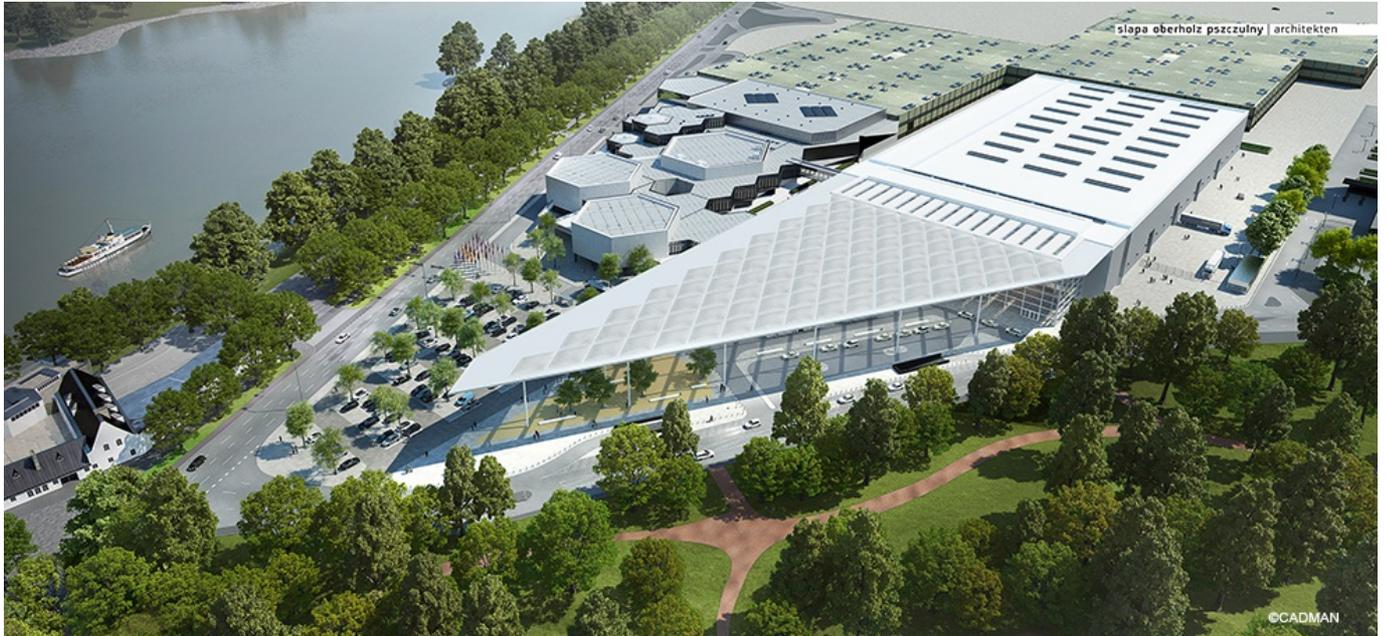


THE NEW MESSE DÜSSELDORF SOUTH ENTRANCE



Structural planning for hall, foyer and canopy

In 2014, Messe Düsseldorf awarded architect's office slapa oberholz pszczulny I sop the contract to redesign the entrance zone of the exhibition centre. This includes a new foyer with a floating conference area and attached exhibition centre canopy, together with a trade fair hall located behind this. The construction of the new hall commenced at the beginning of 2018 with the demolition of the existing halls.

The construction of the new exhibition halls 1+2 comprises an approx. 12,000m² column-free trade fair hall which will be connected with the existing congress area (CCD-Süd) via a closed pedestrian bridge.

Schübler-Plan was commissioned to undertake the structural planning and building physics evaluations for the hall, foyer and exhibition centre canopy.

Ambitious exhibition centre canopy as an eye-catcher

The design placed the focus on the entrance area as the new point of reference. Here, a 1,000-tonne steel roof is being created which will extend the new hall complex geometrically in parallel with the Stockumerstraße (Stockumer Street), thereby forming a pointed triangle. The roof comprises myriad rhomboidal diamond-shaped elements and, with its honeycomb structured styling, connects the adjacent congress centre with the trade fair halls located behind. In addition to this connecting function, it also effectively marks-out the new main entrance, brings the internal and external spaces together, and simultaneously serves as a meeting place with bus stops and access to the underground car park.

A glass fibre textile is envisaged for the roof cladding, the load-bearing behaviour of which corresponds to that of a membrane. We also helped develop the assembly concept for this ambitious and

Client

Messe Düsseldorf

Location

Düsseldorf

Architects

slapa oberholz pszczulny | sop architekten

Technical specifications

150m-long steel roof weighing 1,000 tonnes

Foyer with 20m-high glass façade and projecting conference area

12,000m² column-free exhibition hall

9,000m² single-storey underground car park

Services

Structural planning and building physics

unique structure. The rhomboidal modules with a diagonal size of 44.5m and a weight of approx. 80 tonnes were lifted atop the spun concrete columns using two truck-mounted cranes.

The path to the final draft was characterised by an intensive exchange between the architects at sop and the planners at Schüßler-Plan. The uniqueness of the roof structure reflects a successful symbiosis of architecture and structural planning.