Service ID S00381

Location Remote, Sweden

Experimentation of data collection platform for AI and robotics

Provider service

RISE - Research Institutes of Sweden

Link to content

https://agrifoodtef.eu/catalogue-of-services/experimentation-data-collection-platform-ai-and-robotics

Type of Sector

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

Accepted type of products

Data, Design / Documentation, Physical system, Software or AI model

Type of service

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

Description

The collection of high-quality data is often a cornerstone in the development of successful AI or robotics solutions, and there are many practical situations where dedicated data collection platforms need to be designed for or adapted to the specific problem under consideration. The goal of this service is to experiment with such data collection platforms and to assess their suitability under different controlled setups. During earlier product development stages, the service can focus on data quality, whilst, at later stages, scope can also be extended to scalability and control mechanisms.

How can the service help you

The success of AI and robotics applications is almost without exception dependent on the quality of the data that is used during the training and testing phases. Furthermore, in several circumstances, developers must construct or adapt mechanisms that allow for collecting information from the physical environment.

As illustrations, a trapping mechanism may be built for identifying insects damaging a crop, or special housing may be built for a sensor gathering data in hard-to-reach locations in an autonomous vehicle. The service is dedicated to conducting controlled experiments of data collection platforms for the purpose of validating their suitability for collecting high-quality data.

Before the service: A company has produced a data collection platform that may be inadequate for optimal data collection or that may not have been validated in a comprehensive set of real circumstances. The platform may also have one or more parameters that allow it to be configured for different situations, but the configuration setup has not been fully established.

How the service will be delivered

The service can be adapted to specific customer needs.

The assessment journey starts with a joint meeting where the customer discusses different alternatives with a technical team from agrifoodTEF, supplemented with domain experts from RISE or Asta Zero and members from the customer support team. A roadmap for the service is established, and the service can commence.

Service customisation

Logistics:

The formulation of the experimentation methodology to be followed is determined in conjunction with the customer. The likely environmental conditions where the solution is to be deployed are identified. Furthermore, any required stress testing of the platform is defined. An appropriate testing location and period for the service are selected.

Delivery Period: The service is available throughout the year, ensuring access and support when required. However, the execution of the service must observe seasonal restrictions imposed by the underlying processes. Duration: Service execution can span several weeks and is dependent on the complexity of the task.

Location: The service can be executed at RISE’s testbed in Uppsala, at Asta Zero’s facilities or at other suitable facilities. Form Customer Requirements: The company must provide access to relevant data or resources needed for the tests. The company’s personnel will be responsible for following all the instructions provided by RISE. A PM detailing the test setup must be prepared and approved before starting the tests.

Deliverables: