**Challenge: Improving Multimodal Identification and Global Traceability of ALSINA Articles for More Efficient, Reliable, and Future-Ready Management**

**Driving Company:** ALSINA **Sector:** Construction / Logistics / Article Management

**Context**

ALSINA currently has systems for identifying and tracing its articles, which are already used in processes such as inventory, assembly, inspections, and expiry date control.

However, there is significant room for improvement in both the integration and depth of this traceability, as well as in reducing human errors and enriching information throughout the entire product lifecycle.

Updating and optimizing these processes is key to offering new services, improving internal efficiency, and ensuring complete and individualized traceability from production to final use.

**Challenge Complexity**

The main challenge is to develop a technological solution that effectively integrates different identification systems (barcodes, RFID, QR) to achieve deep, real-time traceability with minimal human intervention.

Added to this is a new strategic component: the introduction of the **Digital Product Passport (DPP)** and its management using **blockchain technology**. This will be crucial in the medium term to ensure the durability, transparency, and reliability of data over time, as well as to enable advanced services based on traceability.

Given the high degree of complexity of ALSINA's articles and their diversity of formats and packaging, a **multimodal, scalable, and robust** solution is required to address the multiple business scenarios.

**What Are We Looking For?**

ALSINA is seeking an innovative solution that allows for:

* Reducing errors in the input of relevant information.
* Enriching the data record of articles (repair history, status, uses, durability according to geography and time).
* Ensuring the durability and reliability of information under variable conditions.
* Facilitating the creation of new services for customers, based on the collected information.
* Integrating and automating multimodal identification (barcodes, RFID, QR) for complete and accurate traceability.
* Minimizing human intervention in data capture and management.
* Enriching article information in real-time, with individualized and detailed histories.
* Improving internal management, maintenance, and customer service processes.
* Developing new business models supported by advanced traceability, digital product passports, and data management with blockchain technology.