CARBON 4 SOIL QUALITY | Interreg Euro-MED | Co-funded by the European Union

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REPORT ON FINAL CONFERENCE

https://carbon4soilquality.interreg-euro-med.eu/

Kmetijski inštitut Slovenije
Agricultural Institute of Slovenia

UNIVERSIDAD DE ALMERÍA

ARISTOTLE UNIVERSITY OF THESSALONIKI

ISD
Institute for Sustainable Development

RINOVA agricoltura ambiente alimentazione
Coltiviamo il futuro

UNIVERSITÀ DEGLI STUDI DI PADOVA

UCG
Univerzitet Crne Gore

Deliverable ID

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Table of Contents

List of Figures

List of Acronyms

Abbreviation / acronym	Description
CF	Carbon Farming
CFMED	Carbon Farming Med Project
CO_2	Carbon dioxide
C4SQ	The acronym of the project Carbon 4 Soil Quality
Dx.y	Deliverable number y belonging to WP x
EC	European Commission / Electrical conductivity
n	The sample size
MRV	Monitoring, reporting, verification
WPx	Work Package number x

Executive summary

The C4SQ Final Conference, held in Thessaloniki on December 10, 2025, concluded Work Package 2 on building foundations for carbon farming in the Euro-Mediterranean region. Organized in hybrid format, it gathered over 90 participants from 11 countries, including researchers, farmers, policymakers, and stakeholders, to present scientific advances, practical experiences, and policy frameworks for carbon farming. The event featured a keynote by Prof. Thomas Kätterer, Swedish University of Agricultural Sciences, Uppsala, on soil carbon sequestration, followed by three thematic sessions: research outcomes of the C4SQ project, applied practices and case studies, and enabling frameworks such as policy, digital tools, and carbon markets. Seventeen scientific papers highlighted benefits of carbon farming for soil quality, climate mitigation, and farmer adoption, with case studies from Greece, Cyprus, and Spain. Feedback from 53 respondents revealed exceptionally high satisfaction, with mean scores above 4.6/5 for agenda, venue, streaming quality, and speaker expertise, and Session 2 on climate action identified as the most engaging. The conference reinforced carbon farming as a strategic lever for climate resilience, soil health, and sustainable agriculture in the Mediterranean, emphasizing the need for strong science-policy integration, long-term farmer support, and robust monitoring and digital tools to scale practices into mainstream policy frameworks.

Introduction

The work presented in this deliverable is part of Work package 2 “Building solid foundation for testing carbon farming in Euro-MED area” and specifically under Activity 2.4 “Future of carbon farming”. The activity’s main event was the organization of a final project conference in Thessaloniki, where project results could be presented, additional scientific findings could be gathered, and contributions could be made to popular media.

The aim of the conference was twofold:

(i) to present state-of-the-art developments of carbon farming

(ii) to raise awareness of decision makers and final users on the benefits of carbon farming (CF)

1.1. Preparation of the conference

It was decided that the conference would be available in a hybrid form, to accommodate both on-site and online attendants. Consequently, the Aristotle University Research Dissemination Centre was selected , which could host hybrid events, fit up to 150 people in an amphitheater, be close to the city centre and easily served by public transportation. The website of the Aristotle University Research Dissemination Centre is: https://kedea.rc.auth.gr/ .

To identify an appropriate date for the conference, several factors were evaluated: suitability for most partners, not overlapping with other international events on carbon farming, and not coinciding with major events in Thessaloniki. The selected conference date was Wednesday 10 December 2025.

The conference was entitled “Carbon Farming: Benefits in the Mediterranean region”, and its scope included aspects of carbon farming such as:

1) Biodiversity co-benefits of carbon sequestration using carbon farming (CF) practices
2) Monitoring carbon sequestration
3) Policy context of possible CF schemes
4) Contribution of CF to Green Deal and Farm to Fork Strategy
5) Innovative Euro-MED CF practices
6) Climate change mitigation potentials of CF
7) Future steps for Euro-MED region policy mainstreaming CF.

A conference website was put up and maintained in the project website. This was regularly updated with photos and short resumés of the speakers, as well as the program as it was being developed. The conference website address is: https://carbon4soilquality.interreg-euro-med.eu/carbon-4-soil-quality-final-conference/ . A snapshot of the conference website is displayed in Figure 2.1.

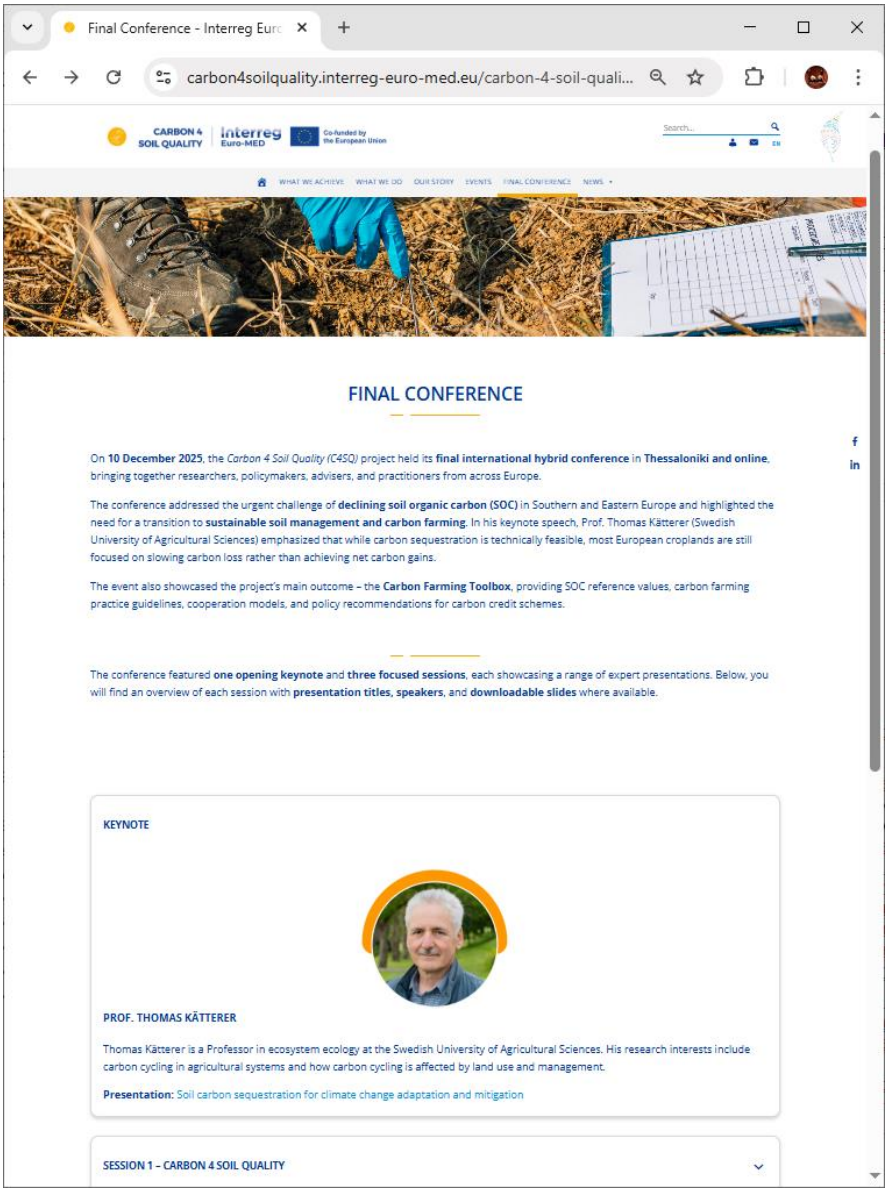

Figure 2.1. A snapshot of the conference website (accessed 12/01/26)

All project partners contributed to define a list of potential speakers, which included renowned scientists, representatives of agricultural extension services, regional/national agricultural and environmental decision makers, farmers practicing regenerative agriculture, and other key stakeholders. All these groups of potential speakers had experience on the above mentioned aspects of carbon farming. Special attention was given to attract presentations from other research projects on carbon farming, which were ongoing or that have been concluded recently. The presentations were organized in three thematic areas: 1. Results of the project “Carbon for Soil Quality”, 2. Carbon Farming for Climate Action, and 3. Policy and Carbon Markets. The program of the conference is shown in Figure 3.1.

Having the program of the conference, invitations were sent to potential participants that included a wider list of the above mentioned stakeholders. Posters, e-mails and announcements to the social media were employed to make the conference known and to attract attention. The conference poster is presented in Annex I. Selected posts to social media are presented in Annex II.

General conference report and scientific papers

The conference brought together researchers, practitioners, and policy stakeholders to discuss recent advances, practical experiences, and future perspectives on carbon farming, with a particular focus on Mediterranean agroecosystems. Altogether, more than 90 participants attended the conference, 64 in person, and more than 26 online.

A total of 18 scientific papers were presented, including one keynote presentation.

The opening keynote was given by prof. Thomas Kätterer from the Swedish University of Agricultural Sciences, entitled “Soil carbon sequestration for climate change adaptation and mitigation”. He highlighted the current situation, that although carbon sequestration is technically achievable, as demonstrated in Sweden, most European croplands are still primarily focused on slowing carbon losses rather than achieving net gains in the soil. To accelerate progress, carbon farming is essential for storing more CO_2 in soils. This is precisely why the C4SQ project is so timely, providing the scientific, technical, and practical foundation for future testing and implementation of carbon-farming approaches across Mediterranean agriculture.

The main body of the event was structured into three thematic sessions covering research outcomes, on-farm practices and case studies, and policy, digital tools, and carbon market frameworks. Experienced scientists from the project partners chaired the three sessions, moderating the questions and promoting discussions.

The **first session** focused on research conducted within the C4SQ project (Figure 3.1) and addressed the following topics:

- Better understanding of carbon farming benefits for quality of soil and CO2 reduction
- Carbon farming techniques: a key for maintaining soil organic carbon
- Establishing the basis for implementing carbon farming in the Mediterranean
- Transferable carbon farming training materials.

Presentations highlighted the multiple benefits of carbon farming for improving soil quality and enhancing CO_2 sequestration, emphasizing the role of soil organic carbon in sustainable land management.

Key contributions addressed carbon farming techniques as essential tools for maintaining and increasing soil organic carbon stocks, while also exploring the specific agro-climatic conditions of the Mediterranean region. The session also laid the groundwork for the implementation of carbon farming practices by identifying enabling factors and constraints. In addition, the development of transferable training materials was presented, aiming to support capacity building and facilitate

the uptake of carbon farming practices across regions. To help close the gap between research and practice, the project produced a suite of training materials for farmers and practitioners. These include a digital brochure, videos, and an online course covering seven thematic modules, from soil quality and the carbon cycle to the selection of suitable techniques and an introduction to carbon credits. As many presenters have emphasized, the next step is to shift toward knowledge transfer, which is most effective when delivered through demonstration fields, living labs, and hands-on training in the local language.

The **second session** explored mechanisms, practices, and case studies related to carbon farming for climate mitigation. The presented contributions (Figure 3.1) included:

- Mechanisms and rates of C sequestration associated with cover cropping practices
- Regenera.cat, a network of regenerative farms in Catalonia: results of their comparison with conventional farms
- Carbon farming – two years of experience: Trials, results & biological background
- Uptake by farmers of carbon sequestration practices in Greece. Case studies, challenges, and pathways
- Integrating carbon farming practices in the Mediterranean region through CARBONICA project: Case study of Cyprus pilot sites
- Soil organic carbon stocks in European topsoils
- Regenerative Agriculture – The only solution on croplands and grasslands.

Several presentations explored the rates and mechanisms of carbon sequestration associated with cover cropping and regenerative practices.

Case studies from across Europe and the Mediterranean were presented, including results from regenerative farm networks such as Regenera.cat in Catalonia, which compared regenerative and conventional farming systems. Long-term trials and experimental results illustrated the biological background and outcomes of carbon farming practices after two years of implementation.

Further contributions addressed farmer uptake of carbon sequestration practices in Greece, identifying challenges, barriers, and potential pathways for wider adoption. The integration of carbon farming practices through regional initiatives, such as the CARBONICA project in Cyprus, was also discussed. Broader-scale analyses, including assessments of soil organic carbon stocks in European topsoils, complemented the session. The session concluded with a perspective on

regenerative agriculture as a comprehensive solution for enhancing soil health and climate mitigation on croplands and grasslands.

The **third session** addressed policy frameworks, digital tools, and carbon markets, with the following presentations:

- Overview of the CARBONICA Excellence Hub
- The CFMED platform for quantifying potential carbon removals (under development). Empowering Mediterranean Carbon Farming Through Digital Innovation and Predictive Tools
- Carbonica Excellence Hub: Advancing Carbon Farming Knowledge, MRV Practice and Policy in the Euro-MED Region
- Rural Development in the perspective of Soil Health in Emilia Romagna Region

The third session focused on enabling frameworks for scaling up carbon farming, addressing policy development, monitoring tools, and market integration. An overview of the CARBONICA Excellence Hub highlighted its role in advancing knowledge exchange, supporting monitoring, reporting and verification (MRV) practices, and strengthening policy dialogue in the Euro-Mediterranean region.

Presentations introduced digital innovation through platforms such as CFMED, currently under development, designed to quantify potential carbon removals and support predictive assessments. These tools aim to empower stakeholders by improving transparency, decision-making, and credibility of carbon farming initiatives. The session also explored regional policy perspectives, including rural development strategies linked to soil health, with a case study from the Emilia-Romagna Region.

Photos from the conference are shown in Annex III.

All presentations are available on the conference website.

9:00 – 9:30	**Registration**	
9:30 – 9:45	**Welcome Address**	Organizing Committee & director KIS
9:45 – 10:15	**Opening Keynote:** "Soil carbon sequestration for climate change adaptation and mitigation"	Thomas Kätterer
Session 1 – Results of the project "Carbon for Soil Quality"		
Session chair: Maria Grazia Tommasini		
10:15 – 10:30	**Introduction to Carbon 4 Soil Quality**	Darko Ferčej
10:30 – 10:45	Better understanding of carbon farming benefits for quality of soil and CO_2 reduction	Francesco Morari
10:45 – 11:00	Carbon farming techniques: a key for maintaining soil organic carbon	Dushko Mukaetov
11:00 – 11:15	Establishing the basis for implementing Carbon farming in the Mediterranean	Simon Ograjšek
11:15 – 11:30	Transferrable carbon farming training materials	George Bilas & Thomas Koutsos
11:30 – 12:00	**Coffee break**	
Session 2 - Carbon Farming for Climate Action		
Session chair: Julian Cuevas Gonzalez		
12:00 – 12:15	Mechanisms and rates of C sequestration associated with cover cropping practices	Miguel L. Cabrera
12:15 – 12:30	Regenera.cat, a network of regenerative farms in Catalonia: results of their comparison with conventional farms	Javier Retana
12:30 – 12:45	CARBON FARMING – TWO YEARS OF EXPERIENCE: Trials, results & biological background	Bettina Fähnrich
12:45 – 13:00	Uptake by farmers of carbon sequestration practices in Greece. Case studies, challenges, and pathways	Sheila Darmos
13:00 – 13:15	Integrating carbon farming practices in the Mediterranean region through CARBONICA project: Case study of Cyprus pilot sites	Maria Prantsidou
13:15 – 13:30	Soil organic carbon stocks in European topsoils	Panos Panagos (online)
13:30 – 13:45	Regenerative Agriculture – The only solution on croplands and grasslands	Michels Ambrus (online)
13:45 – 14:00	Open questions	
14:00 – 15:30	**Lunch**	
Session 3 - Policy and Carbon Markets		
Session chair: Simon Ograjšek		
15:30 – 15:45	Overview of the CARBONICA Excellence Hub	Thanos Arampatzis
15:45 – 16:00	The CFMED platform for quantifying potential carbon removals (under development). Empowering Mediterranean Carbon Farming Through Digital Innovation and Predictive Tools	Carlos Alberto Torres Guerrero
16:00 – 16:15	Carbonica Excellence Hub: Advancing Carbon Farming Knowledge, MRV Practice and Policy in the Euro-MED Region	Daphne Kitsou (online)
16:15 – 16:30	Rural Development in the perspective of Soil Health in Emilia Romagna Region	Giampaolo Sarno
16:30 – 16:45	Farming as if life depended on it: examples from Iberia of Regenerative Agriculture for the Mediterranean	Ana Digon (online)
16:45 – 17:00	Open questions - discussion	

Figure 3.1. Program of the conference

Satisfaction feedback statistical analysis

1.2. Survey Instrument Design

To provide a comprehensive assessment of the final conference, a structured satisfaction survey was developed and administered to all participants. The primary objective of this instrument was to evaluate the efficacy of the event's scientific dissemination, the quality of the thematic sessions, and the overall logistical performance.

The questionnaire was designed using a multi-dimensional approach, incorporating quantitative metrics and qualitative open-ended responses. The questions of the survey are listed in Annex IV.

The survey instrument is organized into the following analytical thematic areas:

1. Participant Profile and Engagement Metrics

This section serves to establish the geographical distribution of the participants and the mode of attendance, which is critical for understanding the reach of the spatial and environmental data presented during the conference.

- **Origin:** Which country do you come from? (With a follow-up for specific country identification if not listed).
- **Mode of Participation:** How did you follow the event (on-site or online)?

2. Preliminary Communication and Objectives

Evaluating the clarity of the conference's scientific objectives and the utility of the digital infrastructure provided to the participants.

- **Information usefulness:** Did you find the information on our website useful? (Yes/No/No opinion)
- **Clarity of Purpose:** Did you find that the objectives of the event were clearly stated? (Yes/No/No opinion)
- **Expectation Alignment:** Did the event meet your expectations? (Yes/No/No opinion)

3. Structural and Technical Evaluation

These questions focus on the temporal organization and the academic quality of the contributors.

- **Temporal Organization:** How would you rate the timing and structure of the agenda? (from 1 to 5, with 5 being very satisfying)

- **Expertise Assessment:** Were you satisfied with the quality of the speakers? (Yes/No/No opinion)

4. Scientific Session Analysis

Participants were requested to provide specific feedback on the core thematic sessions of the C4SQ project, by selecting the part(s) of the event that they found the most interesting. This allows for a granular analysis of the impact of individual project results and policy discussions.

- Welcome speeches.
- Opening Keynote.
- Session 1 – Results of the project "Carbon for Soil Quality".
- Session 2 – Carbon Farming for Climate Action.
- Session 3 – Policy and Carbon Markets.

5. Infrastructure and Logistics (Spatial and Operational Context)

Recognizing the importance of the conference environment for both on-site networking and online accessibility, specific logistical indicators were evaluated.

- **Venue Quality:** How would you rate the conference venue from 1 to 5 (with 5 being very satisfying)?
- **Hospitality:** Were you satisfied with the catering during the event? (Yes/No/No opinion)
- **Attendance Drivers:** What was the main reason for attending the event on-site? (For the live experience (more lively and interesting) / Mostly to network / Other)
- **Digital Reach:** Were you satisfied with the quality of the streaming? (Yes/No/No opinion)
- **Constraint Analysis:** What was the reason why you did not attend the event on-site? (I did not come because I could not come for only a day event / I prefer online events, they are more convenient for me / Other)

6. Synthesized Evaluation and Qualitative Input

A final holistic metric was used to gauge the overall success of the event, complemented by qualitative feedback for future methodological improvements.

- **Global Assessment:** What is your overall evaluation of the event? (5 levels from Excellent to Very poor)
- **Open Feedback:** Any comments / suggestions.

The results derived from this questionnaire provide the empirical basis for the subsequent statistical analysis and the formulation of recommendations for future conferences.

1.3. Reliability of the Dataset

Beyond internal consistency, the dataset's reliability can be analyzed through sample representativeness, validity of responses and data integrity as follows:

A. Sample Representativeness

With *n* = 53 responses for a specialized project conference with more than 90 participants, the sample size can be considered as robust. It represents a broad geographic distribution (11 countries), minimizing localized bias and providing a reliable cross-section of the participants.

B. Response Validity

There is strong face validity in the data. The consistency between qualitative feedback (e.g., "Well done. Very interesting") and the quantitative score (5/5) suggest that respondents provided thoughtful and honest evaluations.

C. Data Integrity

The dataset shows a high completion rate. For the mandatory evaluative fields (Overall Evaluation, Agenda, Expectations), there are zero missing values across all 53 entries. This completeness enhances the reliability of the derived mean scores and prevents the need for data imputation, which could introduce bias. The internal consistency of the survey instrument was evaluated using Cronbach's alpha, yielding a coefficient of alpha = 0.59. While this value is characterized as acceptable in exploratory research, its interpretation must be contextualized within the statistical properties of the dataset. Specifically, the high level of participant consensus (where 100% of respondents reported meeting expectations) resulted in a significant ceiling effect. This lack of variance mathematically depresses the alpha coefficient, despite the evident reliability and stability of the responses. Furthermore, the high inter-item correlation between the 'Agenda Structure' and 'Overall Evaluation' (r = 0.71) confirms that the dataset maintains a high degree of consistency.

The dataset is highly reliable for making institutional inferences. While Cronbach's alpha was numerically moderate (0.59) due to the extreme "ceiling effect" (overwhelmingly positive feedback), the internal consistency and response integrity confirm that the survey results accurately reflect the high level of participant satisfaction.

1.4. Geographical Distribution of Participation

The event attracted a diverse international audience, primarily from the Mediterranean and Balkan regions (Figure 4.1). The geographic distribution is summarized as follows:

- **Greece:** 30.2% (*n*=16)
- **Montenegro:** 13.2% (*n*=7)
- **Italy, Spain, Slovenia, and North Macedonia:** 11.3% each (*n*=6 per country)
- **Other:** Contributions were also noted from Cyprus, Albania, Croatia, Germany, and the USA.

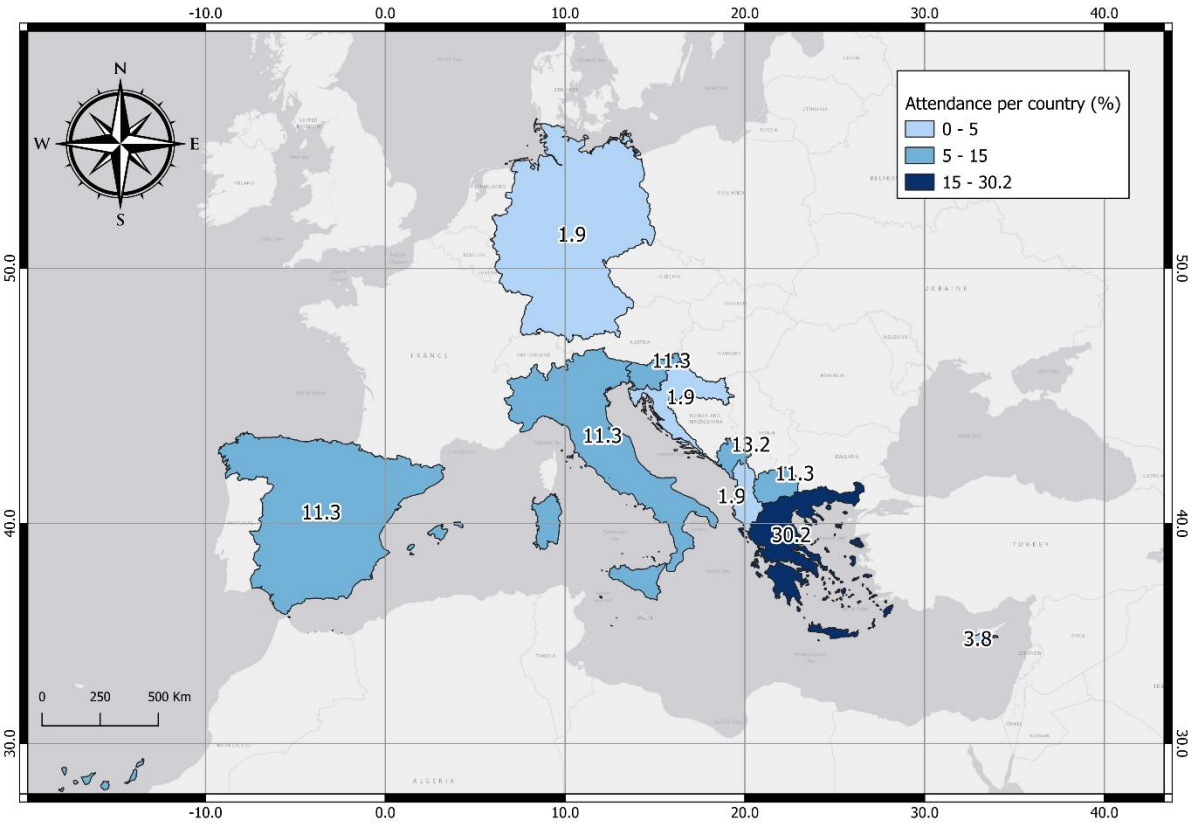

Figure 4.1. Attendance (%) per country, primarily from Mediterranean and Balkan regions.

Regarding the mode of participation, most respondents attended **On-site** (73.6%), while 26.4% followed the proceedings **Online**. Figure 4.2 depicts the detailed participation per country per mode of attendance.

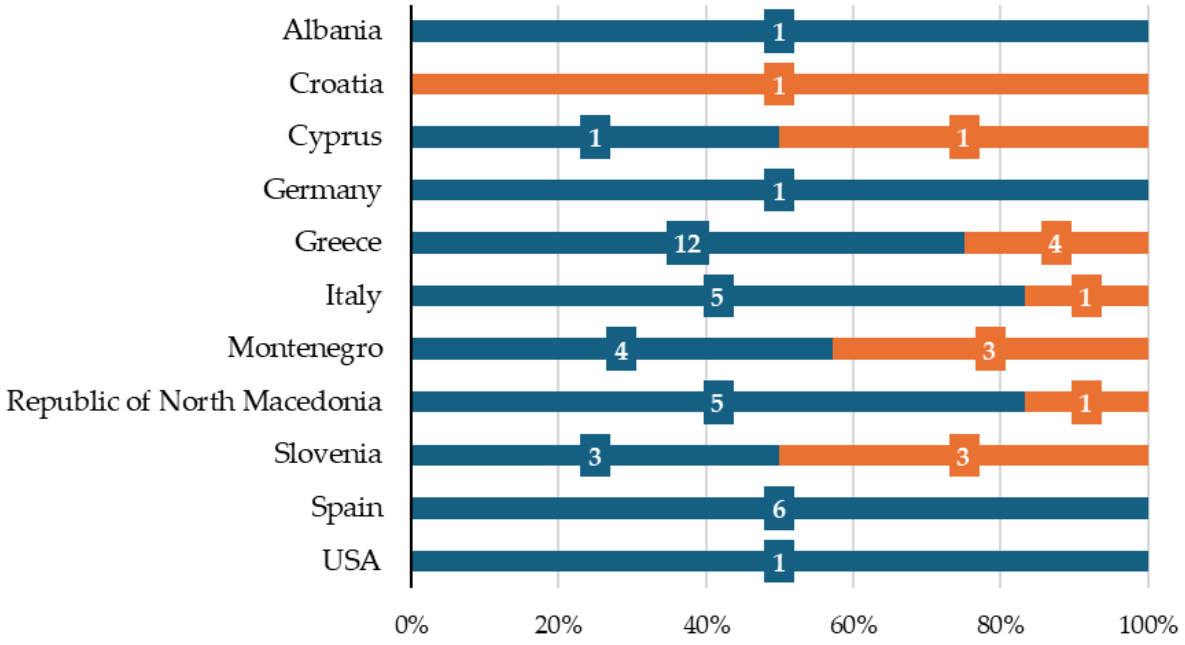

Figure 4.2. *Participation per country and per mode of attendance (blue color: on-site; orange color: online). Numbers represent the total number of participants per mode of participation.*

The dataset comprises a broad geographic distribution spanning 11 distinct countries, thereby mitigating localized bias and ensuring a representative cross-section of the project's diverse stakeholder network. This inclusivity was further facilitated by a hybrid delivery model, which integrated physical attendance with synchronized online access to the conference sessions.

1.5. Evaluation of Logistics and Event Structure

Participants provided high ratings across all logistical and structural categories. The indicators below utilize a 1 to 5 Likert scale:

- **Overall Evaluation:** The event received a **mean score of 4.66**. Qualitative breakdown shows that 71.7% of respondents rated the event as "Excellent,"

22.6% as "Very good," and 5.7% as "Good". Figure 4.3 depicts the geographical distribution of the event satisfaction providing the number of participants per country per evaluation category.

- **Timing and Agenda:** The structure and timing were highly regarded, with a mean rating of **4.81** (Figure 4.4).
- **Conference Venue:** On-site participants rated the venue at an average of **4.85** (Figure 4.4).
- **Streaming Quality:** Online participants reported very high satisfaction with the digital broadcast, yielding a mean score of **4.93** (Figure 4.4).
- **Catering:** Among on-site attendees, **97.4%** expressed satisfaction with the catering services.

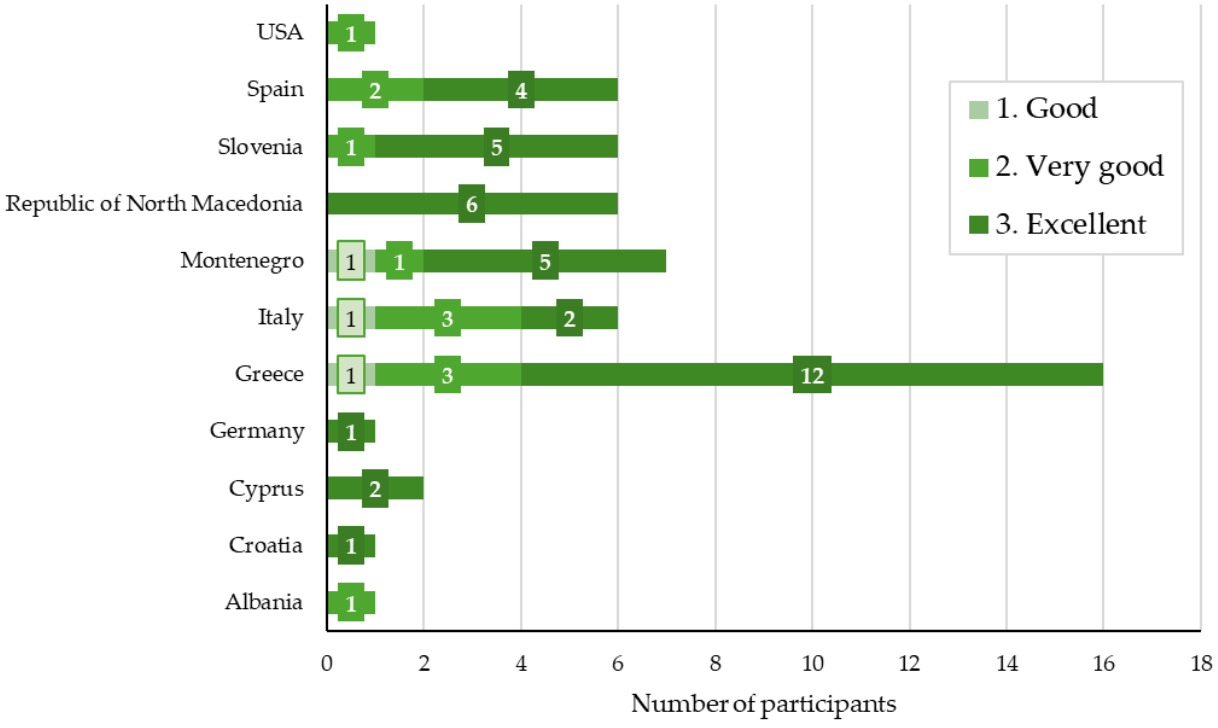

Figure 4.3. Geographical distribution of overall event satisfaction across the European region (with dark green color: the event was rated as excellent; with green color: the event was rated as very good; with light green color: the event was rated as good). Numbers represent the total number of participants in each evaluation category.

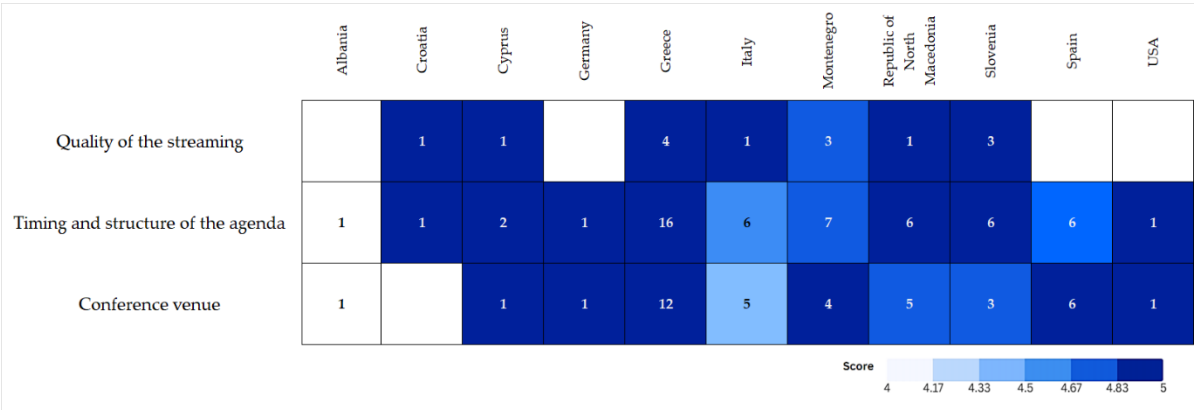

Figure 4.4. Satisfaction scores per country regarding: (a) Quality of streaming; (b) Timing and structure of agenda; (c) Conference venue. Numbers represent the respondents; colors represent the scores.

The provided heatmap (Figure 4.4) illustrates satisfaction scores across eleven countries regarding three specific operational dimensions: Quality of streaming, Timing and structure of agenda, and Conference venue. The assessment utilizes a Likert-style scale ranging from 4.00 to 5.00, where darker shades of blue indicate higher levels of satisfaction. The spatial distribution of the satisfaction scores reveals a high degree of homogeneity in respondent satisfaction (4.83–5.00).

Based on the empirical data presented, the following findings can be listed regarding the quality of streaming, the timing and structure of the agenda, and the conference venue:

- **Quality of Streaming**: This metric shows high performance across most of the countries. Croatia, Cyprus, Greece, Germany, Republic of North Macedonia, and Slovenia all achieved the maximum score. Montenegro exhibits a slightly lower, yet still robust, satisfaction level (approximately 4.67–4.83). Notably, Albania and Italy represent outliers in this category, with Albania recording the lowest relative score (4.00) and Italy falling within the mid-range (4.33–4.50).
- **Timing and Structure of Agenda**: The temporal and structural organization of the event received near-universal acclaim. Except for Albania (4.00) and Italy (4.67), all participating countries—including Spain and the USA—reported satisfaction levels in the highest tier (5.00).
- **Conference Venue**: The physical infrastructure received varied feedback. While Cyprus, Germany, Greece, Montenegro, and the USA reported maximum satisfaction, Spain and Republic of North

Macedonia followed closely. Italy again presents a statistical deviation, recording a score in the 4.17–4.33 range, suggesting potential higher expectations regarding venue facilities.

The results indicate that the conference maintained a high standard of delivery across diverse geographic locations. The "Timing and structure of agenda" emerged as the most consistently highly rated dimension. In contrast, Italy and Albania consistently report lower scores across all three categories. This spatial variation may suggest underlying differences in local digital infrastructure (impacting streaming), specific regional expectations regarding venue and scheduling or differing evaluation sensitivity.

1.6. Content and Session Analysis

The technical content was a significant driver of attendance. Figure 4.5 depicts the number of participants (%) per session. Specifically, the engagement levels per session (defined by the number of participants specifically identifying them in their feedback) were:

1. **Opening Keynote:** 29 participants or **54.7%**.
2. **Session 1** - Results of the project "Carbon for Soil Quality": 33 participants or **62.3%**.
3. **Session 2** - Carbon Farming for Climate Action: 42 participants or **79.2%**.
4. **Session 3** - Policy and Carbon Markets: 23 participants or **43.4%**.

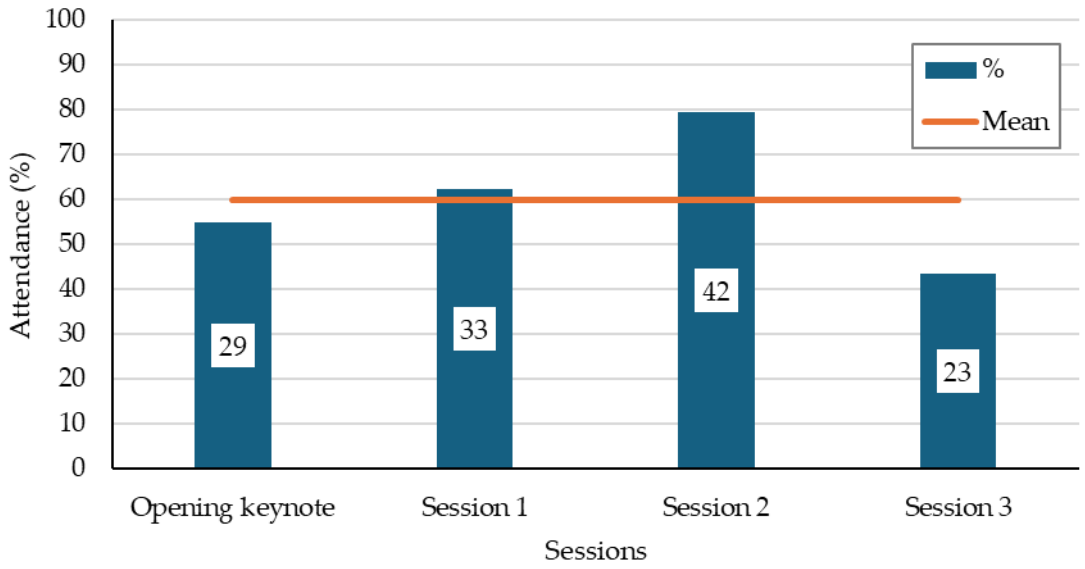

Figure 4.5. Attendance (%) per session.

The primary motivations for on-site attendance were the "live experience" (**79.5%**) and "networking opportunities" (**17.9%**). For those online, convenience was the leading factor (**57.1%**).

The analysis on event sessions reveals that **Session 2** - Carbon Farming for Climate Action was the primary driver of participant engagement, identified by **79.2%** of respondents. This underscores the high stakeholder interest in the project's core research area.

1.7. Critical Findings and recommendations

The survey results indicate that the C4SQ Final Conference successfully met its objectives and maintained a high standard of delivery. The **100% satisfaction rate regarding speaker quality and objective clarity** underscores the scientific and organizational rigor of the project. The overall performance of the event was exceptional, achieving a **mean satisfaction score of 4.66 out of 5.0.**

Key Strengths:

- **High level of engagement** with the "Carbon Farming" thematic block.
- **Seamless integration of hybrid participation** (high streaming and venue scores).
- **Strong regional representation** from project partner countries.

Recommendations:

Given the success of the networking sessions and the preference for live interaction, future events should continue to prioritize hybrid formats that maximize on-site interaction while maintaining the accessibility provided by high-quality streaming for international stakeholders.

Policy impact overview

The conference provided a comprehensive, evidence-based perspective on carbon farming, linking scientific research, on-farm practice, and policy innovation with a strong focus on the Mediterranean context. Across the three sessions, key policy-relevant insights emerged.

Strengthening the Scientific Basis for Policy Action

The first session consolidated research outputs from the C4SQ project, contributing directly to policy design by:

- Demonstrating the dual role of carbon farming in improving soil quality and reducing CO_2 emissions, reinforcing its relevance for climate and soil protection strategies.
- Identifying effective carbon farming techniques that maintain and increase soil organic carbon, supporting the integration of these practices into agri-environmental schemes.
- Establishing Mediterranean-specific evidence, addressing a critical gap in EU-level carbon farming discussions that often rely on data from other European regions.
- Developing transferable training materials, supporting capacity building and enabling public authorities to scale up farmer education and advisory services.

Policy relevance: These findings support the inclusion of carbon farming in CAP eco-schemes, soil health policies, and climate mitigation frameworks, with regionally adapted guidance.

Informing about Implementation and Farmer Uptake

The second session translated research into practice through mechanisms, case studies, and comparative analyses:

- Empirical evidence on carbon sequestration rates linked to cover cropping and regenerative practices provides benchmarks for policy targets and monitoring.
- Comparative results between regenerative and conventional farms (e.g. Regenera.cat) highlighted co-benefits for productivity and resilience, strengthening the case for incentives.
- Case studies from Greece, Cyprus, and across Europe revealed barriers to farmer uptake, including knowledge gaps, economic uncertainty, and administrative complexity.

- Long-term trials and biological insights underscored the need for policy continuity and long-term support, rather than short funding cycles.
- The other GHGs need to be considered for an overall evaluation of the climate mitigation potential.

Policy relevance: These contributions inform the design of incentive schemes, advisory systems, and rural development measures that are realistic, farmer-centered, and outcome-oriented.

Enabling Frameworks: Policy, Digital Tools, and Carbon Markets

The third session focused on governance, innovation, and scaling:

- The CARBONICA Excellence Hub emerged as a knowledge and policy interface, supporting harmonization of approaches across the Euro-Mediterranean region.
- Digital tools such as the CFMED platform showed strong potential for supporting MRV (Monitoring, Reporting and Verification), a key prerequisite for credible carbon markets and result-based payments.
- Regional policy perspectives, such as rural development strategies linked to soil health, illustrated how carbon farming can be embedded in existing territorial policies.

Policy relevance: These initiatives contribute to building trust, transparency, and coherence across policies, enabling alignment between climate targets, soil health objectives, and emerging carbon markets.

Overall Policy Message

The conference highlighted carbon farming as a strategic policy lever for achieving climate mitigation, soil health restoration, and resilient agricultural systems in the Mediterranean. Effective policy action will require:

- Strong science-policy integration,
- Long-term support for farmers,
- Robust digital and MRV tools,
- Regional adaptation within EU-wide frameworks.

Together, these elements can accelerate the transition from pilot projects to scalable, policy-embedded carbon farming systems.

Conclusions

The conclusions of the C4SQ Final Conference emphasize the pivotal role of carbon farming in shaping sustainable agriculture and climate resilience across the Euro-Mediterranean region.

- **Objectives Achieved**: The conference successfully met its dual aim—presenting state-of-the-art developments in carbon farming and raising awareness among policymakers, farmers, and stakeholders in the Mediterranean region.
- **Scientific Contributions**: Research outputs demonstrated that carbon farming improves soil quality and contributes to climate mitigation by increasing soil organic carbon. Transferable training materials were developed to support farmer education and advisory services.
- **Practical Insights**: Case studies from Greece, Cyprus, and Spain highlighted both the potential of regenerative practices and the barriers to farmer adoption, such as knowledge gaps and economic uncertainty. Long-term trials emphasized the need for continuity and stable support mechanisms.
- **Policy and Innovation**: The CARBONICA Excellence Hub and digital tools like the CFMED platform emerged as key enablers for monitoring, reporting, verification (MRV), and integration into carbon markets. Regional policy perspectives showed how carbon farming can be embedded into rural development and soil health strategies.
- **Stakeholder Satisfaction**: Participant feedback was overwhelmingly positive, with high ratings for agenda structure, venue, streaming quality, and speaker expertise. Session 2 on *Carbon Farming for Climate Action* was the most engaging, underscoring strong interest in practical applications.
- **Strategic Policy Message**: Carbon farming is positioned as a critical lever for climate resilience, soil health restoration, and sustainable agriculture in the Mediterranean. Effective scaling requires science-policy integration, long-term farmer support, robust digital MRV tools, and regionally adapted EU frameworks.

Overall, the conference demonstrated the growing momentum of carbon farming as a viable strategy for climate mitigation, soil health improvement, and sustainable rural development. By combining scientific research, practical experiences, digital innovation, and policy frameworks, the event highlighted pathways for scaling up carbon farming practices across the Mediterranean and beyond.

ANNEX I
Conference poster

Interreg Euro-MED

Co-funded by the European Union

CARBON 4 SOIL QUALITY

CARBON 4 SOIL QUALITY | Interreg Euro-MED

Co-funded by the European Union

CARBON 4 SOIL QUALITY FINAL CONFERENCE

Carbon Farming: Benefits in the Mediterranean region

10 December 2025 | 09.00 | Thessaloniki, Greece & Online

Conference programme and more information

ANNEX II
Selected posts to social media


Carbon 4 Soil Quality
555 followers
3mo •
Speaker Spotlight: Prof. Thomas Kätterer
We are thrilled to welcome Prof. Thomas Kätterer (SLU - Swedish University of Agricultural Sciences) as a keynote speaker at the Carbon4SoilQuality Final Conference. His talk will focus on "Soil carbon sequestration for climate change adaptation and mitigation."
10 December 2025, Thessaloniki / hybrid
More info & registration: https://lnkd.in/dgBgVF_B
#InterregEuroMED #Carbon4SoilQuality
CARBON 4 SOIL QUALITY
Interreg Euro-MED
Co-funded by the European Union
CARBON FARMING: BENEFITS IN THE MEDITERRANEAN REGION
Prof. Thomas Kätterer
Soil carbon sequestration for climate change adaptation and mitigation
10 December 2025
Thessaloniki, Greece & Online
You and 7 others
Like
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Add a comment...


Carbon 4 Soil Quality
555 followers
1mo • Edited •
Join the Carbon4SoilQuality Final Conference Online!
If you cannot join us in Thessaloniki in person, don't miss the chance to follow the keynotes, discussions, and insights live from anywhere!
Date: 10 December 2025
Time: 09:30 (EET)
Location: Online via Zoom
Zoom link: https://lnkd.in/d-nv69sf
More info about the conference: https://lnkd.in/dgBgVF_B
We look forward to welcoming you online!
#InterregEuroMED #Carbon4SoilQuality
CARBON 4 SOIL QUALITY
Interreg Euro-MED
Co-funded by the European Union
CARBON 4 SOIL QUALITY FINAL CONFERENCE
Carbon Farming: Benefits in the Mediterranean region
10 December 2025
Join us online via ZOOM!
You and 7 others
1 comment · 4 reposts
Like
Comment
Repost
Send

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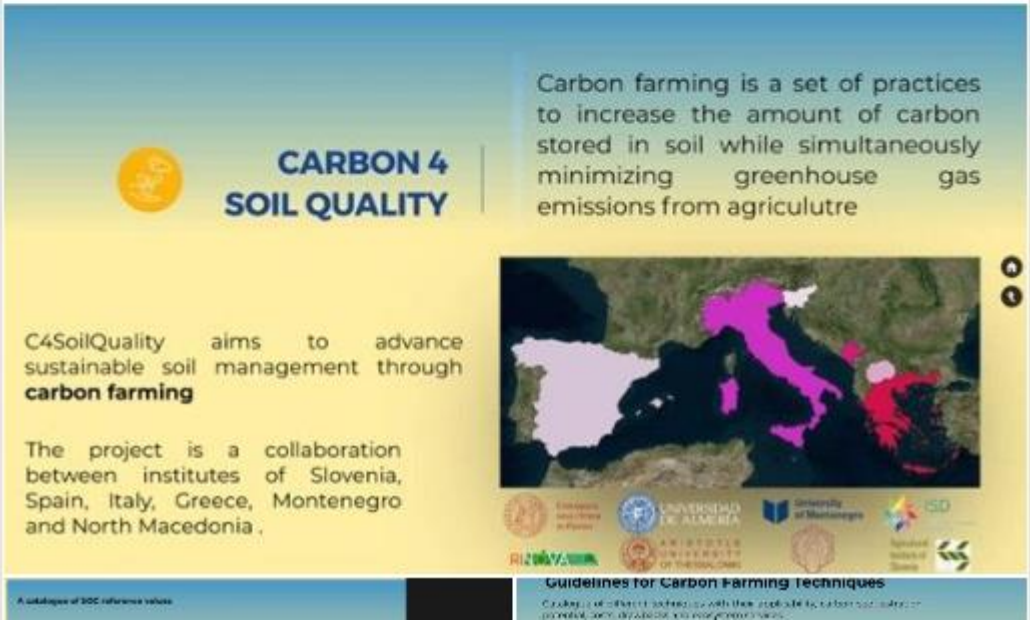
The **C4SQ international conference** held this Wednesday was a significant opportunity to explore what carbon farming can realistically deliver for Mediterranean agriculture. Partners from Slovenia, Spain, Italy, Greece, Montenegro, and North Macedonia presented the project's main scientific findings, practical guidelines, and educational materials, all compiled in the **Carbon Farming Toolbox**:

- **Catalogue of SOC reference values and soil quality**
- **Methodology for organic carbon analysis**
- **Guidelines for carbon farming practices**
- **Business collaboration models**
- **Recommendations for carbon credit schemes**

The event also featured **12 keynote speakers** who shared insights on soil carbon sequestration, cover cropping, organic and regenerative vs. conventional farming, practical trials and results, farmer adoption and challenges, integration of carbon farming in Mediterranean pilot sites, soil carbon stock assessments, digital tools for quantifying carbon removals, MRV practices, policy frameworks, rural development, and soil health.

It was inspiring to see **researchers and practitioners** exchange ideas on supporting farmers and the environment through effective carbon farming systems.



Carbon 4 Soil Quality
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The **key messages we took away** from the C4SQ conference on 10th December 2025:

🌍 **Carbon farming is becoming essential**
Soils are losing organic carbon faster than it can be restored. Maintaining current levels will soon be a challenging without improved soil management practices.

⚡ **Shift from slowing losses to building gains**
As Prof. Thomas Kätterer highlighted, most European croplands are still focused on slowing carbon loss, rather than achieving net gains. Practical, farmer-friendly solutions are now critical.

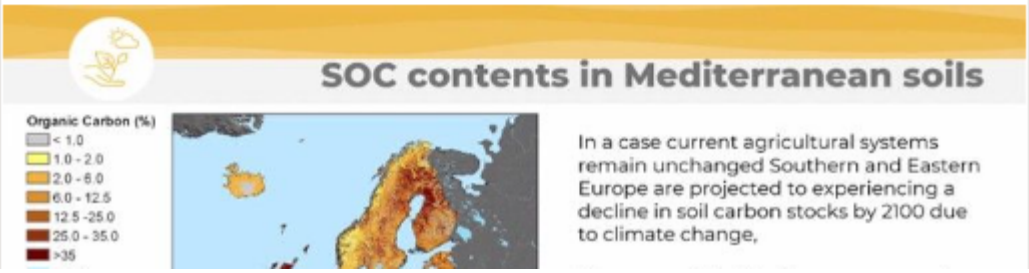
🛠️ **Carbon Farming Toolbox as a practical pathway**
It provides reference values, monitoring methods, and modelling adapted to Mediterranean conditions, along with guidelines that balance costs, benefits, and ecosystem impacts helping farmers take informed steps towards resilient soils.

💰 **Adoption depends on affordability and awareness**
High costs of soil testing and certification, along with traditional farming habits, slow adoption; however, interest is rising among younger farmers, NGOs and researchers.

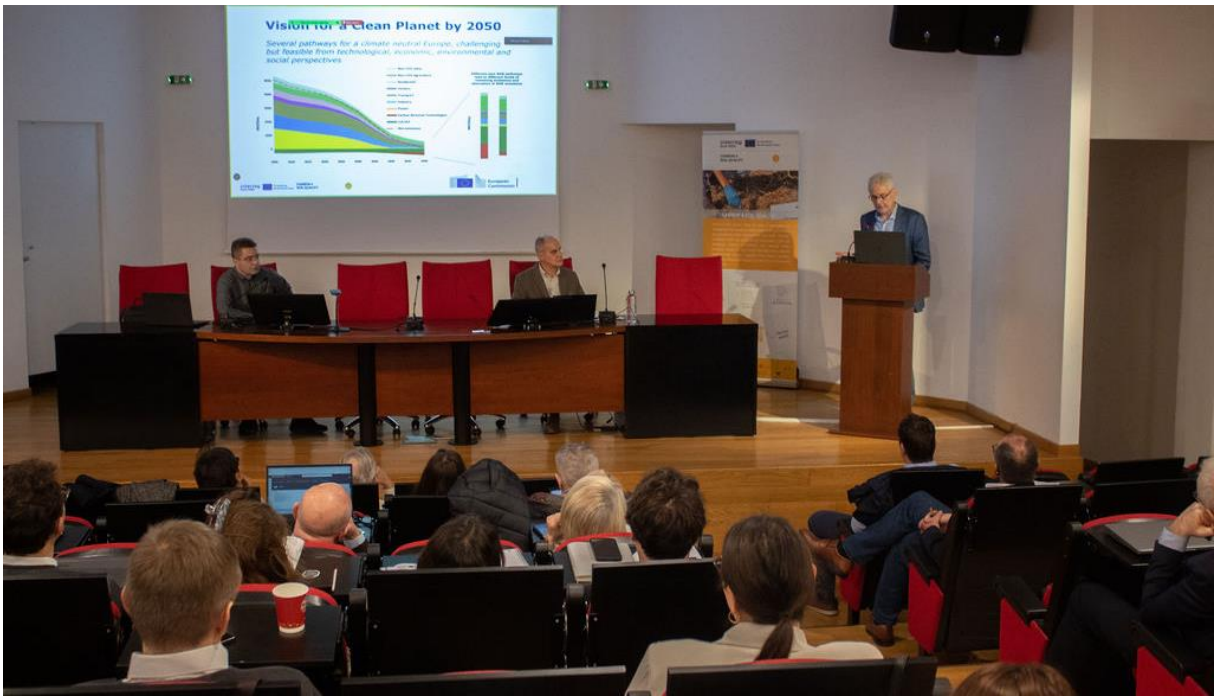
📚 **Knowledge transfer is the priority**
Demonstration fields, living labs, and hands-on training were highlighted as the most effective ways to make carbon farming practical and accessible.

📜 **Policy gaps remain**
None of the participating countries has an official definition of carbon farming, and establishing reliable monitoring and verification systems remains a key challenge.

Together, they provided a comprehensive overview of emerging strategies and practical solutions supporting carbon farming across the Euro-Mediterranean region. The conference confirmed that the science, tools, and momentum are here: we can move towards implementation, knowledge transfer, and the development of a supportive framework for farmers across the Mediterranean.



ANNEX III
Photos


Vision for a Clean Planet by 2050
Several pathways for a climate neutral Europe, challenging but feasible from technological, economic, environmental and social perspectives


Carbon Removal & Carbon Farming (CRCF)

ANNEX IV
Satisfaction survey – Conference Satisfaction Questionnaire

The following list comprises the specific questions and evaluation metrics included in the post-event survey for the "Carbon for Soil Quality" (C4SQ) final conference. This instrument was designed to capture a range of quantitative and qualitative data regarding participant engagement and session efficacy.

1. Which country do you come from?

2. If other, please specify the country.

3. Did you follow the event? (Options: On-site / Online)

4. Did you find the information on our website useful?

5. Did you find that the objectives of the event were clearly stated?

6. Did the event meet your expectations?

7. How would you rate the timing and structure of the agenda?

8. Were you satisfied with the quality of the speakers?

9. Evaluation of specific sessions (Likert scale):

    - Welcome speeches

    - Opening Keynote: “Soil carbon sequestration for climate change adaptation and mitigation”

    - Session 1: Results of the project “Carbon for Soil Quality”

- Session 2: Carbon Farming for Climate Action
- Session 3: Policy and Carbon Markets

10. How would you rate the conference venue from 1 to 5?
11. Were you satisfied with the catering during the event?
12. What was the main reason for attending the event on-site?
13. If there is other reason for attending, please specify.
14. Were you satisfied with the quality of the streaming?
15. What was the reason why you did not attend the event on-site?
16. If there is other reason for remote attendance, please specify.
17. What is your overall evaluation of the event?
18. Any comments / suggestions?