Changing paradigms in Logistics using the latest RFID innovative technology

Some years ago, we received a request from Faurecia, a leading technology company in the automotive industry that was to address automation improvements of the registration of products and parts entering and leaving their production sites. Unfortunately, we had to decline as we felt we could not answer their challenging needs since the technology was not yet ready for what they were looking for. We finally resume talks with Faurecia in 2016 and started installing their first plant in March 2017. Why did we change our mind? What happened?

Faurecia wanted to introduce an RFID solution to stop the manual Barcode scanning of pallets that enter and leave their factories. The Group was looking for a possibility to monitor its product flows with a high quality and high operability solution.

Mr. Emmanuel Schröder, Faurecia Seating Digital Transformation Project Manager explains *"through Faurecia Digital journey, it was quickly pinpointed that deeper tracking of movements was a must but there was no way this could lead to additional manual scans. Scanning was already too much spread, too time consuming and neither fully secured nor end-user friendly".*

There were two reasons for declining the request at UBI Solutions in the first place. On the one hand there was the difficulty and cost to install RFID gates with UHF technology without reading all the products all around the reading area. On the other hand, these gates were not able to detect the movement direction of tag properly. The other possible way to know the direction of a tag were

Figure 1 UBI Solutions closed door-Cabinet reading Units for Industrial Textile Industry

movement sensors on each side of the gate to see from which side the tag enters the gate. An alternative was the usage of closed door-cabinet to protect from reading other tagged material, but this option was not viable due to time, size, speed, process and cost constraints.

Mr. Schröder states further: *"Convinced of RFID applicability to supply chain, we benchmarked numerous big actors – both integrators and RFID manufactures with various technologies on the market. Only a very limited list returned applicable to our field of application, combining a simple operative manner and a level that was aligned to our business expectations".*

So how did we finally got into this project after declining it? After Faurecia had started a first pilot project with another company, which did not meet their expectation, we started to resume our conversation. As a matter of fact, we had just finished the implementation of a new reader technology enabling us to meet the Faurecia's challenges. This technology is the newest generation of RAIN RFID readers that integrate antennas using smart algorithm and enabling them to detect the transition direction in addition to the detection of the tag alone. The algorithm can filter all the tags read to consider only those that are passing through the gate. It is especially useful as tags can pass the gates at the same time in two directions and the reader is able to detect them both. With this technology it is was then possible to read all the products that entered and exited the factories or are transferred from one part to another part of a factory without any additional process steps or time consumed.

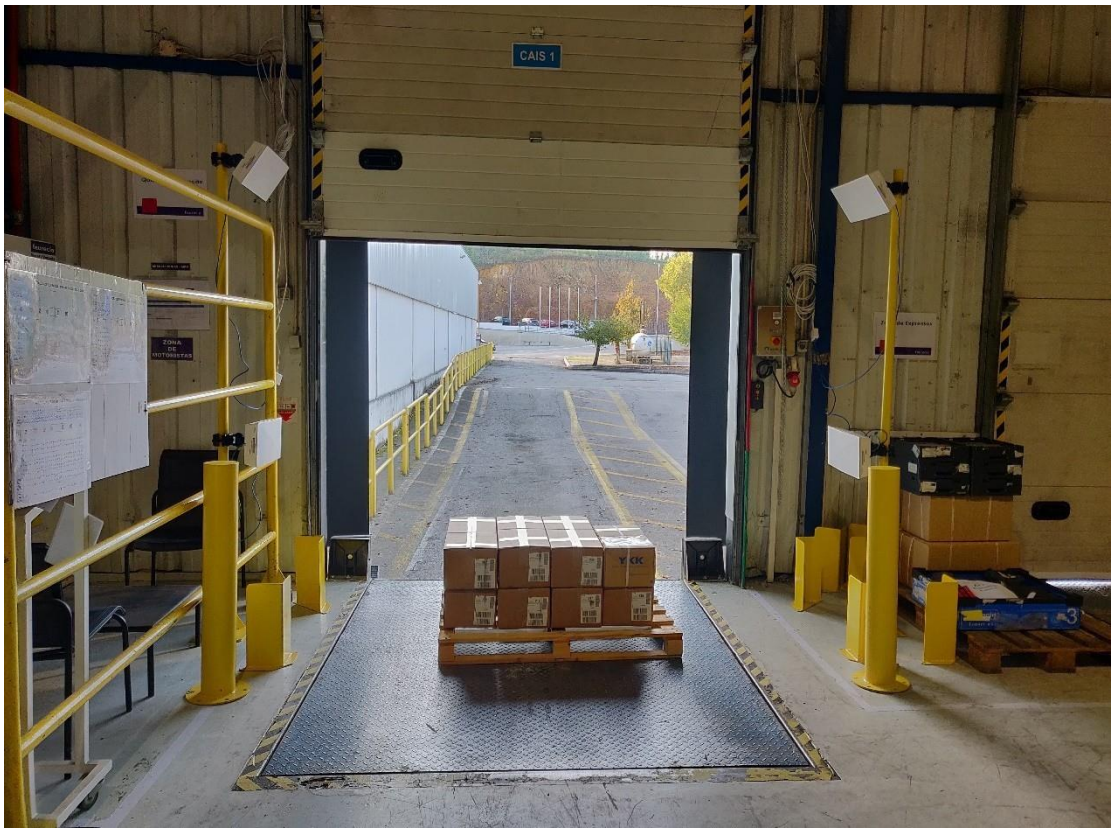

Figure 2. Entrance / Exit Gate at Faurecia factory

Mr. Emmanuel Schröder sponsored the project and was key to help successfully implement it into the complex and demanding IT processes from Faurecia. Today we are successfully deploying the technology in multiple sites around the world i.e. in the USA, Mexico, Portugal, France, Poland, China and others with the plan to roll out the system in more plants within the coming years.

Figure 3 Transfer Gate at Faurecia factory

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