



## The challenge

Acciaierie Bertoli Safau S.p.A (ABS) manufactures steel products. These products range from small aggregates to large steel rods and vary considerably as customers have specific steel needs. The amount of products and the vast space they are stored in causes a lack of 3-d overview of where the stock is. The COGNIMAN project addresses this by developing a digital library with real-time access that will allow complete visibility of the internal logistic process for finished/semi-finished products and automate the process.

## Pilot description

This pilot focuses on streamlining ABS's internal logistic process, which presently is hard to keep an eye on due to the lack of detailed information of the products. The finished or semi-finished products are stored in warehouses as well as outdoors and are moved on site, depending on the need to create space or the next processing step. Certain technologies, such as Radio Frequency Identification (RFID), cannot be applied easily due to their interference. It seems that no one-size-fits-all solution exists, thus making a blend of different technologies necessary.

## Desired outcome

ABS requires a solution that provides a complete digital overview of their products in the facility. They need the capability to determine product location, size and available space within the facility, which also automates inventory. The solution should reduce the need for manual barcode scans on labels and tags, as well as mobile device operations, optimising the manual operations. Their preference is a solution that optimises use of space, makes transportation efficient, reduces processing time and at the same time explores the potential of using vehicles as sensors, detecting critical issues and safety concerns.

## Envisaged solution

The COGNIMAN project will design a system to connect with various data servers and systems, working together to enhance product flow efficiency. Additionally, it will introduce the concept of implicit batch identification through the use of drones or other technologies. This pilot will concentrate on automating the management of storage spaces while converting storage-related data into digital formats, thereby enabling rapid identification of products. The ultimate result will be a dynamic digital repository that can be accessed instantly, streamlining the optimisation and supervision of a wide array of customer products while cutting down processing durations.

## Facts and figures

### Process challenges

- Location: vertical visibility
- Optimised product selection
- Picking and handling efficiency
- Optimising space capacity
- Safety
- Inventory automation: real-time digital library
- Video stream capture

### Integration challenges

- Integration with ABS WMS system
- Integration with ABS ERP (SAP)

### Personnel involved in the process

- 3PL operator
- Production planner
- Rolling mill supervisor



**ABS – Acciaierie Bertoli Safau S.p.A.**

Via Buttrio n.28, 33050 Pozzuolo del Friuli (UD) Italy  
Website: [www.absacciai.com/en](http://www.absacciai.com/en)  
Contact: [e.ciccia@absacciai.com](mailto:e.ciccia@absacciai.com)