

Future of BIM

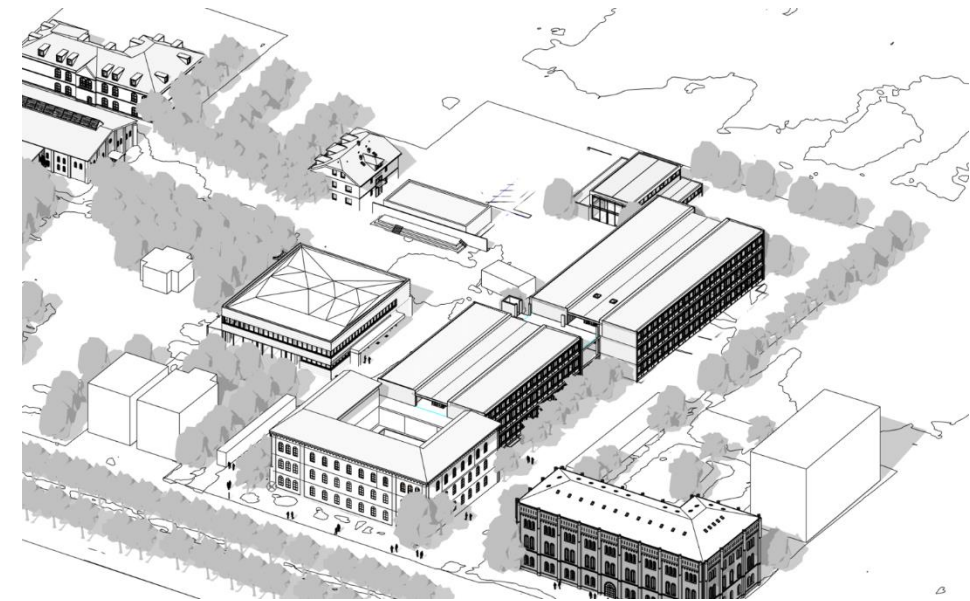
Presentation by Prof. Dr.-Eng. Sebastian Hollermann

Oldenburg, 08.06.2021

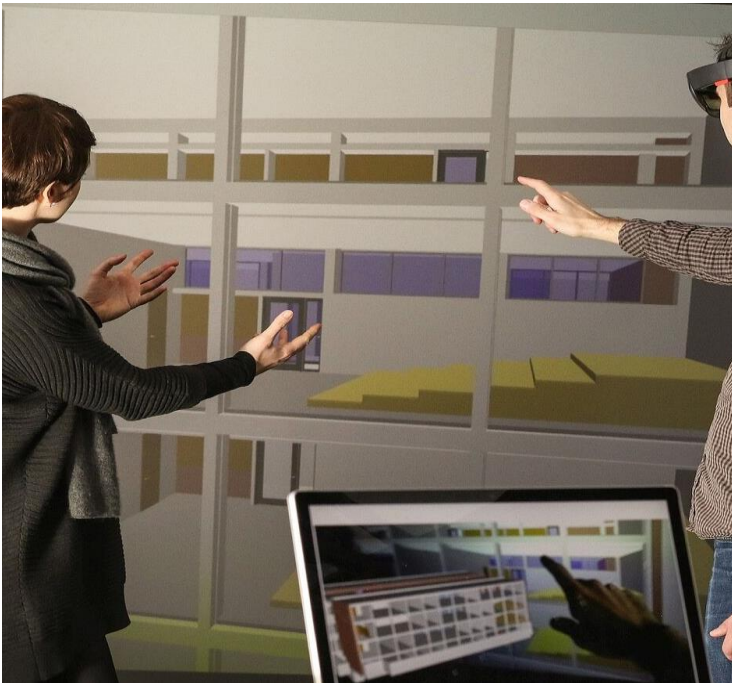


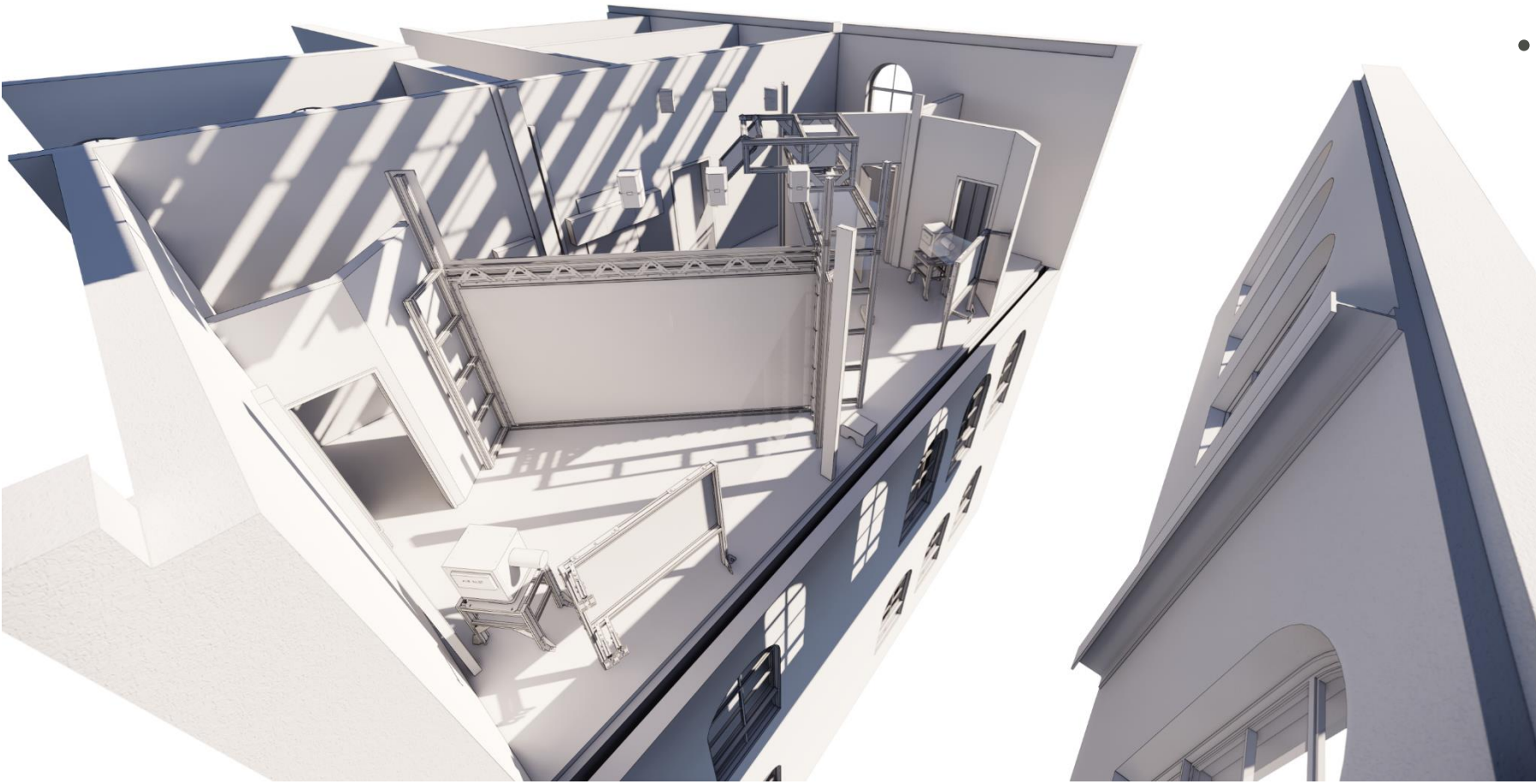
Prof. Dr.-Eng. Sebastian Hollermann

- Professor for Digital Building Construction, CAD-Modeling, BIM
- Director of the Institute for Database-oriented Construction (IDoK)
www.jade-hs.de/IDoK
- Director of the Digital Engineering Lab (DiEng)
www.jade-hs.de/DiEng

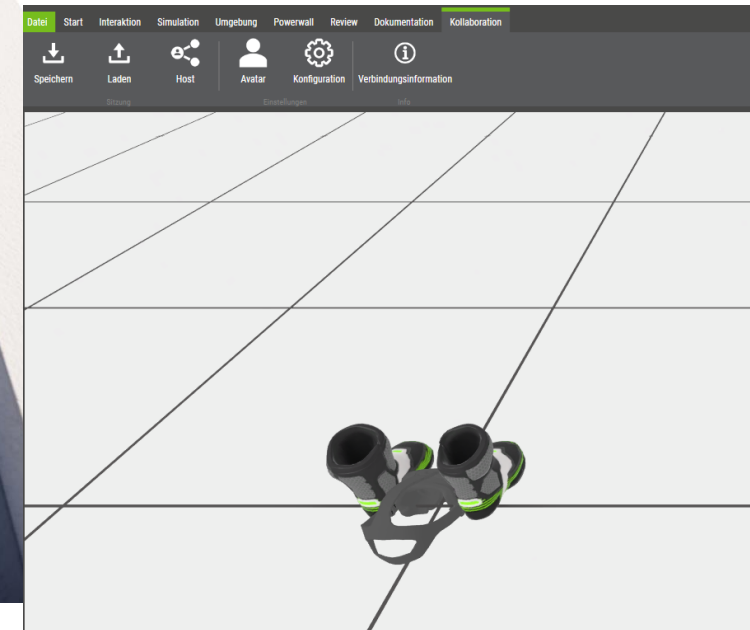


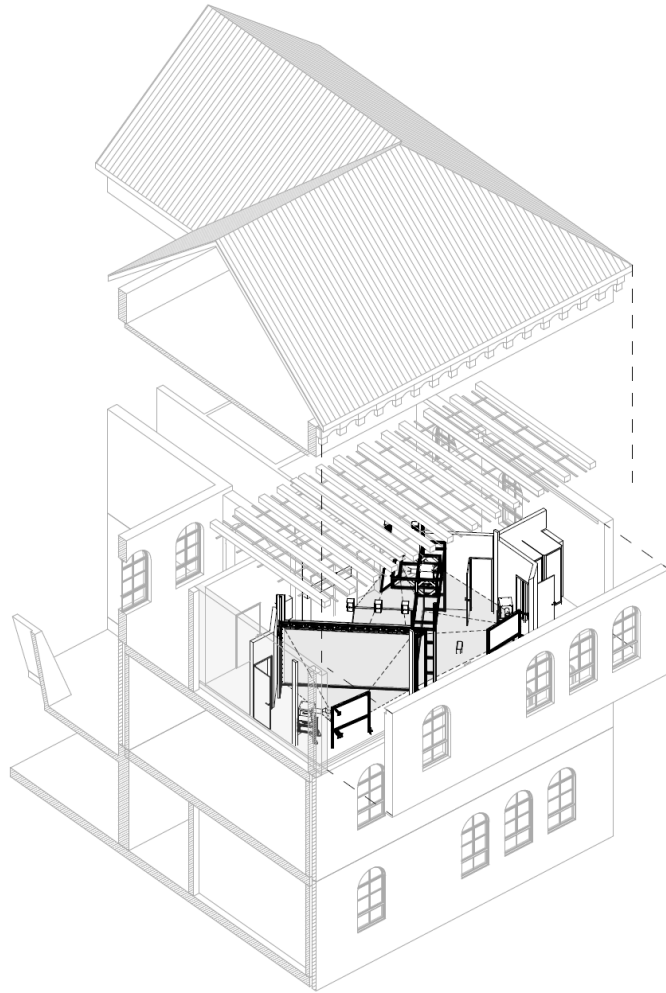
- Room for the projection of digital models and realisation of simulations
- In use: construction-site utilizable AR-helmets and handheld positioning systems



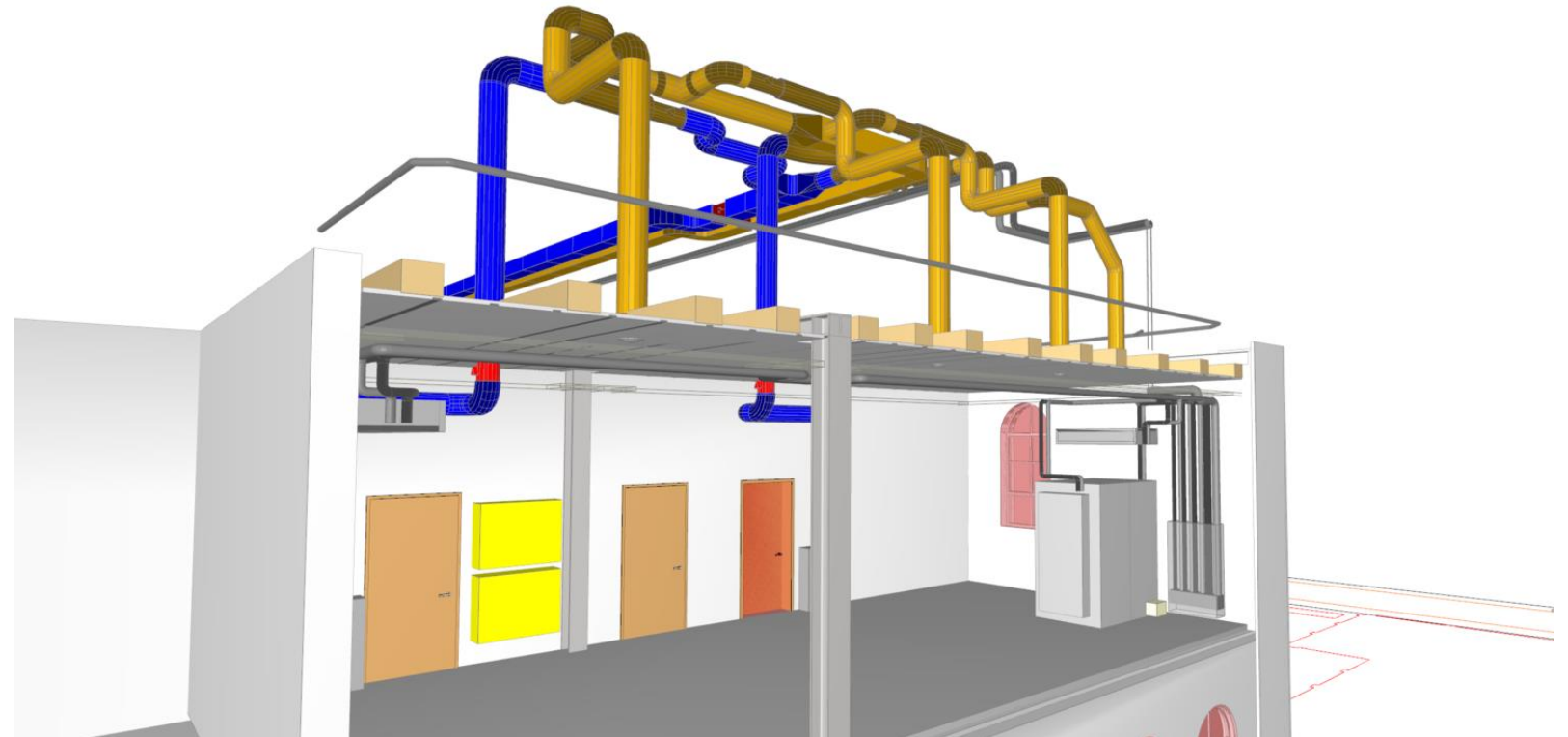


- Mixed Reality Cave
- Feature: different users can be “in” the same project at the same time





- coordination of models
- Smart Home workplaces

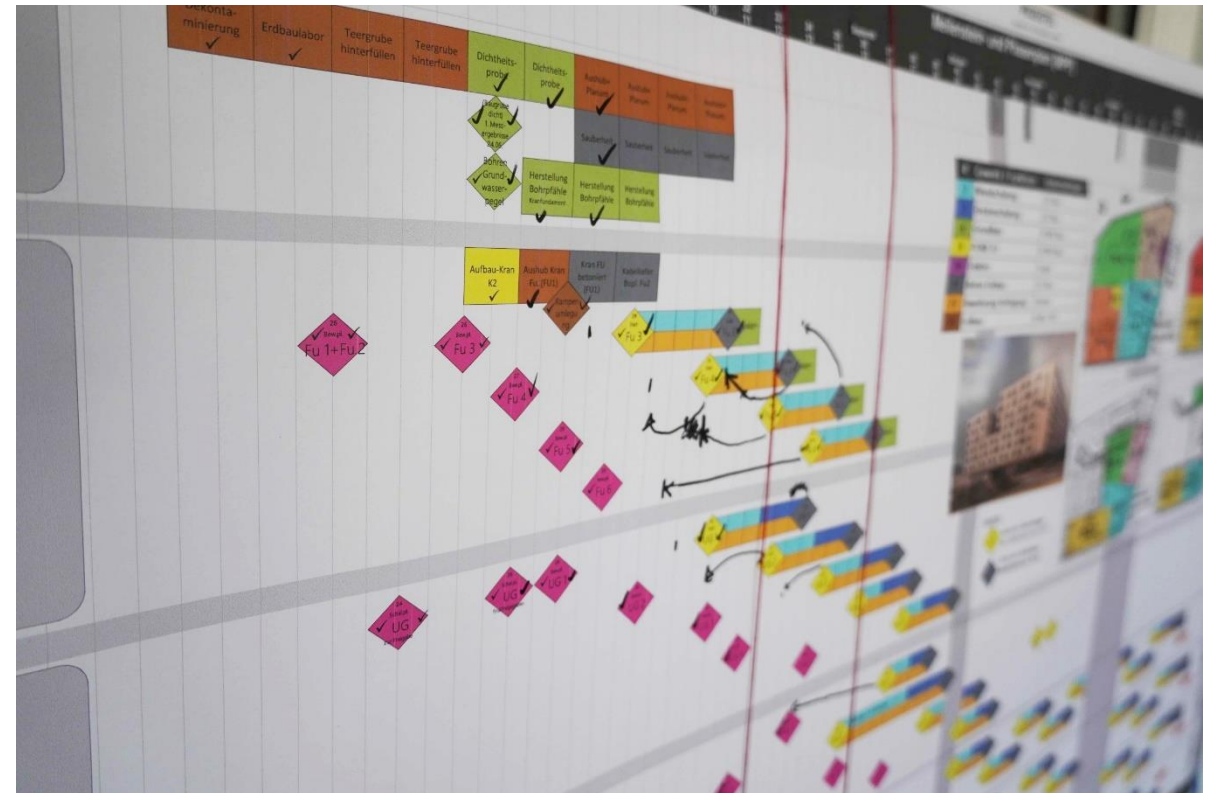




<https://www.architectura-inc.com/lifecycle/>

Lean Construction Management (LCM):

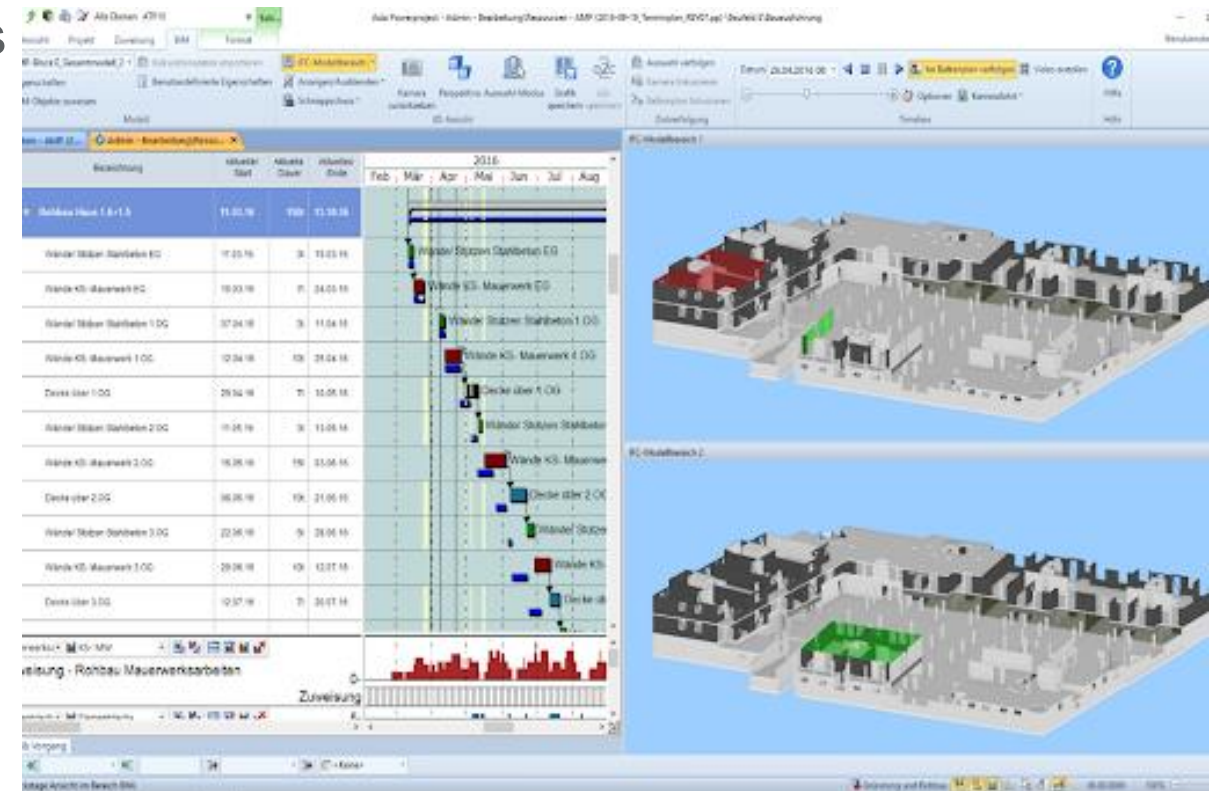
- Form of management that focuses on reducing waste and increasing added value
- Originated in the automobile industry
- Continuous process improvement by reducing waste (resources, time, ...)



<https://www.pde-porr.com/de/leistungen/lean-management/lean-construction>

Linking LCM and BIM

- LCM Processes are integrated in BIM-model
- Comparison of targeted and actual progress in a project



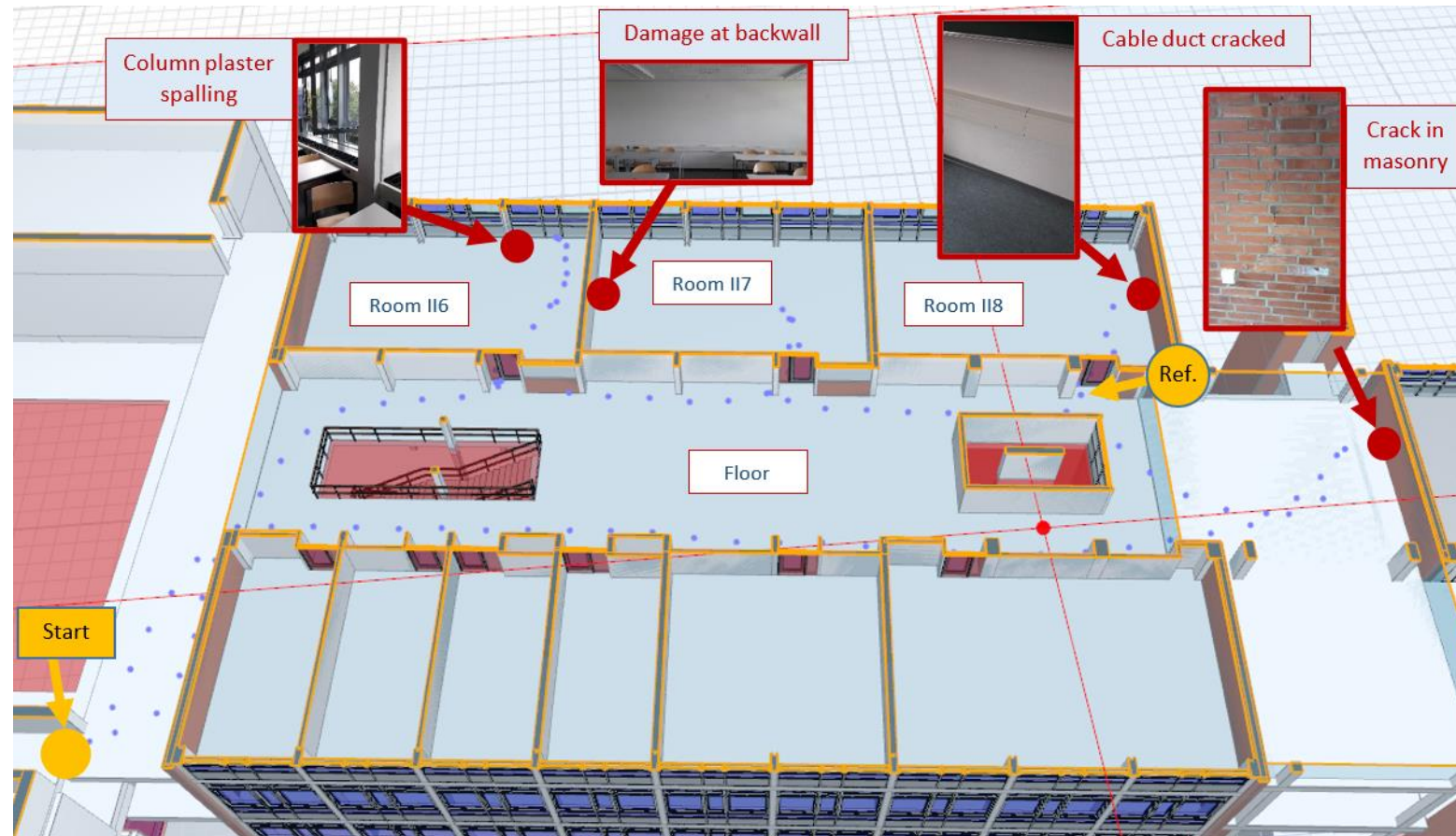
<http://www.bci-berlin.de/index.php/ct-menu-item-3/ct-menu-item-14>



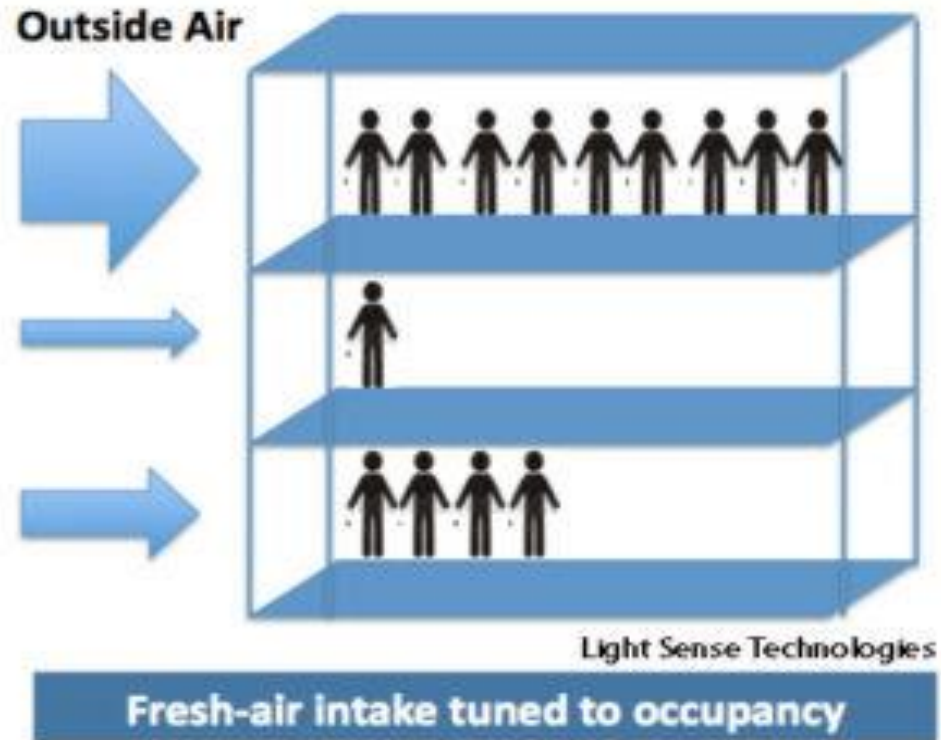
<http://www.3dgroundworks.com/services/model/point-cloud/>



<https://unlimited.hamk.fi/yrittajyyis-ja-liiketoiminta/smart-homes/#.YIPKcqFCTIU>

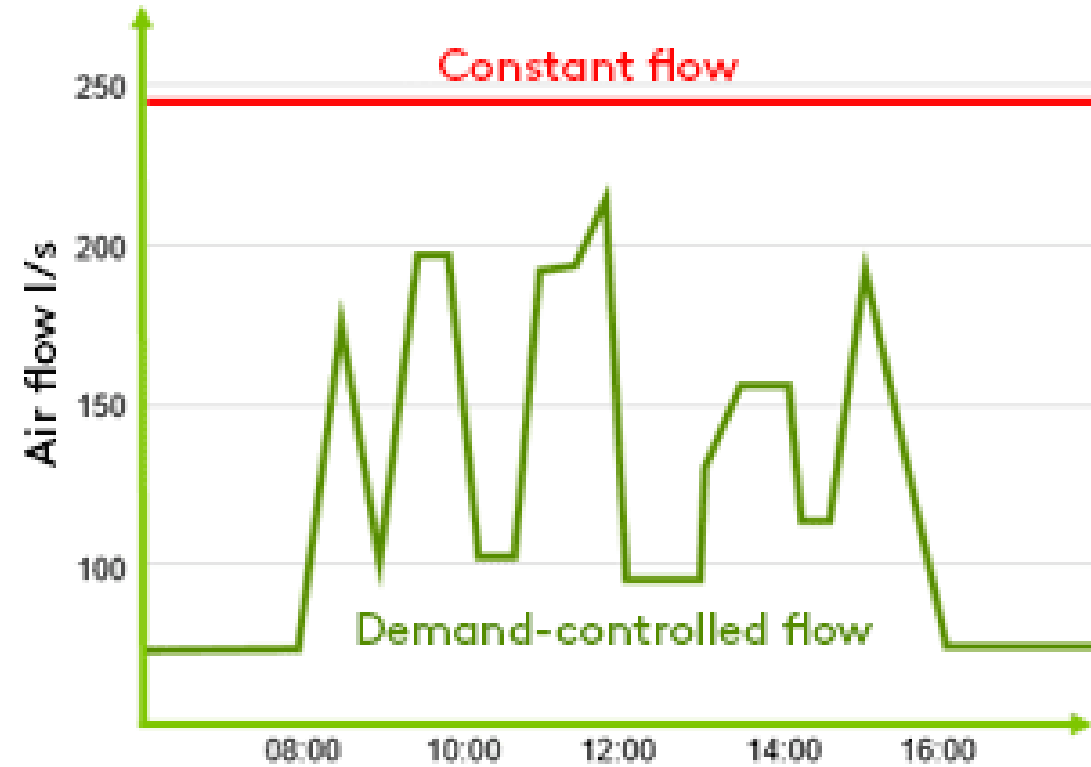


„Enrichment of an IFC model with Information from tracked building inspection“ Christian Kreyenschmidt, Bernd Hobbie, Sebastian Hollermann, Jakob Beetz

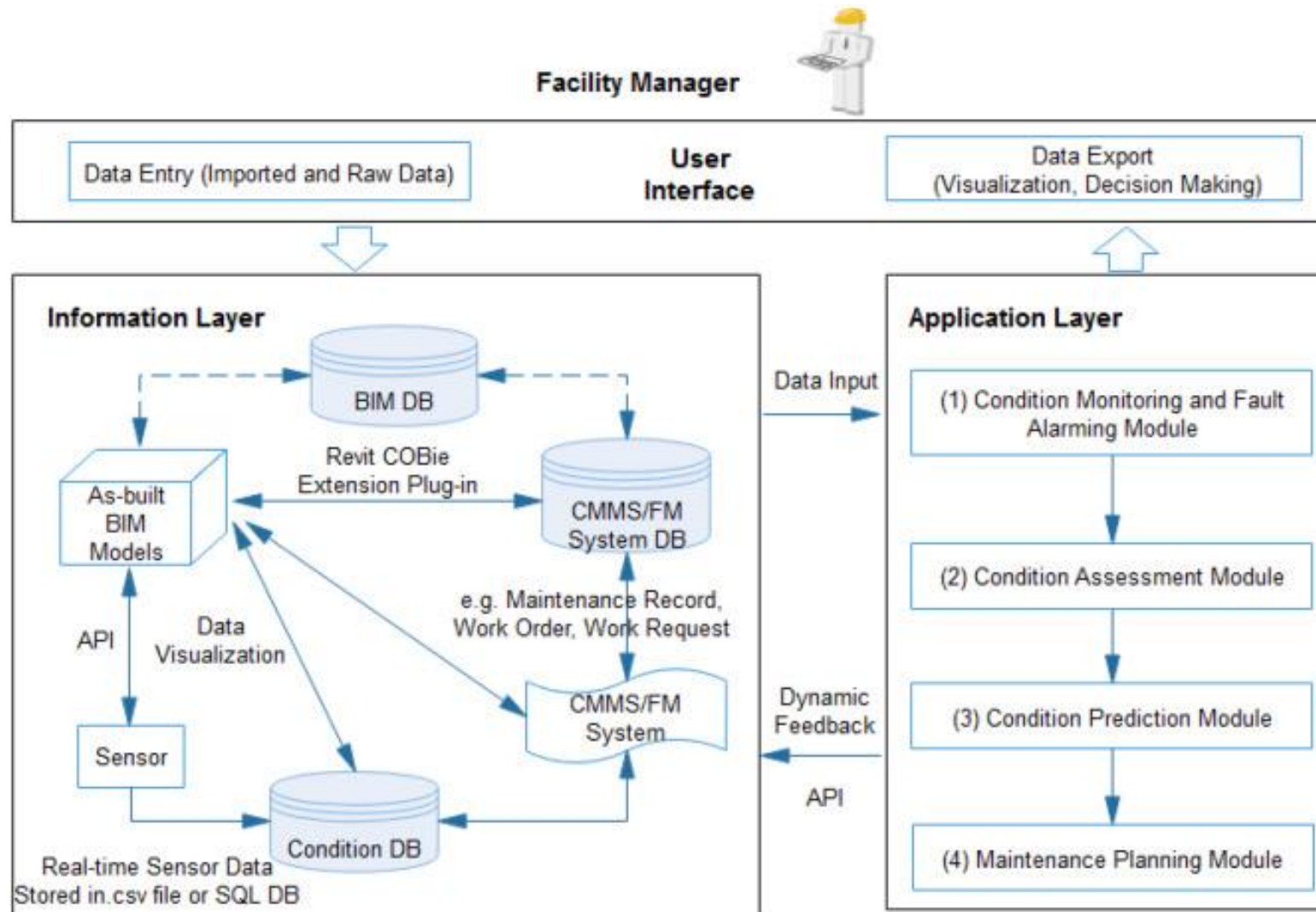


<https://svach.lbl.gov/demand-controlled-ventilation/>

Examples for offices

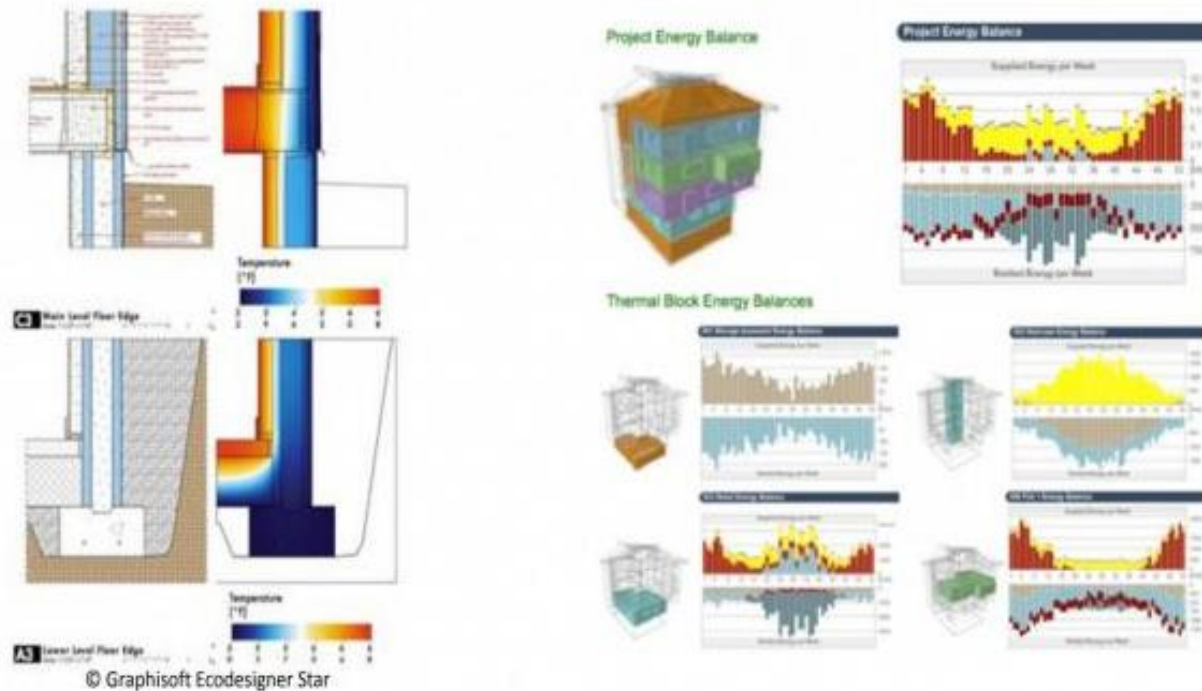


<https://www1.swegon.com/en/Products/Demand-Controlled-Ventilation1/>



<https://www.sciencedirect.com/science/article/abs/pii/S0926580518308562>

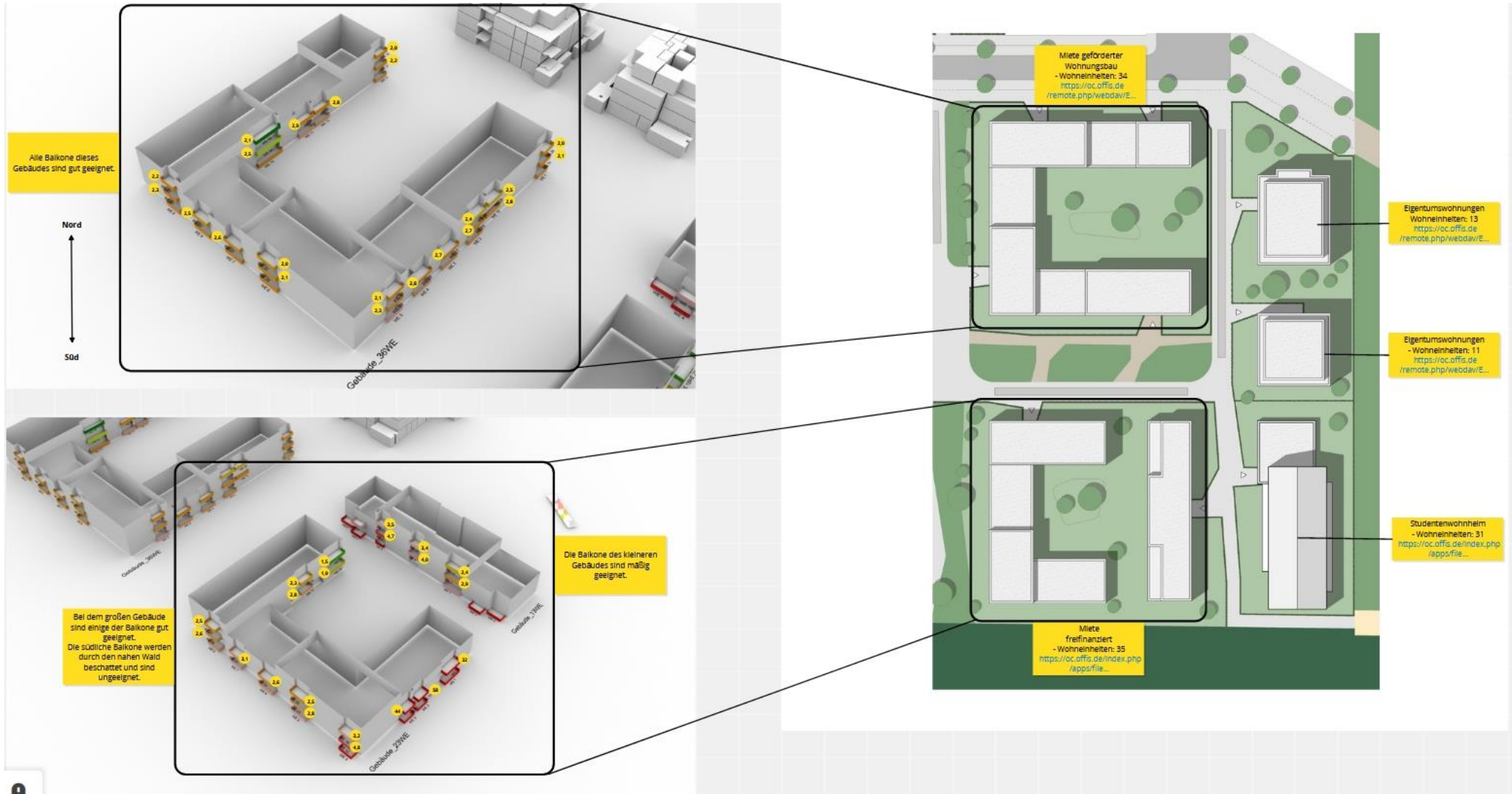
Detailed energy analysis with BIM

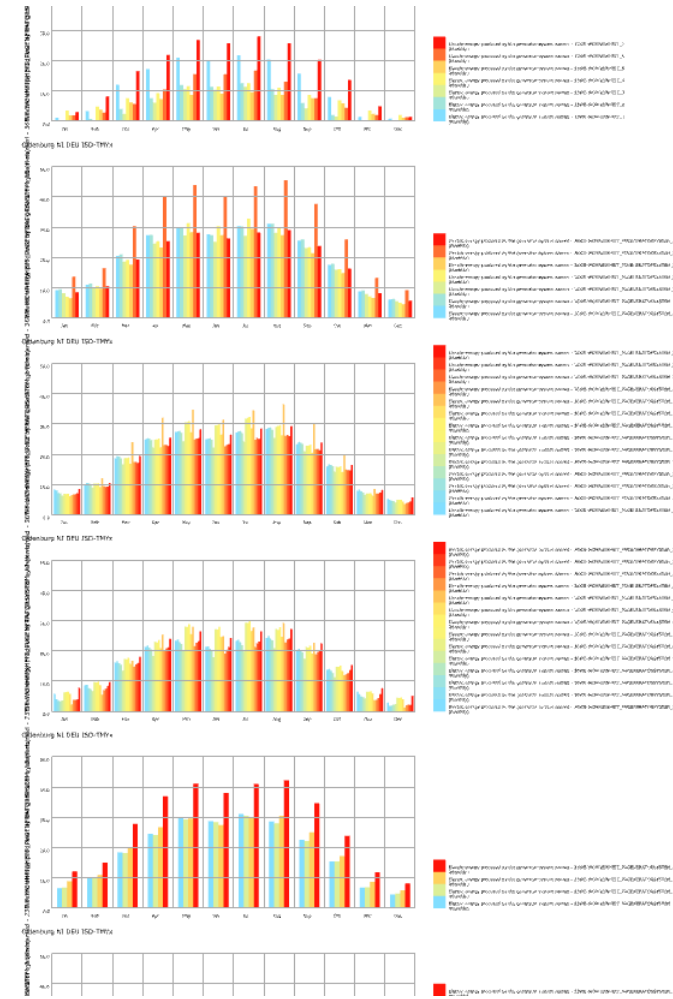
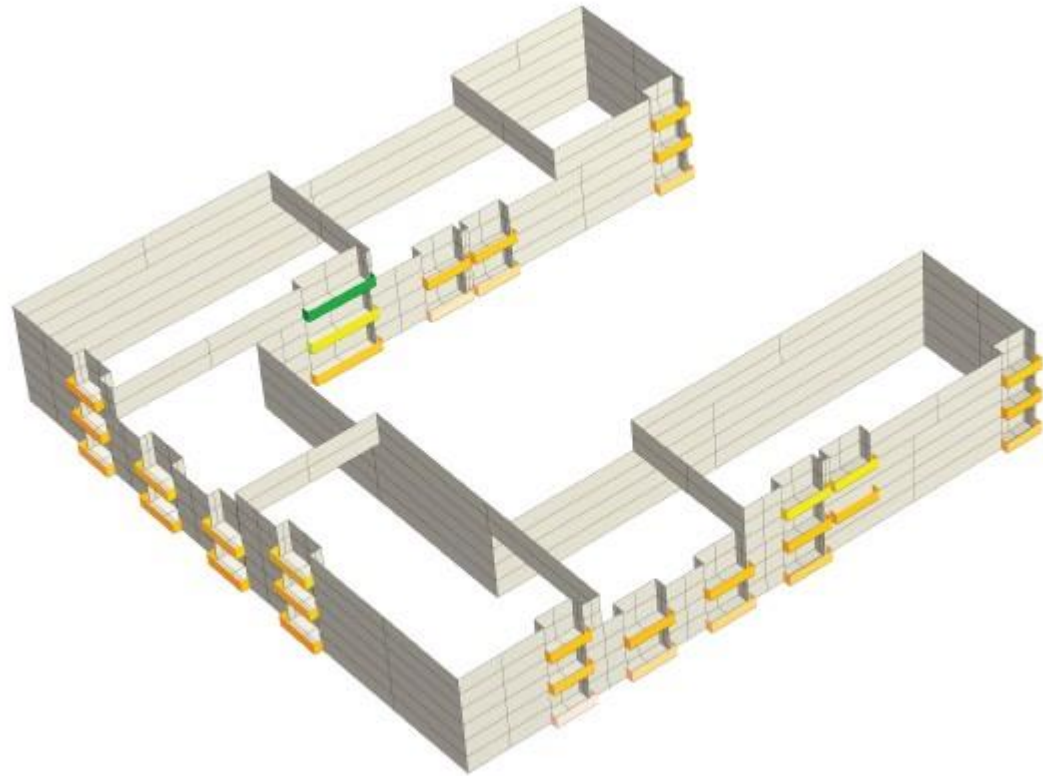


25/06/2018 'BIM & Energy of buildings'

Dr. Arch. Eng. Stefan Boeykens (D-studio / KU Leuven)

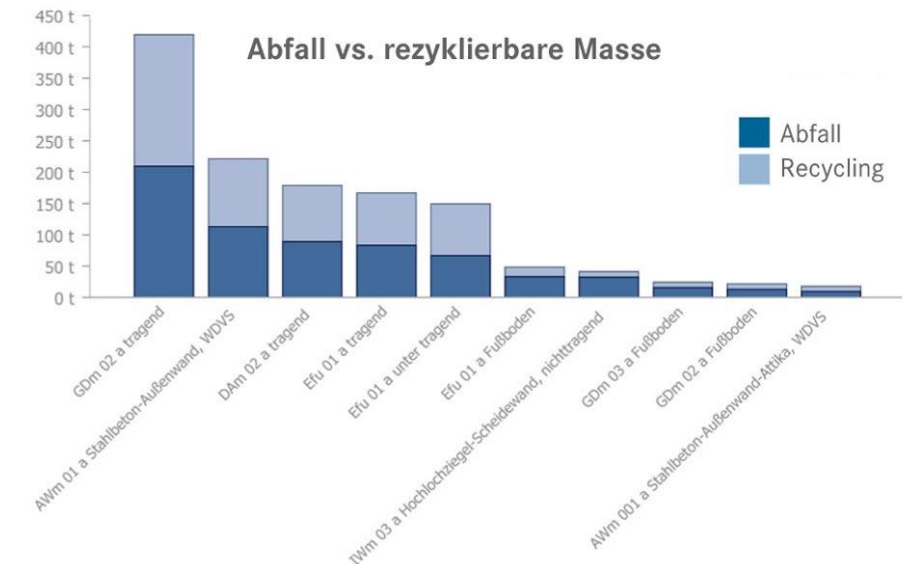
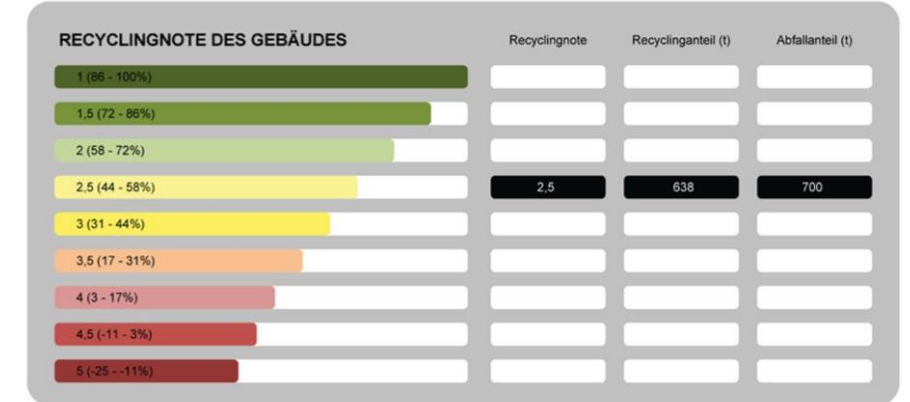
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Materieller Gebäudepass



https://nachhaltigwirtschaften.at/resources/sdz_pdf/schriftenreihe-2019-8-bimaterial.pdf, Abb 21, S.37

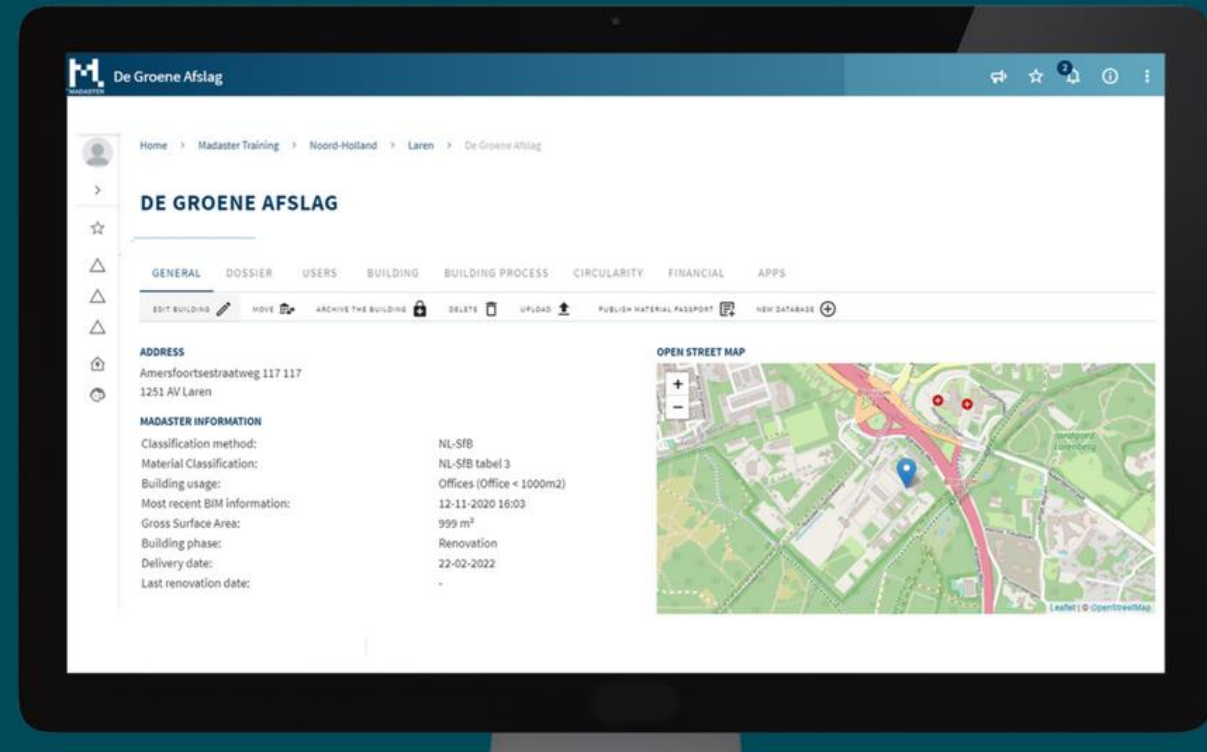
MATERIAL BUILDING PASS (MBP)



Head Office
Triodos Bank
Driebergen-Rijsenburg, Netherland
2019

https://www.octatube.nl/nl_NL/project-item/projectitem/96-triodos-bank.html
<https://madaster.com/>

MADASTER – THE DIGITAL LIBRARY OF MATERIALS





<https://www.axians.de/de/blog/2020/01/23/urban-mining-staedte-als-ressourcen-einer-nachhaltigen-zukunft/>

Thank you for your attention!
