

2/2024

# PRODUCTION manager

*Magazine for production & logistics*



PSImetals Go-live at Tata Smart Steel Factory

## “Open-Heart Surgery” with PSImetals Solutions

User report

**Successful implementation of the Warehouse Management System PSIWms**

Digital Transformation at Fashion Supplier HISERT

Page 6

Product report

**PSIqualicision/ODS supports AI-supported real-time data for producers and operators**  
Online Decision Support as a Service

Page 10

Interview

**Sascha Tepuric discusses the future of intralogistics using Artificial Intelligence**  
The Transformative Power of AI in Intralogistics

Page 16

# EDITORIAL

Dear Readers,

When I started programming software for the steel industry decades ago, some of the technological achievements we have today were not even conceivable. Today, we have accomplished so much with integrated production management systems serving as the basis for future improvements. For example, Production Management Systems provide the data for production optimization with AI technology, they support decarbonization with functions like CO<sub>2</sub> footprint tracking, and they improve quality with forward dressing.

I believe many more innovative applications can be built on a strong production management system with data as the key for the innovations to come. PSImetals provides functionality to speed up the transformation of steel industry.

In our title story, you will read about the impressive transformations ongoing at Tata Steel IJmuiden, Netherlands. The Smart Steel Factory makes Tata Steel one



of the leading pioneers and adopters of such cutting-edge technology. The Smart Steel Factory is the backbone of digitalization in the IJmuiden plant with the integrated production management system supporting operational excellence, decarbonization, optimization and customer satisfaction.

As a project manager, in a project that involved 4 companies and 150 team members, one of my key takeaways is that digitalization requires us to be clear in our targets and to focus on collaboration with all project partners.

Enjoy the reading.  
Warm regards,



Marius Fister  
Department Manager  
PSI Metals

## CONTENTS

### TITLE STORY

PSImetals Go-live at Tata Smart Steel Factory .....3

### USER REPORTS

Successful implementation of the Warehouse Management System PSIWms.....6

SkyCell to use ERP system in the Microsoft Azure Cloud in the future.....8

### PRODUCT REPORT

PSIqualicision/ODS supports AI-supported real-time data for producers and operators..... 10

### TECHNICAL REPORT

The important role of key-user for a successful ERP implementation..... 12

### INTERVIEWS

How metal producers benefit from PSImetals Product Carbon Footprint Tracking..... 14  
Sascha Tepuric discusses the future of intralogistics using Artificial Intelligence..... 16

### NEWS

Aluminium Norf awards PSI with the modernization of its legacy Production Management System.....9  
PSI Automotive & Industry Wins Factory Innovation Award 2024 in the MES/MOM category ..... 18  
Erol Bozak is new CTO ..... 19

### EVENTS

Review of the successful PSImetals UserGroup Latin America 2024..... 15  
Events..... 19



PSImetals Go-live at Tata Smart Steel Factory

## “Open-Heart Surgery” with PSImetals Solutions

**On 1 February 2023, Tata Steel went live with their Smart Steel Factory in IJmuiden, Netherlands. The go-live was the result of experts collaborating in a project that involved over 150 people from PSImetals, Tata Steel Netherlands, Tata Consultancy Services and CapGemini.**

**T**ata Steel is one of the largest steelmakers in the world, producing 35 million tons of crude steel annually. At their plant in IJmuiden, including the plant in Segal, Belgium, their integrated steel plant produces about 7 million tons of liquid steel per year, which is processed into direct hot rolled, conventional hot rolled, pickled, cold rolled, coated, galvanized and tinned end products. With its innovative digitalization projects, Tata Steel is on its way to becoming a clean, green and circular steel company.

### **A bottleneck in achieving operational excellence**

After 40 years of continuous improvements, Tata’s existing Manufacturing Execution Systems (MES) became too diverse and could not adequately support their growth ambitions. In addition, experts familiar with using the legacy system, which was only stored in COBOL code, retired leading to knowledge loss and difficulty in managing the

system. Furthermore, the old system with over 50 IT systems supporting diverse processes was scattered at the IJmuiden site, which made it further difficult to use and to carry out any improvements. These limitations further result from a lack of alignment in data, processes, definitions and procedures across a landscape of several MES legacy systems and many interfaces in their steel plant. Thus, to achieve operational excellence, Tata decided to replace the legacy systems with MES solutions from PSImetals.

To do that, Tata had to shut down the old system, which powered the steel plant and replace it with PSImetals in an on-going Smart Steel Factory project termed “the open heart surgery”. With PSImetals now in use, Tata can achieve process and product visibility across their chain, more on time delivery of coils with reliable prognosis, coil information for customers, and equally implement future changes to guarantee

production and quality of green steel. In addition, the new MES system will enhance advanced scheduling, ease in new product development digitalization and green steel.

### **PSImetals the new MES backbone at Tata**

PSI Metals contributes to the Smart Steel Factory project by replacing legacy MES systems with the PSImetals Production Management Solutions. PSImetals now fully integrates horizontally and vertically PSImetals Order-, Caster- and Line Schedulers, Online Heat Scheduler (OHS), Production Execution and Quality, making PSImetals the MES backbone between ERP and Level-2 Automation layer covering the entire supply chain in IJmuiden from the steelmaking, via direct and hot rolling up until the finished end product.

### **How PSImetals OHS powers the new SSF**

The PSImetals Online Heat Scheduler currently steers the produc-

tion in the steel plant. This includes creating a detailed work schedule for all planned heats, which consists of all required treatment and transport steps, their durations, and the assignment of required production facilities and operating equipment where these treatments can be performed. The OHS features a Gant Chart that allows for intuitive production overview and a user-friendly graphical interface.

Ronald Buisman, IT Manager at Tata Steel says: “In the legacy system, we needed a lot of knowledge to understand the data and envision in our minds what is happening in the plant and how we should react. However, with PSImetals OHS, it is easier and quicker to understand what is happening in the steel plant and know if corrective measures are needed to fulfill the production demand. OHS offers more detailed information to us, which makes it a lot easier to understand occurring deviations and react to them in time.”

OHS further offers Tata a standardized, integrated and automated scheduling and captures the technological knowledge of their experts. Integrating all rules within the system—such as transport times between installations and alternate line assignments—enables Tata to make more realistic and hands-off scheduling decisions. This approach significantly reduces the time required to set up the initial planning and maintain it for the upcoming periods, while also reducing energy consumption. Tata can now add new installations and planning rules in the same integrated platform. This feature enables them to navigate the



*Tata experts inspecting tinplate coils at Tata Steel IJmuiden.*

complexities in their decarbonization target because by having all of their production tracking done in the same system, the platform can be used to track all manufacturing KPIs like CO<sub>2</sub> footprint tracking and energy consumption.

### **PSImetals Planning Order and Line Schedulers**

Tata uses a fully integrated solution across the supply chain from Master Planners' daily flow capacity planning up to detailed scheduling sup-

ported by the master scheduling layer of Order Scheduler. The implementation enables improved customer delivery and enhanced order prognosis. Master Planner enables timely production for vessel routes and exports, significantly improving order accuracy. This data feeds into the Operations Delivery Inventory Network, ensuring better customer satisfaction.

Order Scheduler provides an integrated view of the entire supply



*The management team of the Tata Smart Steel Factory during a visit to the Düsseldorf office of PSI Metals (from left to right: Ed Soeters, Erik Hermans, Sanne Kramer).*

chain, improving through chain visibility, which is a critical key benefit for Tata's scheduling. Sequenced-coil-demand allows a pull strategy from galvanizing lines, checking final cutting plan feasibility on each line.

PSImetals Line Scheduler allows modelling complex programming rules by a single expert team thereby eliminating hard assignments in slab/hot strip mill area and increasing flexibility in material assignments. It further moni-

hot rolled coil on downstream operations using alternative recipes.

### PSImetals Production Execution and Quality at SSF

More than 40 production lines are tracked in PSImetals factory model. PSImetals knows the status of the production orders and materials precisely. Coil parts functionality maintains even detailed information of welded coils. At any time, the current state of production is visualized. PSImetals generates process data instructions using the rule en-

chain, perform more extensive data analysis & gain insights, achieve better delivery performance due to improved scheduling tools and consistent data, have more reliable lead times, improved customer responsiveness, support in new and differentiated product development. This means a leap forward for sustainable production and more accuracy and innovation in manufacturing. Again with PSI standard, we do not need additional coding and thus have reduced technicalities. The system can be maintained by



Smart Steel Factory project team 2024.


tors stock evolution, especially for small and critical stockyards. The Line Scheduler provides better control of mills and ensures timely material fulfillment for the galvanizing lines.

The "Adaptive Green Field" principle optimizes slab dimensions across a wide range of orders. Line Scheduler Matcher combined with accurate temperature control per slab enables hot connect on temperature ranges and automated tapered slab assignments at the SSF. Dynamic recipes concept enable repairing mechanical properties of a

ngine, allowing Tata to adjust the rule quickly to fulfil new customer requirements. Target actual comparison at the moment when the production report from the process control system is booked ensures that quality targets are fulfilled.

### 150 project members, 4 companies, 1 project, 1 goal

Erik Hermans, Lead of the Tata Smart Steel Factory says: "With PSImetals, we support our current and future production processes even better. We can now monitor and control our production throughout the entire production

Tata Consultancy Service system integrator. The Tata SSF is a testimony of what we can achieve with digitalization when we have the right partners and experts." 

Scan the QR code to watch a short documentary about the launch of the Smart Steel Factory.



**PSI Metals**  
Veronica Ugwu  
Content Marketing Manager  
vugwu@psi.de  
www.psimetals.de

## Digital Transformation at Fashion Supplier HISERT

The manufacturing and retail company HISERT GmbH was founded in 2011 in Mescherin, Brandenburg, and is specialized on the segment “Fashion”. With its six brands Merry Style, Ladeheid, Timone, Antié, Bellivalini and Be Mammy, HISERT has experienced remarkable growth since then.

Already in the first year, the company took the step towards internationalization and founded the subsidiary HISERT Polska Sp. Z o.o. in Szczecin, Poland, in 2012. Unlike many of its competitors, HISERT does not have a stationary retail out-

line business, in mid-2022 HISERT opened a new logistics center in Szczecin with an area of 11 500 square meters. Despite this modernization, it quickly became apparent that the existing warehouse management system was

### Decision in favor of cloud-based and on-premise solution PSIWms

The decision was made in favor of the industry-specific, pre-configured omnichannel solution PSIWms from PSI Polska, the Polish subsidiary of PSI Logistics. Wojciech Drobczynski, Process Management Manager at HISERT, explains the decision: “We were looking for a system that had already proven itself in companies with e-commerce sales in the fashion industry. It was also important that it could be implemented quickly and that we could expand our business in the future.”

Michal Tokarczyk, Senior WMS Consultant and project manager at PSI Logistics, emphasizes: “Our solution is based on extensive experience from similar projects and offers all the necessary functions for complex e-commerce warehouses.”



A HISERT employee at work in the warehouse.

let and sells its products exclusively via major e-commerce platforms such as Zalando, eBay and Amazon.

However, in order to meet the requirements of the growing on-

unable to cope with the increasing order volume and the requirements of digitalization. HISERT therefore decided to invest in a new warehouse management system (WMS).

### Implementation in record time

The system was implemented in only ten days. The entire project, including analysis, topology configuration, testing and system implementation, took just four months. “We were able to rely on PSI’s professional support at every stage,” says Drobczynski. “This was particularly important as we had not yet specified all the logistics processes.”

PSI divided the commissioning into two phases. First, the system operated for one week with ten per-

*PSIWms impressed with its cloud-based and on-premise solution, which requires no additional programming and enables short implementation times.*

**Wojciech Drobczynski, Manager Process Management at HISERT**

cent of the volume before taking over full operation in the second week. To ensure that the employees were well prepared, a comprehensive training package was provided. "Thanks to the intuitive user interface for the MDT scanners, the training period was significantly reduced," explains Marcin Rudzinski, Head of the HISERT Distribution Center.

### Improved efficiency and faster processes

Since the implementation of PSIwms, the picking and shipping processes have accelerated significantly. During busy periods, the processing time has been halved from eight to four hours. Two weeks after the system was introduced, an inventory of almost one million items was carried out, which was completed in less than 48 hours. Thanks to the system's user-friendly interface, even unexperienced employees were able to work with the system without any problems.



Insight into the HISERT warehouse.

The successful implementation underlines the importance of a close partnership between a system provider and customer. "A standard system with basic but proven solutions is often the best choice, especially for small and medium-sized companies," summarizes

Tokarczyk. The preconfigured system enables fast and cost-efficient commissioning, as the example of HISERT impressively shows.

### Success through partnership

The digital transformation of intralogistics at HISERT is a successful example of the successful implementation of a warehouse management system. PSIwms has increased the efficiency of warehouse processes, shortened throughput times and carried out an almost error-free inventory. The optimizations contribute significantly to competitiveness and enable flexible adaptation to future challenges in e-commerce. For HISERT, this decision was a significant step towards digitalization and increased efficiency, which has optimally prepared the company for the requirements of modern online retail. 🌐



Dashboard view in PSIwms.

**PSI Logistics GmbH**  
 Vanessa Grabowski  
 Corporate Communications  
 vgrabowski@psi.de  
 www.psilogistics.de

## PSI penta/ERP in the Cloud

**SkyCell AG has been using the ERP system PSI penta for several years to manage its extensive supplier network and in preparation for its own production of air freight containers. Today, the Swiss company also produces the containers on its own. Due to the expected further growth, SkyCell is moving its ERP system to Microsoft's Azure Cloud, among other things.**

**A**nyone who wants to transport pharmaceutical products by air freight is faced with major challenges. This is because almost all pharmaceuticals are sensitive to temperature, humidity and vibrations. In addition, there are strict requirements for checking the medicines during transportation, which require precise planning and coordination.

SkyCell, a Swiss technology company based in Zurich, has developed temperature-controlled air freight containers and proprietary software for transport monitoring and simulation to meet these requirements. This enables customers to achieve a failure rate of less than 0.1 percent and reduce CO<sub>2</sub> emissions during transportation by up to 50 percent. The third pillar

is a global network of service stations with storage facilities and cold stores at or near airports.

### Highest quality standards

When it comes to container production, only the highest quality standards apply. Thus, SkyCell must ensure precise inventory management and traceability of all installed parts and seamlessly track audits. This is where the PSI penta ERP system supports the process. As the company is growing rapidly and maintenance, servicing and backup of the ERP server tie up a lot of capacity, SkyCell decided to switch to Microsoft's Azure Cloud.


At the same time, the management took the opportunity to upgrade to the latest version 10 of the ERP solution and initially updated both the



*SkyCell also uses PSI penta/ERP to manage its extensive supplier network.*

article and the supplier master. A test environment allowed them to check whether all processes met the defined requirements.

### Flexibly adjustable parameters

The benefits that SkyCell expects from the switch are manifold. They range from cost savings for hardware, software and local IT staff to always up-to-date security measures and the easy integration of partners. In particular, the scalability of the cloud-based ERP solution stands out. Relevant parameters can be adjusted quickly and flexibly, for example when the data volume grows or more users need to be integrated into the system. And, the Swiss company complies with data protection regulations, as the servers are located in its own country. 



*SkyCell now produces its own air freight containers.*

**PSI Automotive & Industry GmbH**  
Leon Knigge  
Officer Marketing and PR  
lknigge@psi.de  
www.psi-automotive-industry.de



## PSImetals Service Platform Secures Innovation

Following a long and careful selection process, Aluminium Norf GmbH (Alunorf) has awarded PSI Metals, with the replacement and modernization of its legacy Production Management System. The implementation will include the PSImetals modules Production Liquid and Solid, Quality as well as Energy Services and the Level 2 and Level 4 integration.

The solutions will be used in the entire production processes, from melting to cold-rolled and slit coils. The order was placed via the PSI Marketplace (former PSI App Store) to provide Alunorf with full transparency of all purchased licenses, services, and amendments.

on the PSImetals Service Platform, Alunorf will get the possibility to develop their own services to enhance the system with special solutions.

phase showed that both teams of Alunorf and PSI can work together very efficiently and collaboratively.”



*We trust that PSI has the experience and resources to deliver such a project on time and in budget.*


**Thomas Jaskulski, Manager IT at Alunorf**



Aluminium Norf GmbH is the largest aluminum rolling plant in the world, with around 2200 employees and an annual production of about 1.5 million tons of rolled aluminum. Alunorf is a

In order to meet future requirements, Alunorf will be equipped with a product-based modern system. This will further enhance an easy integration with partner systems through standardized interfaces and ensure better production forecast analysis. Based

During the signing of the contract in Neuss, Germany, Thomas Jaskulski, Manager IT at Alunorf said: “We trust that PSI has the experience and resources to deliver such a project on time and in budget. The collaboration during the project study

joint venture of Speira GmbH and Novelis Deutschland GmbH. 

### PSI Metals

Veronica Ugwu  
Content Marketing Manager  
vugwu@psi.de  
www.psimetals.de



Production site at Alunorf.

## Online Decision Support as a Service

Various trends are demanding far-reaching changes, particularly from manufacturing companies, in order to remain competitive. In the age of Industry 4.0, the convergence of the Industrial Internet of Things (IIoT) and Artificial Intelligence (AI) is proving to be a decisive catalyst for success. The demand for real-time insights, predictive analytics and operational efficiency has never been greater. This is driving companies to introduce AI analytics services alongside comprehensive IIoT data.

The combination of increasing connectivity, the rise in data volumes and the growing complexity of industrial processes underlines the urgency of a robust platform that harnesses the power of IIoT and AI. Companies are faced with the task of extracting usable information from the huge data streams generated by networked devices, machines and systems. In addition, the pursuit of sustainability, which is also required by regulatory measures and the global push towards net-zero production are increasing the importance of intelligent, data-driven decision support and optimization.

### Qualified insights into online data

To meet these challenges, PSI has launched the PSQualicision/ODS (Online Decision Support as a Service) solution with an integrated full optimization stack based on PSQualicision AI (Figure 1). This enables producers, operators and integrators to collect online data from devices, machines or infrastructure elements and analyze it using AI-based algorithms. The analysis results are passed on to the field level, IoT actuators or other applications in the form of decision recommendations.

### Integration via standard interfaces

As PSQualicision/ODS communicates via standard industrial inter-

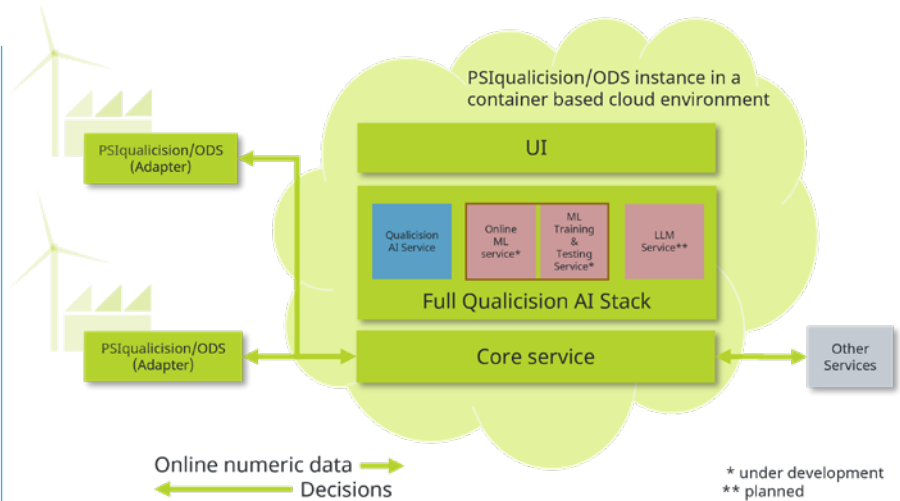


Figure 1: PSQualicision/ODS architecture.

faces, the software can be integrated into any operating environment with no further development required. In addition to a large number of secure, classic OT communication standards such as OPC UA and Modbus, modern and lightweight standards such as MQTT and REST are available for recording online production data such as machine or process statuses. Once the data models have been configured and the sensors connected, the measured values are permanently transferred to the service and historicized. Currently, one instance of the service can achieve change frequencies of around 10 Hz with 10000 data points, which is sufficient for most industrial applications. Higher change rates can be realized with parallel instances.

### Integrated PSQualicision AI layer model

In addition to various data visualization options, the IIoT data col-

lected in this way is now available for intelligent evaluation using various AI methods. PSI has integrated the PSQualicision AI layer model into the PSQualicision/ODS application (Figure 2). This AI-based stack provides both adaptive methods of classification and decision support (blue layer) as well as machine learning methods (red layer). The integration of generative AI (red layer) is also planned for the future.

### AI-based classifications and data-based decisions

To solve an AI-based classification or decision task, the labeling functions and priorities or preferences are parameterized in PSQualicision/ODS and the relevant IIoT data is linked as input values. The classification decisions are automatically written to data points and can be passed on via the interfaces described above. The familiar

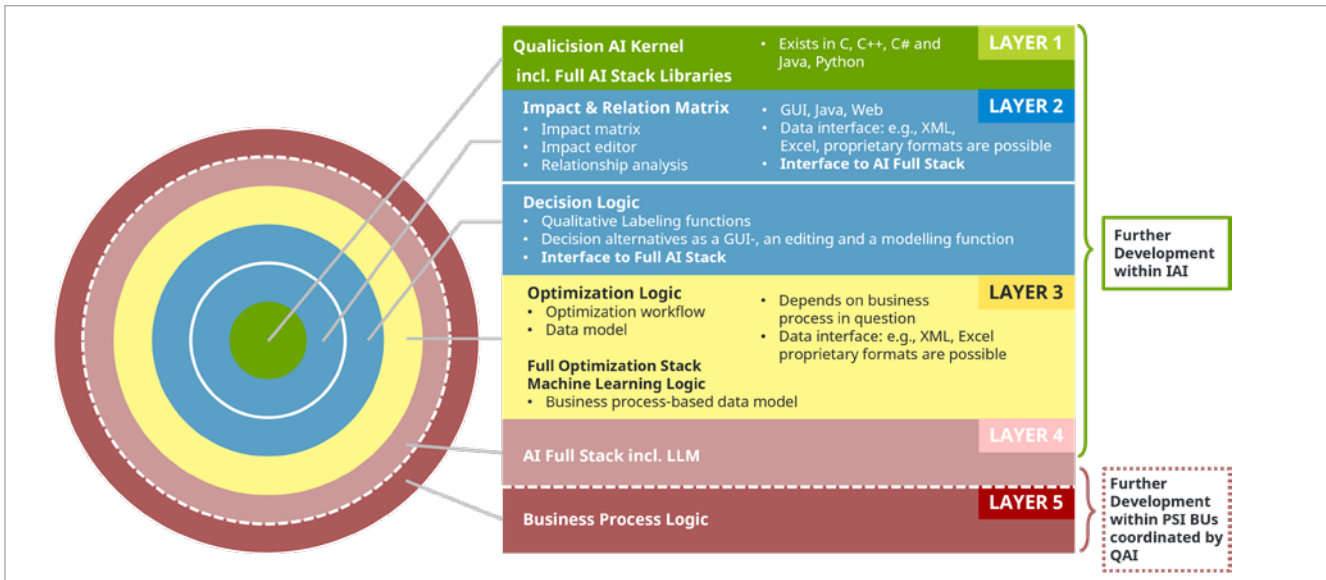


Figure 2: PSIqualicision AI layer model.

tools such as the impact matrix (Figure 3, bottom right) and relationship matrix (Figure 3, top right) are available for analysis.

### Identifying clustering, anomalies, regression and classification

To use Machine Learning (ML) methods, relevant historicized IIoT data is transferred to a Jupyter notebook-based training and staging environment. With the help of "unsupervised learning", data clusters can be formed or anomalies in the data can be identified. These analysis results can, for example, help to identify systematic sources of problems in the operation of production facilities or infrastructures. Furthermore, ML models can be developed, trained and tested on the basis of IIoT data (supervised learning).

As a result, both regression tasks, such as estimating the expected service life of a tool, and classification tasks, such as evaluating an operating situation in terms of its energy efficiency, can be formulated and solved. The tested models are loaded into the online ML service and can be applied directly to the

current IIoT data. The results generated are stored on output data points and can also be published via the interfaces described.

environmental impact and minimizing material usage. An advanced online decision support service such as PSIqualicision/ODS not only helps



Figure 3: Analysis tools in the PSIqualicision/ODS user interface (UI).

### Greater efficiency and more sustainability

Through the intelligent and AI-supported use of real-time data, companies can identify and leverage opportunities to increase production and resource efficiency. In pursuing net-zero production goals, they face the challenge of optimizing resource consumption, reducing en-

to increase operational efficiency, but also to align production processes with increasingly stringent sustainability targets. 🌱

**PSI FLS**  
**Fuzzy Logik & Neuro Systeme GmbH**  
 Elmar Jaeker  
 Product Manager  
 ejaeker@psi.de  
 www.qualicision.ai

## The Important Role of Key Users

**Anyone who works with software will sooner or later have to deal with them: key users. They are considered a central success factor, especially when it comes to the implementation of ERP systems. Therefore, their selection is crucial. In the following, 5 tips show how companies can fill this key role correctly.**

**A**s the “main key” or decisive users in companies, key users are primarily responsible for the implementation of IT solutions. As a result, they make a significant contribution to the efficient implementation and operation of the software through their specialist knowledge and activities. But what does this mean in concrete terms in relation to an ERP system that is intended to improve the company’s processes and profitability? And finally: What makes a good key user in an ERP project? Motivated all-rounders?

Essentially, key users take on two important roles in an ERP project: on the one hand, they act as project ambassadors and are in direct contact with the company’s employees.

### The most important skills of key users at a glance

#### Technical

- Has in-depth process knowledge and thinks across departments
- Possesses analytical and abstract thinking skills
- Very good comprehension skills
- High affinity for IT systems, -solutions and applications

#### Social

- Can communicate know-how to colleagues in an easy-to-understand and target group-oriented manner
- Good networking within the company
- Always motivated and open to new ideas
- Is empathetic and communicative

They provide support throughout the entire implementation process in order to promote the acceptance of new software systems, but also to ensure a smooth changeover and continuous operation. On the other hand, they have expert knowledge in specific areas of the new system

and the data. Thus, they provide a link between the specialist department and the consultancy.

However, key users do not necessarily have to fulfill all the necessary requirements and skills. Methodological gaps, such as in teaching



*Key users are also available as the project progresses.*



*Ideally, key users are already involved in the pre-selection of a suitable ERP system.*

skills or process understanding, can be closed in advance through training. In practice, it has also proven successful to put together a core team that optimally complements each other in professional, technical and social terms.

### From project start to far beyond commencement of operations

Ideally, key users are already involved in the pre-selection of the ERP system in order to define and coordinate the requirements for their department. Direct communication with the ERP software supplier is also particularly important in order to exchange information about the existing company processes and gain an initial understanding. As end users, they can therefore develop suitable solutions together with the project team as early as the process recording or process definition stage.

### Key users as project ambassadors

In the course of the project, key users can also be approached by all internal and external stakeholders as well as represent the interests of their specialist area in the project team. For example, they help to de-

fine the target processes, prepare all relevant data, document the business processes and system workflows and ensure that project tasks are implemented on time. Moreover, they help carry out important tests with regard to usability, functions, integration and completion.

In their role as ambassadors, key users counteract any objections to the new software. Once the ERP system is ready to use, they take care of the training required for its acceptance, familiarize users with the new software and provide answers to any unanswered questions. This is virtually the “be-all and end-all” for successful implementation and high acceptance.

The tasks should also be continued after the implementation phase. Establishing this permanently as part of regular operations for consultations has proven to be a good approach. They also take on board suggestions for improvement and carry out further training for new and existing staff.

### Establishing suitable framework requirements

From the introduction to the implementation of a new ERP system, it is

clear that key users have to perform a number of additional tasks in addition to their technical expertise. The time required varies between 20 and 100 percent of the daily working time, depending on the scope, number, organization and respective project phase. It is therefore advisable to establish a core team, especially for large-scale projects, in order to avoid overloads. Therefore, the definition of suitable framework requirements is extremely important.

Regardless of the role, managers are required to avoid creating a conflict between the two roles and to create the appropriate scope for the respective tasks. One of the best approaches is to create the following organizational structures:

- -Prioritize tasks and clearly assign them to project activities,
- setting a suitable scope of action,
- grant project-relevant and process-related decision-making authority,
- ensuring the trust of superiors,
- freeing them as far as possible from day-to-day business tasks during the ERP implementation.

### Conclusion

The right choice of key users contributes significantly to the overall success of an ERP implementation. Along with increased user satisfaction, this also improves the company’s competitiveness. 🌀

Author: Morten Ernst, Senior Project Manager at PSI Automotive & Industry

**PSI Automotive & Industry GmbH**  
 Leon Knigge  
 Officer Marketing and PR  
 lknigge@psi.de  
 www.psi-automotive-industry.de

## From Tracking to Transparency

**With PSImetals Product Carbon Footprint (PCF) Tracking, metals manufacturers can track every product delivered and the associated emissions along the entire production chain. Dr. Martin Schlautmann, Product Manager at PSI Metals, explains how PCF can support steel and aluminum producers on their decarbonization path.**

Customers of steel and aluminum producers, especially the automotive industry, demand transparent tracking and reporting of CO<sub>2</sub>-equivalent emissions. The decarbonization of production agreed in the Paris COP21 agreement must be documented. The EU has introduced the Carbon Border Adjustment Mechanism (CBAM) to prevent the shifting of emissions from industry.

Although global comprehensive legal regulations are currently still lacking, it is expected that in the future they will be adopted on the basis of existing standards and norms for tracking the carbon footprint.

### Which accounting framework is the calculation of the CO<sub>2</sub> footprint with PSImetals based on?

Dr. Martin Schlautmann: The PSImetals approach tracks CO<sub>2</sub>-equivalent emissions at unit and product level along the entire metal production chain. This includes processes from preparation and charging of raw materials through the various production steps to the commissioning of the final products for shipment, in the sense of cradle-to-gate PCF tracking. Scope 1, Scope 2 and upstream Scope 3 emissions are taken into account in accordance with the GHG Protocol standards.



Dr. Martin Schlautmann, Product Manager at PSI Metals.

### What are the most important features and functions of PCF tracking with PSImetals?

Dr. Martin Schlautmann: In the future, PCF data will be treated like today's quality data and will also be checked during the production process. PSI's approach therefore uses established technologies for quality management. The PSImetals Quality Process Snapshot collects and stores data in real time all PCF-relevant process and material data for a specific production step of a piece of material and the footprint calculated for this step and aggregated across all previous steps.

The PCF calculations are based on configurable rules and emission cost factors that are specified by measurements or literature values. The stored data is linked to nodes in the material genealogy, which are connected via the respective production steps. Corresponding GUIs display the tracked PCF values here. [👁️](#)

#### PSI Metals

Veronica Ugwu  
Content Marketing Manager  
vugwu@psi.de  
www.psimetals.de



Start your journey to a CO<sub>2</sub>-neutral future with PSImetals.

## Local Hero—First Customer Event in Brazil

In May 2024, after almost two decades of successful market presence for PSI Metals in Brazil, the first “PSImetals UserGroup” customer event took place in Latin America. The event was eagerly awaited by partners, customers and employees. That was reflected in the number of participants: 80 people, including around 70 customers and partners, came to Belo Horizonte to share their experiences with PSImetals.

The customer conference took place in Belo Horizonte in Brazil and was the largest to date in the PSI Metals Division Americas. Both the regional location and the presentations in Portuguese made it much easier for the participating customers to share their project experiences.

André Silva, IT General Manager at Usiminas, was enthusiastic: “We have been asking for a local PSImetals UserGroup here in Brazil for a long time. For us, the exchange of information between different projects and customers is of great benefit. At this event, we learned how other metals manufacturers use PSImetals software. I can say

that we have gained a lot of valuable insights that we can take home with us”.

*After so many years, it was great to be able to organize this first UserGroup in Latin America. There was so much interest from the customers and it was a real success.*

**Pierre Beghin**  
Managing Director at PSI Metals Latin America

Leading steel producers such as ArcelorMittal, Gerdau, Usiminas, Ternium, Villares Metals and Vallourec presented how PSImetals solutions support them in efficiently optimizing their production planning, quality management and decarbonization.

In his concluding speech, Harald Henning, Managing Director at PSI Metals, summarized: “It was so nice to see how they all talked to each other and exchanged experiences. We have been networking as a team and exchanging ideas. This UserGroup was long overdue and I’m sure there will be a next time, because such a successful event demands a sequel”.

**PSI Metals**  
Luisa Valle  
Multimedia Marketing Manager  
lvalle@psi.de  
www.psimetals.de



Around 80 guests took part in the PSImetals UserGroup Latin America 2024.

## The Transformative Power of AI in Intralogistics

**As the logistics industry faces a huge upheaval, Artificial Intelligence promises to fundamentally change intralogistics. Sascha Tepuric, Managing Director at PSI Logistics, explains the potential and the challenges of this development and provides insights into the future of PSIwms AI.**

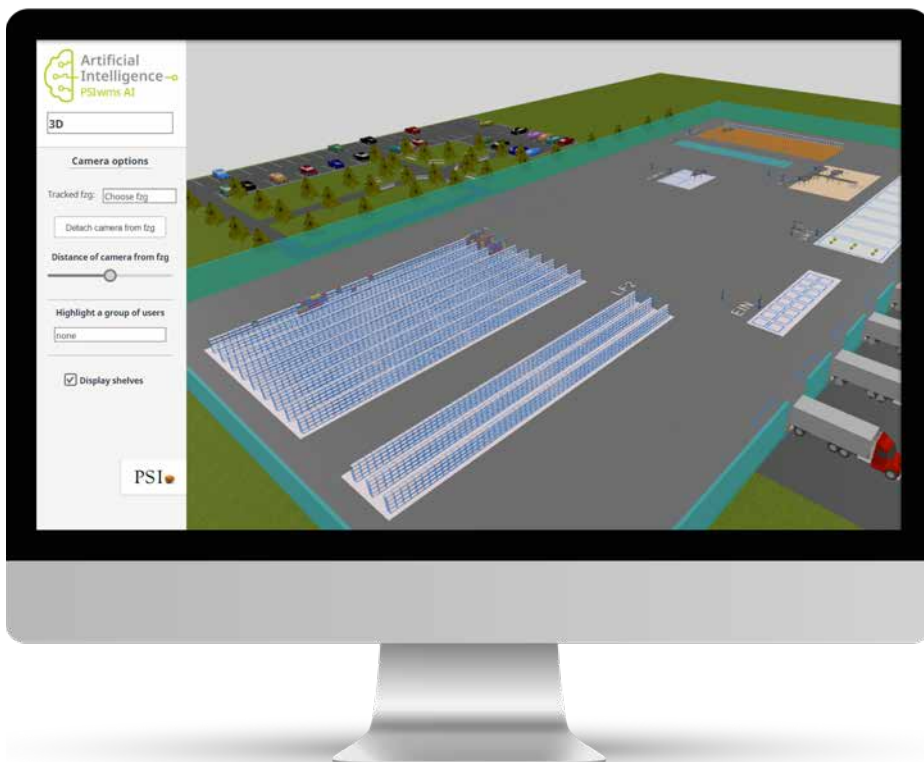
**I**n the rapidly developing logistics industry, the use of Artificial Intelligence (AI) has become an indispensable factor in order to keep up with global competition. Sascha Tepuric, Managing Director of PSI Logistics, emphasizes the transformative power of AI in intralogistics and sees it as a decisive turning point for various areas of life and industries.

### Challenges and creative solutions

However, the introduction of AI in intralogistics is associated with challenges that require creative solutions and considerable investment. "New creative approaches and investments are needed to fully



*Sascha Tepuric, Managing Director of PSI Logistics.*



*The AI platform PSIwms AI in operation.*

exploit the potential of AI," highlights Sascha Tepuric.

AI is developing exponentially and could enable fully autonomous warehouses in the near future. "Whether this will be the case in 15 or just 3 years is difficult to predict. However, the advances in AI and robotics are exceeding many previous forecasts," Tepuric continues.

### Automated warehouses of the future

The vision of fully automated warehouses includes not only automated unloading and loading, but also continuous customization through advanced configuration capabilities, including natural language interactions. Such progress would be



revolutionary and could drastically reduce the current project work for planning and software implementations. "The use of AI has the potential to drastically reduce the current project work for planning and software implementations—a real game changer," explains Tepuric.

### PSIwms AI: current status and future visions

The PSIwms AI platform is currently being used to optimize existing processes and as a Chatbot for documentation. However, the full potential of this technology is far from exhausted. "Our long-term vision

is to transfer the structure of warehouses, the range of articles and the delivery and order structure directly into software configurations," Tepuric adds.

### A change with significant opportunities

In the coming years, the potential applications of PSIwms AI will become more diverse and comprehensive. Tepuric points out that this imminent change represents a great opportunity for everyone involved to increase efficiency and fundamentally redesign logistics processes. "With AI, we are at the beginning

of a new era—also in intralogistics," concludes Tepuric optimistically.

With the continuous further development of PSIwms AI and the integration of new technologies, PSI is able to contribute significantly to increasing efficiency and automation in intralogistics. AI will not only make the future of logistics more efficient, but also more dynamic and flexible. 🔄

### PSI Logistics GmbH

Vanessa Grabowski  
Corporate Communications  
vgrabowski@psi.de  
www.psilogistics.de

GET READY!

# FASTER EASIER PSI MARKETPLACE

We're upgrading our App Store to a Marketplace.

Enhanced shopping experience with ease and flexibility designed to meet your needs. Experience convenient access to our industrial software and additional services for an improved working environment with just a few clicks.

Flexible, time-saving, accessible 24/7 and from anywhere – PSI Marketplace!



READY TO  
ACTION

## Software as Driver for Digital Transformation

**PSI Automotive & Industry has won the Factory Innovation Award 2024 in the category MES/MOM (Manufacturing Execution System/Manufacturing Operations Management). As an ERP and MES software provider, PSI prevailed against well-known competitors and received the award at the Hannover Messe 2024.**

The jury based its decision on the fact that PSI's MES software enables both the design and implementation of automated processes in the manufacturing industry. "What we particularly liked about PSI's solution was the architectural approach and the strategy for the brownfield, as well as the possibility of post-automation of existing systems, the use of OPC UA and the many open components," said jury member Prof. Norbert Gronau. Therefore, the software is considered a driver for digital transformation in the manufacturing industry and stands for maximum transparency and optimal process control.



Chantal Ruppert (Gito Verlag), Mark A. Semmler (moderator), Karl Tröger (PSI Automotive & Industry), Prof. Norbert Gronau (f. l. t. r.).




*What we particularly liked about PSI's solution was the architectural approach and the strategy for the brownfield, as well as the possibility of post-automation of existing systems, the use of OPC UA and the many open components.*

**Prof. Norbert Gronau, Jury member**



PSI had already won the Factory Innovation Award's special prize for "Future-proof architecture" last year and achieved second place in the "Factory Software Platform" category.

The "Factory Innovation Award" competition is one of the most important awards for smart factory software in Europe. An independent jury of experts consisting of

journalists, consultants, users and researchers selects one overall winner in each of the various categories. The award is organized by the Center Industry 4.0 at the University of Potsdam, in cooperation with the Berlin-based GITO publishing house and the trade magazine FACTORY INNOVATION. 

### **PSI Automotive & Industry GmbH**

Leon Knigge  
Officer Marketing and PR  
lknigge@psi.de  
www.psi-automotive-industry.de


News: Erol Bozak is new CTO

## Cloud Transformation

**PSI appoints a Chief Technology Officer (CTO) for the first time and fills the position with Erol Bozak (50). His area of responsibility includes the central development team and the Research & Development activities. One of his focuses will be the cloud transformation of the PSI portfolio. With this strategic step, PSI underlines its commitment to innovation and technological excellence. Erol Bozak will report directly to the Executive Board.**

**A**s co-founder and Chief Product Officer of Treasury Intelligence Solutions (TIS) GmbH since 2010, Erol Bozak built up one of the fastest growing fintech companies in Europe. Prior to that, he was Program Manager at SAP, driving Infrastructure-as-a-Service (IaaS) and cloud initiatives. The computer science graduate began his career in the Supply Chain Management department of Fraunhofer Gesellschaft. He holds an Executive MBA from Mannheim Business School and more than 40 patents granted in the USA in the areas of cloud computing, SaaS and Fintech.



and will significantly advance our cloud transformation,” says Robert Klaffus, CEO of PSI Software SE. 

“We are very pleased that we can strengthen our team with Erol Bozak. With his extensive experience in the SaaS and cloud environment, he is an enrichment

**PSI Software SE**  
Karsten Pierschke  
Head of Investor Relations and  
Corporate Communications  
kpierschke@psi.de  
www.psi.de



### EVENTS

On our website you will find all current trade fair participations and conference offers.

The PSI blog features more interesting and in-depth articles on production, logistics, AI, energy and mobility.

## IMPRINT

### Publisher

PSI Software SE  
Dircksenstraße 42–44  
10178 Berlin (Mitte)  
Germany  
Phone: +49 30 2801-0  
info@psi.de  
www.psi.de

### Managing Editor

Bozana Matejcek

### Editorial Team

Pascal Kätzel, Leon Knigge,  
Vanessa Grabowski, Veronica Ugwu

### Layout

Heike Krause

## DATA PROTECTION

We are glad that you are receiving our customer magazine. Please also refer to our Privacy Policy at [www.psi.de/en/privacy/](http://www.psi.de/en/privacy/).

## SOURCES

Page 1, 3, 4, 5: Tata Steel  
Page 2, 7, 11, 16, 18, 19: PSI  
Page 6, 7: HISERT GmbH  
Page 8: (Illustration) iStock / edited by PSI, iStock / gerenme  
Page 9: Aluminium Norf GmbH  
Page 12: iStock / alvarez  
Page 13: iStock / gorodenkoff  
Page 14: PSI Metals

Decarbonization

# Create Transparency on Emissions with Product Carbon Footprint Tracking



[www.psimetals.com](http://www.psimetals.com)

**PSI** 

**Software Excellence for Steel and Aluminium Producers**