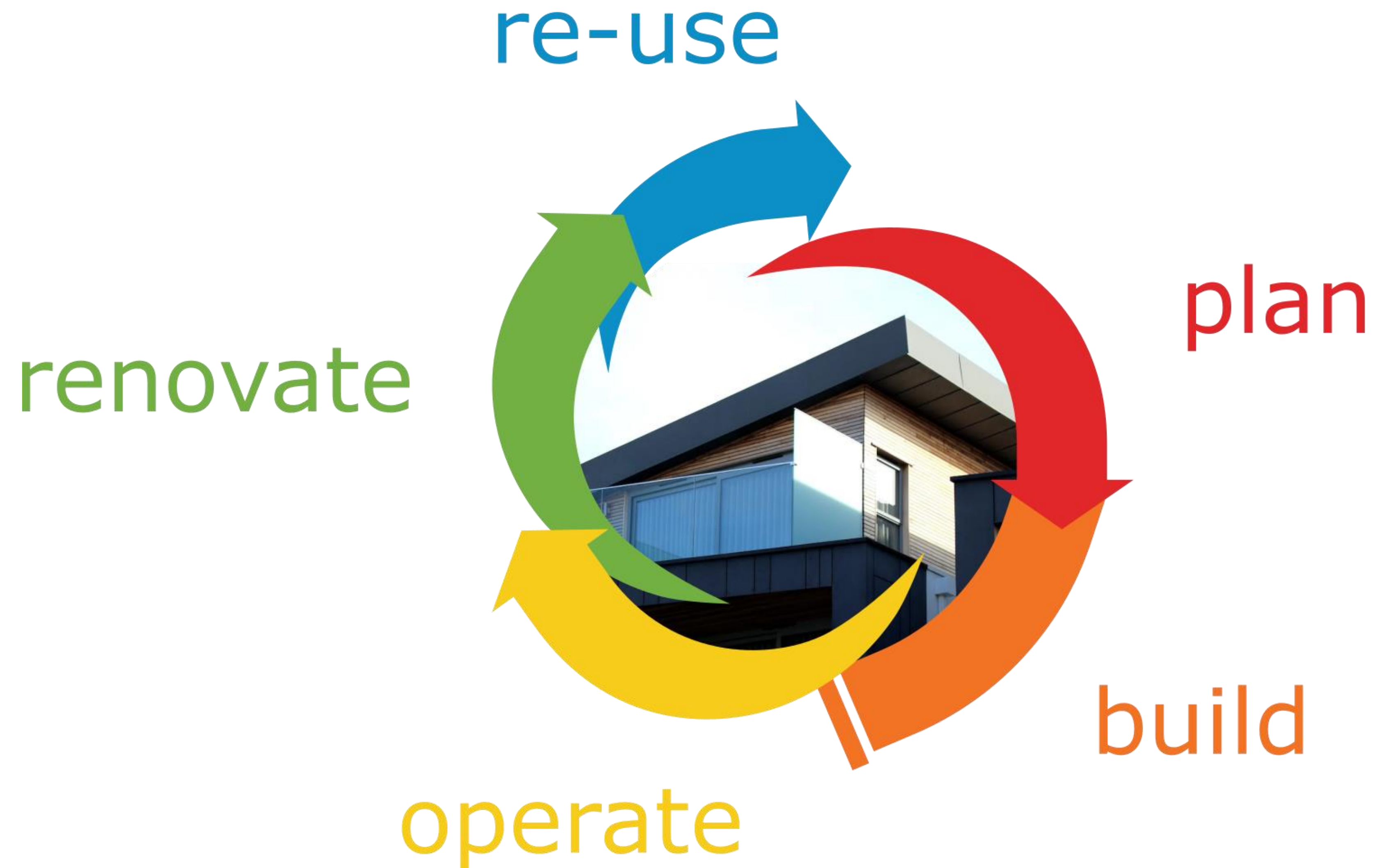


Dr. Andreas Riffnaller-Schiefer

buildingTwin - Goals



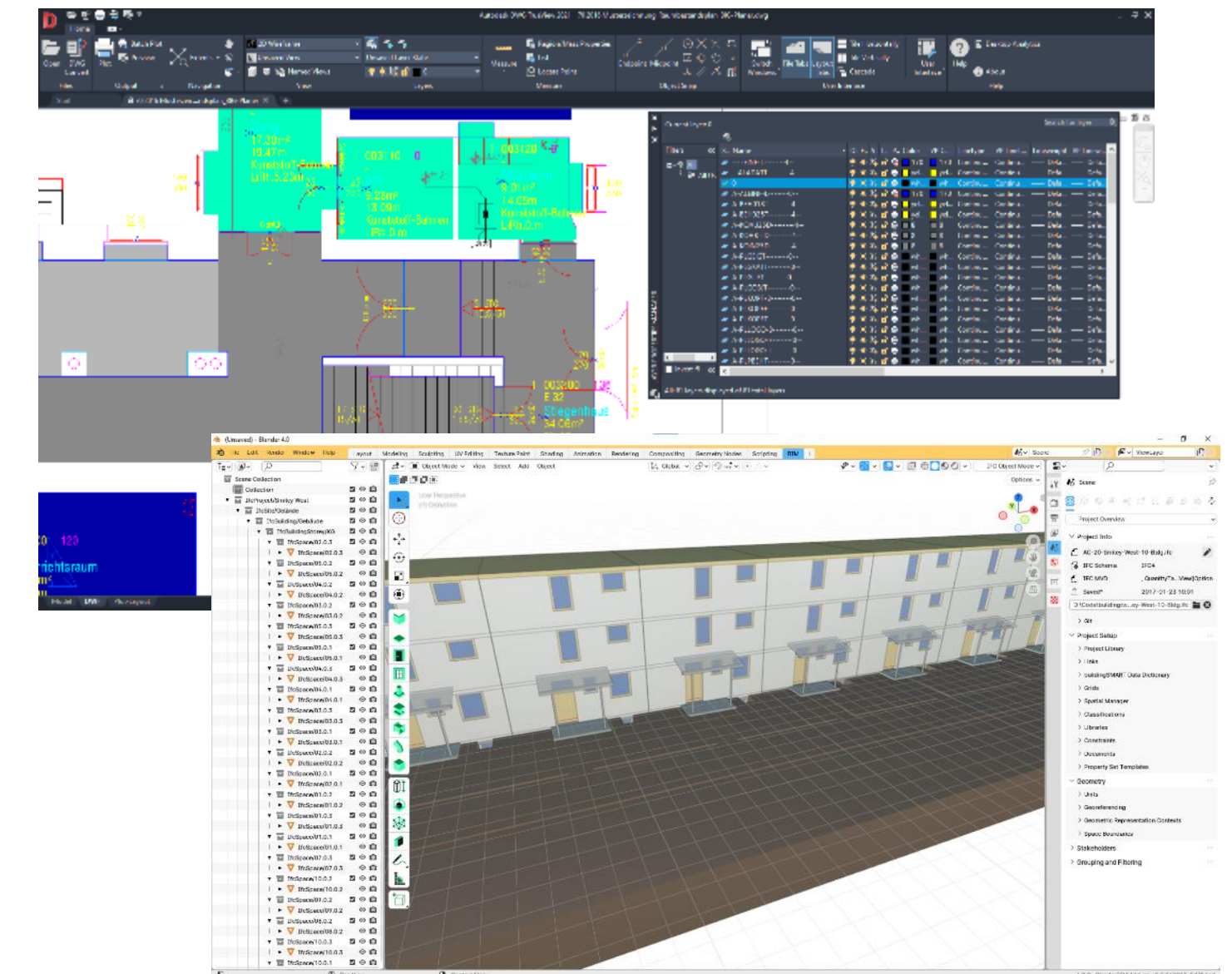
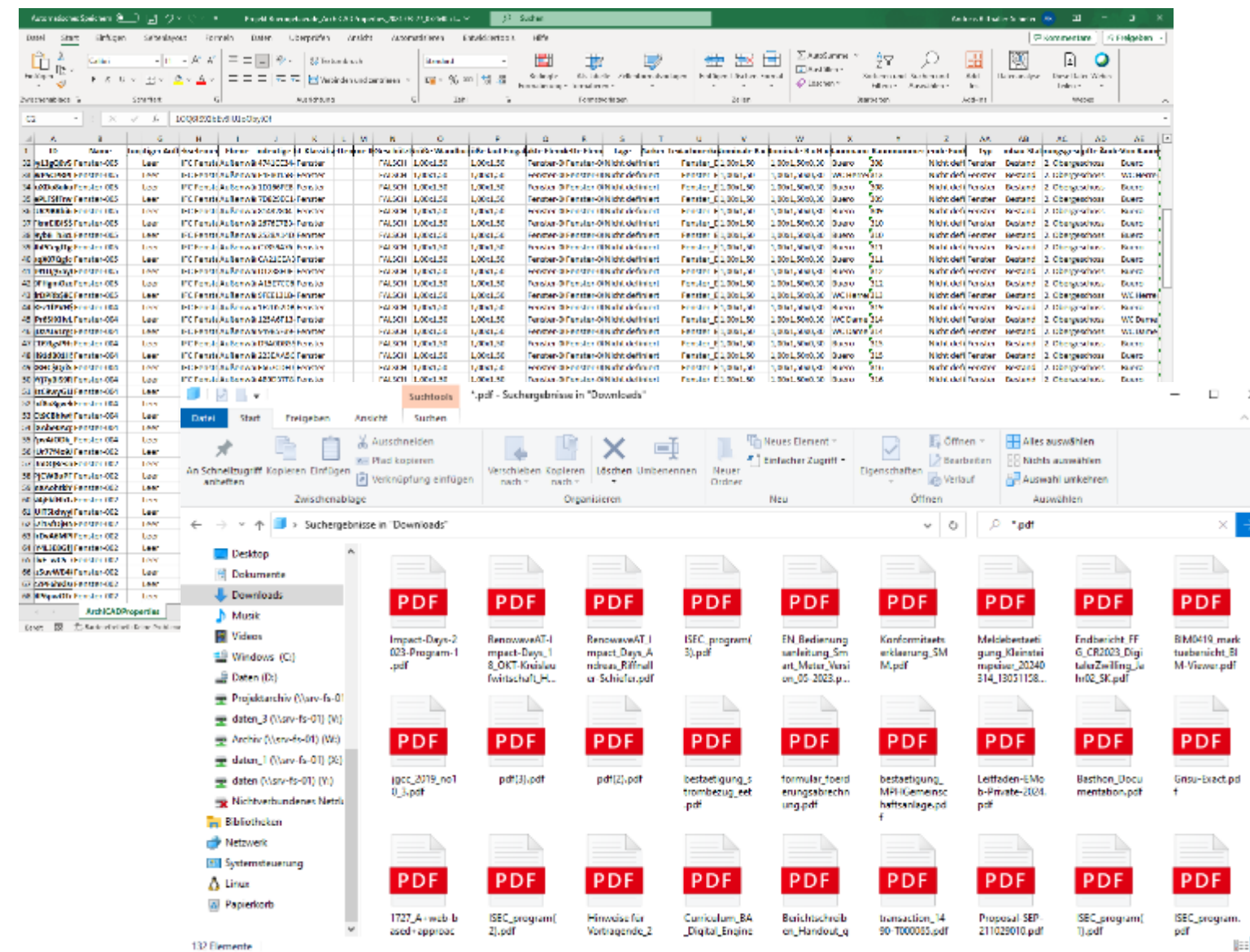
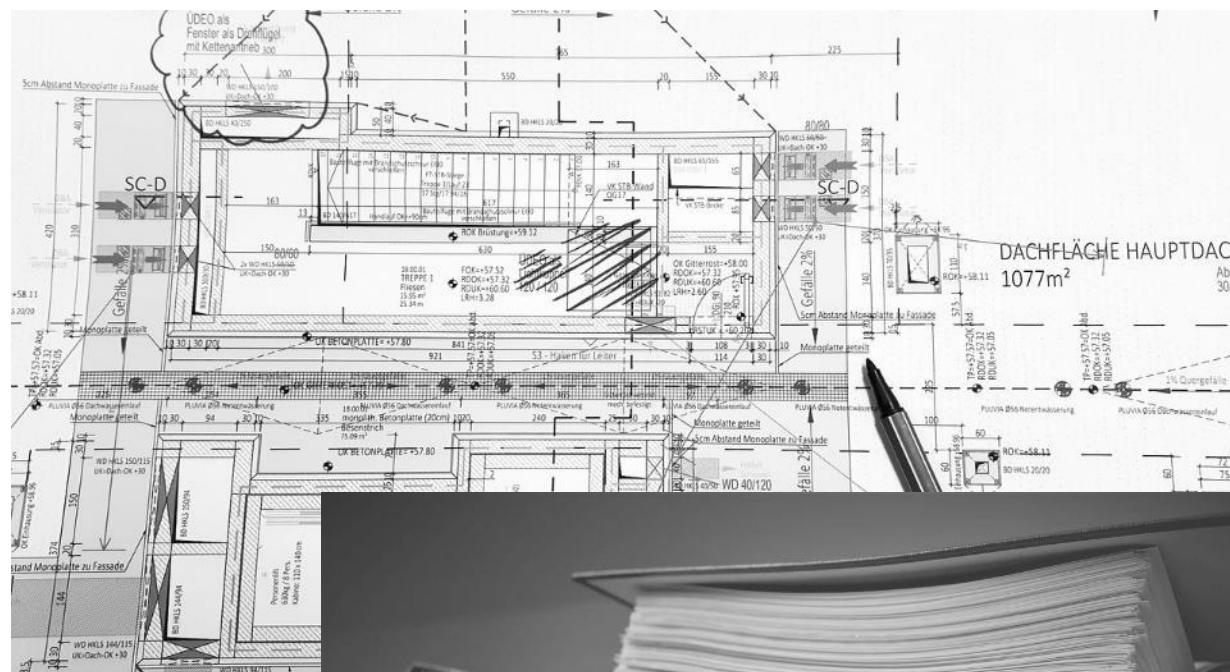




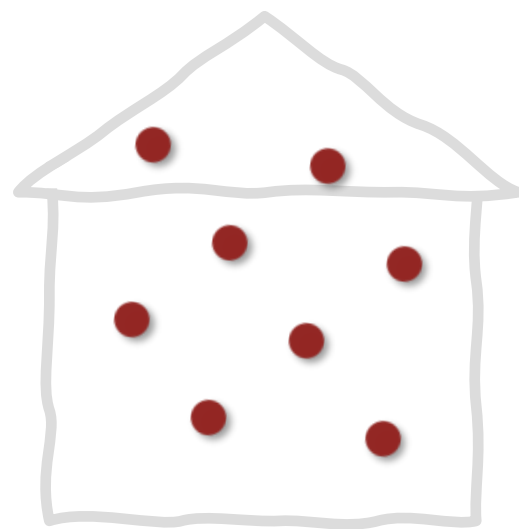
Example – Finding Information

What window sizes are installed in the building?

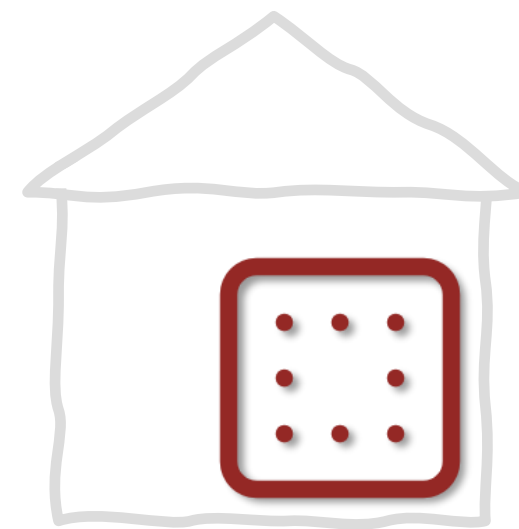
What was the average room temperature last week?



There is a lot of data **unused!**



distributed



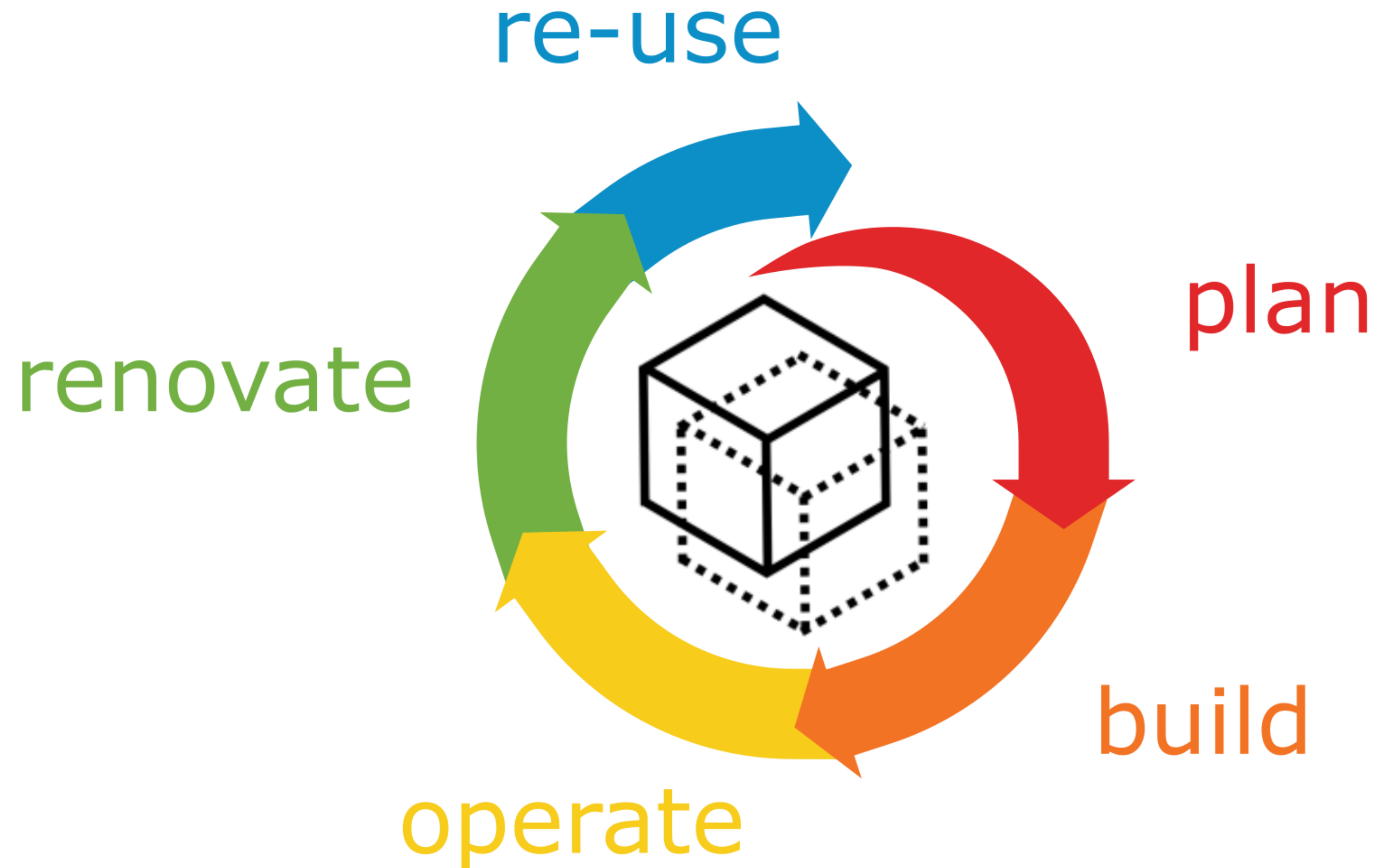
hard to acquire



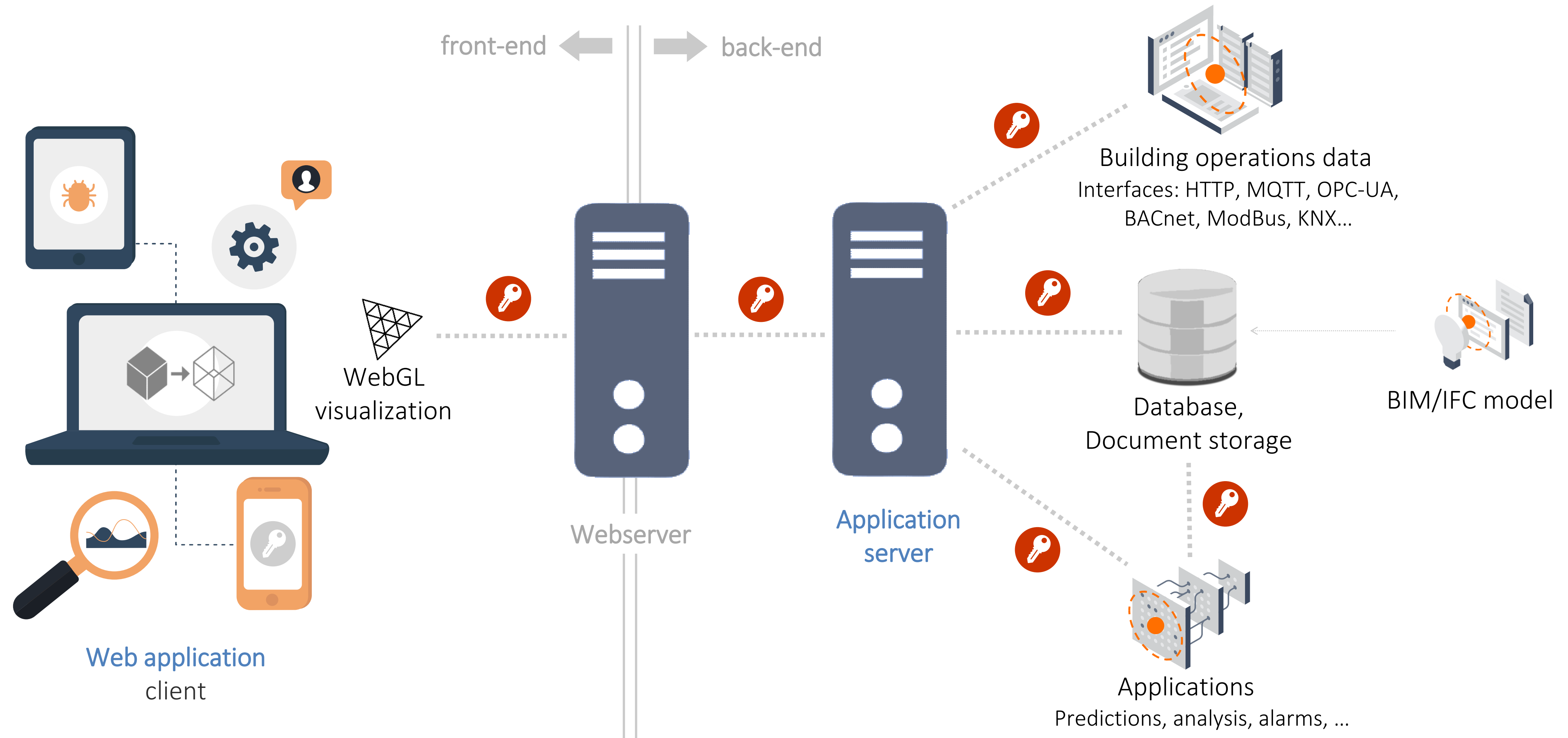
difficult to search

This makes efficient building operation difficult!

BIM for entire Building Lifecycle



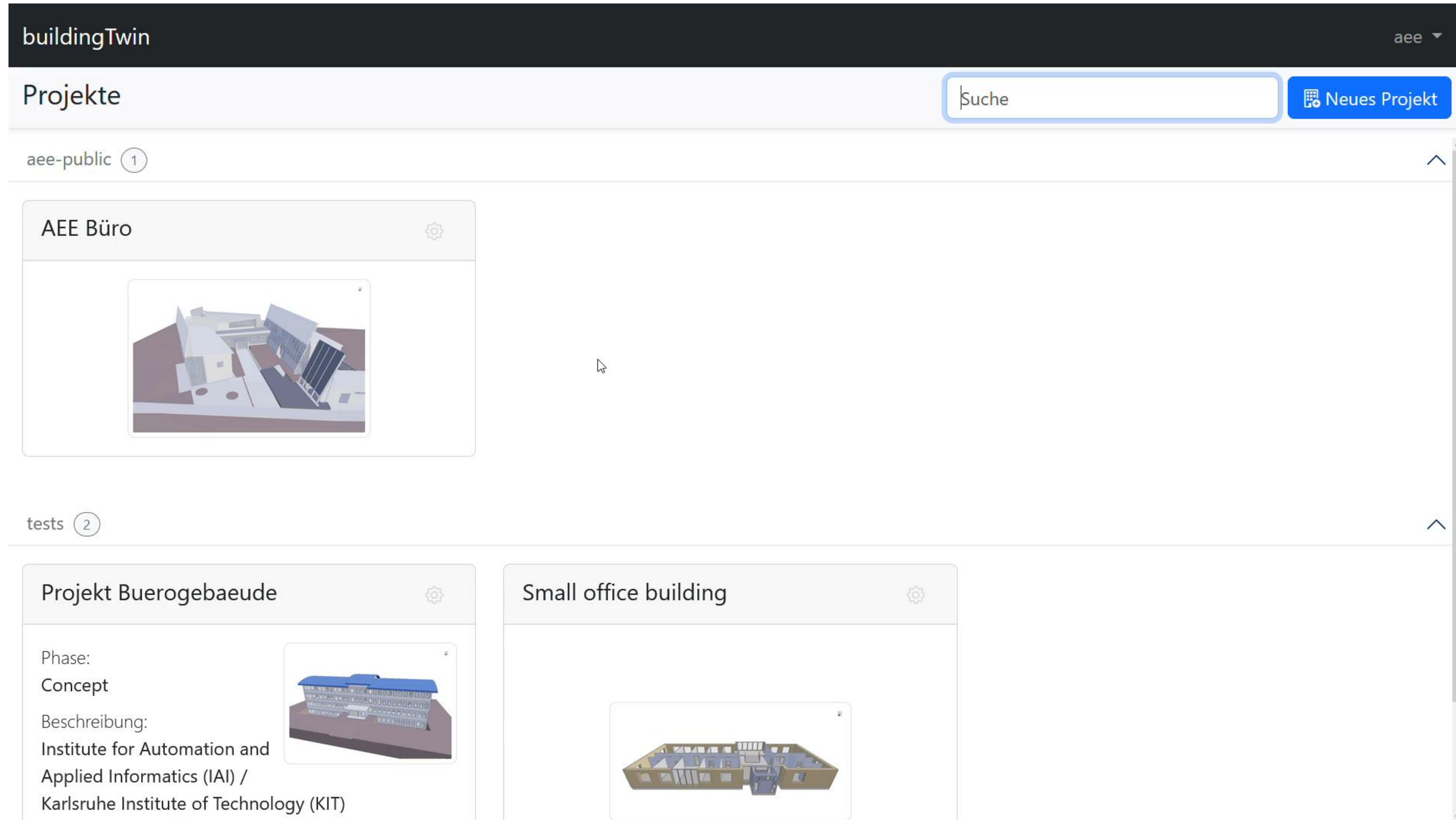
Platform Architecture



buildingTwin - Overview

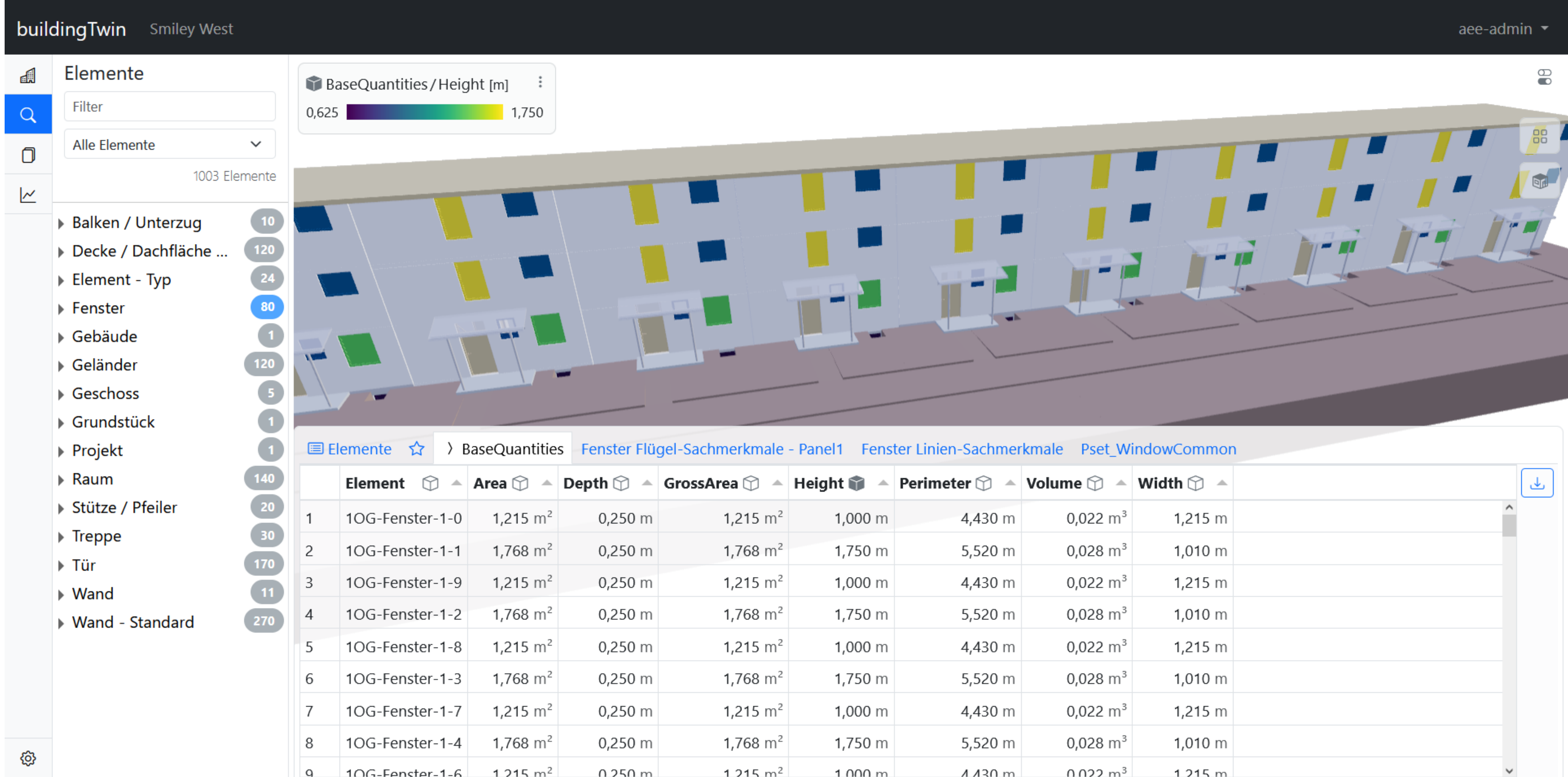
Basic features:

- Project overview
- Navigation
- Attributes
- Elements



The screenshot displays the buildingTwin web application interface. At the top, a dark header bar contains the "buildingTwin" logo on the left and a user profile "aee" with a dropdown arrow on the right. Below the header, a light gray navigation bar features the word "Projekte" on the left, a search input field with the placeholder "Suche" in the center, and a blue button labeled "Neues Projekt" on the right. The main content area is divided into two sections. The first section, titled "aee-public" with a count of "1", contains a single project card for "AEE Büro". This card includes a 3D architectural rendering of a modern building complex. The second section, titled "tests" with a count of "2", contains two project cards. The first card, "Projekt Buerogebaeude", shows a 3D model of a long building and includes text details: "Phase: Concept" and "Beschreibung: Institute for Automation and Applied Informatics (IAI) / Karlsruhe Institute of Technology (KIT)". The second card, "Small office building", shows a 3D model of a smaller office structure. Each card has a gear icon in the top right corner for settings.

Use Case - Window Sizes



Real-time Operations Data



buildingTwin

aee-admin

Office building

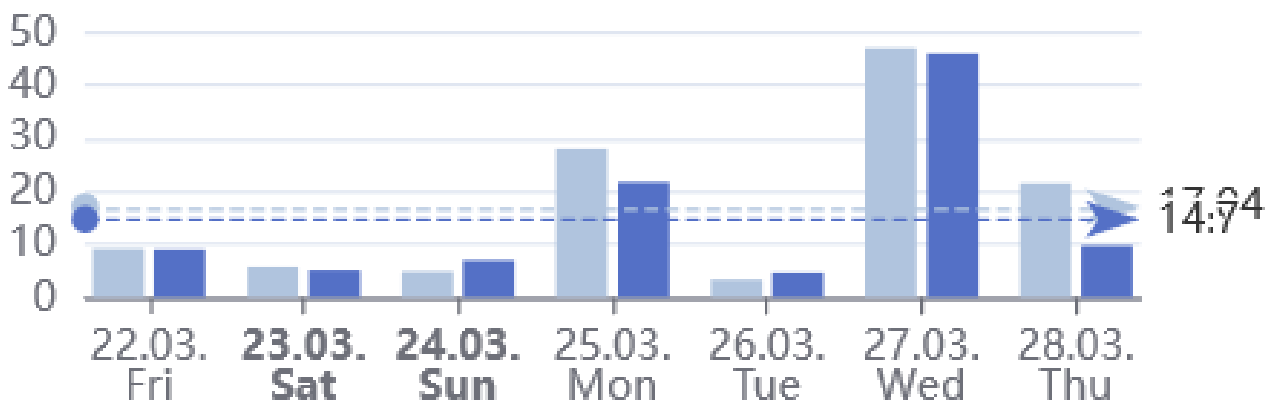
Woche

Monat

Jahr

Electricity consumption

kWh

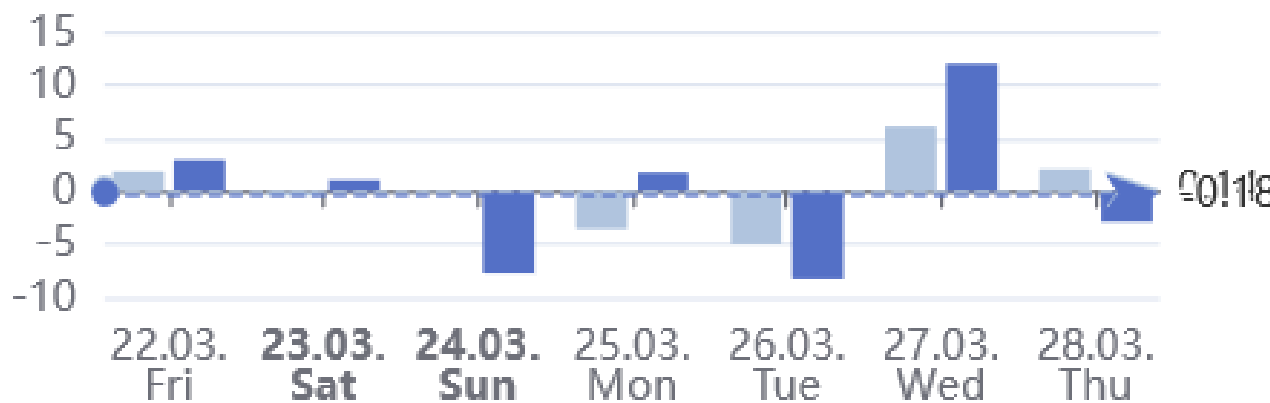


Last week

Current week

Outside temperature change

°C

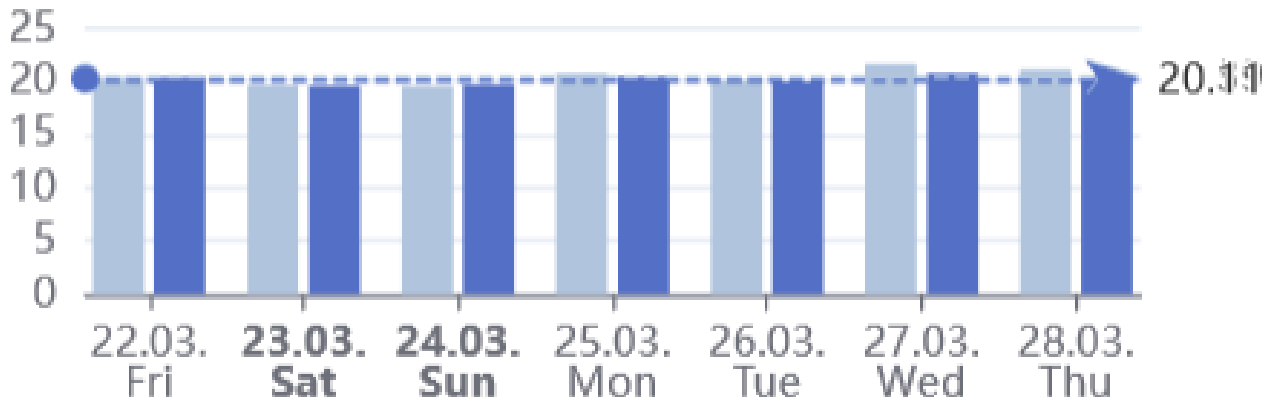


Last week

Current week

Temperature - meeting room (avg)

°C

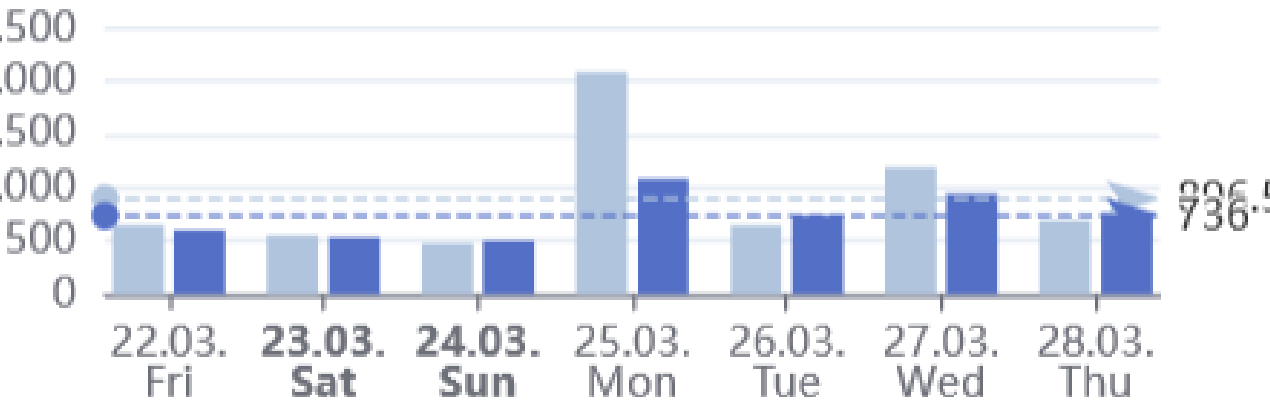


Last week

Current week

CO₂ - meeting room (max)

ppm



Last week

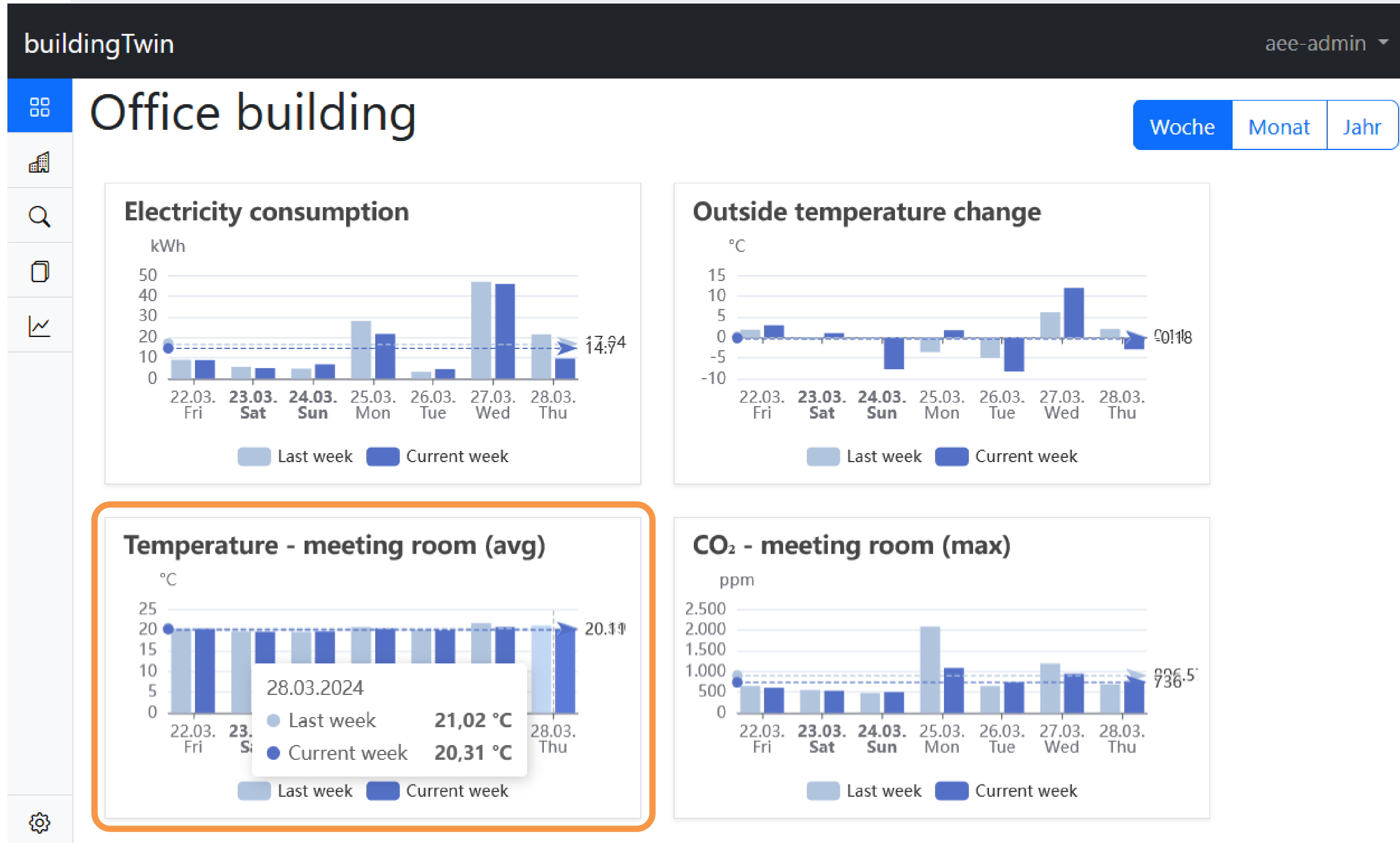
Current week

www.aee-intec.at

AEE – INSTITUTE FOR SUSTAINABLE TECHNOLOGIES

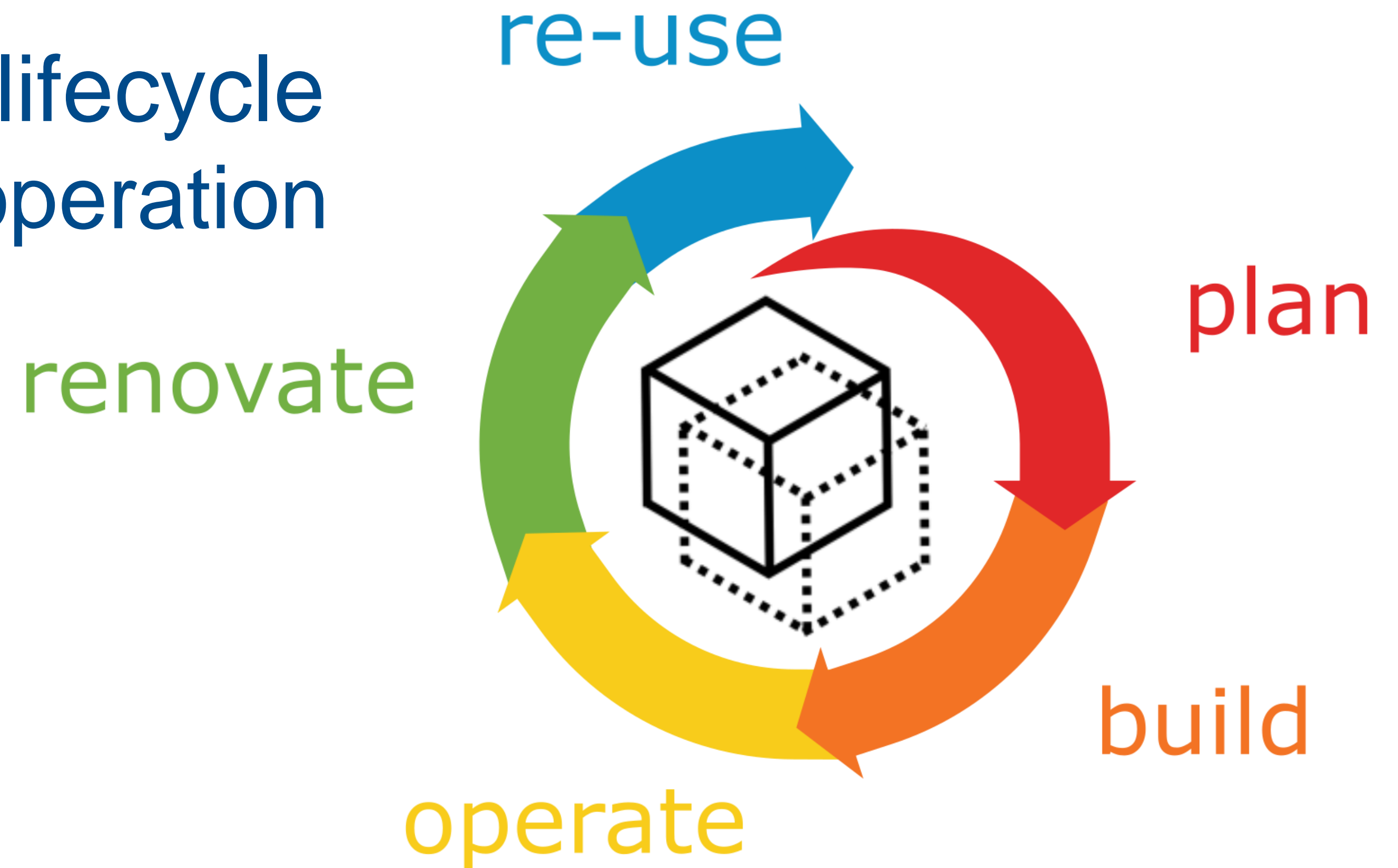
buildingTwin | 11.04.2024

Use Case – Average Temperature



BIM for the entire building lifecycle to enable efficient building operation

- Central platform for all building data
- Easily accessible
 - No special BIM software required
 - Intuitive user interface
- Localized visualization of information
- Real-time operations data



Kindly supported by





AEE INTEC

IDEA TO ACTION

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<https://buildingtwin.net>

