

**Pluripharm**  
Groep

**Pluripharm DC**  
Alkmaar - the Netherlands

  
inthergroup.com

> Case study

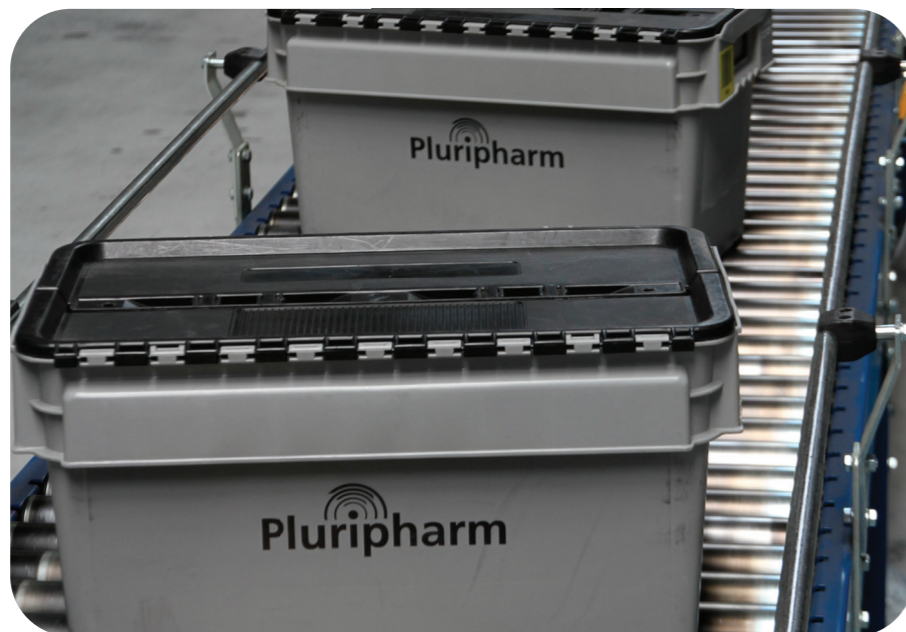


**INTHER**  
improving intralogistics



## Ready for the future

Pluripharm Groep has grown at an accelerated pace in recent years. The complex order picking system, including Pick to Light and WCS control, which Inther Group installed a few years ago, played a crucial role in this growth. With the other recent projects that Inther has completed for Pluripharm: A-Frame, Inther FMD and Central Filling, Pluripharm is ready for the future.



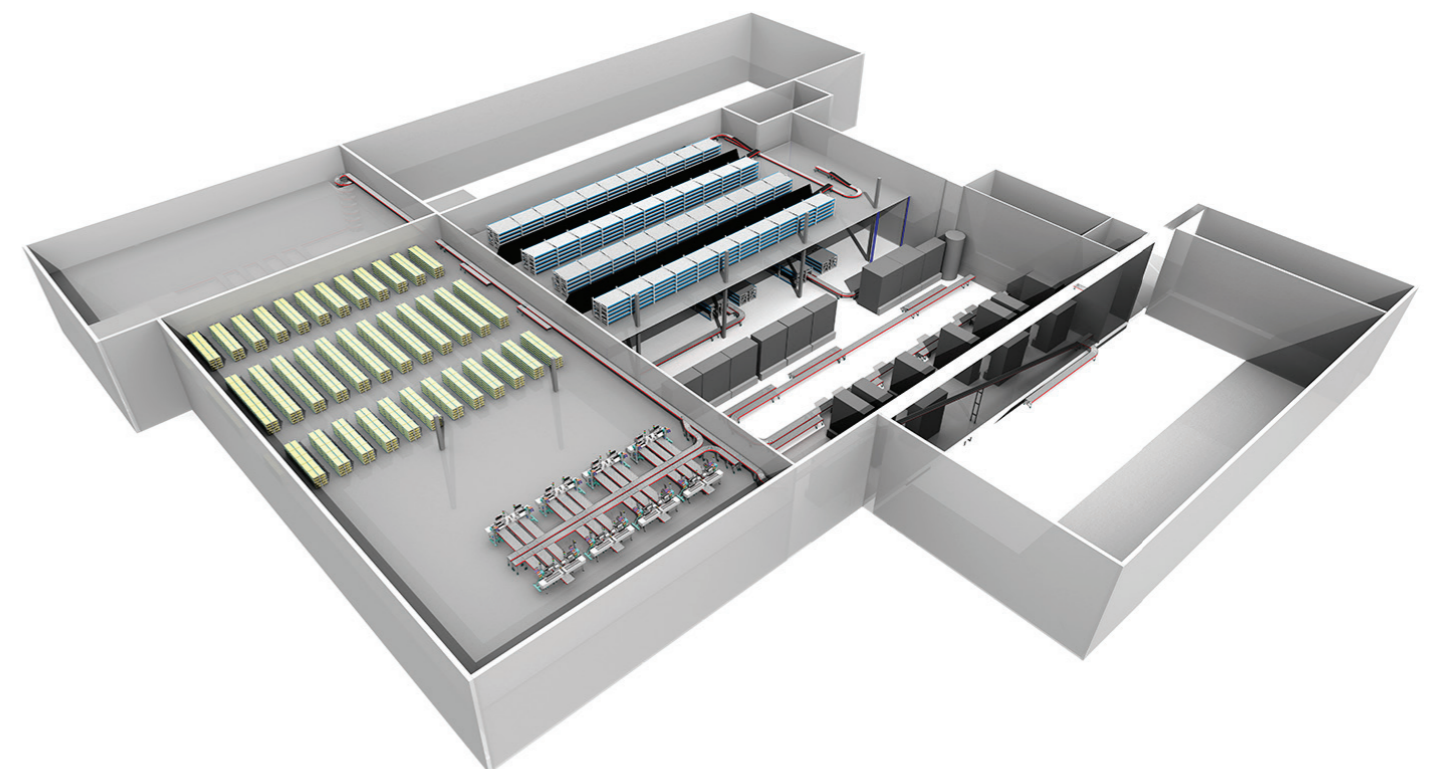
## Order picking process more manageable

When Inther started the first order picking system in 2010, Pluripharm was the fastest growing pharmaceutical wholesaler in the Netherlands. In the 7,000 square meter distribution center with 15,000 stock keeping units (SKUs), Pluripharm's 60 warehouse employees processed about 25,000 outgoing order lines and 1,000 inbound and replenishment orders every day. The order picking capacity has been expanded to 30,000 order lines per day with the implementation of the first system.

After completion of the first system, the DC will consist of a total of 24 different zones, sixteen of which are connected by Inther conveyors. Most order lines are picked at that time in an area with eight zones, each equipped with 3 Kardex platform lifts, so 24 lifts in total. The fast movers are located

in four zones with flow racks and 564 pick locations and are equipped with Pick to Light displays. In addition, the system has a zone equipped with three horizontal carousels and a zone with shelf racks in which Voice Picking was used. This has now been replaced by RF Picking.

The entire DC is controlled by the warehouse control system 'Inther LC'. At the time, this system was integrated with Pluripharm's in-house developed WMS. Today Inther LC communicates with the WMS Oracle JDE. "The WMS passes the orders on to the WCS, which then ensures optimal tote filling and minimum tote movements", said Mark de Loos, former Logistics Director of Pluripharm.



# Maximizing capacity

In the zones with the platform lifts and horizontal carousels, it is possible to simultaneously collect up to eleven orders. To this end, each zone is equipped with a conveyor with eleven separate tote positions, each of which has its own display. When a display lights up, the operator scans the barcode on the tote, causing picking instructions to appear on the screen of a platform lift or carousel. As soon as all order lines of an order have been completed, the display indicates that the relevant tote on the main conveyor can be pushed towards the next zone. Thanks to this dynamic Pick and Put to Light principle, the number of movements of the lifts and carousels is minimized and waiting times for the operators are reduced.

## Workload distribution

Inther LC WCS plays a crucial role in the DC. When determining the order in which the orders are released, the system takes into account the workload in the different zones. De Loos: "In addition, the team leaders in our DC can always intervene manually and set other priorities."

Inther LC thus gives Pluripharm the ability to balance workload between zones, driving higher productivity. The operators walk shorter distances and search less for articles, while at the same time making far fewer mistakes. "In addition, the manageability and predictability of the operation has increased enormously. During the day, we can closely monitor the progress of the operation and

therefore intervene more adequately if we are lagging behind", says De Loos.

## A-Frame

Due to continued growth and reaching maximum capacity, the system was expanded in 2018 with the arrival of the A-Frame. The A-Frame is a fully automatic order picking solution to quickly process complex orders. This solution is a perfect fit when you process many orders of various small boxed items with similar packaging. A-Frame was an easy match for Pluripharm's needs.

The A-Frame is the first step in the picking process and is automatically supplied with empty order totes from the order start buffer. In total, two A-Frame line set ups have been installed. Each line consists of 13 A-Frame modules and 728 channels, which means that a total of 1,456 articles can be picked fully automatically. 390 flow rack locations have been built on both sides of the A-Frame where stock totes are stored for replenishment.

There is a PUMA device installed traveling on the top of each of these 2 A-Frame line set ups which counts and validates the stock levels per channel. The PUMA communicates with Inther LC. This WCS keeps track of how much inventory there is of each item in a channel. When a minimum is reached, or when more is needed than is available, an automatic replenishment will take place that can be performed via an RF scanner. After this replenishment has been performed, Inther LC

sends a message to the PUMA to measure the replenished channel.

The A-Frame also features an integrated video camera. The stored video images can be retrieved per individual order via the user interface, so that administrative orders can easily be checked against the physical reality. This permits subsequent analysis of customer claims of damages, as well as confirming that the picked order matched the submitted request.

# Further unburdening

## Central Filling

Recently Inther expanded the system at Pluripharm with one of its hybrid solutions, Central Filling. This solution ensures that Pluripharm can further unburden its customers, because prescription processing now takes place in an even more efficient way, by assembling patient orders at the DC, rather than requiring the pharmacy itself to do it. In

addition, critical recordkeeping on controlled medications is accomplished at the DC, further unburdening the pharmacies themselves.

The Central Filling process starts with forwarding and merging the prescriptions through the host system to Inther LC, Inther's modular and flexible Warehouse Execution System. Picks are then carried out in different picking areas (e.g. A-Frame, carousel).

After that, order processing is started at the patient or prescription level at the Central Filling workstations. The operator first scans the tote which contains up to a maximum of 20 patient orders, followed by scanning each individual article. If one is an FMD (Falsified Medicines Directive) article, it is automatically deregistered from the NMVS (National Medication Verification System) via Inther FMD. This software solution was developed by Inther to simplify the application of this European directive and as a result also to ease the logistical processing of medicines. The main functions of the Inther FMD application are checking and deregistering individual medicines in one central database. In this solution, GS1 barcodes can be scanned and transferred to the NMVS database with the specified action.





## All-in-one bag!

A patient label is then printed for each article and applied to the article. The articles are distributed at patient or prescription level to the locations with illuminated LED strips indicating their proper destination. Sensors validate that the article has actually been placed in the correct location. When all articles have been distributed, the bags are taken out one by one and the patient label is printed and applied to the front of the bag. These are then placed back in the source tote, which will then go to the shipping area and sent to the pharmacy. The benefit to the pharmacy is choosing from a wide range of medicines, no longer having to collect partial orders into one order at the pharmacy location and increasing automatic checkups that are built in throughout the process. Summary: the convenience of all-in-one bag!

Gerard van de Weert, Commercial Director Pluripharm Groep says: "The Central Filling system is a unique and important project for us, but especially for our customers. The system provides more flexibility and access to a very large stock. This, in combination with combining all medicines in one bag per patient or per prescription, makes it much easier for pharmacies to process the prescriptions to their patients."

### Facts & Figures

- › Surface area: 7,000 m<sup>2</sup>
- › SKUs: 15,000
- › Grow from 25,000 to 30,000 orders per day
- › Order picking in 24 zones
- › 8 zones with a total of 24 platform lifts
- › Dynamic combination of Pick and Put to Light
- › 4 zones with 564 pick locations in flow racks
- › 1 zone with 3 horizontal carousels
- › 1 zone with shelf racks and RF Picking
- › 2 A- Frames with a total of 26 modules and 1,456 channels
- › 16 Central Filling workstations
- › Inther FMD implementation
- › Control by Inther LC WCS
- › 60 warehouse workers who are more productive than ever
- › Better manageability and predictability





# Inther Group

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