

## FPCUP Appathon: Copernicus Innovative Solutions

### Using Satellite Data for Agriculture

#### 1. Agriculture Innovation App Challenge:

**Task:** Participants are invited to propose innovative applications that leverage Earth Observation data to solve problems in agriculture.

**Concept:** This challenge encourages competitors to think creatively and come up with diverse solutions that can address a wide range of agricultural issues using satellite imagery, climate data, and other Earth Observation resources. Participants have the freedom to identify specific problems in agriculture and design apps that provide practical solutions.

#### 2. Sustainable Farming App Development:

**Task:** Create applications that promote sustainable farming practices, land use planning and natural resource management, utilizing Earth Observation data.

**Concept:** Sustainable farming is crucial for long-term food security and environmental preservation. Competitors can develop apps that help farmers make decisions related to soil health, water conservation, pest control, and crop diversity, or aiding farmers, land planners, and policymakers in making informed choices for land and resource utilization.

#### 3. Agri-Tech for Precision Agriculture:

**Task:** Create applications that enable precision agriculture practices by integrating Earth Observation data and weather forecasts.

**Concept:** Precision agriculture involves optimizing farming operations to maximize productivity and minimize resource use. Participants can develop apps that offer insights into crop health, soil conditions, and irrigation needs, helping farmers implement precise and efficient farming techniques. Moreover, participants can create apps that provide farmers with real-time weather data, climate projections, and adaptive strategies, helping them make informed decisions in a changing climate.

#### 4. Ecosystem Restoration and Conservation Apps:

**Task:** Propose applications that support ecosystem restoration and conservation efforts, and contribute to carbon sequestration guided by Earth Observation data.

**Concept:** Preserving biodiversity and restoring ecosystems are critical for sustainable agriculture. Competitors can design apps that identify areas suitable for reforestation, wetland restoration, or habitat conservation, contributing to environmental sustainability.