

## Branch Reference Fulfillment



### EXOTEC ROBOTICS-WAREHOUSE/ SHUTTLE-SYSTEM

#### The Customer

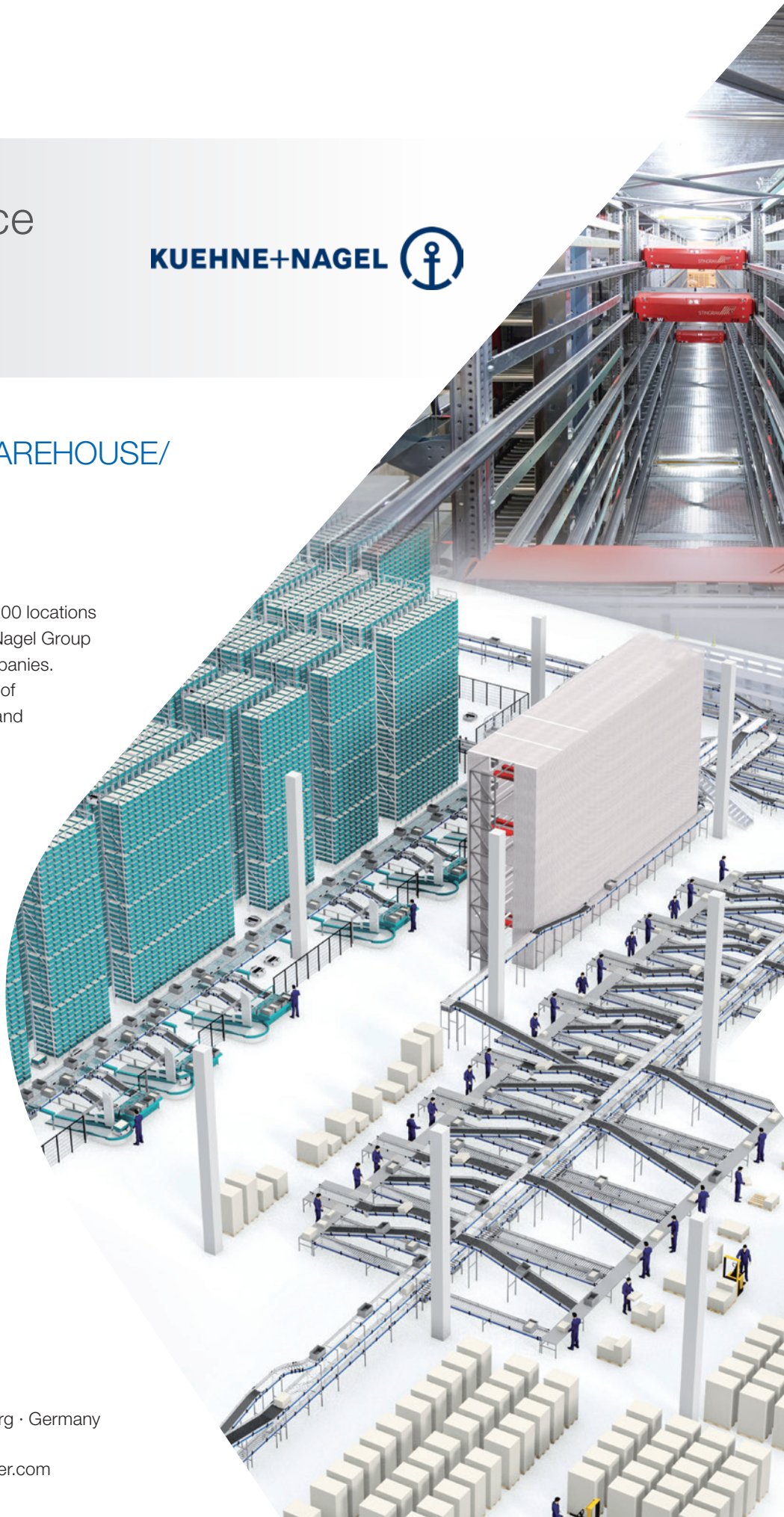
With over 80,000 employees at almost 1,300 locations in more than 100 countries, the Kuehne+Nagel Group is one of the world's leading logistics companies. Its strong market position lies in the areas of sea freight, air freight, overland transport and contract logistics, with a clear focus on integrated logistics solutions.

#### The Requirements

A logistics centre with automated warehouse technology was to be built near Koblenz. The system had to be extremely scalable in terms of capacity and performance and ideally reflect the high demands on performance and system availability. Maximum system redundancy due to cut-off times for over-night delivery was particularly important.

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## The Solution

The centrepiece is an Exotec system with 50,000 bin locations and 30 warehouse robots for the storage of small parts. The system is easily expandable by adding additional Skypod robots. The free-moving robots provide maximum system redundancy.

The Exotec warehouse is connected to a double-deep, single-aisle shuttle system with 2 lifters via a high-performance conveyor system. This serves as an order consolidation buffer for orders consisting of several bins. Each of the 18 levels has its own shuttle, maximising performance. The packing department, which is connected to the conveyor system and has 30 workstations, divides the flow of goods into large orders and parcel orders. A shipping sorter is used to distribute the packed parcels to the various transport service providers, and it discharges the parcels to the correct truck gate. The optimal coordination of the various systems ensures overnight delivery at Kuehne+Nagel.



Exotec warehouse system with 30 robots



Ergonomic picking station



Kuehne+Nagel logistics centre



30 packing workstations



Shuttle-System and Exotec warehouse system with 50,000 bins