LOCATION

Poland

PARTNERS

2.4

Benchmarking at Farm Level Decision Support System

CHALLENGE

There are several different data sets for agriculture, but many of them are rarely used in practice. Farmers often have challenges with the practical use of data when making decisions on the farm, especially in management. Data interoperability is a problem and furthermore, the data does not indicate how their farm performs against others of similar economic size. ICT systems are available, but time is needed to learn how to use these technologies, when the farmer is needed in-field.

AIM

This pilot aims at developing services to support benchmarking on the productivity and sustainability performance of farms, leveraging and extending existing Decision Support Systems (DSS) for farmers. This will involve monitoring different conditions and parameters affecting such indicators, collecting the data and integrating it in a unified layer accessible by the DSS.

HOW

This pilot will provide a simple to use benchmarking system that allows the use of ICT and IoT technologies in practical management and decision support, with a focus on data integration. The system will be developed on a layer of decision support based on modelling and data processing from many sources and structures like local data, public data, Farm Accountancy Data Network, and market information. This will be complemented with security mechanisms and implement computational benchmarking models with interfaces that reuse/extend existing decision support and farm management systems (as an added value feature).

The system contains farm management interfaces for the farmer and their advisor alongside data exchange with external and internal systems, e.g. DSS and benchmarking methods on many levels of data. The main functionalities will be a calculation of the economic size of the farm based on dedicated algorithms and instructions, the presentation of graphs showing the current and historical state of affairs for farms of similar economic size and the presentation of information on prices of agricultural products and materials needed for production in previous years. The benchmarking system will be complementary with existing advisory systems such as Electronic Platform of Services for Users (EPSU) and the polish national advisory project, eDWIN.

BENEFIT

Facilitation of farm management at various levels of production volumes and types is expected to help with decision making for farmers by using a broad spectrum of data. This will also improve farmers' access to comparable data from his/her own farm with others. Data will be aggregated at the farm advisory system level. All activities are also aimed at increasing the knowledge of farmers and the accessibility of digital skills.