Service ID S00211

Location   At user's premises, France

Provision of general-purpose datasets with user-specified sensor(s)

Provider service

National Institute for Research in Digital Science and Technology - INRIA

Link to content

https://agrifoodtef.eu/services/provision-general-purpose-datasets-user-specified-sensors-0

Type of Sector

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

Accepted type of products

Other

Type of service

Data analysis, Data augmentation, Desk assessment, Provision of datasets

Description

General-purpose datasets serve two primary objectives: (i) evaluating mobility algorithms and (ii) developing and assessing general-purpose AI applications. In the context of mobility algorithms, this includes classical robotics tasks such as mapping, localisation, SLAM (Simultaneous Localisation and Mapping), and navigation. Meanwhile, general-purpose AI applications focus on advancing algorithms and supporting decision support systems (DSS) for tasks such as, but not limited to, weed detection, health monitoring, growth and maturity assessment, and yield estimation in areas like arable farming, horticulture, food processing, forestry, and tree management. A significant challenge in developing AI solutions for agricultural robotics lies in the dynamic nature of agricultural environments, which fluctuate with different seasons and weather conditions. To address this, acquiring consistent and periodic data is essential for effectively monitoring these changes. This real-time data collection, often facilitated by aerial and/or ground robots equipped with user-specified sensors, is crucial for developing efficient algorithms and AI solutions. Such datasets can support the development of sensor-specific techniques or be leveraged to

How can the service help you

Our service provides you with high-quality datasets to enhance your decision support system (DSS). Without reliable data, it is difficult to provide farmers with accurate recommendations for tasks such as planting, watering, fertilisation, and harvesting.

With our datasets, you can make smarter, data-driven decisions, helping farmers optimise their resources, reduce waste, and improve productivity. In short, we provide the data you need to develop better and more efficient solutions for agriculture.

How the service will be delivered

Our service provides documented datasets, including raw or processed data and analytical reports (if necessary). As data collection is season-dependent, customers should contact us at least two months in advance.

The service is available at various locations, subject to customer requirements, terrain, weather, and access permissions. Customers receive the requested dataset along with a report, but they must provide clear data requirements and necessary

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 the planning phase. Additionally, customers should be aware of any legal or regulatory requirements that may impact the solution, and we will ensure compliance throughout the process.