



Driving greater transparency and process reliability in medical technology with digital Shop Floor Management

Application of *Visual Shop Floor* at PARI Pharma



PARI Pharma GmbH is part of the PARI Group and is headquartered in Gräfelfing, Germany. The company specializes in the development and manufacture of innovative inhalation systems for the treatment of respiratory diseases. For decades, PARI has been synonymous with quality, precision and technological expertise in aerosol and inhalation technology. The PARI Group employs more than 700 people worldwide and is one of the established manufacturers of inhalation therapy solutions "Made in Germany."



PARI Pharma, site at Gilching, Germany

Project overview – all the key facts at a glance



Initial situation

- Production and quality information was consolidated from multiple data sources and, in some cases, processed manually.
- Information on ongoing production processes needed to be available centrally and kept as up to date as possible.
- Issues and deviations needed to be identified and addressed even more quickly.
- The exchange of information across sites and departments needed to be further accelerated and simplified.
- Relevant information needed to be available to all stakeholders through a shared and consistent view.



Implementation

- Production and quality data is processed automatically and visualized consistently on digital machine dashboards.
- Production volumes, disruptions, downtime and reasons for non-conforming output are displayed transparently and updated continuously.
- Information on equipment status, current production orders and OEE is presented clearly in a digital production overview.
- A digital SQCDP board provides a reliable information base for production management and coordination during shop floor meetings.
- Employees and managers gain a consistent overview of current production and quality KPIs.



Benefits

- Issues and deviations can be identified at an early stage and addressed promptly.
- Correlations and potential root causes of deviations can be identified more quickly.
- Order progress and machine performance can be continuously monitored and assessed.
- Information flows and collaboration across departments and sites have been further streamlined and accelerated.
- Shop floor meetings are supported by a shared and reliable information base.

Growing data volumes vs. the need for rapid response

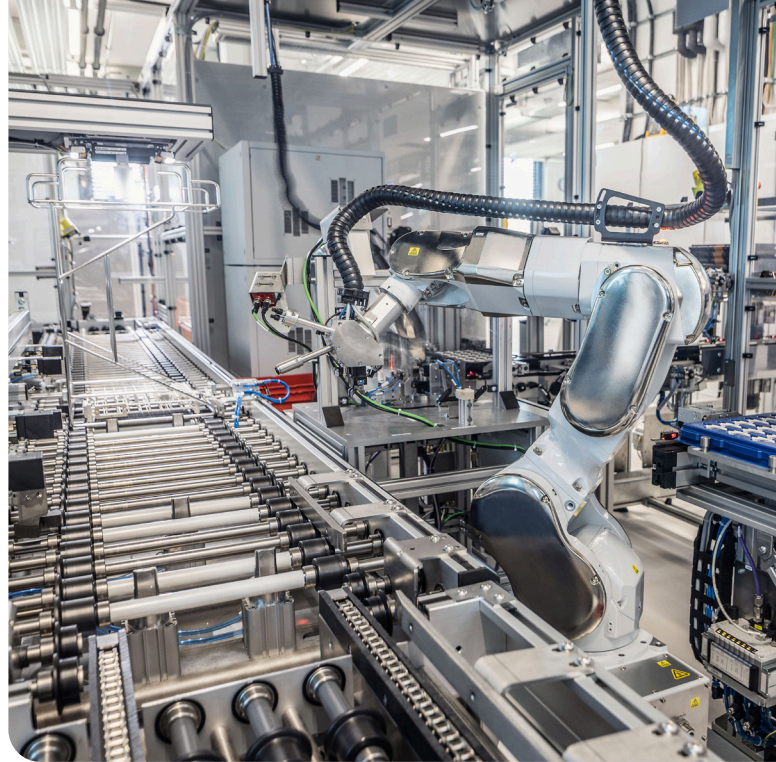
As a company with stringent quality and process requirements, PARI Pharma relies on transparent production processes and reliable access to relevant information. As business and production processes became increasingly digitalized and systems more interconnected, the volume of available data continued to grow.

Before the implementation of *Visual Shop Floor*, production and quality information was consolidated from various sources and, in some cases, processed manually. This established approach worked reliably, but required a corresponding level of effort to keep information up to date and make it available to different user groups.

In quality management in particular, the aim was to identify issues and deviations as early as possible and initiate appropriate corrective actions promptly. As relevant information was stored across different systems, consolidating and evaluating the data required additional coordination.

At the same time, employees from different departments and across multiple sites worked closely together. A fast and consistent flow of information was therefore essential to enable decisions based on shared, reliable data. Providing up-to-date information across departmental and site boundaries was a key requirement.

As part of its continuous improvement activities, PARI Pharma also aims to make optimal use of its production resources and continuously enhance the efficiency of its manufacturing processes. Transparency across ongoing processes, early identification of deviations and rapid access to relevant information are essential prerequisites for achieving this. The existing system landscape offered potential to consolidate information more effectively and make it available centrally.



Robotic arm in aerosol head production – PARI Pharma

Machine dashboard – the central information hub

With *Visual Shop Floor*, PARI Pharma has established a central platform that consolidates production and quality data from different systems, processes it automatically and presents it clearly to different user groups. The information is continuously kept up to date, creating a consistent data foundation for day-to-day production management.

The digital machine dashboard plays a central role and has become an integral part of daily production operations. It brings together the most important process and quality information for each machine in a standardized view. This gives employees and managers a quick overview of the current status, relevant KPIs and key events.

A particular benefit lies in combining production and quality data within a single view. This makes it possible to monitor production volumes against targets, systematically record and continuously evaluate reasons for non-conformance, and comprehensively document disruptions and downtime. In addition, corrective actions are recorded directly for the affected machines and tracked in a transparent and traceable manner.



SQCDP-Board for cross-functional collaboration – PARI Pharma

The machine dashboard is complemented by a digital hall mirror based on the Smart Layout module in *Visual Shop Floor*. It displays the individual machines to scale, together with their most important KPIs. The primary focus is on the current production order, machine status and OEE, including the underlying factors of availability, performance and quality.

The intuitive visualization provides a quick overview of the current state of production and creates a central source of information for different roles and areas of responsibility. Production managers, executives and other stakeholders all access the same up-to-date information, giving them a consistent overview of production operations.

By combining user-specific KPI visualizations, automated data provision and continuously updated information, *Visual Shop Floor* enables PARI Pharma to manage production processes transparently, identify deviations at an early stage and make well-informed decisions.

Nicole Brune, Project Manager Operations at PARI Pharma, summarizes the benefits: “The central visualization of our machines, in particular, has made our day-to-day work considerably easier.”

Structured coordination and collaboration on the shop floor

In addition to the systematic visualization of production and quality data, *Visual Shop Floor* also supports routine communication and cross-functional collaboration at PARI Pharma. A central element is the digital SQCDP board, which provides a structured view of manufacturing operations based on clearly defined key areas such as safety, quality, production output, downtime and delivery.

Within this structure, relevant KPIs, events and required actions are presented transparently and can be analyzed in detail when necessary. This creates a reliable information base for shop floor meetings and daily coordination.

Dedicated dashboards are also used to represent specific manufacturing areas, such as membrane and head production. Among other information, these dashboards provide machine-level OEE analyses and enable the targeted evaluation of machine performance.

By combining systematic KPI visualization with a structured meeting framework, the flow of information is further improved both within individual departments and across sites. Decisions can be made based on current and consistent information, coordination can be conducted more efficiently, and improvement actions can be tracked systematically.

From data to decisions

By using *Visual Shop Floor* across the organization, PARI Pharma benefits from greater transparency in manufacturing and improved access to relevant production and quality information. The centralized provision of up-to-date data supports informed decision-making and enables even more efficient collaboration across sites.

Visual Shop Floor provides PARI Pharma with a centralized, up-to-date information base for day-to-day production management. Production and quality information is consolidated across sites, visualized clearly and made available to different user groups according to their specific needs.

As a result, current developments in manufacturing can be assessed more quickly, relevant events evaluated more effectively and actions tracked in a more structured manner. At the same time, the consistent data foundation supports more efficient routine communication and improved collaboration across departments and sites.

Visual Shop Floor therefore helps PARI Pharma further strengthen transparency, process reliability and responsiveness in day-to-day production while systematically supporting the continuous improvement of its manufacturing processes.

Rollout to additional sites

Looking ahead, PARI Pharma plans to expand its use of *Visual Shop Floor* and roll it out to additional sites. The aim is to gradually extend the transparency and improved flow of information already achieved across the entire organization.

Visual Shop Floor will therefore be further established as a shared foundation for connected, data-driven production management across sites. The centralized provision of up-to-date production and quality information provides an important basis for continuing to manage processes efficiently, collaborate across departments and systematically drive continuous improvement.

“

Visual Shop Floor has significantly improved the clarity and transparency of our data while enhancing both our regular communication and escalation processes. As a result, we can now take faster, more targeted action.”

Nicole Brune,
Project Manager Operations, PARI Pharma GmbH

A phased implementation with a clear focus on transparency and collaboration

An overview by Nicole Brune,
Project Manager Operations at PARI Pharma GmbH

1. Creating transparency at machine level

The first step was to establish a central machine dashboard. The objective was to make relevant production and quality information directly available for each machine and create a shared information base for employees and managers.

2. Digitally support Shop Floor Management

The next step was to digitalize the existing shop floor management processes. KPIs, relevant events and shop floor meetings were brought together in a structured format within *Visual Shop Floor* and made available on a shared platform.

3. Strengthening the flow of information across sites

The subsequent step focused on further enhancing collaboration across departments and sites. With digital support for communication and escalation processes, relevant information is now available more quickly and can be used effectively for coordination and decision-making.



Nicole Brune



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 offers flexible tools in the key areas of data management, KPIs and transparency, collaboration on the shop floor and continuous improvement.

Thanks to *Visual Shop Floor*, companies unlock the potential of digitalization in shop floor management and improve efficiency across production and logistics processes. *Visual Shop Floor* is used daily by well-known top industrial companies at a total of 150 locations worldwide. These include globally active groups in various sectors of industry such as Alupress, Intercable, GKN Powder Metallurgy, TDK-Electronics and Plansee.

Solunio Ltd

📍 Via dei Campi della Rienza 46,
I-39031 Brunico, South Tyrol
☎ +39 0474 64 60 57 | ✉ info@solunio.com
🌐 www.solunio.com/en