

**Service ID** S00271

**Location** Spain



## **Testing and validation of the performance of predictive models based on**

### **Provider service**

University of Cordoba

### **Link to content**

<https://agrifoodtef.eu/services/testing-and-validation-performance-predictive-models-based-nondestructive-spectral-sensor>

### **Type of Sector**

Food processing, Horticulture, Tree Crops, Viticulture

### **Accepted type of products**

Software or AI model, Other

### **Type of service**

AI model training, Collection of test data, Conformity assessment, Data analysis, People training, Performance evaluation

### **Description**

This service validates the performance of multivariate predictive models that utilise nondestructive spectral sensor data, such as NIR and hyperspectral imaging. Through statistical and chemometric analysis, the service assesses model accuracy and provides recommendations for optimization. Clients benefit from access to a comprehensive software suite dedicated to chemometrics and statistical studies, as well as options for database transfer to adapt models across devices. The service also includes access to a large agri-food sample bank for model evaluation and refinement.

## **How can the service help you**

By evaluating the predictive power of spectral models, this service aids companies in ensuring the accuracy of agrifood quality and safety assessments. It supports model updates to account for changes in production conditions or instrumentation, allowing clients to maintain reliable model performance over time. Additionally, database transfer options enhance model usability across different sensor platforms.

## **How the service will be delivered**

Customisation includes specifying predictive metrics, choosing relevant agri-food samples, and tailored chemometric or statistical analyses. Clients may also request instrumental cloning protocols to replicate databases for new sensors.

## **Service customisation**

The service is conducted remotely with digital support for database transfers and model analysis. Deliverables include performance reports, recommendations for model improvements, and database adaptation protocols. Clients may access chemometric software and sample bank data for targeted studies.