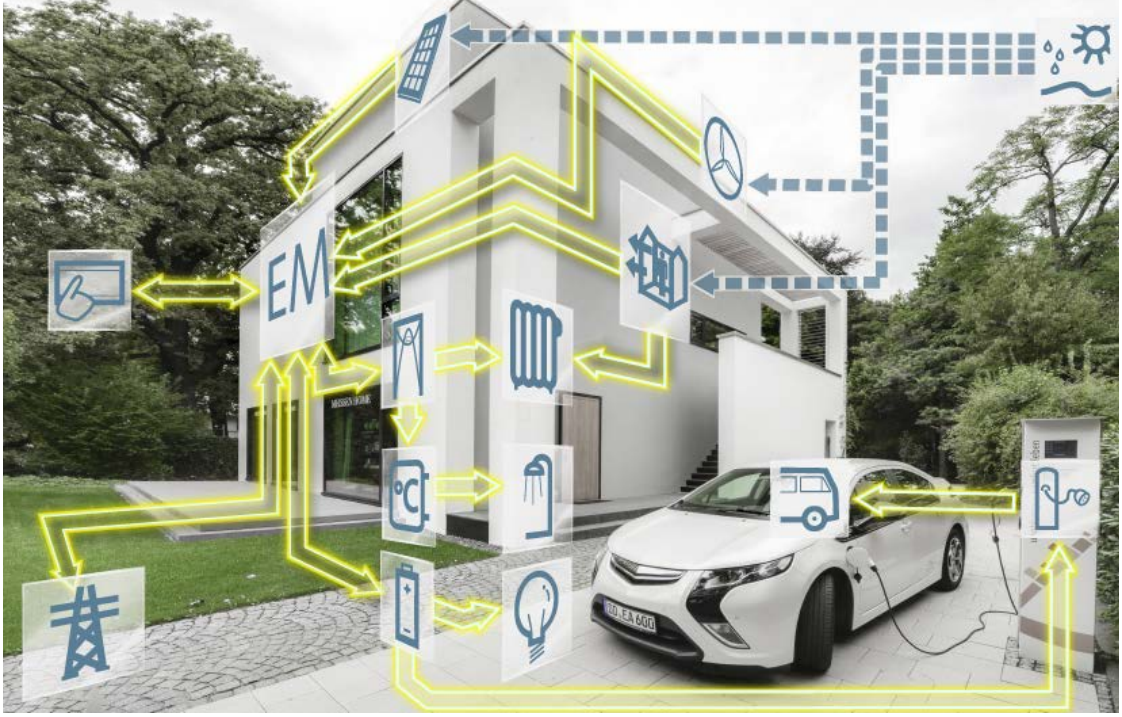
Supporting your vision

Comprehensive simulations for energy efficient buildings

Green Building

Thanks to new technologies, modern buildings can handle their inhabitants‘ energy demand autonomously. To calculate such complex energy systems and reduce costs of investment, a comprehensive analysis tool is vital. SimulationX helps to calculate the optimal use of energy resources and decentralized energy storage.

With the interdisciplinary simulation tool “SimulationX”, engineers can design, create and analyze virtual prototypes of technical components and complex systems on a single software platform. The versatile tool has a straightforward user interface and comes with ready-to-use elements based on real-world data.



Reliable data, reliable simulations

How much energy can a self-sufficient building provide? What is the most efficient layout? How much energy does it save compared to a conventional building? How high are the lifecycle costs? SimulationX answers your questions before the installation of the actual energy system.

The integrated concept of SimulationX allows for the simulation of all energy flows in one system taking into account not only the building itself, but also the inhabitants' behavior and additional consumption, e.g. by electric vehicles. The calculation is based on specific input data, such as local weather conditions, battery size, energy prices and life style. The simulation can then help to optimize the system layout significantly.

- **Easy handling** | use of phenomenological models and related complex subsystems
- **Real-world data** | based on individual demand, validated statistics and research results
- **Fast calculations** | extensive preprocessing to reduce huge datasets of long term measurements
- **Individualization** | variety of input data categories, e.g. consumer demand, climate, building layout, electric mobility and energy prices
- **Comparison tests** | different system configurations can be compared, e.g. regarding energy and life cycle costs
- **Energy managment** | system layout as plant model for testing energy management algorithms during simulation

All over the world, manufacturers and suppliers use SimulationX for designing, calculating and analyzing complex multi-domain systems.

e.g. Bosch Rexroth, EA EnergieArchitektur, Eaton/Moeller, Fuji Electric, GE Jenbacher, Johnson Electric Group, Moog, Robert Bosch, Siemens, Voith Hydro

"SimulationX enables us to analyze the entire system of a building, thus we can find the optimal layout for any requirement."
Dr. Beate Mikoleit, CEO,
EA EnergieArchitektur GmbH

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