

**Service ID** S00047



**Location** At user's premises, Austria

## Testing of field navigation

### Provider service

Josephinum Research

### Link to content

<https://agrifoodtef.eu/services/testing-field-navigation>

### Type of Sector

Arable farming, Horticulture, Tree Crops, Viticulture

### Accepted type of products

Physical system

### Type of service

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

### Description

Our service evaluates the navigation accuracy and performance of autonomous systems directly in the field. We conduct comprehensive tests under real-world conditions to ensure that your system navigates precisely and efficiently. This testing is crucial for startups and SMEs developing innovative solutions that require dependable autonomous navigation capabilities.

## **How can the service help you**

This service helps customers ensure the precision and reliability of autonomous navigation systems in agricultural fields. Before the service, customers may face uncertainties about the accuracy of their system's navigation under varying field conditions. After the service, they will have clear and detailed insights into navigation performance, enabling them to identify and address any issues such as inaccuracies or inefficiencies in their system.

## **How the service will be delivered**

Customisation options include testing in specific field conditions (e.g., particular terrain types or crop layouts) and focusing on particular navigation challenges, such as obstacle avoidance or precision alignment. The service can adapt to unique requirements, including integrating additional sensors or benchmarks for testing. The trials can be done on the customer's location too. The service can be performed any time of the year. Limitations may include environmental constraints (e.g., soil and weather conditions) and the compatibility of the system with the testing environment. Customers are encouraged to specify their requirements in advance for optimal results.

## **Service customisation**

The service is executed in real-world field environments to evaluate the autonomous system's navigation under actual operating conditions. Tests are conducted through multiple iterations to capture variability in performance. Depending on the system's complexity and the field conditions, the service execution can take several days to weeks. Customers will receive a comprehensive report detailing the system's navigation accuracy, key performance metrics, and potential improvements. Customers must provide the autonomous system, including any related software or operational guidelines, to facilitate testing.