Service ID S00024

Location At user's premises, Sweden

Validation of sensors and decision support systems for crop production

Provider service

Research Institutes of Sweden (RISE)

Link to content

https://www.agrifoodtef.eu/services/validation-sensors-and-decision-support-systems-crop-production-under-real-work-conditi

Type of Sector

Arable farming

Accepted type of products

Physical system

Type of service

Collection of test data, Performance evaluation, Test design, Test execution, Test setup

Description

The specialised service permits evaluating customer innovations in real-world Nordic. The RISE team focuses on evaluating AI and robotic solutions tailored for agriculture, ensuring the customer’s crop production sensors and decision support systems are rigorously tested. The service evaluates the innovation comprehensively, offering valuable insights for refinement and adaptation to ensure optimal performance and enhance market readiness. By customising testing procedures to the specific innovation, the service can deliver clear, data-driven feedback that helps customers scale up more efficiently. As an illustration, if the customer has developed an AI-driven crop monitoring system, the service will test its performance in various Nordic climates, ensuring it meets the needs of local farmers. Similarly, robotic harvesters can be evaluated for efficiency and safety in real-world conditions. Whether the aim is to validate, enhance, or introduce an innovation, the service’s practical approach equips customers with the knowledge and confidence to succeed in markets that are ready for change.

How can the service help you

The service addresses the critical need for reliable, real-world testing of AI and robotic innovations in agriculture.

Before using our service, companies are often uncertainty about how their innovations will perform in actual farming conditions, which can lead to delays in market entry and potential failures. Through the service, the customer gains the knowledge and confidence to bring an innovation to market, knowing it has been thoroughly validated and optimised for success.

Before and After:

How the service will be delivered

The service can be adapted to specific customer needs.

The assessment journey starts with a joint meeting where the customer discusses different alternatives with an expert team from RISE. A roadmap for the service is established, and the service can commence.

Options for Customisation:

Tailored Testing Environments: alternative specific Nordic climates or conditions to test an innovation, ensuring it performs optimally in target markets.

Customised Performance Metrics: definition of key performance indicators (KPIs) most suited to the innovation (e.g.

Service customisation

The innovation is tested in real work or work-like conditions in the Nordics, and the work results are evaluated from a potential customer’s point of view.

The service is adapted to the actual innovation to be tested. The following work and facilities are provided by the agrifoodTEF project:Test area and equipment for conducting tests.

Storage of the robot platform, including charging capabilities.Personnel, including relevant experts from RISE.Tests can be performed with various types of location at the testbed.The service is conducted by RISE at Testbed Digitalised Agriculture in Uppsala.

Outputs:Deliverables: Upon completion, the customer receives comprehensive documentation, including detailed reports on error handling and failure monitoring, along with any identified recommendations for improvements. Presentation: Results and a final report are introduced in a final review meeting where any outstanding issues are discussed further.