



Innovative technologies for climate change mitigation by Mediterranean agricultural sector Life ClimaMED

Duration and budget: 1/7/2018 – 31/12/2024 Budget: 2,859,738 €

Partners: Greece (4 entities), Cyprus(1), Italy (1), Spain (1)

Main Goals:

- Develop and deliver innovative, reliable, rapid and cost effective technologies of Tier 3 level for the on-site measurement of CO₂, CH₄ and N₂O emissions and Soil Organic Carbon stock changes from agricultural fields at real time.
- Assist scientists, public authorities and policy makers in collecting, quantifying, evaluating, mapping and reporting spatial data for GHGs emissions and SOC stock changes from the Mediterranean agricultural sector.

Demonstration areas/case study areas



AND 1 in Cyprus, 1 in Italy and 1 Spain



Main Actions:

- Development and demonstration of a methodology for real time GHGs measurement using an innovative LIDAR device,
- Development and demonstration of a methodology for the identification of SOC stock changes which combines the use of multispectral cameras and soil/crops analyses,
- A GIS-based web platform (i.e. a Center of GHGs Monitoring and Management-CMM) for collecting, processing and spatially mapping GHGs and SOC data from cultivated fields at national level

Main results:

- innovative devices (LIDAR) for GHGs measurement on-site and at field level;
- An Integrated Center of GHGs Monitoring and Management (GIS-based web platform - CMM) to monitor GHGs emissions and SOC stock changes from agricultural areas at local/regional/national level
- Improvement of the accuracy of the methodology for quantification of GHGs and Soil Organic Carbon (SOC) stock changes by developing a Tier 3 methodology
- Certification of “green products” based on measurements gathered from the innovative Tier 3 methodology
- A draft legislative Act to be processed to the Greek parliament for the adoption of projects outputs (the measurement technology, and the CMM). Three draft legislative Acts for Cyprus, Italy and Spain.



Policy implications: ClimaMED significantly contributes to the following objectives of the new CAP :

- “Competitiveness”
- “Climate Change Action”
- “Environmental Care”
- “Landscape and Biodiversity”


The new CAP requires “data collection requirements and common data approaches between policies

 To the EU target for 2030 (55% emissions cut) and decarbonization target of 2050;

 The GREEN DEAL:

- Area 1-Increasing Climate ambitions;
- Area 6-Farm to Fork; and
- Area 7- Biodiversity and ecosystems

 Creation of local value chains with low and traceable carbon footprint

 Sustainable Development Goals (SDG13-Climate action; SDG15-Life on Land; and SDG12-Responsible consumption and production).

