

EuropeanEcoHub Essen – Fact Sheet

Investment sum	15 million euros building investment
Work places	At the beginning 250 to 300; of which approx. 165 GLS employees and over 100 via GLS transport partners
Start of construction	June 2019
Start of operations	September 2020
Area	53.000 square metres
Handling hall	8.500 square metres 155 gates, thereof <ul style="list-style-type: none">- 15 gates unloading- 140 gates delivery- 25 gates loading (double use delivery)
	State-of-the-art conveyor technology
Capacity	1. construction stage: up to 75,000 parcels per day 2. construction stage: up to 200,000 parcels per day
Sustainability	recyclable building materials 1,800 square metre green roof LED lighting Heat pump technology Rainwater utilisation system Photovoltaic system with 880 modules (Power output: 300 KWp [=kilowatt peak] and 286 MWh [=megawatt hour] per year) Battery storage (power 150 kilovolt-ampere)
Emission-free delivery	20 electric vehicles by the end of next year = emission-free delivery in Essen
Delivery area	Gladbeck to Mülheim and Duisburg to Bochum
Biodiversity	Large biotope on 4,875 square metres Land habitats and 500 square metres pond facilities A total of almost 3,500 animals 6 species deserving protection (common newt, crested newt, alpine newt, natterjack toad, common toad, pool frog)

Four characteristics make the location the ecological pioneer of GLS:

Autarkic power supply

The **power supply** of the depot will be **self-sufficient** in the final stage of development through a **photovoltaic system**. In the first **construction stage**, the **880 PV modules** have a total output of 300 kWp.



A connected **battery container** can store up to **150 kW of self-generated electricity**. This means that the depot can also be operated with **solar energy** in the early morning and late evening hours.



The **self-generated electricity** will not only be used to **operate the depot**, but also to supply the **charging infrastructure for electric delivery vehicles** in order to enable emission-free delivery of the parcels in Essen. The ratio between electricity generation and consumption is **monitored on a screen**. In addition, **LED lamps** and the **modern conveyor technology** ensure **economical power consumption**. **Excess energy**, such as at weekends, is **fed into the power grid**.

Emission-free delivery

E-vehicles and the provision of **charging infrastructure** are other features of the EuropeanEcoHub. These enable **emission-free delivery** in Essen.



In the **first construction stage** there are **6 charging stations** with 2 charging points each for e-vehicles. A further 14 parking spaces have already been prepared for the installation of additional **charging stations**, so that a **total of 40 charging points** can be installed in the near future to enable emission-free delivery of parcels in other conurbations in the depot area.



In addition, 2 charging stations/ **4 charging points** were set up for the vehicles of **employees and visitors**.

Manoeuvring vehicles, which transport the swap bodies on the site between the parking area and the loading and unloading area, are usually diesel-powered. In order to operate them without emissions in the future as well, there is an additional **quick charging point** with which an **electrically operated manoeuvring vehicle** can be charged in a short time between shifts.

Sustainable location

The EuropeanEcoHub is also characterised by **climate-neutral operation** and **closed resource cycles**. For example, a rainwater utilisation system was installed, which uses collected rainwater for toilet flushing, the **irrigation of the amphibian habitats**, the **green areas** and the approx. **1,800 m² green roof**.



The installation of an air-to-water heat pump enables **intelligent room climate management**. The halls can be **heated and cooled by four degrees** in hot summer months **without emissions**.

A further cycle was closed in the selection of the building materials. **Recyclable building materials** were used for construction. The cladding with so-called sandwich panels as well as the installed vinyl are reusable. The furnishings were adapted to the ecological character of the EuropeanEcoHub.



Biodiversity

Biotope with 4.875 square metres

- Newly created large biotope for amphibians
- Three pond systems with a total of 500 m² water surface



Efficient irrigation

- Irrigation of the biotope via a rainwater utilisation system
- Preventing the ponds from drying out



6 species requiring protection

- | | |
|----------------|-------------------|
| • Common newt | • Natterjack toad |
| • Crested newt | • Common toad |
| • Alpine newt | • Pond frog |

In total: over 3.500 animals



Partner

Developer

Relax Group GmbH & Co. KG

For the first construction stage, 13 external partners were active in building the depot and designing the biotope. Of these, eight companies are from North Rhine-Westphalia, five companies from other federal states.

Conveyor technology

Budde Fördertechnik GmbH

Security

Ametras, Video technology for complete parcel tracking and securing the outside area