

Project Sheet

Transparency and openness

Max Planck Institute for the Structure and Dynamics of Matter, Hamburg

#Science



Project Panel

Clients	Max Planck Society, Munich
User	MPI for the Structure and Dynamics of Matter, Hamburg
Effective Area	6161 qm
Floor Area	12417 qm
Floor Volume	61739 cbm
Completion	2022

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Awards

Design Educates Award 2023 | Selected

German Landscape Architecture Award 2023 | Shortlist

Green Roof of the Year 2021 | Winner

Photos

Werner Huthmacher
  Landschaftsarchitektur +

The Max Planck Institute is a highly complex research building for fundamental matter research in ultra-short time scales in the femtosecond range (the millionth part of a billionth of a second). Located on the expansive Bahrenfeld research campus in Hamburg, the new building is situated in the immediate vicinity of the institute's location in the [Center for Free-Electron Laser Science \(CFEL\)](#) and the large, curved experimental hall PETRA III, which follows the course of the particle accelerator. The front and main entrance of the three-storey building face the shared open space in the direction of the CFEL. A place of encounter and for lingering – an **enrichment and complement to the world of knowledge inside**: the **park landscape on the rooftop** of the Max Planck Institute for the Structure and Dynamics of Matter (MPSD) creates a balance to the research work conducted inside the building in windowless laser labs without any daylight, chemistry labs and workshops. The **terracing** of the 150-metre-long building towards the south creates roof areas at different levels. These were designed in close cooperation with the landscape architects from L+ and Professor Mark Krieger as a two-level, approximately **2,500-square-metre rooftop garden** with intensive and extensive greenery. Click [here](#) for a **virtual tour** of the building.

Based on the idea that all building begins with the destruction of the natural environment, the intensive greening of the roof surfaces makes a significant contribution to sustainability and illustrates the architects' responsibility for the built environment.

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The flowering perennials, grasses and trees with a growth height of up to six metres not only provide a green recreational space, but also bind carbon dioxide, store moisture and promote biodiversity. The terracing makes it possible for the upper floors to relate to the exterior, offers retreats and opportunities to spend time among the greenery, not to mention a public

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campus walkway that leads across the rooftop garden via external stairs and ramps. In addition, a comprehensive lighting concept generates a special atmosphere on the roof at night.



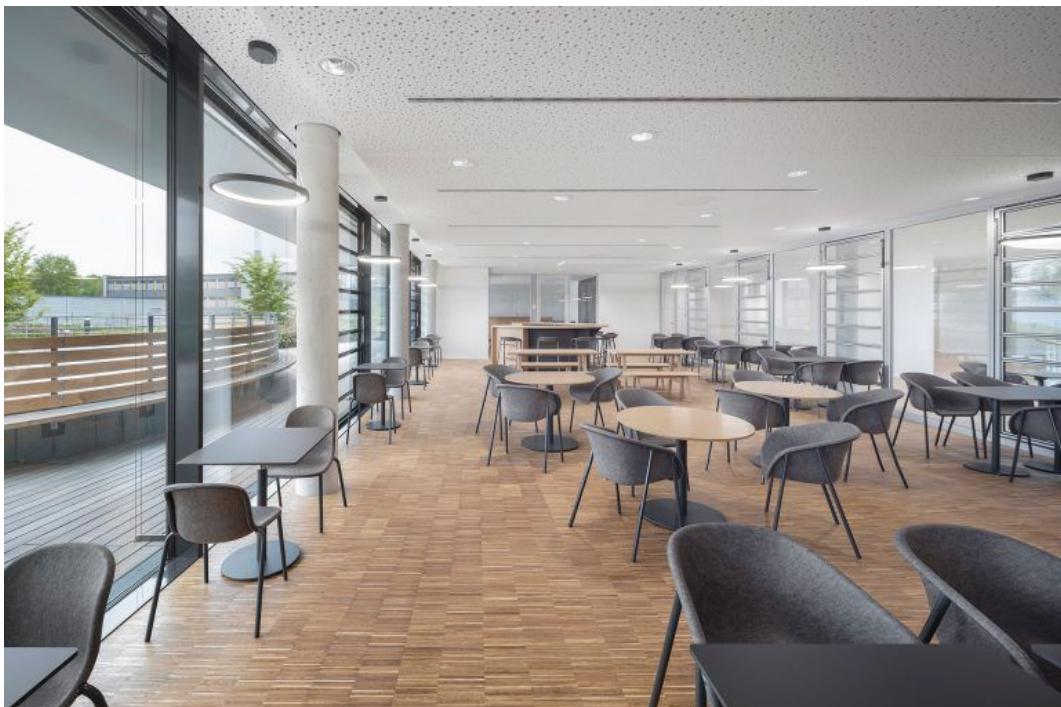
With suction upwards: The atrium is a meeting and recreation space



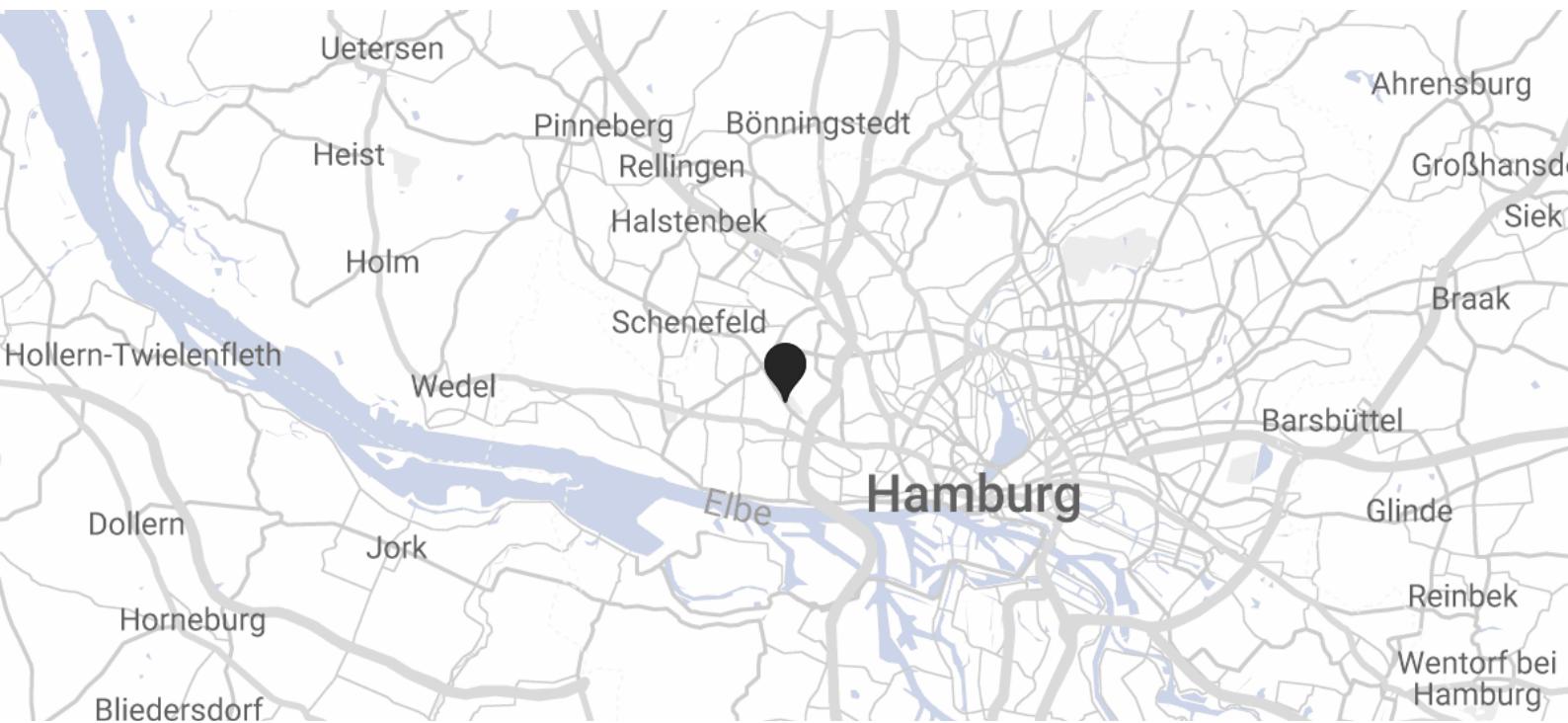
An expansive flowing space that extends upwards across all storeys. Wide stairways and circular, bright courtyards lead up to the cafeteria on the first floor.



Cell structures and open spaces provide varied working environments between the extremes of communication and concentration, between experimentation and theory.



A panorama window affords a view of the flowering rooftop garden and the spacious wooden deck with outdoor seating in nature.



Location

Max Planck Institute for the Structure and Dynamics of Matter, Hamburg

Luruper Chausee 149
22761 Hamburg
Deutschland