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**GOIZPER digitises power transmission components with the new Smart sensor.**

GOIZPER Industrial has joined forces with the IK4-IKERLAN technology centre, in a new project for low consumption autonomous sensors that monitor the operation of their machines and optimise their production systems.

With this project, Goizper takes a step forward in digitisation within the industrial framework known as Industry 4.0.

Wireless sensors are an essential element in any industrial automation process. These devices are authentic sensory organs that play a key role in the implementation of Industry 4.0: remotely capturing and transmitting information on the status of machine components and industrial processes.

GOIZPER Industrial, which specialises in the manufacture of power transmission components, has co-designed with IK4-IKERLAN **a *smart sensor*** that continuously monitors the wear level of the combined clutch-brakes, installed in harsh and difficult-to-access environments. This sensor is integrated into the rotating discs and works autonomously thanks to a kinetic *energy harvester* (a device that captures energy from the environment, significantly prolonging battery life). Thanks to wireless communications, it provides accurate remote information about the wear of the friction material and the temperature at the friction point of the brakes.

In addition, this wireless format allows the measurement of variables in difficult to reach areas, providing added value to the system.

The project commenced in 2015, and development continues in different phases.

The latest technologies in big data, cybersecurity, condition monitoring and other industrial processes have been applied to remotely manage information and analyse it accurately and securely, avoiding cyberattacks and data loss.

The company minimises preventive maintenance costs and therefore reduces possible breakdowns and downtime in manufacturing processes. By having permanent information on the state of wear of the friction material, you can know precisely when to perform maintenance.

According to Mikel Mondragón, the IT director at Goizper Industrial; "Thanks to the collaboration agreement between Goizper and IK4-Ikerlan, the development of the new ***smart sensor*** allows us to offer solutions to improve and provide a better quality service to our customers, thus avoiding unplanned production stoppages and faults due to poor assembly, typically due to misalignments”.

Another a huge benefit for the customer is that with the information on the status of the components, it allows us to carry out predictive studies by adjusting the design of the equipment, the operation of the machines or smart systems and improving the manufacturing and/or maintenance processes.

This project is another step representing the commitment towards technological evolution in Goizper's digital environment and offering added value to each customer’s personalised solutions.