LOCATION

Czech Republic, Poland, Latvia and Norway

PARTNERS

2.3

Data Brokerage Service and Decision Support System for Farm Management

CHALLENGE

Farming related data is produced by several suppliers, using different systems, data models and APIs. This data varies from machinery data, satellite data, meteorological data, land parcel information systems, water bodies data, erosion data, soil data and more. For farmers, it is important to have access to the complete data to help decision-making, which is currently not available. The challenge is to integrate this data allowing analysis and visualisation applications for a Decision Support System.

AIM

This pilot will establish a trust-based and compliant data market for agricultural enterprise data that sits between the owners and operators of agricultural data clouds and the farmer. This will include both a technical platform and advisory services that will ensure easy adoption of data and technology by farmers.

HOW

Pilot farms will implement relevant data generated in the process of managing their farm, as well as indicating expectations and comments regarding the functionality of the system. Three main groups of input information are used. First, data from precise online and long-term measurements on the farm (e.g. meteorologic stations, IoT sensors on the farm etc.). Next, external data specific to the farm such as satellite picture and information, external weather forecasts etc. Finally, data from other sources used at the farm (e.g. governmental regulations, subsidy calculation, work planning information). This data is combined and adjusted to a format that will describe all inputs in one application. Visualisations using a combination of charts and meteograms/multi-charts for sensor and meteorological data will be developed. This more effective utilisation of the data provides support for the decision-making process. Furthermore, a mobile application will provide alarms and warnings with information about suitable/unsuitable conditions for defined interventions.

BENEFIT

Using the Data Brokerage Service and Decision Support System will enable farmers to have access to complete and integrated data, providing support for decision-making; something currently not available. This will have a positive influence increasing efficiency, reducing time and effort, and delivering cost savings.