

# EO services contributing to SDGs National Research Programme “Smart Crop Production”



- User: State organization (Ministries), Public organization (universities, research labs) and industry
- Challenge/Needs: Sustainable management of natural resources, reduction of the harmful impact of agriculture on the environment and climate, reduction of the use of pesticides and increase of the quality and safety of crop production
- Initiative: National Research Programme “Smart Crop Production”, funded by the Ministry of Education and Science of the Republic of Bulgaria
- Results: Development and implementation of models using satellite images, AI, UAV data, digital methods for diagnostics, prognosis and management of the production of high quality crop production and decision making.

- Service Provider: RST-TTO, BAS

- Target 2.4.: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
  - Indicator 2.4.1: Sustainable agriculture
- Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
  - Indicator 15.1.1: Forest areas
- Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
  - Indicator 15.2.1: Sustainable forest management
- Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. (land cover, productivity and carbon stocks)
- Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.
  - Indicator 15.4.2: Mountain green cover



Figure: Vegetation indices applied to measure crop health

