

Fraunhofer IEG Aachen



Location
Aachen

Built
International competition 2025, 1st prize

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Fraunhofer Centre for Energy and Climate Technology (ZEKT) Aachen New focal point within the urban ensemble

The concept for the Centre for Energy and Climate Technology (ZEKT) in Aachen combines ecological construction, public accessibility and modern working environments, thus setting standards for sustainable, citizen-oriented and future-oriented research. The design blends in precisely as a new urban anchor point in the dynamic urban environment on Büchel. The striking L-shape reacts sensitively to the surrounding buildings, skilfully incorporates different height levels and deliberately emphasises the corner location with a prestigious main entrance. Public space as an experience

Openness and flexibility characterise the architecture and create spaces that promote encounters and exchanges and dissolve traditional boundaries between research institutions and urban society. The building thus symbolises a forward-looking combination of proximity to the public, sustainability and innovative strength. The forum floors form the architectural centrepiece of the new building. Two seated

staircases connect the Forum level and the mezzanine, with a staircase elegantly creating the transition from the exterior to the interior. The floor above offers multifunctional exhibition areas and a spacious event hall. The entrance area impresses with its openness and adaptive utilisation options. A special highlight and technological statement is the striking feature wall made of glass tubes. This clearly visualises the thermal water used for cooling and heating and is complemented by an LED screen that displays the energy consumption and savings achieved in real time, thereby raising awareness of sustainability. The roof offers a versatile landscape: terraces create attractive places to spend time, a filigree pergola provides pleasant shade and a glass pavilion houses the canteen and meeting rooms with a view of Aachen Cathedral. The spacious inner courtyard connects to the event hall and at the same time creates a protective distance from the heterogeneous buildings on Antoniusstraße. Modern working environments

The office floors of ZEKT are a prototype of modern working environments. Flexible room concepts enable both individual activities and creative teamwork, supported by the latest digital infrastructure for efficient, paperless processes. Green areas and retreats increase the well-being of employees, while communicative hotspots such as open-plan kitchenettes with adjoining meeting zones encourage spontaneous encounters. The flexibly customisable office spaces with a view of the cathedral meet the dynamic requirements of today's and tomorrow's working methods. A research building as a source of inspiration

The use of the thermal water band running under the city makes the new Fraunhofer Centre for Energy and Climate Technology an integral part of the urban fabric and public life. Climate innovation becomes visible, accessible and promotes dialogue and social relevance. The choice of materials - wood, clay and reused terrazzo - symbolises a climate-conscious future. The green roofs, photovoltaic systems and the integration of aquathermal energy demonstrate the sustainable principles that the building itself explores: the vision of a post-fossil city.

Awards, Nominations

Team

Client

Fraunhofer Gesellschaft

Architect

ingenhoven associates GmbH

Team ingenhoven associates

Martin Reuter; Holm Bethge, Angelina Strauff, Valerie Schlüter, Dariusz Szczygieski, Stefan Boenicke

Structural Engineering

knippershelbig GmbH

Fire protection

BPK Ingenieure und Sachverständige für Brandschutz GmbH & Co. KG.

Energy planning

Transsolar Energietechnik GmbH