



Supported by:



Start: January/2018
End: December/2022

Budget: 234.208 €

Operational Group:

GO SOLO – Development of an expedited low-cost soil organic matter evaluation method for sown biodiverse pastures.

GO SOLO: Promoção de práticas agrícolas conservadoras do solo através da demonstração, expedita e a baixo custo, do seu impacto na matéria orgânica.

Practical problem

Soil organic carbon (SOC) is a key variable for pasture management and in carbon sequestration projects. However, it requires an expedited surveying method capable of cost-effectively covering large areas and assessing spatial heterogeneity for differentiated management recommendations.

Partners

Type:

Other company

Research/Teaching

Agri Association

Agri Enterprise

Name:

Terraprima – Serviços Ambientais, Sociedade Unipessoal Lda.; Fundação Eugénio de Almeida

Universidade de Évora; Instituto Nacional de Investigação Agrária e Veterinária IP

Confederação dos Agricultores de Portugal

Terraprima Sociedade Agrícola Lda.; ZEA - Sociedade Agrícola Unipessoal, Lda.; Tapada dos Números, Sociedade Agrícola, Lda.; Sociedade Agrícola Herdade dos Padres, SA; Herdade da Machoqueira do Grou – Cooperativa Complementar de Produção Agrícola; Herdade do Azinhal

Project

Objectives:

The goal of GO SOLO is to an expedited and low-cost method for SOC mapping and assessment of carbon sequestration in sown biodiverse pastures. The method will use visible and near-infrared spectroscopy (VNIR) using field sensors and satellite data.

Expected results:

High-resolution SOC maps for 7 initial farms during 5 years, including detailed geospatial analysis;

Assessment of the effects of pasture management in SOC accumulation;

Forecast of carbon sequestration in the initial farms and an extrapolation of the data for potential new pasture areas;

Normalized method for VNIR assessment of SOC.

Results so far/first lessons:

The first activities of GO SOLO will be the division of farms into homogenous plots using soil electrical conductivity and environmental variables. In each plot, SOC will be measured using conventional sampling and laboratorial analysis. These measurements will be used to calibrate the VNIR methods. Farmers will be accompanied by technical advisors to identify management practices in each plot.

Who will benefit:

Farmers will be able to optimize management for SOC increase; policy-makers will better assess carbon sequestration.

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