

1. Entity posing the challenge

ADEGI: Couth Industrial Marking Systems, Salva Industrial, Korta, Metrología Sariki, Comercial Hostelera Del Norte Equipamientos, Euskabea Electrónica del Urumea

2. Challenge

How can we extract, store and monitor data extracted from various types of industrial equipment in a homogeneous and centralised way?

3. Possible solutions that can be applied

- Sensors and IoT platforms
- Storing and structuring data on big data platforms
- Technologies for carrying out structural analyses/physical interpretations of machines/components

4. Context

Although the companies proposing this challenge come from different sectors of activity, they share **common problems mainly related to the connectivity and monitoring of their different machines or products**, and the need to **store the data collected from them in a structured way**.

Whatever the case, it is important to know that **Salva Industrial** (ovens) and **Couth Industrial Marking Systems** (industrial traceability systems) are equipment manufacturers, **Euskabea** provides electrical solutions, **Korta** is a component manufacturer (high-precision ball screws), while **Metrología Sariki** (metrological equipment) and **Comercial Hostelera del Norte** (integral catering installations) design and create engineering projects, and distribute equipment with considerable knowledge of how machinery and installations work.

In this context, companies face a number of problems when it comes to extracting, storing and monitoring machines/assets properly, as well as creating future intelligence based on the extracted data:

- The existence of machines that do not have sensors or data collection systems.
- The existence of equipment from different sources which generates heterogeneous data and sometimes no systems are in place to record and store them.
- Technical difficulties and limited experience in extracting and structuring these data in a homogenised way.
- Difficulty in extracting machine usage data in a way that does not compromise the confidentiality of customer usage.



5. Subsidiary challenges and objectives

Therefore, this first challenge for Adegi's companies is related to developing both the hardware and software technology required to monitor different types of equipment properly, which will make it possible to set a homogeneous standard for capturing data on production processes from different types of machinery, and which in the future will facilitate alternative structures for these data depending on their destination.

Along the same lines, the solution to this challenge aims to provide companies with solutions that improve their processes of sensorisation, collection, homogenisation and structuring of data (extraction of valid information, free of errors and unnecessary information), moving from a costly, time-consuming and resource-intensive process to a simple, automated one.

In this regard, we believe that the following technologies would be appropriate:

- Sensorisation of different machines to capture data (IoT) and automate the collection of information.
- Big data platform for storing data.
- IoT visualisation platforms