

Challenge

- Delayed machine and tool availability
- Time loss due to data uncertainty
- Lack of uniform standards
- Insufficient site connectivity

Solution

- Centralized management of multiple locations
- Digital process control
- Integration of different data sources
- Visualizations for stand-up meetings

Result

- Increased transparency in production processes
- Improved analysis and planning of downtimes
- Efficient resource and material management
- Global standardization across more than 25 locations



GKN Powder Metallurgy comprises the four business units GKN Sinter Metals, GKN Hoeganaes – Metal Powder, GKN Additive – 3D Metal and Plastics Printing and GKN Hydrogen. The company is the world's leading supplier of powder metallurgy manufactured components for the automotive and other industries. It employs more than 7,000 people at 30 sites worldwide and serves more than 700 customers in 44 countries.



GKN Powder Metallurgy, headquarter, Bruneck, South Tyrol



High degree of digitalization – lack of transparency

Industry 4.0, digitalization, automation of manufacturing processes or innovative product development: For the internationally active company GKN Powder Metallurgy, the world's leading supplier of powder metal solutions, these are not visions of the future, but are part of everyday working life. "The basis for the digitalization of manufacturing and process control was laid at an early stage in our company. Every machine is integrated into a digital network, and all the data was already available in collected form", explains Georg Bachmann.

The challenge, however, lay in the timely availability of tools and machines due to a lack of transparency, as the setup process of our plants took several hours. These delays often resulted in the necessary equipment not being ready on time. Additionally, the team wasted a lot of time discussing the accuracy of the collected data, which further impacted productivity. The lack of clarity and unreliable information made it difficult to work efficiently and ensure smooth production processes.

The challenge of standardization

It was extremely difficult for the company to establish uniform standards across multiple locations. Since the production facilities were not interconnected, there was a lack of central coordination and consistency. This made it nearly impossible to gather information about operations and processes at the various sites. Without reliable networking, it was almost impossible to standardize workflows and ensure that all locations adhered to the same required standards.

From simple visualization to digital process control

In cooperation with Solunio, we initially started with the visualization of the machine status. This was followed by the gradual expansion of the system with new functions, and finally we moved from pure visualization to digital process control." says Georg Bachmann, Director Global Business Systems at GKN Powder Metallurgy, describing the implementation of *Visual Shop Floor* in the company. Today, the system allows for the integration and clear presentation of data from various sources such as ERP systems, sensor data from production and PDF documents. This information is primarily used for structured and result-oriented stand-up meetings in production.



Visual Shop Floor is used in more than 25 plants around the world and is an indispensable tool for providing our employees with targeted information, recognizing potential faults before they occur, and deriving the right actions from them."

Georg Bachmann,

Director Global Business Systems, GKN Powder Metallurgy



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Global deployment across multiple business units and at all locations

Visual Shop Floor has proven to be an extremely versatile and powerful solution, used in three out of four business units of GKN Powder Metallurgy and at all global locations. "The flexible software platform meets a wide range of requirements and can be used for any type of production," confirms Georg Bachmann. With the ability to integrate multiple locations into Visual Shop Floor and its use in several languages, the foundation has been laid to address the different needs of various sites. At the same time, centralized management of permissions ensures consistent use and administration of content on a global level.

Clear overview, efficient process planning

With the introduction of Solunio's digital Shop Floor Management, GKN Powder Metallurgy has significantly improved transparency in production processes. Interrelationships can be identified more easily, and the preceding and subsequent processes can be planned more efficiently. "Thanks to data analysis on machine downtimes, defective products and reasons for interruptions, we now better understand where the challenges and optimization potentials are and can systematically address them. Additionally, various resources can be better allocated, both for material flow and workforce management," says Georg Bachmann.

With the simple visualization and timely preparation of the work environment, processes run smoothly. "Today, we focus on the truly important aspects: What can we derive from the key figures and analyses? Where can we achieve optimizations? Where do we need to make decisions?" explains Georg Bachmann.



Visual Shop Floor - Andon Board at GKN

Global connectivity and flexible management

The implementation of *Visual Shop Floor* at more than 25 global locations of GKN Powder Metallurgy has significantly simplified the provision of uniform standards. "*Visual Shop Floor* also proved to be the optimal tool for making our global standards available at all sites. And it did so extremely quickly and with a short implementation period," explains Georg Bachmann. But it is not just the introduction of cross-site standards that succeeds across borders. Digital networking brings further advantages. For example, employees can click into the system from anywhere in the world: "If I want to know how the equipment is running in our plants in the USA, I can get the information I need at any time. In addition to standardization, this is a big advantage for us as a globally active company."

Visual Shop Floor is used across all hierarchies and business units, allowing for flexible and rapid adjustments thanks to its independent management by the company's IT department. This autonomous control ensures the necessary flexibility to manage access, permissions and content efficiently.



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Visual Shop Floor plays a central role in our company because ...

Conclusion from Georg Bachmann, Director Global Business Systems, GKN Powder Metallurgy

... the software platform is used across all hierarchies and divisions at all locations worldwide. It has become an indispensable tool for us as a globally operating company, providing real assistance for the standardization of processes."

... the software is managed independently by the company's own IT department. This autonomous control of the Shop Floor Management ensures the necessary flexibility and speed: accesses, authorizations or contents can be managed promptly."

... employees can use Visual Shop Floor to digitally report weaknesses, suggestions for improvement or near misses with text and photos. The system then automatically creates work tasks to initiate optimizations. The entire process of documenting, controlling and following up on the implementation of optimizations will therefore take place digitally in the future instead of paper-based as before."



About us - Solunio

Solunio Ltd, founded in 2013 and based in Bruneck, South Tyrol, bundled extensive experience from software development and industry into the *Visual Shop Floor* software in 2015. The comprehensive and end-to-end platform for shop floor management contains flexible tools for data management, creating transparency, organizing collaboration and optimizing processes. This enables companies to unlock the potential of digitization to improve production and logistics processes.

Visual Shop Floor is used daily by well-known top industrial companies at a total of 90 locations worldwide. These include globally active groups in various sectors of industry such as Alupress, Intercable, GKN Powder Metallurgy, TDK-Electronics and Plansee.



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