



+ Intralogistics and Production Supply

e.GO Mobile AG

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e.GO Mobile AG manufactures electric vehicles using Industry 4.0 methods which “should be practical and affordable”. The basis for this is particularly high agility in production and logistics. A fully integrated IT system from PSI ensures the necessary logistical conditions and the implementation of the disruptive planning and production processes – and entirely without an assembly line.

The Challenge

10,000 electric cars are expected to leave the e. GO Mobile plant in the first few years. The company intends to triple the number of units manufactured by 2021: 30,000 vehicles could then be built in the production halls every year. This goal requires particularly efficient and interrelated processes – both horizontally and vertically.

Information



Industry: Electric car manufacturers
Location: Aachen (Germany), university campus of the RWTH Aachen University (Industry 4.0 plant in Aachen Rothe Erde / Germany)
Employees: 450
Turnover: n.a.

Deployed software: PSiWms, PSiPenta

Realized interfaces PSiWms:

+ PSiPenta (ERP and MES) via RESTful web service

Realized interfaces PSiPenta:

+ product lifecycle management (PLM tool Windchill)

+ Reference project

” *The systems provided by PSI enable us to manufacture cost-efficient small batches. They support a continuous, digital process chain allowing us to take advantage of the benefits of to the fullest extent of Industry 4.0.*

Ernest Debets, Vice President Information Technology and Digitalization

e.GO

PSI 

Especially since the company estimates only 17 working hours per car. In production, the company therefore no longer relies on the industry standard and rather restrictive assembly line production but works with driverless transport systems (DTS). They independently control freestanding workstations. The resulting changeability of production reduces the investment volume and provides OEM with significantly higher agility.

Ultimately, this enables the production of batch size 1 under the conditions of series production. To control production and logistics processes, the company relies on an IT partner that can not only provide the supporting IT systems but also ensures a high degree of integration of all the software components involved.

The Solution

PSI software solutions, together with supplementary IT programs, secure the series production of vehicles today. In addition to the ERP and MES suite PSIpenta, the warehouse management system PSIWms is one of the key elements. The processes are integrated from the configuration in the web shop to the vehicle-specific control of the production technology in the shop floor. Production is controlled via workflows which makes it extremely agile and adaptable. The warehouse management system fits seamlessly into the planning processes of the MES and ERP system and provides the needs-based supply and disposal of the transport and assembly systems – especially between the two e.GO plants. Criteria such as characteristics in the collection, storage and withdrawal of material in and for different warehouse areas, the coordination of logistical processes such as kitting and value-added services or time- and resource-optimized control are all important.

PSIcommand also provides an integrated solution for internal maintenance and external field service. With PSI personnel deployment planning, e.GO optimizes the deployment of existing personnel – according to priorities, skills, costs, distances and other aspects.

e.GO Mobile now has an integrated IT system that acts as an enabler of agile, state-of-the-art production.

Fact sheet

Users:

- + approx. 30-40

Language:

- + German

Warehouse characteristics:

- + Transport and storage of QA-blocked goods
- + Support of the QA check (yield/defective quantity) with mobile PSIWms client and alerting
- + Storage/order picking/replenishment control/removal with shelf types modular shelves, flow-through shelves, pallet shelves
- + Route trains (route configuration via PSIWms client)
- + Automatic Kanban system (configuration via PSIWms client)
- + Manual Kanban supply (call at worker cockpit)
- + Sequencing (supply of assembly stations with orders in sequence)
- + Inventory management and inventory also of material in assembly area
- + Connection to Kanban system for C-parts of the company Bossard (SmartBin/ SmartLabel)



PSI Logistics GmbH
Dircksenstraße 42-44 · 10178 Berlin · Germany
Phone: +49 30 2801-2850 · info@psilogistics.com
www.psilogistics.com