

**Service ID**

S00284

**Location**

At user's premises, Poland

## Physical Testing of Endurance & Reliability

**Provider service**

Łukasiewicz - Poznański Instytut Technologiczny

**Link to content**<https://agrifoodtef.eu/services/physical-testing-endurance-reliability>**Type of Sector**

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

**Accepted type of products**

Design / Documentation, Physical system

**Type of service**

Collection of test data, People training, Performance evaluation, Provision of datasets, Test design, Test execution, Test setup

**Description**

We provide physical testing services, both in laboratory and field environments, to evaluate the endurance and reliability of devices and their components. These tests focus on the ability of components to withstand external conditions while maintaining proper functionality. Our testing process helps identify potential weaknesses in device design, offering insights that can inform adjustments to algorithms or hardware. The service is designed to ensure your systems can perform reliably under a variety of conditions, helping to prevent failures and maintain optimal performance in real-world applications.

**How can the service help you**

Our testing service ensures that your devices and components are robust and reliable in challenging environments. By undergoing endurance tests, you will receive valuable feedback on how external conditions impact your product's operation, allowing you to make necessary adjustments before deployment. This can reduce downtime, increase operational lifespan, and improve the overall reliability of your solution.

**How the service will be delivered**

Our service follows a structured process to thoroughly assess your robotic or AI-integrated system:

- You provide a functional prototype or research model of your solution, along with any previous durability analyses to help identify critical structural points.

**Service customisation**

Our service offers customisation of endurance and reliability tests for robotic and AI-based systems according to your individual needs. In addition to physical testing, we provide the option of conducting advanced Finite Element Method (FEM) analyses on virtual models. These analyses help identify critical points in the structure that may affect durability and reliability concerning the implemented robotic or AI solutions. We can simulate specific environmental conditions such as temperature, humidity, or vibrations and also conduct tests at real-world locations specified by you. We offer long-term testing focused on