

Service ID

S00347

**Location**

Denmark

Testing and validation using pilot and lab-scale test beds for agricultural

Provider service

Danish Technological Institute

Link to content<https://agrifoodtef.eu/services/testing-and-validation-using-pilot-and-lab-scale-test-beds-agricultural-ai-solutions-1>**Type of Sector**

Arable farming, Greenhouse, Horticulture, Tree Crops, Viticulture

Accepted type of products

Data, Physical system, Software or AI model

Type of service

Collection of test data, Data analysis, Desk assessment, Performance evaluation, Test design, Test execution, Test setup

Description

This service involves deploying AI models in authentic agricultural environments to validate their predictions against real-world data. The process includes field deployment where AI models are integrated with drones or other data collection systems. Ground truth data is collected using manual measurements or industry-standard equipment, serving as a benchmark for accuracy evaluation. Models are compared against this data to assess performance and robustness across various conditions. If required, a feedback loop can be established to refine models based on discrepancies found, ensuring continuous improvement and reliable predictions for agricultural decision-making.

How can the service help you

The service helps customers by validating AI models against real-world conditions, ensuring accurate predictions. Before the service, customers may rely on models trained on controlled datasets; after the service, they receive insights into the model's performance in diverse environments, enabling informed adjustments.

How the service will be delivered

The service involves testing the AI model or AI-based system or equipment in real farming conditions. It can be delivered during growing seasons with no specific location restrictions. The duration depends on the customer's requirements. Customers receive detailed reports on model performance and recommendations for model improvements. Customers must provide initial model configurations and equipment.

Service customisation

The service can be customised by selecting specific crops or environmental conditions for testing.