



**MRV4SOC
PROJECT**

Monitoring, Reporting, and Verification for Soil Organic Carbon



Funded by the
European Union

MRV4SOC is a 3-year EU-funded project

started in June 2023 to design a comprehensive and robust Tier 3 approach to account for changes in as many carbon pools as possible. The project involves 20 partners and a budget of = 7M€ (GA 101112754). It aims to estimate greenhouse gas and full carbon budgets, couple carbon and nitrogen cycles, quantify carbon accumulation, and assess the results of traditional management practices and carbon farming.



Measure long-term soil organic carbon accumulation in 9 EU representative land use/land cover classes



Assess how carbon farming practices drive carbon flux dynamics in the 9 classes



Evaluate the impact of climate change on soil organic carbon accumulation



Develop a robust, transparent, standard, and cost-effective monitoring, reporting, and verification system to facilitate results-based payments for farming practices



Identify revenue opportunities to unlock results-based payments



Increase stakeholders' confidence in Voluntary Carbon Markets

Land use and demo sites location



PEATLANDS, PALUDICULTURE & WETLANDS

Bargischow, Rostock - Germany



FOREST

Amálie, Central Bohemia
Hurdal, Akershus, Norway
Antwerpen, Belgium



CROPLANDS

Amálie, Central Bohemia
Loncée, Namur, Belgium



GRASSLAND & PASTURE

Dorinne, Namur, Belgium



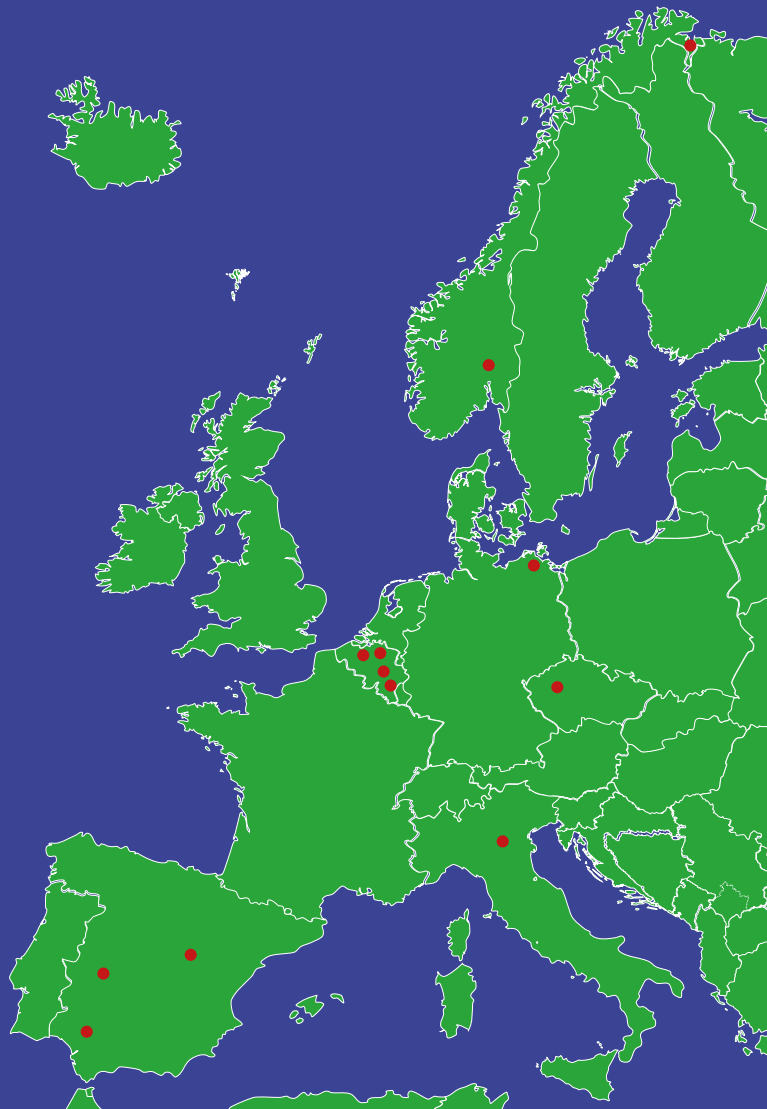
AGROFORESTRY

Extremadura, Spain
Casale Monferrato, Italy



PERI-URBAN AREAS

Guardamar, Spain



One project, many layers

EU level	Verification and upscaling
	Data integration and standardisation for a robust, transparent, and cost-effective EU Monitoring, Reporting, and Verification
National level	Reporting
	Tier 3 approach based on national greenhouse gas inventories
Landscape level	Monitoring
	Tier 3 design for: full carbon budget, carbon and nitrogen coupling, carbon sequestration, soil organic carbon and matter, traditional management and carbon farming assessment, and climate change scenarios Socio- economic impact assessment Identification of barriers and enablers for carbon farming practices Definition of standard schemes for result-based payments
Sub-landscape level	Data collection and modelling
	Remote and in-situ data collection Tier 3 approaches based on experimental and process-based models

In-depth impacts

- Supporting the EU's Communication key actions on **sustainable carbon cycles** and carbon farming, and the upcoming regulatory framework on **carbon removal certification**
- Gaining a deeper understanding of the relationships between carbon flux dynamics of carbon farming practices, and of **the impact of climate change on soil organic carbon**
- Standard the **track payment systems** for carbon farming and enhancing maintenance methods for the carbon already stored in soils
- **Reducing administrative and financial burden** associated with carbon farming management practices
- Increasing stakeholder faith in standards in **voluntary (or other) carbon markets**, leading to increased potential for revenue opportunities





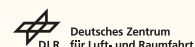
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 mrv4soc.eu

 info@mrv4soc.eu

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UniversidadeVigo



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