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Enabling building decarbonization at scale

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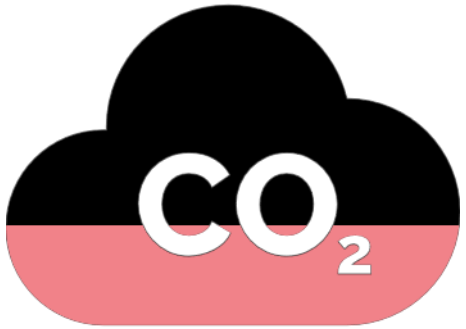
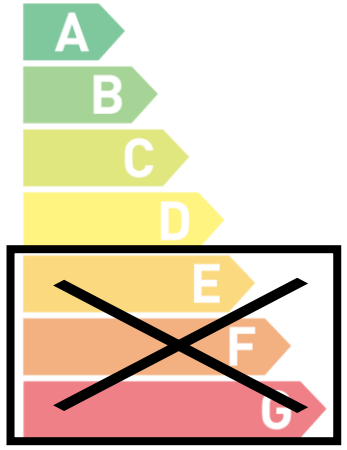
Solving bottleneck in energy transition within real estate sector



Buildings account for nearly 40% of global CO_2 emissions



Regulators increase pressure on the real estate industry

50

Million

Buildings are affected by carbon-intensity limiting European legislation

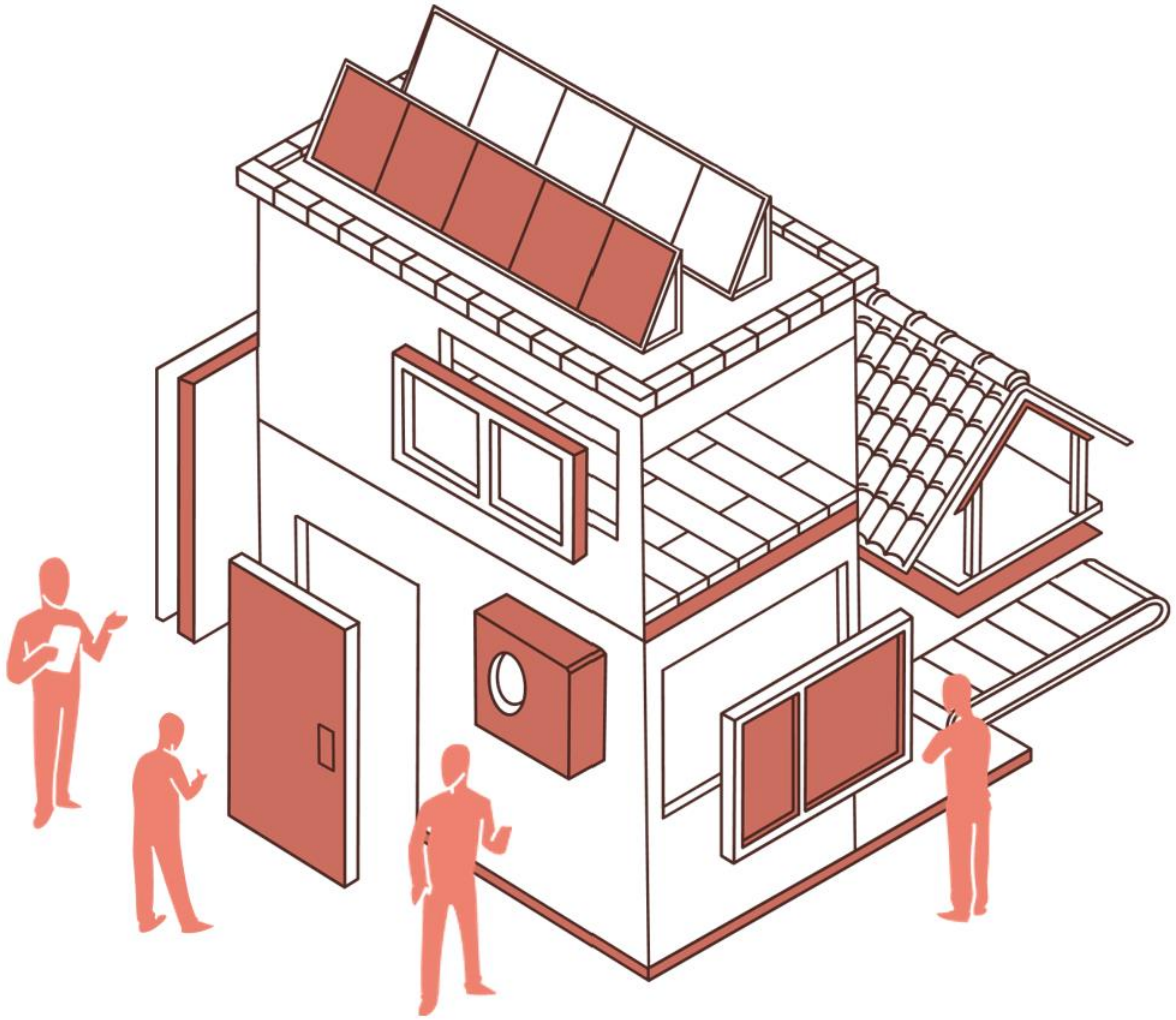
Energy renovation planning reinvented

From status quo...

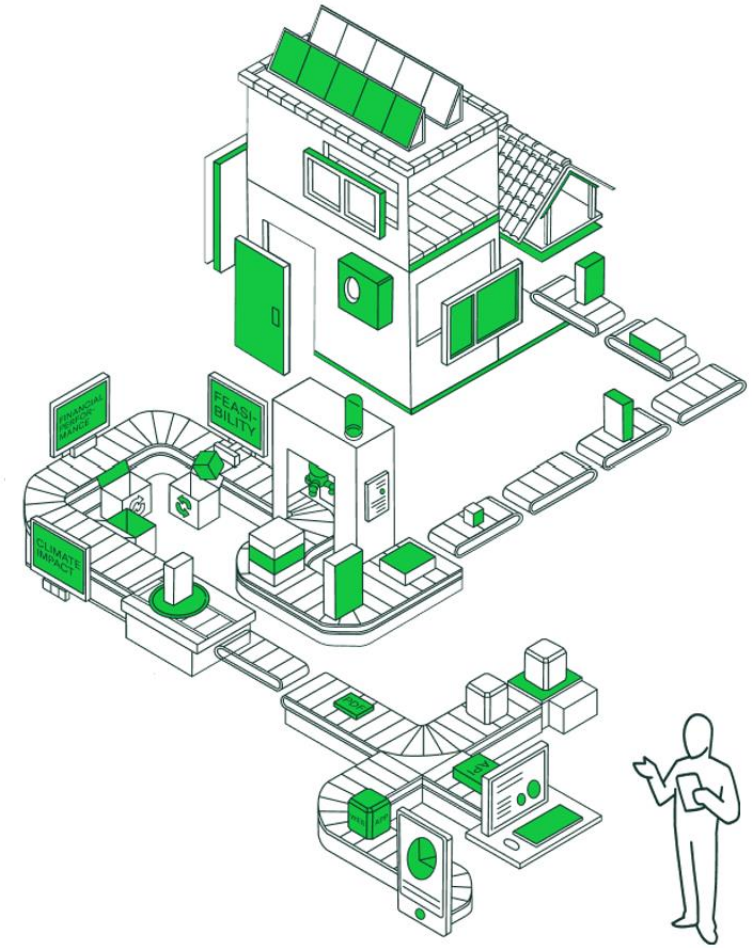
Expensive: Large manual effort or hiring consultants

Unclear: What options are available/feasible/compliant

Arbitrary: Strategies to compare chosen arbitrarily



Energy renovation planning reinvented



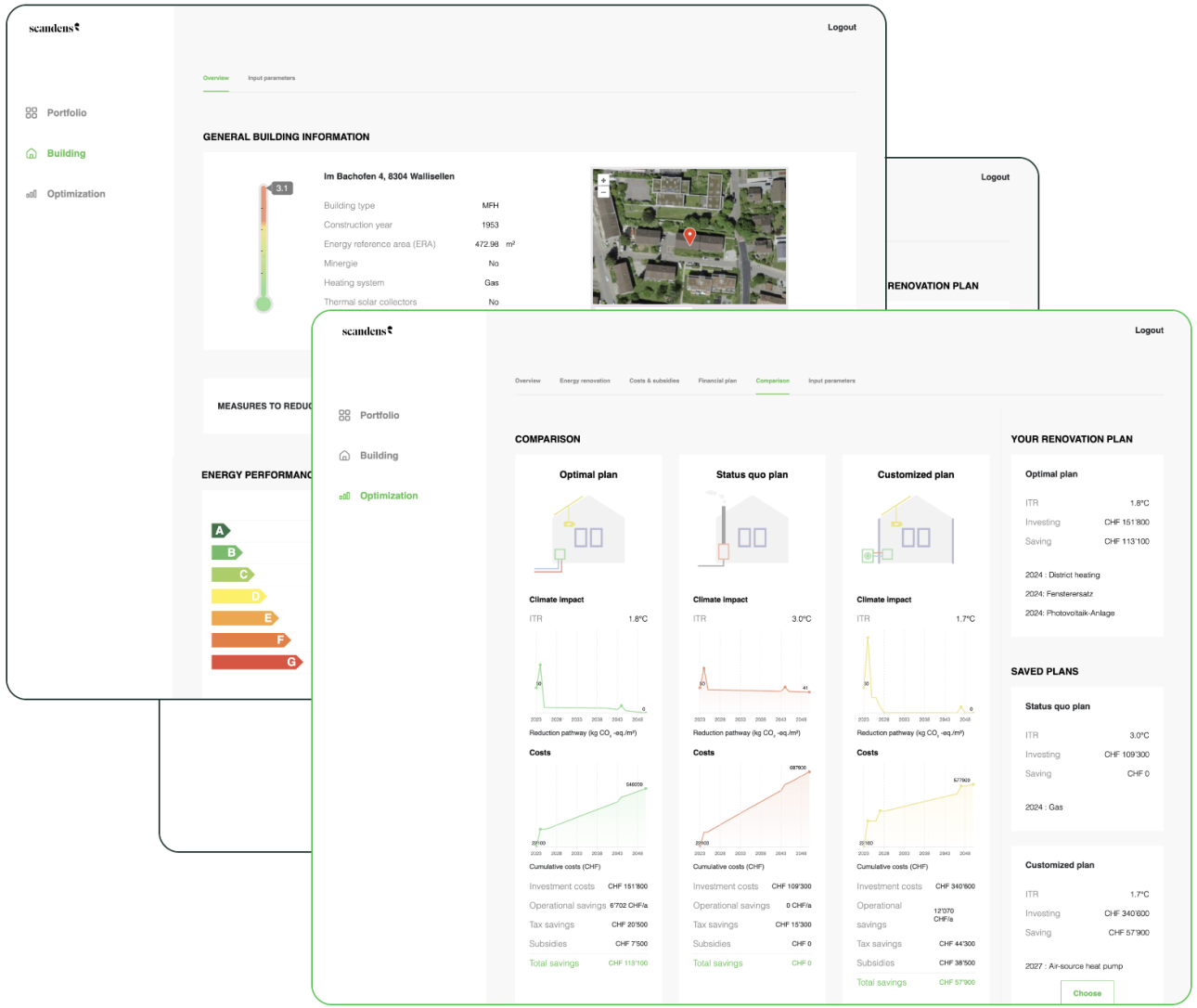
… to the digital era

Efficient: Entire planning is automated: 80% time saving

Actionable: Feasibility and regulatory compliance is assured

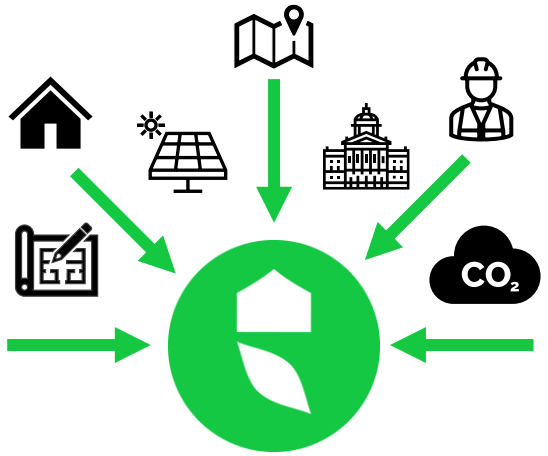
Optimized: CO_2 and ROI of 500+ strategies compared

End-to-end software platform for Real Estate Managers and Consultants

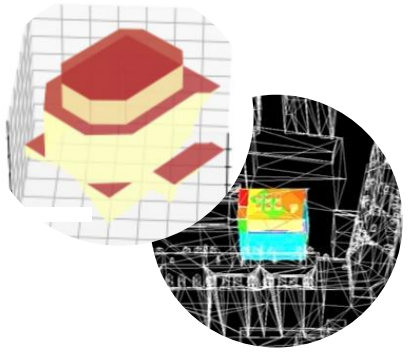


- ✓ Precise energy modeling with digital twin and Machine Learning algorithms
- ✓ Automated design of renovation measures (according to ISO planning norms)
- ✓ Check site-specific feasibility incl. availability of energy sources, space constraints and legal regulations
- ✓ Asses over 500 renovation strategies incl. heating systems, envelope efficiency measures and solar systems
- ✓ Optimize real estate investments for both financial and CO_2 performance
- ✓ Ensure compliance with regulatory requirements from AMAS, CRREM and TCFD

Cutting-edge technology developed at ETH and MIT



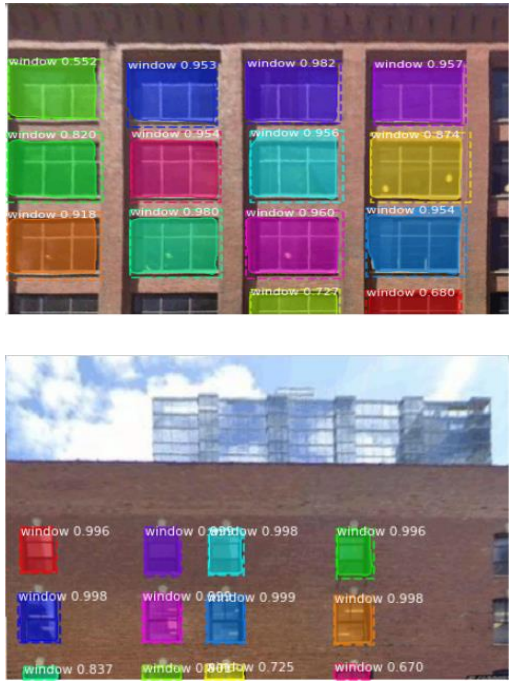
Our **data collection** algorithms actively identify and fill gaps in data through advanced techniques, ensuring comprehensive coverage and accuracy

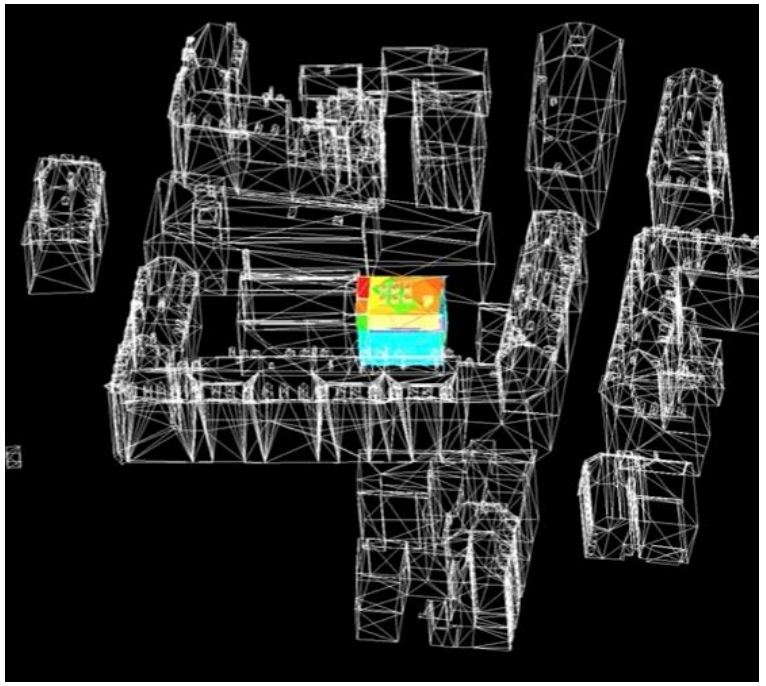


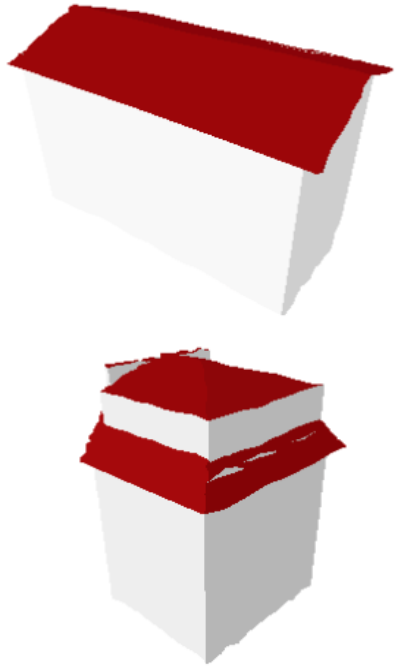
Our **energy modeling** incorporates solar irradiation and neighboring property shadowing, enhancing accuracy and accounting for critical factors

Renovation strategies undergo **feasibility, cost, and CO_2 optimization checks** to ensure practicality, cost-effectiveness, and environmental sustainability

Cutting-edge technology developed at ETH and MIT

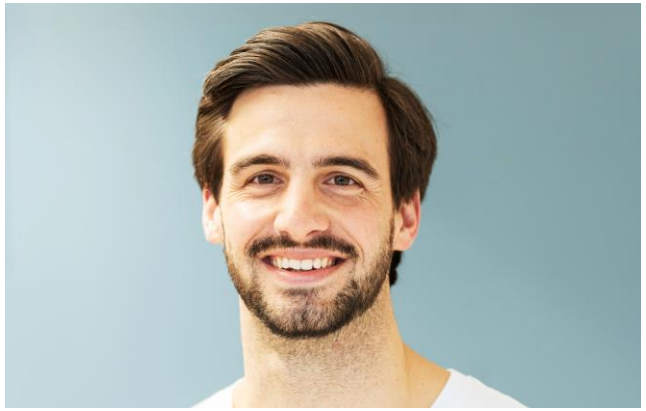






- ✓ Energy performance modeling accuracy of over **95%** (validated with consumption data).
- ✓ Developed according to CH and EU building and planning norms.
- ✓ Combined with machine-learning algorithms for building feature detection and data collection.
- ✓ Technology scalable in entire Europe.

Strong & experienced team that complements each other



Diego Sigrist

Product

- Energy & LCA Engineer, has personally experienced the manual effort as an energy consultant himself
- MSc ETH

Jakub Szczesniak

Technology

- Building Technology Researcher, has analyzed thousands of buildings on 3 continents
- MSc ETH & MIT

Dominik Bucher

Business & Operations

- Fintech Startup & Banking, has built a fintech startup as first employee and scaled to Europe and North America
- BSc ZHAW & MBA

Jürg
Software Engineer

Daiana
Web Developer

Hanna
Software Engineer

Christian
Software Engineer

Hanna
Data Digitalization

Yigit
Machine Learning

Supported by partners from academia & social engagement

Spin-off | ETH zürich

Made possible by

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Part of the social commitment of the Migros Group: migros-engagement.ch

Thank you!

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