Service ID S00190

Location Poland

Providing demonstration testing on the test field of robotic or AI-driven s

Provider service

Lukasiewicz Poznanski Instytut Technologiczny (L-PIT), Poznan Supercomputing and Networking Center (PSNC)

Link to content

https://agrifoodtef.eu/catalogue-of-services/providing-demonstration-testing-test-field-robotic-or-ai-driven-solutions

Type of Sector

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

Accepted type of products

Design / Documentation, Physical system, Software or AI model

Type of service

Data analysis, Desk assessment, People training, Performance evaluation, Provision of datasets, Test design, Test execution

Description

As part of the service, a testbed will be provided for product demonstration of robotic machines along with AI systems. The polygon will be configured and prepared to meet the customer's individual needs in terms of field operations, technological processes, and communication. The service provider will provide polygons with a variety of surfaces according to the customer's specifications, e.g., meadow, ploughed field. The service will include soil moisture control, continuous monitoring of the field, and all activities carried out on it. The service providers will provide the necessary assistance and infrastructure needed to support the fieldwork carried out by the surveyed sites. The service may also involve demonstration of AI systems used in apiaries.

How can the service help you

Our service provides a field testbed with extensive configuration capabilities. They allow full demonstration of the capabilities of machines and equipment equipped with AI systems in operational conditions. The demonstration can include the presentation of the functional capabilities of the machine, the effects of its work, and the efficiency of its operation under various conditions. The jointly acquired way of conducting the demonstration will allow a broad demonstration of the technical and technological capabilities of the demonstrated device, machine, vehicle, or robot. For the proper conduct of the demonstration, the service provider ensures the availability of the necessary machinery and equipment to support the demonstrated process or device, along with their operation.

The service also includes logistical support in the preparation and execution of the demonstration, digital recording of video and audio, and collection of data from the conducted activities. The service provider also provides transmission of collected data from the demonstration via cloud and wireless technologies. As part of the service, it can act as an intermediary in linking the demonstration under another media event or inviting representatives of trade media. We also anticipate conducting surveys among those attending the demonstration.

How the service will be delivered

Our service offers to adapt, as far as environmentally possible, the condition of the training ground to the target conditions in which the demonstration of the object under study is assumed. Bringing the selected crop to the appropriate, required phase of its development, technological maturity requires a certain amount of time from the moment of acceptance of the service. In this case, it is also necessary to consider the conditions of the climate (the variability of the seasons, the inability to carry out tasks in winter).

In the case of field testing, it is also necessary to keep in mind unexpected, sudden weather phenomena that may make it necessary to postpone the demonstration.We require a fully functional prototype and complete technical documentation. All information is treated confidentially, with the option to sign a non-disclosure agreement (NDA). If the tests need to comply with specific industry standards or regulations, kindly inform us in advance.

The timeframe and costs are determined individually based on the scope and complexity of the tests.We ensure flexibility and professional support at every stage of the testing process, including both physical and virtual analyses. Please feel free to contact us to discuss the details and tailor the service to your unique needs.

Service customisation

Our service is based on a structured process of preparing a facility to conduct demonstrations of the operation of facilities equipped with artificial intelligence systems.

- You provide a functional prototype or research model of your solution to help identify the ranges and capabilities of its operation.

- A comprehensive analysis of the system is conducted, considering specific guidelines and expectations. It allows us to determine the necessary scope of preparation of the facility (training ground) and possibly determine the time needed for full availability of the training ground, such as when sowing tests or operations on plants in the early stages of development (emergence) are required.

- We also prepare materials for the demonstration process, focusing on the artificial intelligence algorithms that are applied to the facility under study.

- A detailed action plan is developed, defining the scope and schedule of activities. This plan is discussed with the client and approved before the demonstration begins.

The process is flexible and tailored to specific needs, ensuring professionalism and commitment at every stage of our