

gross floor area 11,000 m²
gross construction cost € 18 m
competition 1995, 1st prize
construction 1996 - 1998

photonic centre berlin



brief

multifunctional building for laboratories, workshops, production facilities and offices

client

WISTA Management GmbH, Berlin

awards

ar+d Award 1999
RIBA Award 1999
Deutscher Architekturpreis 1999, High Commendation
Aluminium Imagination Architectural Award 1999
Architekturpreis Beton 1999
Architekturpreis 1998, BDA Berlin, Special Mention
Architekturpreis der WestHyp Stiftung 1998
Constructec-Preis 1998 für Industrie-architektur, High Commendation
AIA London/UK Excellence in Design Award 1996, High Commendation

The Photonic Centre is based on the urban design and services engineering concepts developed for an initial competition, won in 1995. The two buildings are colourful volumes with soft contours which create a strong identity within the existing rectilinear context without challenging the gentle coherence of the site. The three-storey building contains laboratories, workshops and offices, while the adjacent single storey hall offers space for large-scale experiments.

The laboratory building is a case study for the integration of architecture, construction and services. The undulating building contours enclose flexible units of varying depth, facilitating the deep-plan dark units needed for research with light. The paired columns of the double façade lend the external skin depth and rhythm, and contain weather-protected external louvres for solar-screening. The façade, with a spectrum of 36 hues on both the columns and the solar blinds, offers natural ventilation and acts as a buffer zone for improved thermal and sound insulation.

A central top-lit atrium was integrated into the design of the main building as a space for communication and exchange between the scientists. The building has an economical prefabricated concrete structure, including floor slabs of corrugated section which allow every point within the flexible plan to be serviced from both above and below. Vertical services run in risers located along the central corridor while horizontal services are distributed in prefabricated U-sections that span up to 10 metres, either between beams or supported by the paired columns of the façade. The adjacent single-storey hall is a steel frame construction, with a full-height glass façade and internal polychromatic colour-coated sunshades.

