# Active Ants E-fulfillment warehouses of the future



E-COMMERCE LOGISTIEK

### Active Ants, the company

- Founded in 2010, part of bpost group since 2018
- 500 employees in total
- Four sites: Roosendaal, Nieuwegein (Netherlands), Willebroek, Dorsten (Germany)
- 53,000m<sup>2</sup> storage space in total
- Further international expansion in France and in the U.K.



# Highly automated process

- AutoStore with individual bins is the cornerstone of the fulfillment center The goods are checked, counted and weighed upon arrival. They are then placed in bins at the rear of the AutoStore by an operator and distributed in the grid by the robots.
- When an order comes in, a storage robot goes to the location of the desired product, selects the right bin and brings it to one of the picking stations. An operator puts them in a box provided by a carrier robot, which always selects a box with the ideal dimensions from one of the automated box folding machines.
- The carrier robot then sets off for one of the packing machines. These seal the boxes to size (to minimize the transport of "fresh air"), weigh them and affix a shipping label and a personalized print. The sealed boxes are conveyed by band to a carrier robot, which forwards them to one of the shipper loading points. This is an efficient structured process in which humans and robots work together.



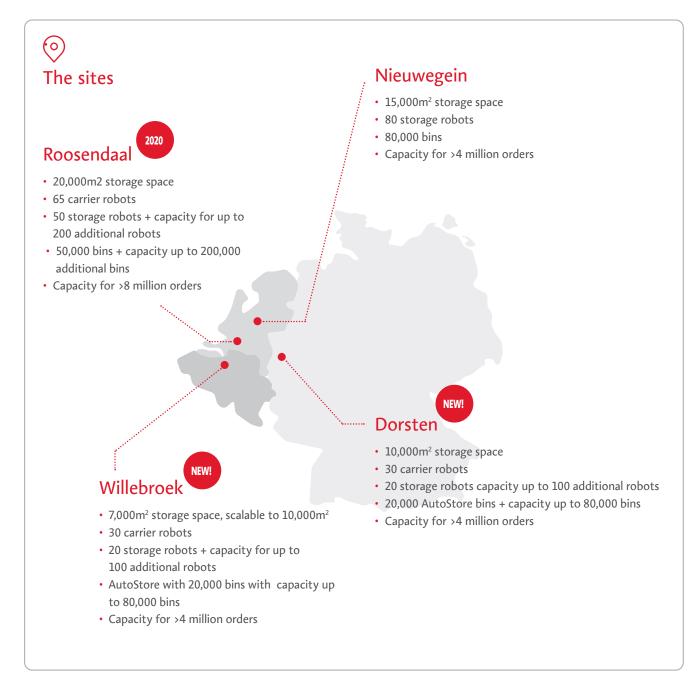
# **Carrier robots**

- Collect the boxes and bring them to the picking, packing and sorting stations.
- · + autonomous due to AI and machine learning.





Organize and collect the bins with goods directly from the storage system and bring them to the picking stations





# Sustainable process:

- Solar panels are the primary source of energy consumed in Willebroek.
- Our robots charge up with energy produced by solar panels while they work. Ten robots consume the same amount of electricity as one vacuum cleaner.
- We take up 6x less space than a traditional warehouse, thanks to the innovative AutoStore solution.
- · No plastic is used in Willebroek.
  - The packing and folding machines use glue rather than plastic tape.
  - Only recycled paper is used as filling when manually packing fragile products.
  - Packaging boxes bear the FSC trademark.
- The ideal sized box is always selected to suit the products to be shipped, minimizing the amount of air transported. As a result, AA transports on average 40% less air. That means we can fit more boxes into each truck, driving our carbon emissions down even further.
- Shipping labels are printed on the lid, so separate labels are not needed.