

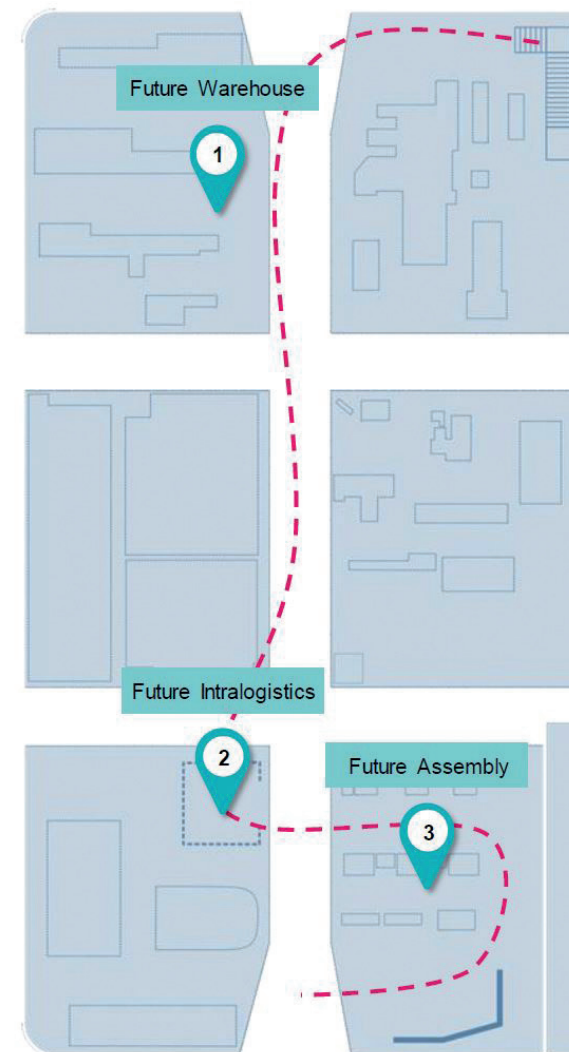
Future Assembly



Using the assembly of e.GO karts as an example, we show how the wireless full networking of assembly lines continuously optimizes the assembly process in a short-cycle manner. Due to the immediate influenceability of the assembly process, it is possible to react immediately to the smallest changes, e.g. the assembly of a revised product, with dynamic adjustment of the assembly process. This enables more dynamic production and thus elevates the company to a higher level of service.

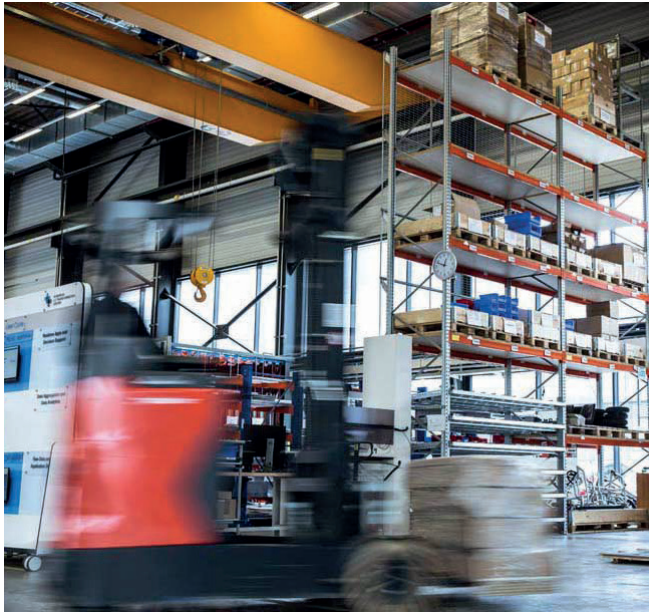
Through 5G, the connection to the product is maintained even after it leaves the hall gates. Our demonstrator shows how 5G can be used to achieve end-to-end condition monitoring across the entire value chain. If the goods are damaged in transit, the manufacturer receives a notification in real time.

Location of the use cases on the store floor of the Demofabrik Aachen



5G Use Case Tour

Future Logistics



The logistics of the future is a dynamic, living construct that continuously optimizes itself. The high performance of 5G makes a significant contribution to accelerating industrial and logistics processes, e.g., through the uninterrupted monitoring of product states or the determination of the position of transport systems. Real-time monitoring of all operations in the digital factory enables flexible, highly efficient operations.

When we point the iPads at the table, we see an Augmented Reality animation. Here we can watch how goods are transported from our supplier to the demo factory and on to the e.GO plant. We also see that the entire transport route is covered by 5G network.

Future Warehouse



In the warehouse of the future, the position and condition of all product components and load carriers can be tracked and retrieved in real time. The constantly available knowledge about the respective current withdrawal and consumption status enables automatically optimized stocking and a smooth production flow. The extremely high number of goods connected in the Future Warehouse goods can only be mastered through the use of 5G.

We see that workers know at all times, via the green display on the warehouses, which parts - and how many - they should remove from the warehouse and place on the picking cart.

We know at all times how many screws are in our warehouse and can trigger a new order automatically.

Future Intralogistics



The intralogistics of the future will be increasingly characterized by autonomous driving systems. Today, our SAM is still driving around the factory somewhat alone, but in the future we will probably have to deal with dozens or hundreds of such autonomous helpers. Today's technologies like WiFi are not reliable enough to guarantee real-time control of these systems, not even from our single robot. On this screen, we see the current data transmission to and from the robot once with WiFi and once with 5G. The autonomous robot SAM makes the difference between WiFi and 5G tangible.