How TeamViewer Supports Globalfoundries in Supplying the World with Semiconductors

GlobalFoundries™

Since the early 90s, computer chips and semiconductors are gaining exponentially more presence in our daily lives. They have become an essential part of almost any technical product and a critical item in nearly all sectors' value chains. Hand in hand with the right software, state-of-the-art hardware builds the powerful backbone of global digital transformation across all industries.

US-headquartered company GlobalFoundries, one of the world's leading semiconductor manufacturers and designers, plays a vital role in the ever faster growing hardware industry. With large manufacturing plants in the United States, Singapore, and Germany, GlobalFoundries is serving clients from industries including automotive, computing, consumer products, construction, and engineering. Among them are brands such as BMW, Qualcomm, Siemens, Motorola, or Ford.

"At GlobalFoundries, we believe that smartly designed chips and semiconductors unlock value and open new possibilities for a brighter future", says Kevin Hidalgo, Senior Director Logistics at GlobalFoundries.

◉	Dresden, Germany
▣	Semiconductor Manufacturing Industry
✋	Vision Picking
📅	2022 Solution Deployment

"Together with our customers, we develop complex and rich technologies that are critical to how we live, work and progress in our world. We are changing the industry that is changing the world."

But in times of global shortage of chips and semiconductors, the expression 'time is money' has become even more important for GlobalFoundries' customers. Demand is higher than ever, and whole supply chains depend on fast, reliable on-time delivery of newly produced chips. That is why the company is not only focusing on producing semiconductors of globally recognised quality, but also strives for excellence in its inbound and outbound logistics processes, to serve external as well as internal clients the best. Digital transformation is therefore not only a challenge for GlobalFoundries' customers, but the company itself has put massive emphasis on digitalization, continuously working on improving their own operations.

Challenge

For their production and distribution, GlobalFoundries owns a series of warehouses and inbound store facilities, whose efficiency is critical to their on-time delivery. "The logistics organization supports both, the inbound of manufacturing portions of operations as well as the outbound shipping operations. We sit on the frontend and the backend of the fab's operations and make sure that production have all the supplies and materials that are needed to be successful. We wanted to improve the picking process in these warehouses, as it was mostly an analogue paper-based solution, lacking efficiency and error-correction. We saw lots of opportunities here to drive process improvements into our operations by leveraging technology", says Kevin Hidalgo.

The former order picking process involved a bulky handheld scanner and paper printouts of the orders, which were manually sorted according to urgency. Arriving at the shelf, the employees put down the scanner to pick the items with both hands, picked up the scanner again to scan the code, finished their order, and threw away the printout. Besides the masses of paper waste, this process was inefficient as the manual sorting took a long time, and the scanner handling was cumbersome with putting it down and picking it up all the time and potentially forgetting it somewhere, which led to unnecessary walking back and forth. The process was also prone to errors due to much unnecessary and irrelevant information on the printouts that could be confusing for operators.
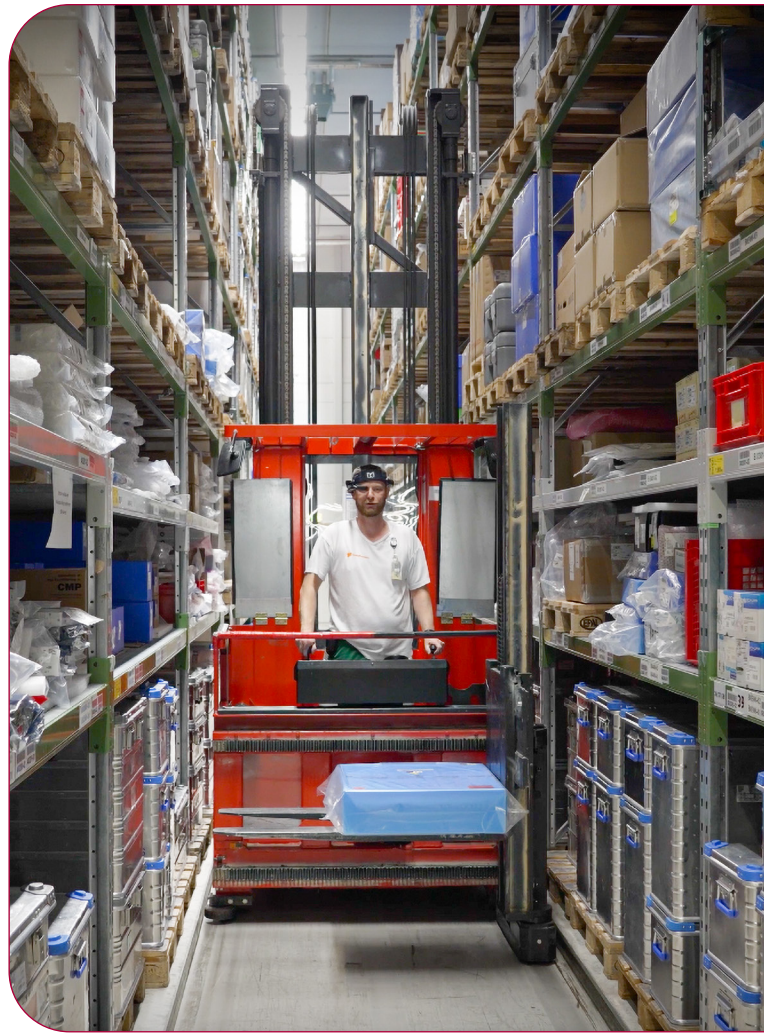
TeamViewer Frontline Solution

Given these challenges, GlobalFoundries began looking for opportunities to drive efficiency and accuracy into the picking operations. Teaming up with the IT department and the internal innovations team, they found that a solution based on smart glasses and augmented reality (AR) could change the game for them. The TeamViewer Frontline platform with its vision picking solution xPick, that is tailored to logistics processes of all kinds, was identified as an industry-proven software for enterprise AR applications. After a proof of concept, GlobalFoundries decided to roll-out Frontline xPick starting in its 'Fab 1' in Dresden / Germany, Europe's largest semiconductor plant.

Together with the TeamViewer AR experts, the team completed the whole project from kick-off to implementation within only ten weeks. The roll-out itself was wrapped up within a few days in an ongoing 24/7 shift operation environment. Katja Grünberg, Senior Section Manager Logistics at GlobalFoundries Dresden, says: "AR technology and pick-by-vision was completely new territory for us. But the TeamViewer experts supported us from the very beginning, they were very agile, very flexible, responded to all our requests and change requirements. In the end, we were really able to launch a solution that fully met our needs."

Since the implementation of TeamViewer's vision picking solution, the pickers can now work with their hands free. Paper printouts as well as manual sorting and prioritizing are a thing of the past. The employees get exactly the information they need, when they need it - shown on the display of their smart glasses directly in their field of vision. The operator can exactly see which order they are working on, which shelf to go next, and how many items to pick. The visual aspect is further supported by including pictures of the required item on the smart glasses, so the operators exactly know what to pick - whether it is a set or a box, or something else. Throughout the process, the operators navigate via simple voice command, which makes the solution highly intuitive.

Benefits

The implementation of TeamViewer Frontline led to various improvements in the warehouse operations at the Fab 1:

- ⊘ Just by eliminating the printout and the manual sorting, GlobalFoundries was able to **save 25 percent time** in the picking process after only one month.

- ⊘ At the same time, **inventory accuracy has increased by one third** as picking errors became virtually impossible

- ⊘ As a matter of cost, but also ecological responsibility, the new process **eliminated about 100,000 sheets of printed paper** per year.

- ⊘ Feedback from the staff was consistently positive. **Ergonomics have improved**, and the time spent searching, sorting, and prioritizing has been significantly reduced, making the employees' everyday work much easier.

- ⊘ Finally, the solution fully meets GlobalFoundries high requirements for **workers' rights, data protection, and occupational health and safety.**

Outlook

GlobalFoundries has already established three processes with TeamViewer Frontline that are up and running, including the main picking process, and the ones for storage and relocation. After evaluating the metrics from these processes and gaining more operative experience, the team plans to develop more use cases and to digitalize further processes in the warehouse.

,, **We are very happy with the implemented solution, leveraging the power of augmented reality and virtual picking. We have really seen the benefits into our operations through efficiency and accuracy."**

Kevin Hidalgo, Senior Director Logistics at GlobalFoundries

About GlobalFoundries

GlobalFoundries Inc. (GF) is one of the world's leading semiconductor manufacturers. GF is redefining innovation and semiconductor manufacturing by developing and delivering feature-rich process technology solutions that provide leadership performance in pervasive high growth markets. GF offers a unique mix of design, development and fabrication services. With a talented and diverse workforce and an at-scale manufacturing footprint spanning the U.S., Europe and Asia, GF is a trusted technology source to its worldwide customers.
For more information, visit www.gf.com.

About TeamViewer

As a leading global technology company, TeamViewer offers a secure remote connectivity platform to access, control, manage, monitor, and support any device — across platforms — from anywhere.
With more than 600,000 customers, TeamViewer is free for private, non-commercial use and has been installed on more than 2.5 billion devices. TeamViewer continuously innovates in the fields of Remote Connectivity, Augmented Reality, Internet of Things, and Digital Customer Engagement, enabling companies from all industries to digitally transform their business-critical processes through seamless connectivity.

Founded in 2005, and headquartered in Göppingen, Germany, TeamViewer is a publicly held company with approximately 1,400 global employees. TeamViewer AG (TMV) is listed at Frankfurt Stock Exchange and belongs to the MDAX.

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