

CASE STUDY

**DFG**



# High Automation & Zero-Error-Strategy





## The investment had to make a palpable difference for the customer

Pharmaceutical wholesaler Distribuidora Farmacéutica de Gipuzkoa (DFG) supplies around 360 pharmacies in the Gipuzkoa province and, with a market share of 87 percent, shoulders an important Ensuring that medicinal products are reliably available is a great challenge because conditions in the market change constantly. This is why DFG decided to adopt a new distribution strategy: Instead of two distribution warehouses, one highly automated modern distribution center

would ensure fast and error-free deliveries. One issue that urgently needed a solution was the extreme peaks in the afternoon, where about 50 percent of the daily volume had to be processed between one o'clock and four o'clock. Peak periods require peak efficiency, so a top-notch system control made it possible to provide rapid deliveries within just three hours – and then repeat this up to four times a day.

The topic of warehouse automation is not a new one for DFG – Distribuidora Farmacéutica de Gipuzkoa – who have been working with KNAPP for almost 35 years.

New technologies and innovations combined in an elegant and highly efficient automation solution, met the requirements and generated real added value for the customer.



**Sector:** Pharmaceutical wholesale

**Location:** Zubieta / San Sebastián, Spain

**Employees:** 120

**Revenue:** 165 million euros

**Business areas:** B2B,  
supplying 360 pharmacies

**Go live:** 2022

**Warehousing space:** 7,000 m<sup>2</sup> (75,347ft<sup>2</sup>)

**Orders / day:** 2,000

**Lines / day:** 40,000

**Items / day:** 80,000

**Delivery window:** 3 hours

**Techn. solution:** OSR Shuttle Evo,  
Central Belt System with 2 SDA,  
automatic picking machines, 2 Pick-it-  
Easy Health work stations, OSR Shuttle  
Sorter, KiSoft, Service hub



# The focus: satisfied customers

01

## Shortening outbound delivery times

As partners, all the pharmacies supplied have equal access and entitlement to goods delivered within three hours. Thanks to intelligent warehouse logistics and powerful software, we can ensure that the pharmacies are supplied with medicinal and health products 365 days a year, around the clock.

02

## Greater efficiency

Despite fewer personnel, output has gone up. The high level of automation increased the storage capacity by 40 percent. Storage density has also been increased by the compact solution.

03

## Careful, error-free order processing

Errors cost more than just money because they come with significant inconvenience for the customers. This is why the zero-error strategy was so important. With an error rate of 0.1 percent, the solution cleared the hurdle – delivering 99.9 percent of all orders correctly.

04

## Fast delivery

Around 43 percent of items ordered must be processed within two hours. With a capacity of 15,845 items per hour, the system met this requirement with ease.

05

## Increased flexibility

The investment brought great flexibility to adapt, making it easy to integrate future growth, market changes and new regulations.

06

## Maximum space efficiency

The high degree of automation combined with a compact design created an attractive complete solution in a minimum of space.



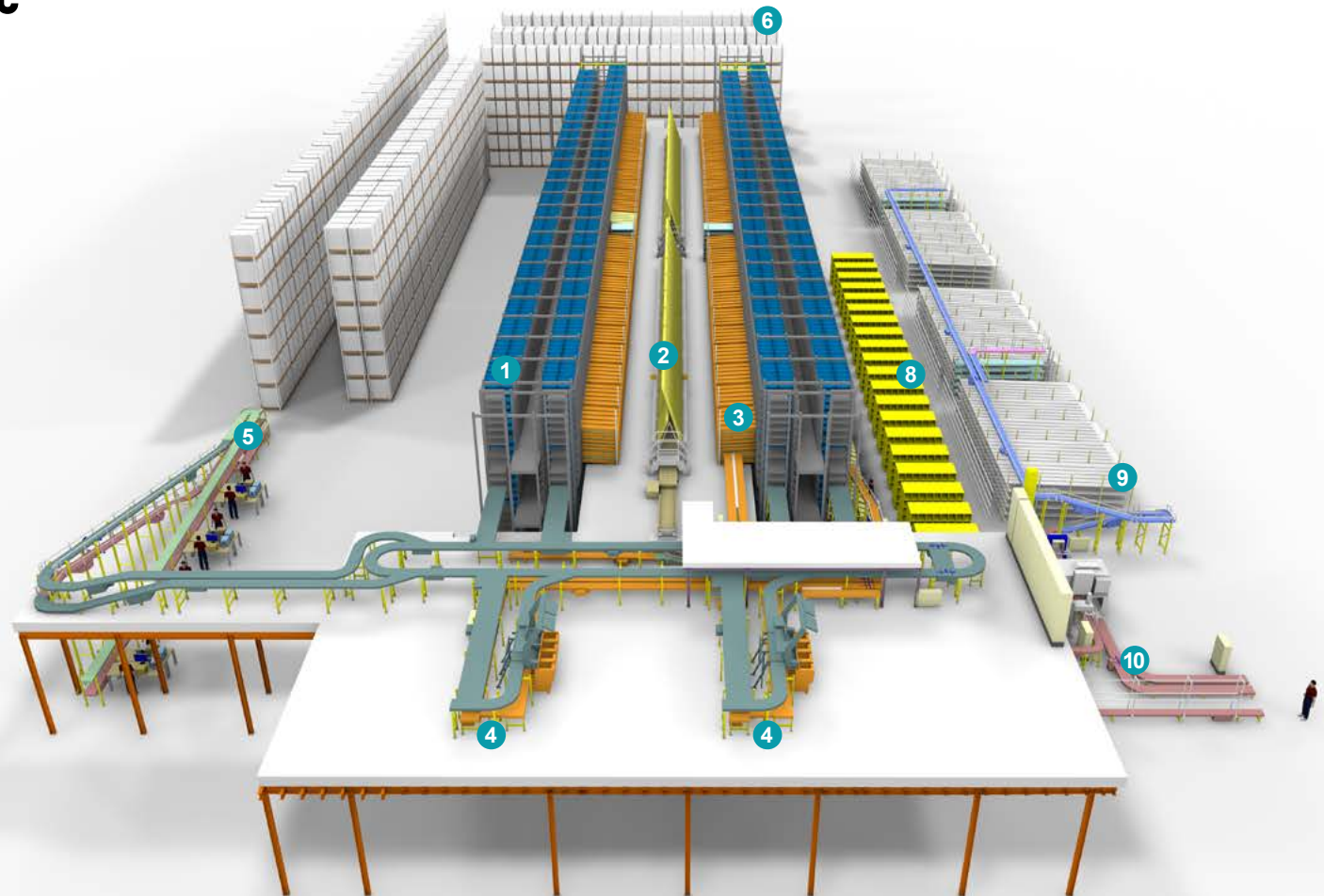
**“The focus of everything we do is top quality, customer relationships and the best service. For decades, we have been in good hands with KNAPP providing our warehouse logistics.”**

**Juan Piera**  
Director  
DFG

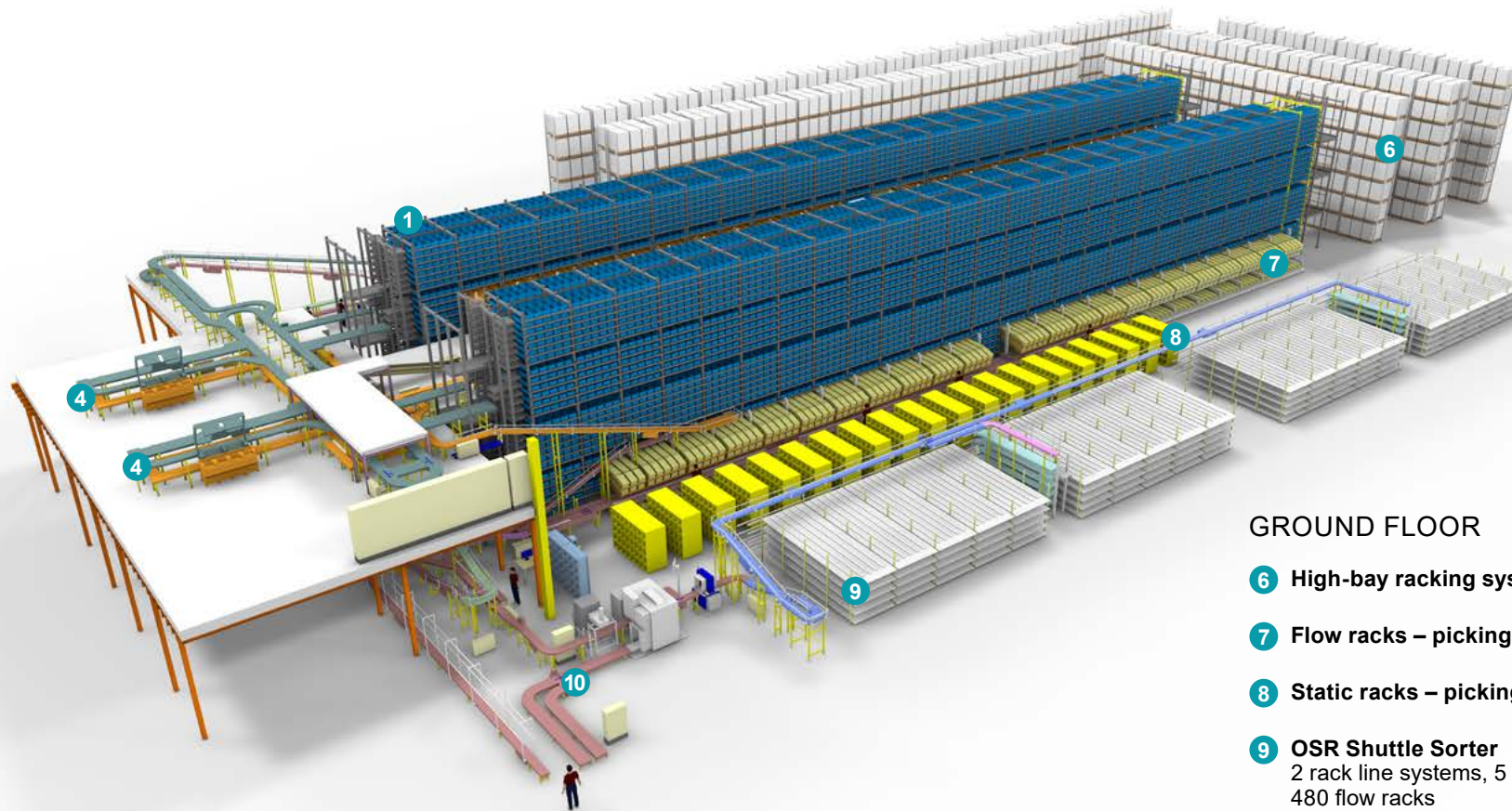
# The warehouse at a glance

## GROUND FLOOR

- 1 OSR Shuttle Evo – small parts warehouse**  
2 rack line systems, 26 levels, 52 shuttles,  
21,000 static floored racks, 2,700 flow racks
- 2 SDA A-frame automated picking systems**  
2 SDAs, 3,000 channels in total
- 3 Flow racks for replenishment of the SDAs**
- 4 Pick-it-Easy Health goods-to-persons  
work stations**
- 5 Decanting work stations**



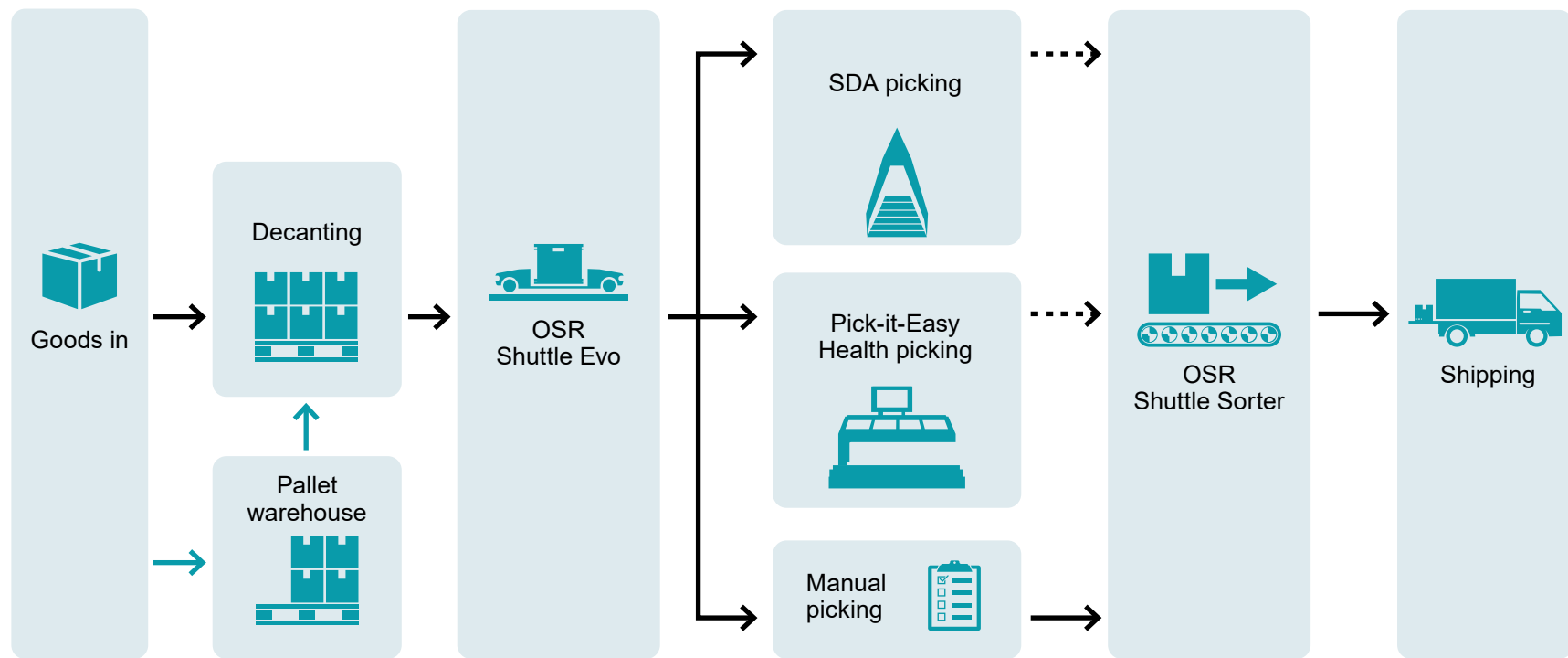
# The warehouse at a glance



## GROUND FLOOR

- 6 High-bay racking system for pallets – overstock**
- 7 Flow racks – picking positions manual stations**
- 8 Static racks – picking positions manual stations**
- 9 OSR Shuttle Sorter**  
2 rack line systems, 5 levels, 10 shuttles,  
480 flow racks
- 10 Shipping preparation** (1 automatic document  
insertion station, 1 Labelling & Lidding machine,  
1 strapping machine)

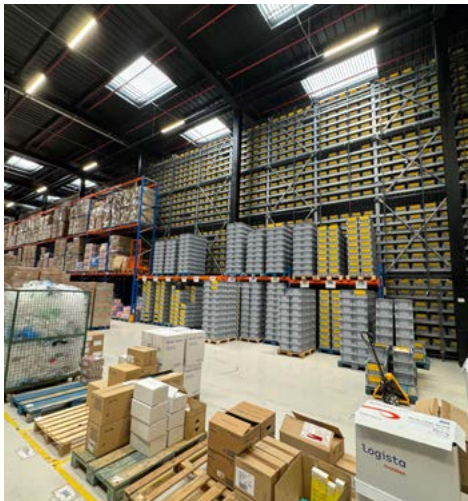
# Material flow



# Central warehouse processes

## 1| Goods-in

The goods enter the warehouse on pallets and in cartons and are scanned at the eight decanting stations, which enters them into the inventory control system. The goods are put away either in one of the 21,000 storage locations in the OSR Shuttle Evo, or in the static racks of the manual picking area. Overstock and oversized goods are stored on pallet locations.



## 2| Picking

Fast-moving items are picked fully automatically by the SDA ejectors in the two A-frame central belt systems. The channels in this system are fitted with RF terminals, which ensure seamless traceability of products and lots, fulfilling legal requirements. Slow and medium movers are picked semi-automatically at the two highly ergonomic Pick-it-Easy goods-to-person work stations.



## 3| Shipping

In preparation for shipping, the shipping containers are lidded fully automatically, then given a delivery note and shipping label. Streamline conveyors convey the containers to the shipping area, where another shuttle system sorts the containers prior to shipping.



## 4| Shipping sorting

Shipping containers are allocated automatically to one of the 480 ramps of the OSR Shuttle Sorter, which sorts and organizes up to 5,860 containers for efficient loading into the transport vehicles. At the ramps, the shipments are transferred to the carrier or pharmacy supplier, who transport them to the target pharmacy.



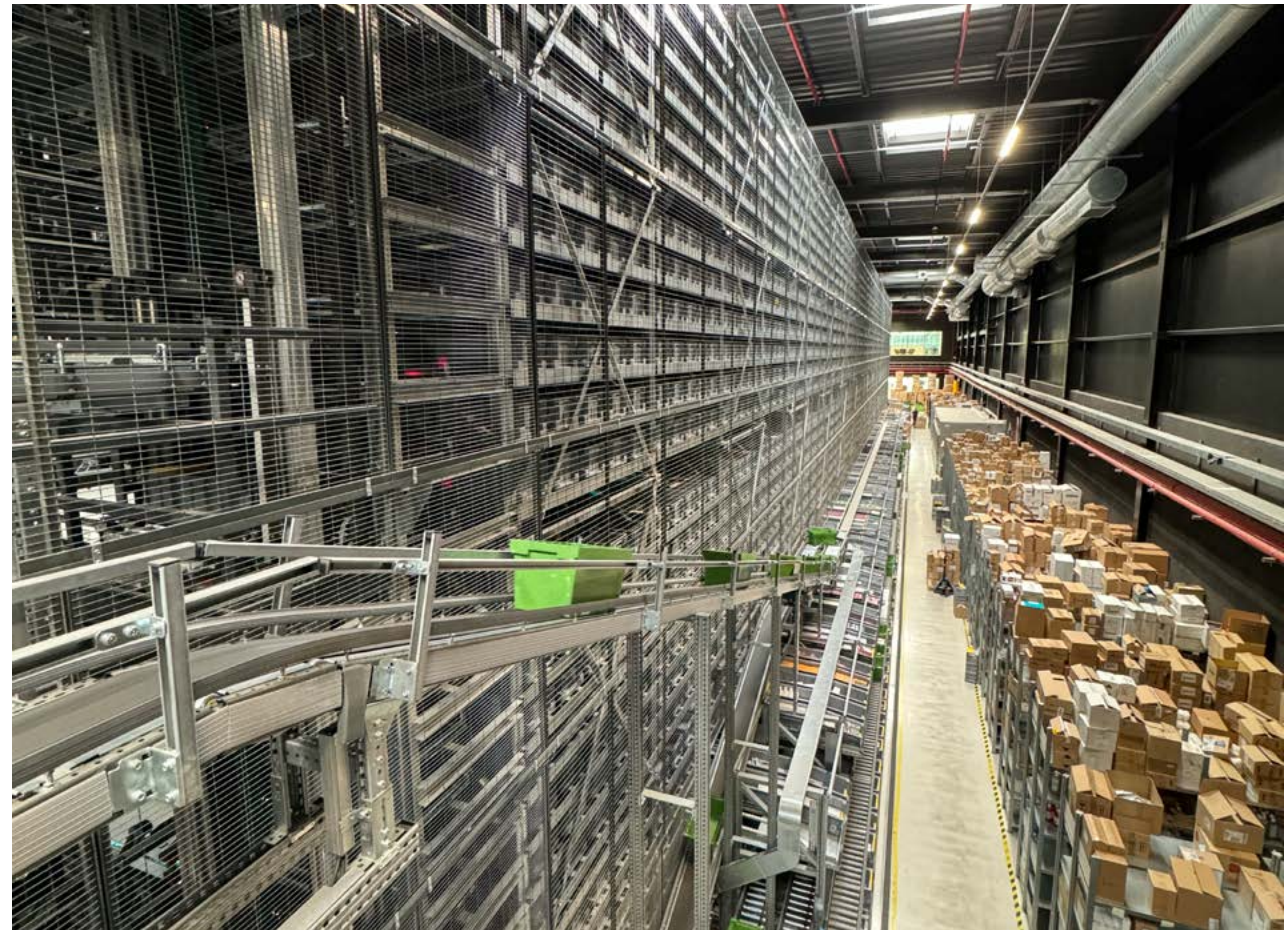
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## OSR Shuttle Evo: captain of the logistical process team

The requirement for a compact solution with a minimal footprint to fit the limited space available, combined with a high degree of automation, resulted in a state-of-the-art all-in-shuttle concept.

Simplifying and concentrating intralogistical processes heightens efficiency, while adding intelligent software to the mix means highly optimized, reliable warehouse logistics in a small space.

All-in-one solutions offer the advantage of running many functions in one system, offering compact, efficient performance. *“All-in shuttle”* means that the central logistical processes are all handled by a single warehouse system: the OSR Shuttle Evo.





## Maximum Order Fulfillment

The scalable system architecture and complete integration in the KNAPP software landscape easily reconcile current and future requirements and provide efficient order fulfillment in every stage of expansion.

**In the distribution center, the OSR Shuttle Evo handles the following tasks:**

- Storage and retrieval of items
- Order assembly and picking
- Replenishing the flow racks of the SDA A-frames

## KiSoft leaves nothing to chance

An individually tailored KiSoft software solution ensures processes in DFG's highly automated warehouse run efficiently and without errors.

Our KiSoft WCS interfaces with DFG's inventory control system and controls all the logistical processes. This combination covers the entire flow of goods in real time, managing the stock, all the product master data, the load units and load carriers, and more.

- Material flow control
- Order release
- Order type
- Weighing
- Checks
- Document insertion
- Registration and control of serial and lot numbers as well as date marks

Should a malfunction occur, KiSoft SCADA provides support to on-site warehouse personnel. The software provides a visualization of the technical state of the entire warehouse, from small details at the level of components to things like run times and switching cycles. Failures or problems are reported immediately, assisting servicing and maintenance work. Having precise information available about a problem – where it is, what it is – means acting quickly and precisely, which in turn saves time, resources and money.



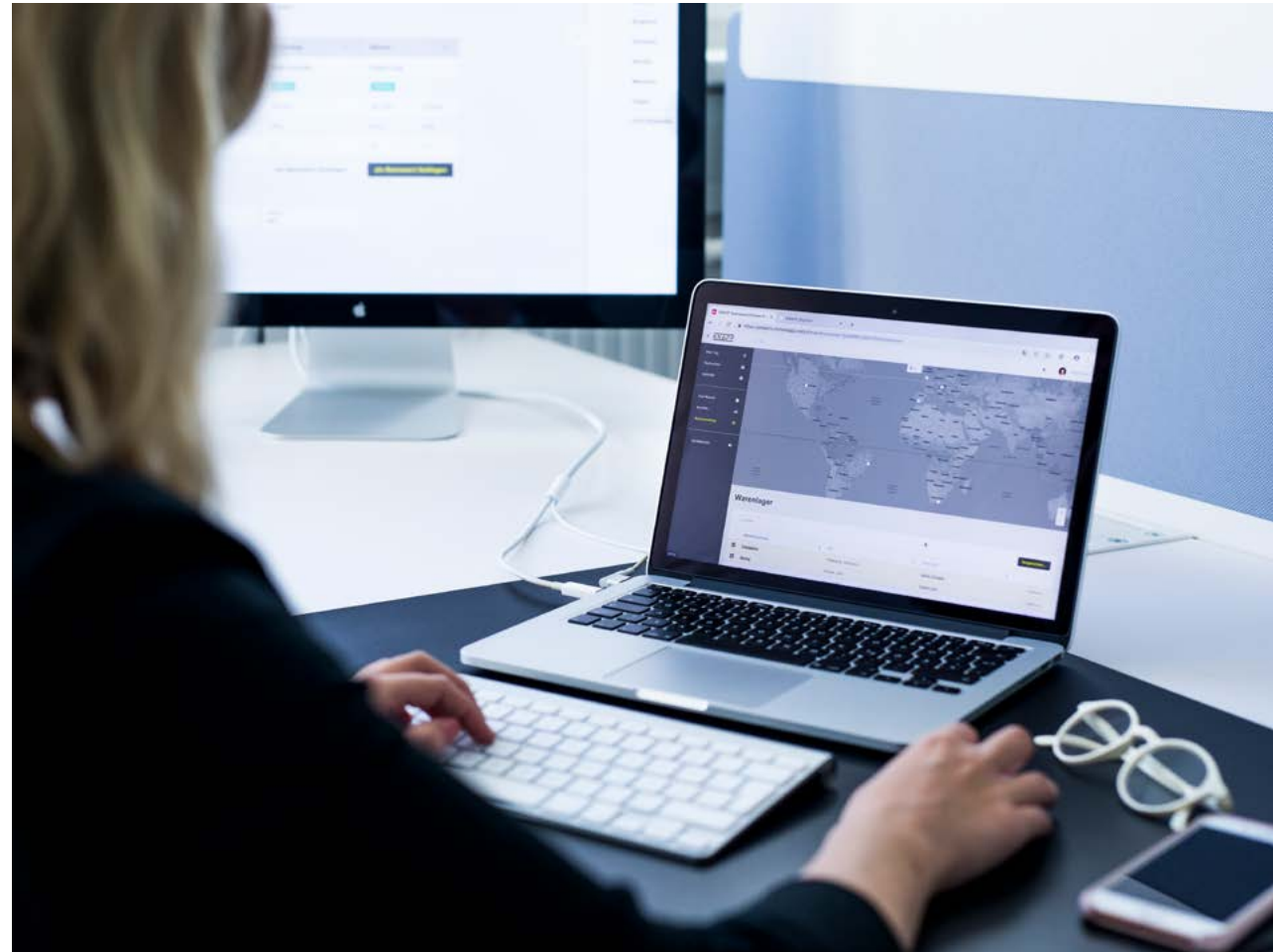
## More information = more value KiSoft Analytics provides real benefits

In today's warehouses, software plays a vital role. A multitude of data is continually being collected, transmitted and saved. When DFG decided to build a new distribution center, the arguments in favor of the decision had everything to do with data. They were keen to use a digital service tool that would not only collect the vast amount of data coming from all areas of the warehouse, but would also process this data, transforming it into valuable information that would be clearly presented on a dashboard.

KiSoft Analytics aids DFG in taking short-term, tactical measures in their day-to-day operations while also delivering valuable information for making long-term strategic decisions. Above all, KiSoft Analytics is a valuable tool for the fulfillment manager throughout the year, providing in-depth understanding of how to run the warehouse as efficiently as possible.

### The Service Desk – it's a great feeling

We provide further services to the DFG distribution center in the form of our Service Desk. Our Service Desk offers a round-the-clock network of experts. Should an acute problem or urgent question arise, the Service Desk is there to help. Additionally, our Resident Engineer services provide technical on-site support: This is how we assure smooth operation of all the mechanical and electrical components, continuously monitor the system and search for areas where there is potential for improvement. Overall, we ensure high performance and permanently optimize utilization and quality during operation through monitoring and data analysis



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## Shared success is the best

The 35-year connection between the companies speaks for itself. We have developed together over the years, have grown with the changes in pharmaceutical distribution and have never stopped giving our best. *“DFG is not only a valuable and strategically important customer for KNAPP, but also for KNAPP Ibérica,”* explains Juan-Diego Motos Perez, Head of Customer Service, KNAPP Ibérica. Our partnership thrives on respectful exchange, solution-oriented discussions and mutual trust. This is how we are able to master the challenging situations and to make plans for the future.

At the central warehouse in Zubieta near San Sebastián, the joint, very intensive development process was a success. It satisfies the specific requirements which, because of the business model and market requirements, were to employ a very high degree of automation while simultaneously increasing storage capacity by 40 percent and reducing the error rate to 0.1 percent.

We are very proud of this track record, which motivates us to demonstrate to our partners over and over that, not only are we reliable innovators of hardware and software, but we are also people, with a lot of know-how and personal dedication.



**“Our shared success story began in 1988, with the purchase of an SDA as our first investment in automation technology. Since then, we have been growing together.”**

**Juan Piera**  
Director  
DFG





Fashion



Food Retail



Healthcare



Industry



Retail

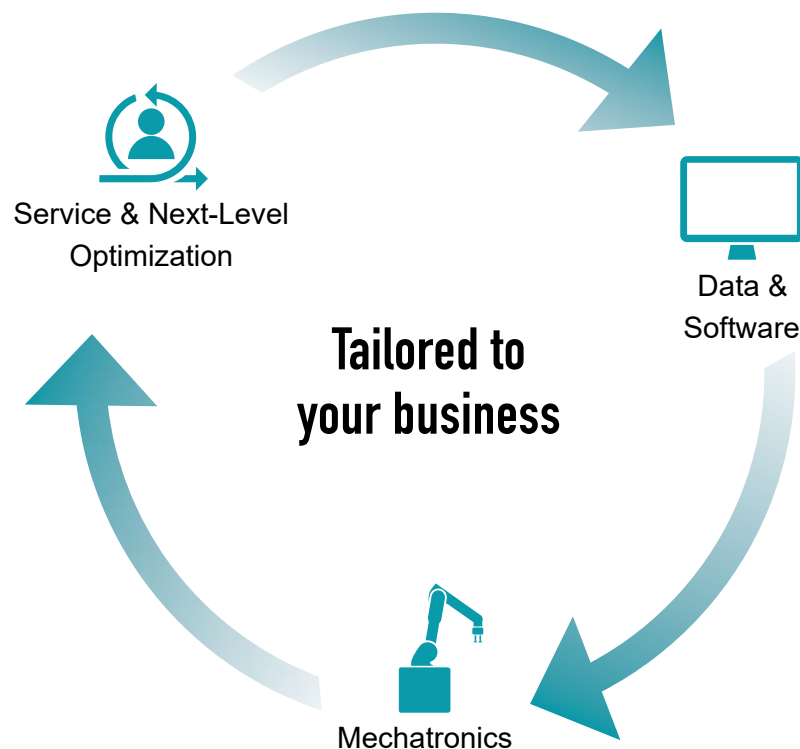


Wholesale

## Expand your competitive advantages

We work together with you to design and build a system tailored to suit your logistics requirements, growth targets and investment strategy.

At KNAPP, our systems are not just off the rack. Instead, we take the time needed to learn about your needs, business model and challenges. Whether you want micro or macro, a semi-automatic system to help you get started or a fully automatic distribution center for top performance – we have just the right all-in-one solution for you.



We look forward to your message:  
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