

Service ID

S00335

**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-0>**Type of Sector**

Arable farming, Greenhouse, Horticulture, Livestock farming

Accepted type of products

Data, Design / Documentation, Physical system

Type of service

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

Description

Our pilot and lab scale testbeds provide a controlled environment for customers to execute physical tests of their agricultural technology, machines, or algorithms. These testbeds can be configured to simulate real-world agricultural environments, allowing for precise control and monitoring of variables. This setup enables AI models to be trained and refined using accurate, real-time data. The testbeds incorporate automation to mimic various agricultural tasks, offering a comprehensive platform for testing and optimising AI-driven agricultural solutions. This service bridges the gap between theoretical development and practical application in the agricultural sector.

How can the service help you

This service helps customers test, validate, and improve their AI-driven agricultural technologies before full-scale deployment. By using our testbeds, customers can identify potential issues, optimise performance, and gather valuable data in a controlled environment. This reduces the risks and costs associated with field testing while accelerating the development process. After using our service, customers will have a better understanding of their technology's performance, potential improvements, and readiness for real-world application.

How the service will be delivered

The service is delivered at our facilities in Denmark. The duration of testing can be customised based on customer needs, typically ranging from a few days to several weeks. Customers will need to provide their technology or AI solution for testing. At the end of the testing period, customers will receive a comprehensive report detailing test results, performance metrics, and recommendations for improvement. We can accommodate testing throughout the year, but availability may be limited during peak seasons.

Service customisation

We can customise the testbed environment to simulate specific agricultural conditions relevant to the customer's technology. This may include adjusting soil types, lighting conditions, temperature, and humidity, and introducing specific challenges or obstacles. The scale of testing can also be adjusted from small lab setups to larger pilot-scale environments. Limitations may apply to the size of equipment that can be tested and the complexity of simulations that can be created.