

**Service ID** S00312



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

## Testing and evaluating the robot's functionalities

### Provider service

National Institute for Research in Digital Science and Technology - INRIA

### Link to content

<https://agrifoodtef.eu/services/testing-and-evaluating-robots-functionalities>

### Type of Sector

Arable farming, Food processing, Greenhouse, Horticulture, Tree Crops, Viticulture

### Accepted type of products

Data, Design / Documentation, Physical system, Other

### Type of service

AI model training, Collection of test data, Data analysis, Desk assessment, People training, Performance evaluation, Test des

### Description

The SOPHIA infrastructure will offer the possibility to test and evaluate the performance of the robot's functionalities in a locally controlled environment. While our indoor facility will offer a fully controlled environment (light, volume), all facilities at SOPHIA can be customised to test and evaluate the robot's functionalities. The service consists of three main steps. The robot will be integrated into the facility. After that, the facility will be customised according to the functionality of the robot. Then, the performance of the robot's functionalities will be tested and evaluated with quantitative and qualitative metrics.

### How can the service help you

Through this service, you can test and evaluate your robot's functionalities for agricultural and agrifood applications, ensuring they meet industry standards and state-of-the-art benchmarks.

The results will help you assess the reliability of your robot's performance, identify existing limitations, and refine its capabilities. This enables you to enhance efficiency, improve functionality, and optimise your solution for real-world agricultural challenges.

### How the service will be delivered

Our service provides a detailed report with test results, evaluation insights, and possible recommendations for optimising the robot's functionalities. To ensure smooth delivery, customers must provide clear testing and evaluation criteria, necessary permissions, and specific customisation requirements.

Service delivery may require repetitions based on customer requests or anomalies. It can generally be delivered at any time, except when tied to the crop or vegetation season for which the robot's functionalities are required. Depending on the customer's needs, customisation, and location, testing and evaluation of the robot's functionalities may take weeks to 2-3

### Service customisation

Our service offers fully customisable equipment, sensors, and environments tailored to the customer's needs. However, there may be technical limitations related to sensor compatibility or system performance, which will be addressed during planning. Additionally, customers should be aware of any legal or regulatory requirements that may impact the solution, and we will ensure compliance throughout the process.