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We chose RFID because it is a mature technology with an incredible amount of possibilities which deserves a serious chance in the logistics world.

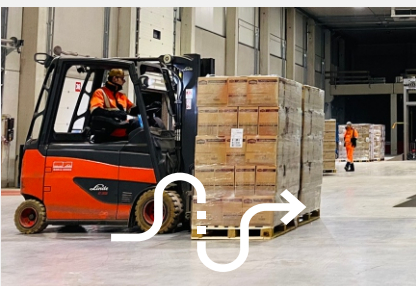
Johan Cailliez, CFO

Automation with RFID offers the great advantage that the correct rack is already open when the reach truck arrives, which results in an enormous time saving every day and avoids 'empty meters' with the reach trucks.

Jakob Van Poucke, Commercial Manager



At Luik Natie, an average of 80 containers (2.640 pallets) are loaded and/or unloaded per shift.



The ATLAS Forklift Track&Trace solution offers an accurate overview of the internal logistic movements through automatic location and load control.



ATLAS monitors the logistic flow in the cold store of Luik Natie

The customer

Luik Natie is a logistics service provider specialising in temperature-controlled warehousing of products like fruit and vegetables, frozen vegetables and potato products, meat and fish. The favourable location in the port of Antwerp allows Luik Natie to store pallets with products being supplied from all over the world in its cold stores. Per shift an average of 80 containers – or 2.640 pallets - is loaded and/or unloaded.

The challenge

As Luik Natie continues to grow, there was a need for an extra cold store. They chose to build an ultramodern cold store suitable for the storage of 22.000 euro-pallets, making it the largest cold store of the entire port. In order to make optimum use of the space available, they decided to automate the warehouse with 16 m high racks.

Luik Natie wants to know at all times the exact location of all products of all customers and was therefore looking for an automatic solution for the identification and localisation of pallets in the frozen storage, which is- due to the high racks- also suitable for height measurements.

The solution

During a prior Proof of Concept, we demonstrated that our ATLAS Forklift Track&Trace solution offers an accurate and up-to-date overview of the internal logistic movements. Thanks to the automatic location and load control, every step of every pallet is monitored throughout the logistic flow in the cold store; both for the storage and the loading process.



Customers will shortly be able to see their inventory in real time. In the future we will further elaborate the possibility for customers to indicate themselves which reference they wish to collect. Furthermore, we also offer room for layer picking of more than 300 different references.

Steven Beuselincq,
Commercial Manager

RFID installation to automate the logistic flow

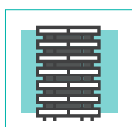
- Printed and programmed RFID labels to be applied to the pallets upon arrival of the products to be stored.
- Printed and programmed on-metal UHF RFID tags on the racks in the cold store to enable localisation.
- RFID readers and antennas for the forklifts for the detection of the pallet labels and the location tags at the docks' passages (RFID tags serve here as 'location markers').
- RFID readers and antennas for the new reach trucks with a mast height of 12,5 m for the detection of the pallet labels and the location tags on the metal racks (RFID tags serve here as 'location markers').
- The forklifts and reach trucks are also equipped with a panel PC, on which the driver will be able to see and verify the data.
- The Aucxis middleware HERTZ establishes the link between the RFID equipment and the customer's systems.

Logistic flow

The forklifts collect the loads at one of the 12 loading and unloading docks of the new cold store and they unload them in the zone provided. In this unloading zone, the RFID labels are printed and applied to the pallets, after which they are wrapped and weighed on the conveyor belt. Fixed RFID detection points are provided at these conveyor belts in order to detect the passing RFID labels. The data read is linked to a server on which the middleware is running, which ensures the further processing.

The reach trucks collect the pallets from the conveyor belt and drive them to the cold stores. Thanks to the communication with the WMS controlling the racks, the reach truck drives to the location desired - where the racks are already open thanks to the RFID scan- reaches the desired height, drives into the rack and reads the location when it lowers the pallet in the racks. The driver receives a confirmation from the WMS on his panel PC. At the moment that the location, position and height match, the pallet is positioned and the reach truck moves down. A message is sent to the WMS and the driver also receives a message on his screen.

The result



By working in height, optimum use is made of the storage space.



Automated overview of the stored products to the highest racks.



Enormous time saving when processing the products: no longer 'empty meters' of the reach trucks.



The information on the pallets' location in the cold store is available in real time.



Manual actions such as registrations, scanning and data processing have been made redundant.



Seamless integration with the customer's systems.