

Innovationlab Digital Findet Stadt



DIGITAL INNOVATION IN THE CONSTRUCTION INDUSTRY

Steffen Robbi | 23.03.2021

WE
ENABLE
DIGITAL
INNOVATIONS

Mediahouse Axel Springer, Berlin

OMA / Rem Koolhaas



Representation of the transformation from analog to digital
Radical reshape of former media house into the digital area
despite of conceptual changes > in time and budget

Smart and Connected Building Thing^{IT} @CUBE, Berlin, Germany

Source: ubm development



19.000 m² | 3.750 Sensors | 750 Beacons
connected applications for climate, light, room management,
parking, food, smart facility management ...

Waste Based Bricks

De Gouverneur, Rotterdam



Architectuur MAKEN, bricks by STONE CYCLING
Bricks made of 70% rubble + 30% clay
Recycled glass as adhesive
Rest: ceramics, roof tiles, toilet bowls

Energy Autonomous Apartment Building Vaduz Liechtenstein, Falkeis Architects



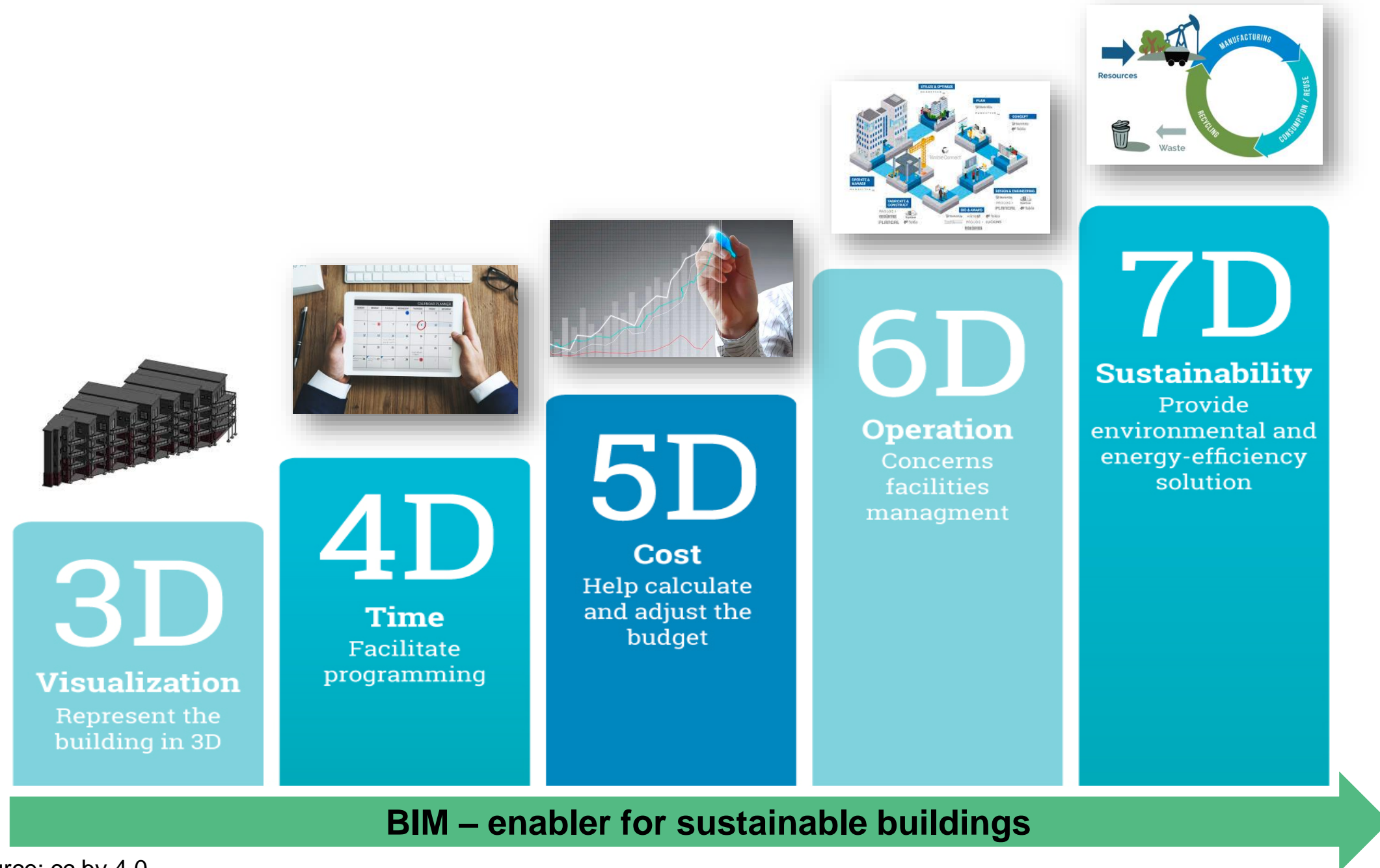
South facade with PV Panels
Sun tracking technology for roof top PV
8.000 kg PCM for heating and cooling
High-Performance-concrete to reduce weight and material

CO₂ Neutral Social Housing, GPA-WBV Käthe-Dorsch-Gasse, Vienna

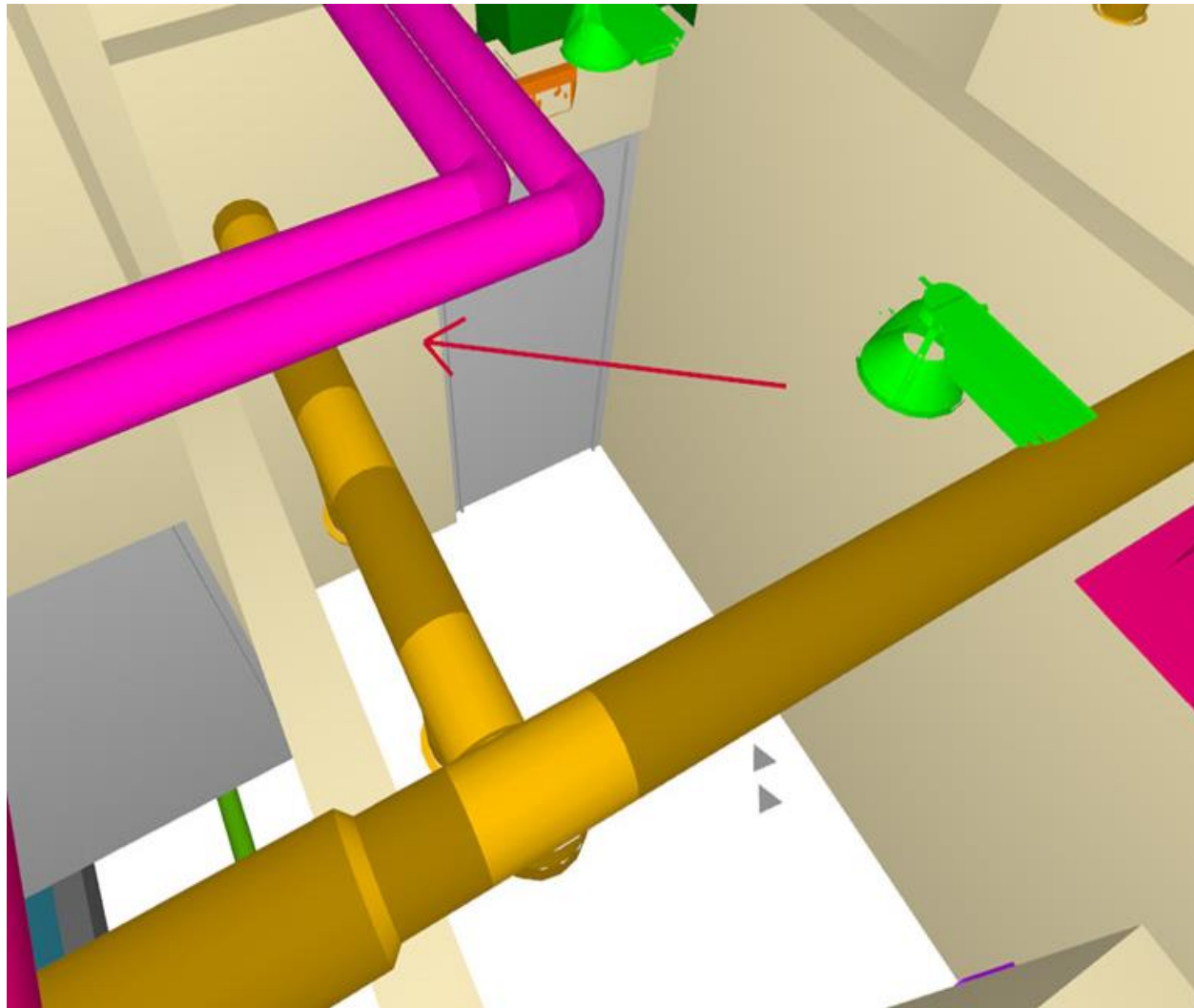


25.000 m², 300 flats by WBV-GPA / Lechner & Partner
Solar thermal and PV elements on roof top
Concrete core activation for cooling and heating
Heat pumps and geothermal heat storage
Waste water – heat recovery

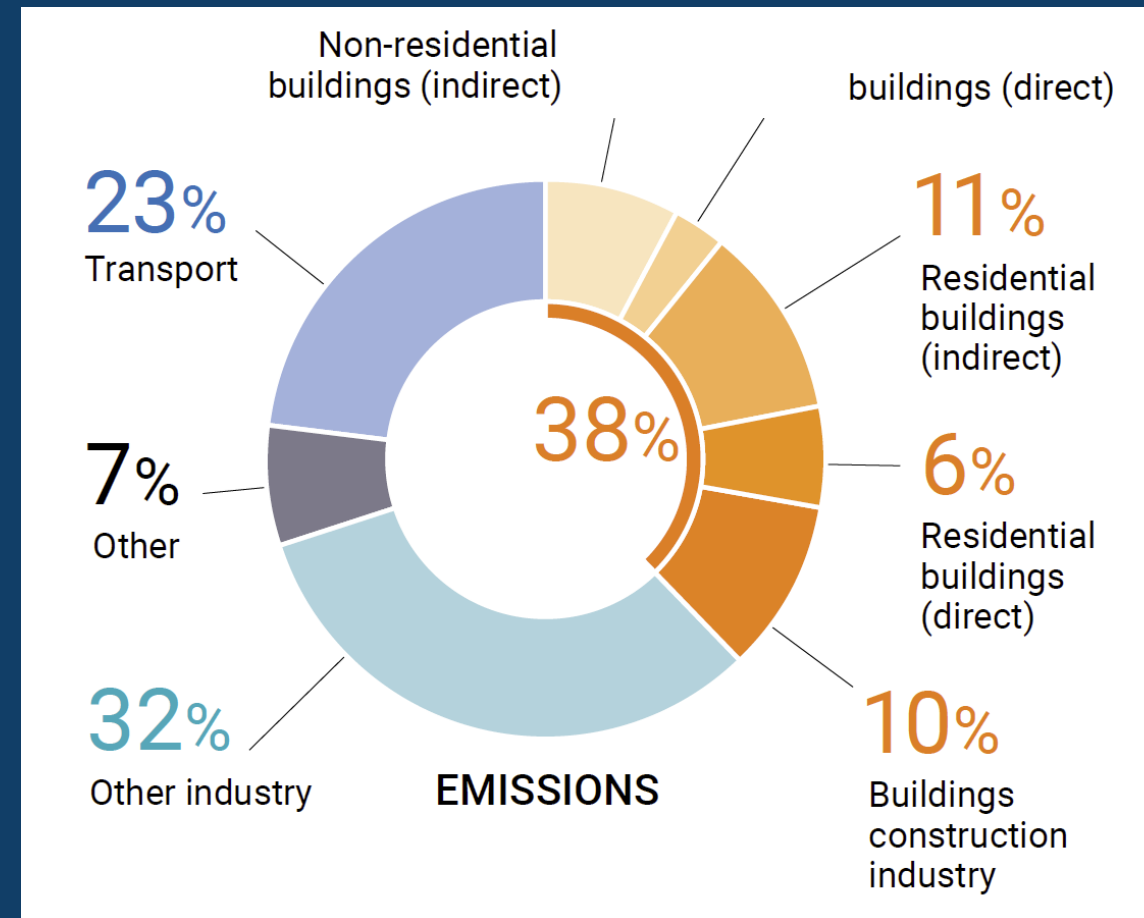
Building Information Modelling BIM: Enabler for Sustainable Buildings



Reducing waste Increasing productivity



38 % of CO₂ Emissions by the building sector



5-15 % of the companies are using BIM

Sources:

UNEP, 2020 GLOBAL STATUS REPORT FOR BUILDINGS AND CONSTRUCTION

Roland Berger 2018; BIM in der Schweizer Immobilienwirtschaft - eine Situationsanalyse - pom+Consulting AG - 2017

Under Pressure: The Building Sector and Emerging Disruptive Technologies



Digitalization of products and processes
BIM, IoT, Smart Building, New Sales

Industrialization
enabling off site production and 3D printing

New entrants
Disrupting current business models

New Materials
Enabling improved logistics

Emerging Disruptive Technologies

Austrias cross-sectoral platform
for digital innovation in the
building sector

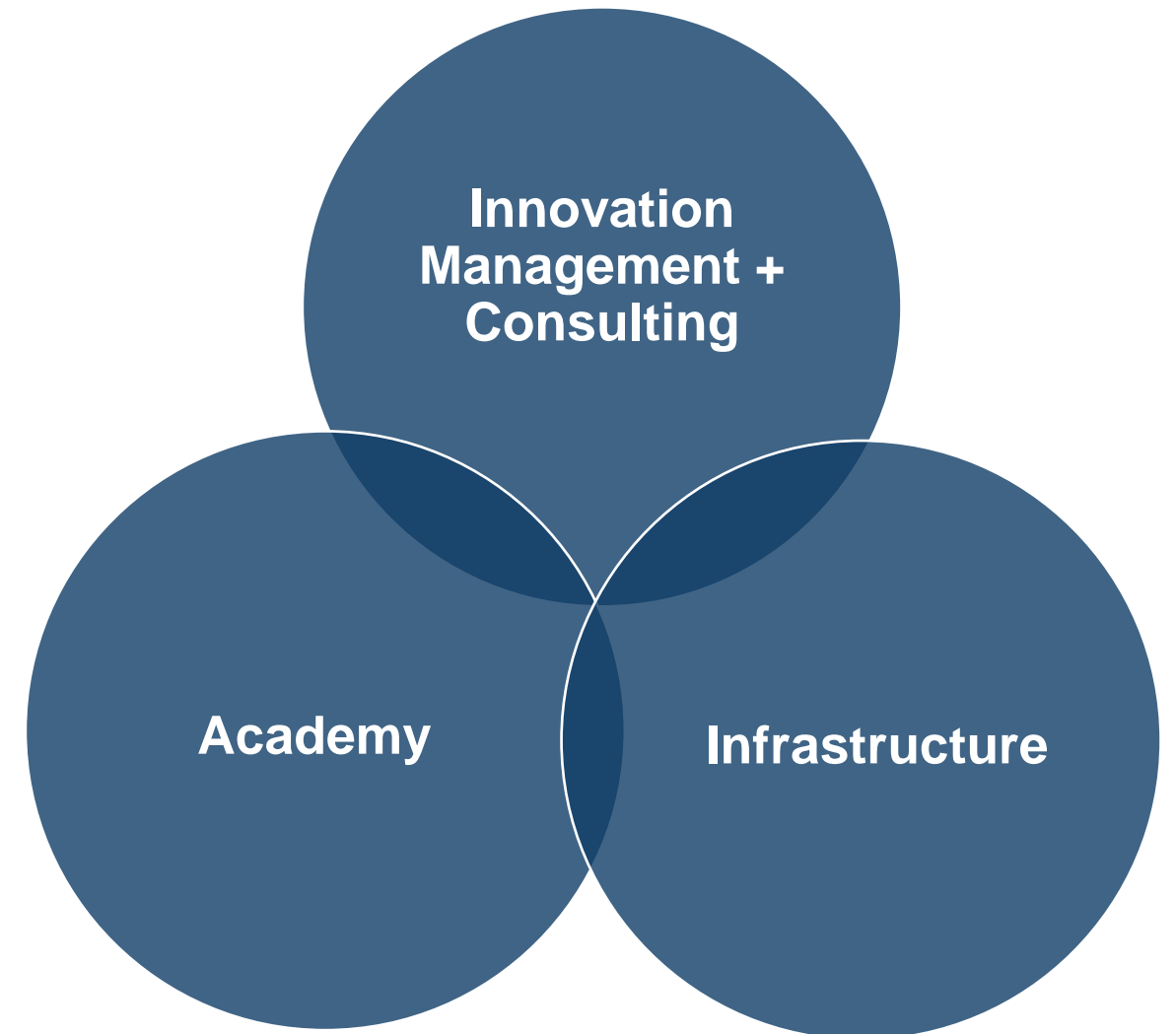
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Interface between research and
industry in order to increase the
innovation power of our partners



Services

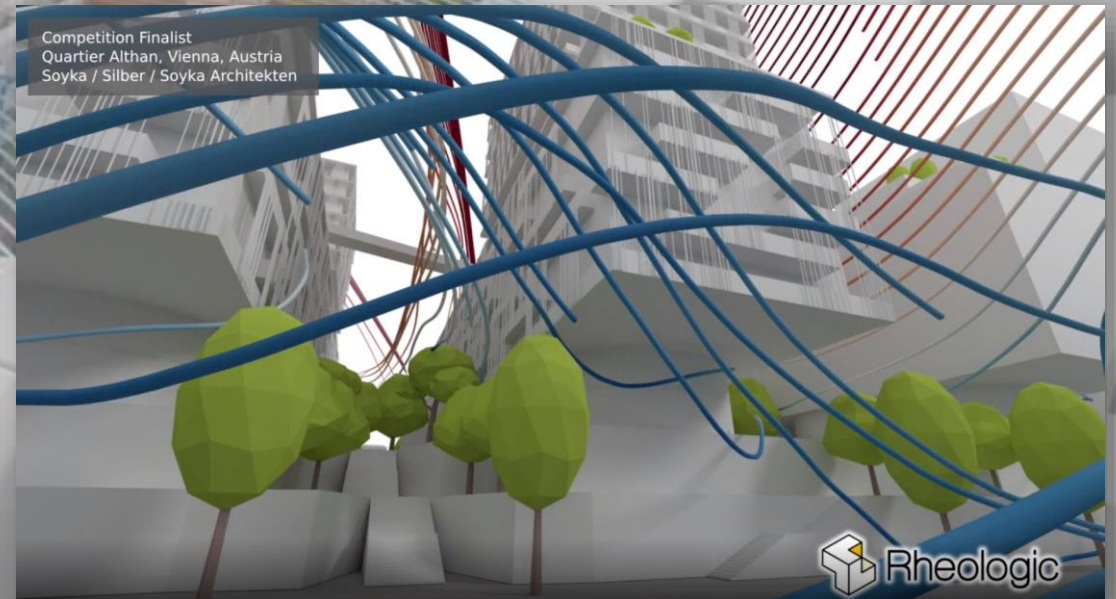
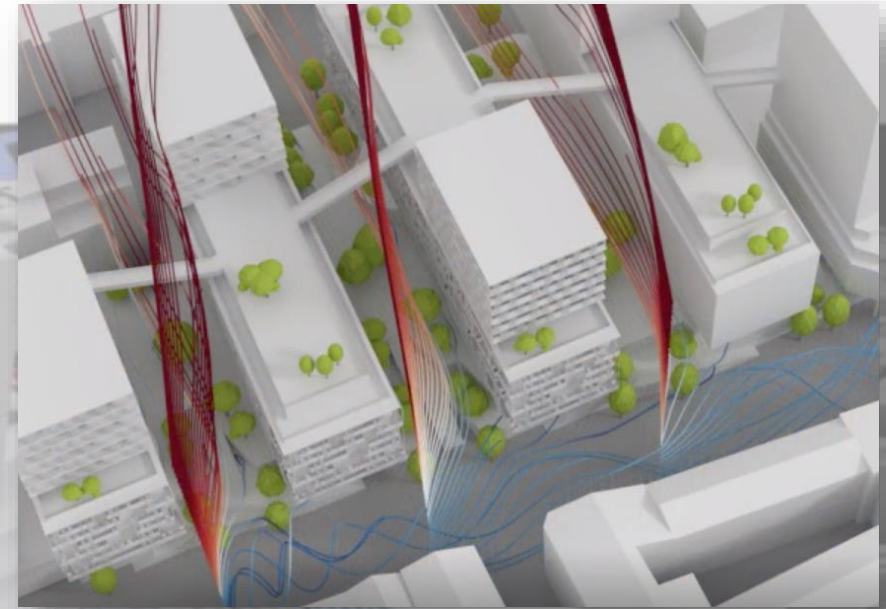
- **Innovation Management and Consulting** for BIM projects, technology development and research
- **Infrastructure** for the demonstration of digital solutions and stimulation of pilot projects
- **Academy** for knowledge exchange and further education

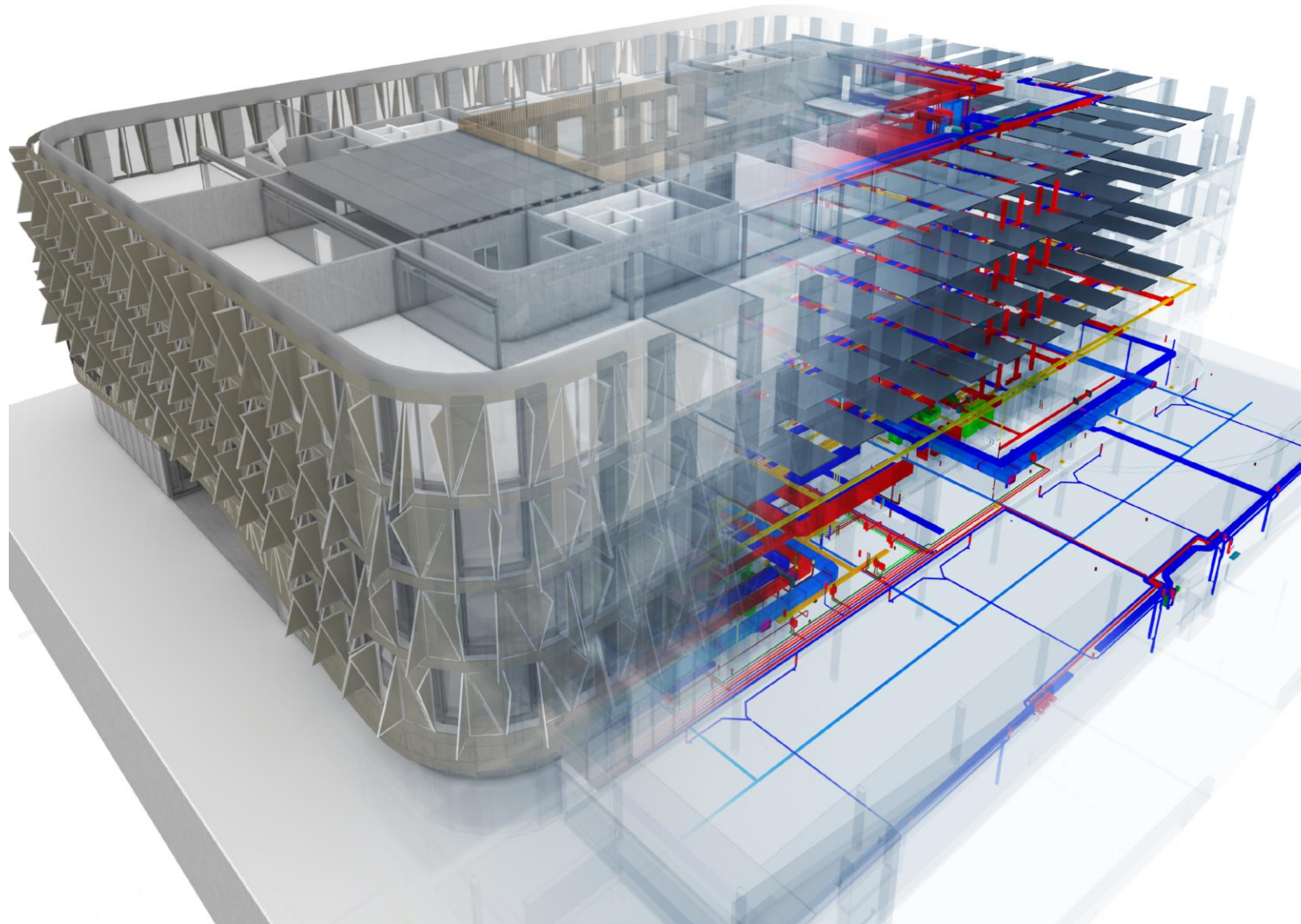


Competition Finalist
Quartier Althan, Vienna, Austria
Soyka / Silber / Soyka Architekten

BIM > microclimate

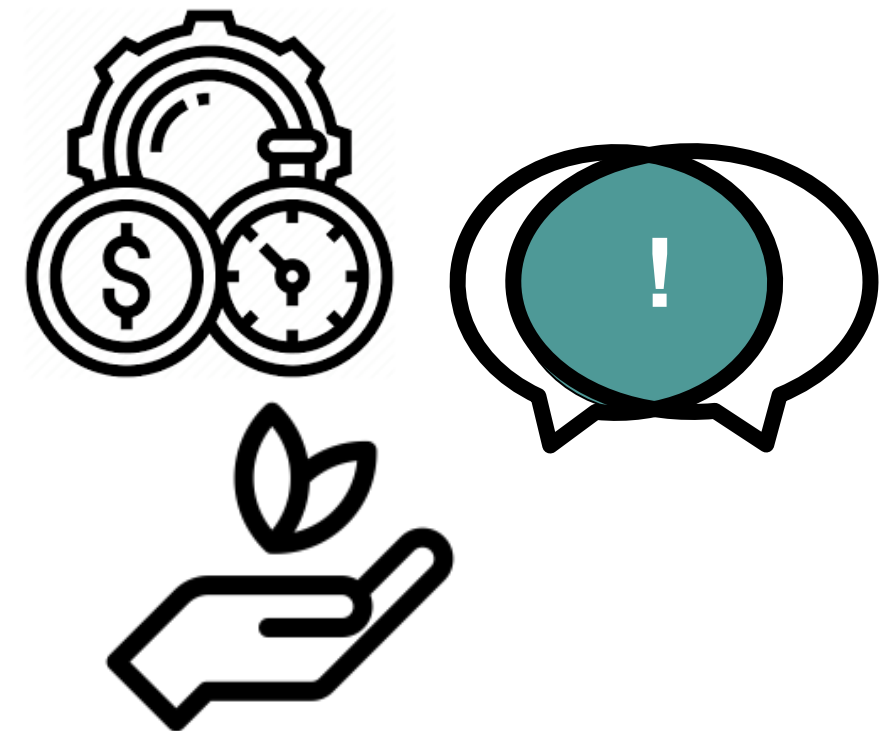
Microclimatic and wind flow simulation based on BIM





BIM Properties for the Austrian Building Sector (A.S.I Merkmalsserver)

*“A common language as a
requirement for sustainable
and efficient projects!”*

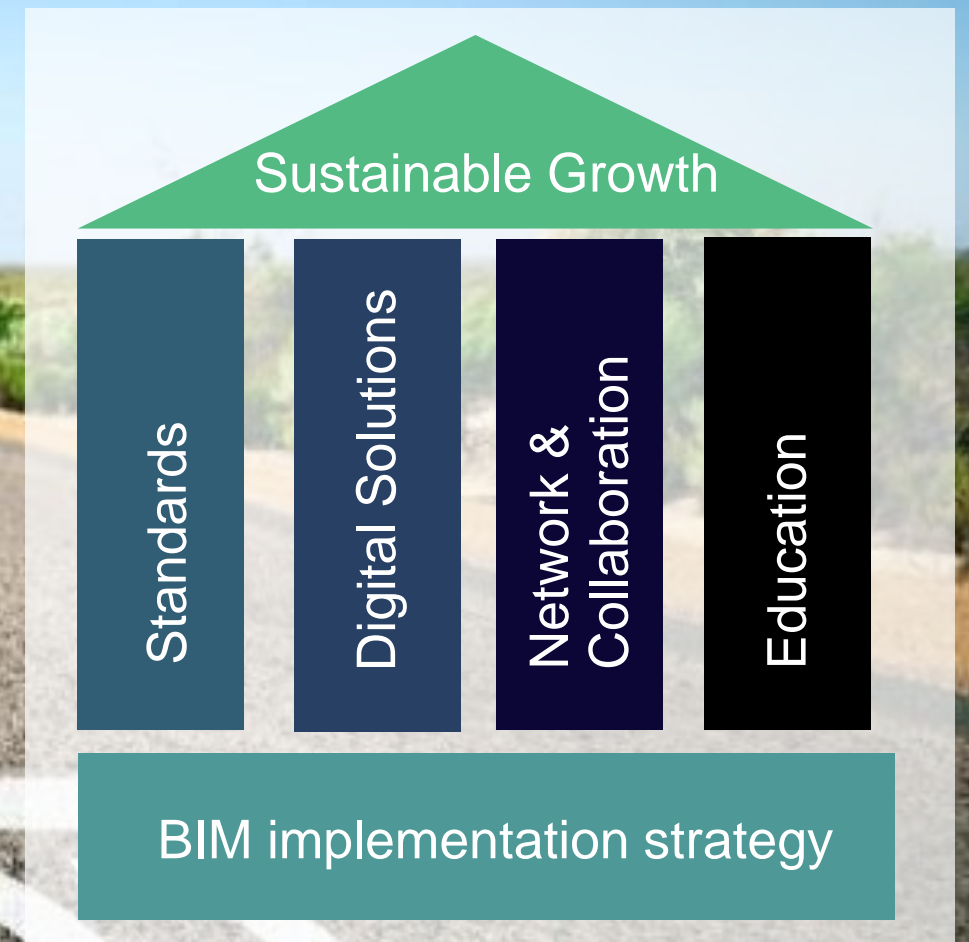


PARTNER FOR REALIZATION

FIRST MOVER

Conclusion

- BIM is the foundation of sustainable and green buildings
- In Order to achieve the climate goals 2040, it is necessary to accelerate the role out of BIM
- We therefore suggest an **Austrian strategy for the implementation of BIM**




GET INVOLVED!

Let's innovate together!

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