

# Digitalization of Turkish cement plants by PI OTOMASYON with Nedap RFID

CUSTOMER STORY

As part of the Turkey-based Batı Anadolu Grup, the two cement plants Batıçim and Batisöke are focusing on the manufacturing and distribution of cement and clinker products. System Integrator and Nedap's Certified partner PI OTOMASYON was contracted to build a fully automatic compact system with state of art Automatic Vehicle Identification. Therefore, Nedap's RFID vehicle identification solutions are implemented to allow long-range and hands-free Automatic Vehicle Identification.

## Cement plants improve productivity while decrease operational costs

The global cement industry is a large and important sector facing mayor challenges. While cement plants continuously improve their productivity, they simultaneously try to decrease operational costs. This requires high quality and energy efficient products which deliver optimal operational availability under harsh environmental circumstances and high safety regulations.

## Certified partner PI OTOMASYON

Nedap's Turkish certified business partner PI OTOMASYON is a Certified Industrial Automation and IOT solutions provider, offering services in Turkey, East Europe, Middle East, Africa and West Asia. They cover a wide range of applications and processes including Cement & Mining. The company provides for example a portfolio encompassing the automation and digitalization of the raw material core production and sub-processes like packing and dispatching, including the complete process line automation. The process chain in cement plants consists of multilayered automation systems and complex processes.

Turkish cement plants: Batıçim and Batisöke  
The Batıçim and Batisöke cement plants are part of the Turkey-based Batı Anadolu Grup engaged in the manufacturing and distribution of cement and clinker products. Especially bulked and bagged loaded cement dispatch and related raw material intake is a very sensitive system to human intervention.

## State of art Automatic Vehicle Identification

PI OTOMASYON was contracted to build a fully automatic compact system with state of art Automatic Vehicle Identification. The standard Automation Architecture and Plant ERP (Enterprise Resource Planning) System were seamless integrated to manage both intake of raw material and dispatch of cement and clinkers. Besides, the entry and exit process including waiting areas, weigh bridges and (un) loading stations are integrated into the system. Furthermore, PI OTOMASYON offers 24/7 based maintenance, support and consultancy contracts.



## Nedap's superior RFID long-range solutions

Nedap's RFID based Automatic Vehicle Identification readers are deployed because of their high accuracy- and fast read performance. The long-range RFID readers are used for the Raw Material Acceptance and to identify the vehicles by the entrance and monitor their exit as well. The cement and clinker dispatch are also controlled with a high security and traceability level using the long-range RFID solutions of Nedap Identification Systems. All sub-automated parts (automatic raw material reception, process control, automatic dispatch system) are integrated with their ERP system to obtain optimal control and information about the processes.



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The long-range RFID solutions are known for its reliable and consistent performance and allow drivers to concentrate on safe navigation at the plant. In total PI OTOMASYON has commissioned more than 40 plants including Nedap's long-range Automatic Vehicle Identification solutions to identify over 10.000 vehicles a day. This results in:

- More than 250 weighbridges
- 300 (un)loading stations

## Benefits of automatic vehicle identification solution

Using Nedap's long-range RFID technology solutions for these Turkish Cement Plants ensure seamless and reliable vehicle identification and has multiple benefits:

- Proven operation in harsh conditions of cement plants;
- Superior long-range RFID technology up to 10 meters;
- Optimal reliability and performance;
- Easy windscreen mountable RFID tags;
- Robust outdoor design;
- Plug & play commissioning;
- No interference of external radio signals;
- Adjustable reading range;
- Booster for driver & vehicle identification

## Certified Partner Program

PI OTOMASYON has qualified themselves as expert for implementing RFID based Automatic Vehicle Identification in digitalized Cement Plant processes. The team has been trained and with the years they gained a lot of experience resulting in a huge installed base of Nedap long-range RFID in Turkey. After 10 years of cooperation PI OTOMASYON was awarded in 2019 by Nedap as an official Certified Partner for RFID technology.

“Our long-term corporation with Nedap is based good experiences in the field, adequate support and high quality of their RFID portfolio. The long-range RFID solutions from Nedap meet the requirements to operate reliable in harsh industrial areas like Cement plants. Our first installations are more than 10 years old and still operate with minimal maintenance which results in a lower total cost of ownership for our customers.”



Oğuz Çelikel, Project Director at PI OTOMASYON