

How the Vaillant Group Streamlined Logistics at Its Manufacturing Plants

In 1894, Johann Vaillant obtained a patent for a bathroom stove with a closed gas system. Today, the Vaillant brand provides reliable solutions for home heating. In 2023, a new logistics center and a new heat pump manufacturing plant were established in Senica.

“The logistics management project at the Vaillant manufacturing plant in Senica was built from the ground up. The implementation of Time Slot Control brought transparency, flexibility, and data-driven planning to our logistics.” **David Baláz, Digital Plant Coordinator**



Why did you decide to look into selecting a system for planning loading/unloading?

The primary reason was the need to obtain high-quality data and transparent information for managing logistics performance. We wanted to have a clear and measurable overview of how our logistics operations are utilized, what the actual capacity needs of personnel and equipment are, and how logistics responds to changes in production. The goal of the project was not direct cost savings, but rather to increase efficiency, organization, and the ability to objectively evaluate operational processes. Furthermore, experience from other facilities, specifically the warehouse in Skalica, gave us a clear idea of how a modern time-slot management system should function. Thanks to this, we entered the project with very specific requirements. Today, the system also functions as a transparent tool for capacity management and clearly shows whether logistics are efficient, whether there is a problem in the organization of operations, or whether there is a real need to increase staffing levels.

How did you go about searching for a time slot management application?

It wasn't a formal tender process without a prior idea of what we wanted. We knew exactly what solution we were looking for. Our first contact with the Time Slot Control sys-

tem took place at the end of 2022 at the SLOVLOG conference, where we met with representatives from Lotraco and began discussing specific options for implementing the project. Several presentations and internal discussions followed throughout 2023, culminating in a presentation of the concept to the parent company. Another important milestone was getting acquainted with Time Slot Control at our external warehouse, which is operated for Vaillant by Fiege in Austria. System testing began in September 2023, and the contract was signed in December 2023.

How did the system implementation go? Did you encounter any issues, and did everything proceed on schedule?

The implementation went very smoothly, mainly because we knew exactly what we wanted from the start. The project began with a trial run involving a single supplier, during which we tested the system and simultaneously established an internal framework of rules for its consistent use. The biggest challenge was not the technical aspect, but changing users' mindsets, both within logistics and at the receiving area. Initial training and the subsequent “evangelization” of the system within the company played a key role. Support from Time Slot Control was flawless throughout. Another major advantage was the system's high intuitiveness and flexibility, which allowed us to fully adapt it to our internal conditions without the need for complex interventions by the supplier.



What changes did you notice after implementation? Did it have any benefits or advantages?

A fundamental change was the clarity and transparency of the entire operation. After about six months, we had high-quality data at our disposal, which we used to optimize logistics processes and ramp utilization, monitor the utilization of individual time slots, and gradually onboard additional suppliers. The project was largely implemented from scratch, which allowed us to obtain very precise input data, such as how many vehicles arrive, what their delays are, and what the real impact is on logistics and production. Based on this information, we were able to better align logistics with production needs.

Do you have quantified savings generated by the TSC application? Or any other specific data on how efficiency has improved thanks to the implementation of TSC?

The primary goal of the project was not savings, but transparency and efficiency. Nevertheless, we are now able to quantify the increase in operational performance. While we were able to process approximately 500 pallets per day before the system was introduced, after implementing Time Slot Control, this figure is roughly 700 pallets per day. This data clearly demonstrates the system's contribution to the overall efficiency of logistics operations.

How did business partners / customers / carriers adapt to the system's implementation?

The adaptation was surprisingly quick. Carriers very quickly realized that the system also benefits them, particularly in terms of transparency. In the event of disputes or additional costs, clear data is now available that unequivocally shows whether a claim is justified. At the beginning, we faced problems mainly on our end, such as setting up a sufficient number of time slots. It also turned out that unloading itself accounts for only about a third of the time, while the rest is spent on internal record-keeping and warehousing the ma-

terial. It was therefore necessary to set the length of the time slots correctly and align the expectations of all parties.

Why TSC from Lotraco?

We compared the solutions available on the European market. The main criteria included the ability to integrate with SAP, the comprehensiveness of the solution, flexibility, clarity, local support, and total costs. Based on an evaluation of these criteria, Time Slot Control emerged as the most suitable and adaptable solution for our needs. The system's flexibility and high-quality local support were the deciding factors.

How satisfied are you with the application, the user interface, and technical support?

We are very satisfied with the application. We particularly appreciate the ability to fully administer and configure the system on our own without needing the supplier's intervention. Technical support is of a very high standard. Minor outages occurred only in connection with a sharp increase in the number of time slots, but these were quickly resolved.

What benefits of TSC would you highlight?

The key benefit is the availability of data and its usability for production and logistics planning. Thanks to Time Slot Control, we can respond in a timely manner to changes in production schedules, optimize the number of loading docks and staff, and identify potential issues on the carriers' side. The system provides transparency not only to managers but also to warehouse staff, who have a complete overview of upcoming material flows in both receiving and shipping. Looking ahead, we see great potential in further integration with production and a higher degree of automation.

Would you recommend TSC to another company in your industry?

Yes, absolutely. Especially to companies with complex logistics and ties to production. In this project, our primary focus was not on savings, but on significant benefits—transparency, data, and the ability to manage logistics based on facts, not impressions.

Key Benefits of Implementation



TIME SAVINGS

high impact



DATA UTILIZATION

moderately high impact



CAPACITY OVERVIEW

very high impact



CARRIER DISCIPLINE

high impact



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