LOCATION

Romania

PARTNERS

1.4

IoT Corn Management & Decision Support Platform

CHALLENGE

Inefficient fertiliser practices and the demand for irrigation water contribute to environmental impacts, such as rising greenhouse gas emissions (GHG) and poor water quality, driving business risks in corn production. Efforts are necessary to limit GHG and handle environmental threats by promoting environmentally-friendly production technologies, practices and products and encouraging investments in green technologies. Scouting and monitoring of fields is required to identify any problems early, such as plant emergence issues, nitrogen shortages, insect build-ups, disease outbreaks, weed problems and moisture stress effects.

AIM

This pilot aims to implement an IoT Corn Decision Support System Platform for farmers to improve water management, including water quality, save energy and reduce greenhouse gas emissions. This will be done via an integrated platform, INOVAGRIA, that gives the farmer access to data at physical block level (as recorded in the National Paying Agency APIA) throughout Romania. This will assist the farmer in making informed and robust decisions regarding the technical mix to be employed in the production process.

HOW

Local weather stations and soil sensors installed in farms, together with estimations based on calculation algorithms for data collected from other weather forecast services and data provided by weather satellites, will be the basis for platform integration and decision support for corn farm management. This enables efficient collaboration and information exchange in a short local chain. The platform will allow and encourage enrolment of compliant IoT devices through open protocols and interoperable elements.

BENEFIT

The use of the platform will provide the users with appropriate risk management tools for adapting farms to climate change. This will allow them to respond to the current CAP greening requirements by changing their agronomic practices, while being able to access both Pillar 1 eco-schemes funding and Pillar 2 investment support. The results generated during the project implementation will be shared with the Romanian corn producers as well as their counterparts from Europe. This will provide stakeholders with access to project knowledge, regarding agriculture and ICT-related technologies.