



**NEW-Blauhaus**

**Typology** education service provider **Location** Mönchengladbach **Construction Volume** GFA 5.800m<sup>2</sup>, GV 20.995m<sup>3</sup> **Client** NEW mobil & aktiv Mönchengladbach GmbH **General Contractor** A.Frauenrath BauConcept GmbH **User** Hochschule Niederrhein and NEW **Realisation** 2014-2015 **Competition** 1st prize 2013 **Awards** Mies van der Rohe Award 2016 – shortlist, German Solar Prize – award plaque 2016, German Design Award 2017-Excellent Communications Design Architecture, BDA Linker Niederrhein – Auszeichnung guter Bauten 2017, InnovationsAward for building integrated photovoltaics 2018 – special prize for facade design



Photo Andreas Horsky

**#New build of a modern energy efficiency centre on the campus of Hochschule Niederrhein in Mönchengladbach** The low-resource energy generation system is displayed on the outside of the sculptural facade made of photovoltaic elements, thus giving the building an unmistakable character.





Photo Andreas Horsky

The project, which is a cooperation between the energy and water utility company NEW and Hochschule Niederrhein, is designed to present innovative developments in the energy sector.

The five-sided structure, a solitaire in the urban landscape, is clearly perceived as a new element at the university, which uses the large forecourt with the open stairway to link the city and the campus. The special facade consisting of oppositely inclined, blue-tinged glass and photovoltaic elements has been designed to perfectly suit the orientation and incidence of solar radiation. A window alongside the open stairway offers passersby a view into the energy centre of the zero emission building that meets Passive House standards. In addition to the rooms for the energy centre NEW, the Blauhaus building accommodates various educational and administrative institutions of Hochschule Niederrhein, the university library, the start-up centre “Blauschmiede” with offices for new business founders, as well as the energy laboratory “Innovatorium” for pupils and students.



Photo Andreas Horsky

Four storeys are grouped around an atrium that directs natural light into all zones of the building.

## Energy centre: state-of-the-art technology

The energy centre of the NEW-Blauhaus building is positioned on the ground floor. A window close to the open stairway, displaying information on sustainable energy, captures the curiosity of passersby. Interested visitors can enter the NEW energy service centre and take a look at the technical equipment. The most important part of the building's heating and cooling system is a highly efficient, reversible heat pump in combination with a spectacular ice storage tank and chiller plant. Depending on the time of year, the elements interconnect to either heat the building in winter or cool it during peak periods in summer. Further fully operational technologies have been added for presentation purposes, including a combined heat and power unit, a peak load boiler for heating and an absorption refrigeration system for cooling.