Hitachi Columbus Campus / Mannheim (DE)

Sustainable, simple, beautiful!

It's a simple concept: the simpler something is formulated, the more easily it is understood. This is also true of the architectural language of the Hitachi Columbus Campus in Mannheim, Germany. With its transparent appearance, the office complex by AllesWirdGut stands for a sustainable corporate attitude—and also demonstrates that resource-saving construction, climate-neutral operation, and contemporary aesthetic need not at all be conflicting interests.

The campus consists of four individual built volumes defining a central square open on all sides. Trees alternate with lawns and unsealed surfaced areas. Parks bordering on the premises extend towards the middle and create an urban space with a green ambience, which all building entrances are oriented to. This leaves the areas right in front of the office buildings open to accommodate inviting entrance areas and enlivening gastronomic offerings. Facing Gorxheimer Straße, a modern work and business sphere, easily visible from all directions, presents itself to the city. The maximum permitted building height for this part was not used to the full, which allows for an expansive roof garden with a lushly greened pergola and a photovoltaic system.

The goal of the Hitachi Columbus Campus is climate-neutral building operation. It means that there is as much energy produced as is needed. The photovoltaic system generates electricity which can be used immediately or stored. The ventilation system is based on solar chimneys, a technology that has been proven in warm countries for centuries: Fresh air from under the building moves upward through the individual riser shafts. Heating is done with low-temperature heat pumps, and for cooling, groundwater is used. Both the photovoltaic and the solar chimney systems work on the outside of the building skin and therefore are consciously made visible.

The above-ground section of the four-story office buildings is a wood and concrete hybrid construction mostly built from prefabricated elements. This saves construction time and, by using a high share of renewable materials on both the in- and outsides, takes account of the ecological objectives of the Hitachi Columbus Campus: While the cozy material of wood makes for homey comfort in the flexible work spheres inside, the weather-protective projecting concrete parts on the exterior provide for maximum durability of the façade. Combined, they give the campus lasting, that is, sustainable, beauty.

Project data:

Planning: AllesWirdGut
Project Stages: 1–5
Client: 3iPro GmbH

Competition: Sept. 2021—1st prize
GFA: 35,105 m²

Competition team: Dorotea Malnar, Ewelina Pawlik, Irida Xanthou, Karolina Pettikova, Marko Acimovic
Construction team: Daniel Pannacci, Eva Birova, Olaf Härtel, Till Martin

Landscaping: Lindle+Bukor
HVAC Engineering: Transsolar
Fire protection: Müller-BBM

Illustration: AllesWirdGut | Sustainability sketch: Transsolar/ AllesWirdGut
Visualization: AllesWirdGut
Model: mattweiss