



FSGROUPE



DENODL®

Project Partner: Fernando Sarría Agrotechnologies

Country: Spain

Industrial ecosystem: Agrifood

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Duration: 01/12/2023 – 30/11/2024

~ Innovative smart sensor technology for efficient water management ~

The HYDROBALL project aims to implement the innovative hydroballs in the fields of the agricultural cooperative Grupo AN for intelligent water management. Developed by FSA, the HYDROBALL has reached TRL6 and will be certified to reach TRL8 through tests with Grupo AN. The project focuses on irrigated plots with cereal-corn, orchard, and vineyard crops, deploying around 50 hydroballs to gather qualitative data based on farm characteristics.

The project aims to validate the device's sensor system in measuring soil tension and root absorption. This knowledge enables efficient water management through an appropriate supply formula. Data monitoring occurs at the FSA laboratory, using the ZERO platform developed by FSGROUP Engineering. The advantage lies in processing the data with algorithms to deliver understandable insights for decision-making.

The test actions have no impact on cultivation. Once buried, the hydroballs remain undetectable and can withstand normal field operations. They transmit signals to the cloud periodically, eliminating the need for wires. In the laboratory, data captured by the hydroballs is analysed to identify areas that require irrigation regulation, whether it's due to under- or over-irrigation. Each field will have a digital counterpart created using user experience (UX) techniques to ensure a simple and satisfactory performance.

The ultimate goal of the project is to introduce a cost-effective and high-performing device that transmits useful and easily understandable data. The device is designed to implement water-saving technology, representing a significant step forward in achieving this objective.

