

Carbon Farming CE

# TRAINING MATERIAL AND SEMINARS REPORT



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# EXECUTIVE SUMMARY



This joint report synthesizes the design, delivery, and results of 27 carbon-farming seminars conducted by 9 partner countries between February 2024 and August 2025. The programme aimed to build practical competencies for soil-carbon management, align farm practices with EU climate policy, and surface barriers and enablers for adoption.

Between February 2024 and August 2025, nine partner countries delivered a coordinated programme of 27 capacity-building seminars on carbon farming, reaching 818 participants across Central Europe. This extensive effort—combining theory, field demonstrations, peer learning and expert dialogue—was designed to strengthen practical competencies in soil-carbon management, deepen understanding of EU climate and agricultural policy, and accelerate the transition toward climate-resilient farming systems.

The seminars varied in scale, format and thematic focus, yet collectively offered a comprehensive, practice-oriented introduction to carbon-farming concepts and techniques. Partners delivered more than 82 hours of training, with the vast majority of events held in person to maximise interaction, field-based learning and hands-on demonstrations. Seminar length ranged from short, introductory 1-hour sessions to a full 8.5-hour field-integrated conference, with most countries providing at least 6.5 hours of training. The most frequently covered topics included soil-carbon sequestration (discussed in 19 seminars), business and cooperation models (10), soil fertility and quality (6), EU regulatory frameworks (5) and the practical use of cover crops and organic fertilizers (4 each). Additional themes reflected the full diversity of carbon-farming strategies tested and implemented in the region—reduced tillage, crop-residue management, intercropping, grazing systems, composting, legumes, liming, agroforestry, silvopastoral systems and Agriculture 4.0 technologies.

A defining strength of the programme was the integration of multiple learning modalities. Concise lectures provided scientific and policy foundations, while case studies and farmers' testimonies offered concrete, context-specific insights into practice adoption. Field visits—conducted in Croatia, Czech Republic, Italy, Poland, Slovenia, Hungary and Austria—allowed participants to



observe real experiments, compare techniques, test equipment and assess soil properties directly in agricultural settings. Particularly valued were demonstrations of SOC/GHG measurement, Visual Soil Assessment, reduced-tillage machinery, compost surface application, drone-based monitoring and autonomous robotic solutions supporting low-disturbance operations. These hands-on elements consistently emerged as the most impactful for transforming conceptual understanding into practical capability.

The seminars succeeded in attracting a broad and diverse audience: farmers, advisors, researchers, policymakers, businesses, students, consumers and invited experts. Their interaction fostered rich dialogue on barriers, opportunities and region-specific implementation challenges. Participants highlighted the relevance and timeliness of the content, the clarity of explanations and the practical orientation of the sessions. Farmers reported gaining a significantly more concrete understanding of carbon-farming practices, their agronomic effects and their relevance to everyday decision-making. Across countries, simplified/reduced tillage and cover crops were identified as the most promising “techniques of the future,” while residue incorporation, manure and compost use were recognised as essential pillars of long-term soil fertility and carbon enhancement.

Despite strong interest, participants also underscored several challenges that influence adoption. Key concerns included uncertainty around financial incentives, carbon-credit valuation and evolving CRCF rules; operational constraints such as machinery availability, weed-control challenges under reduced tillage and variable compost quality; as well as structural issues like declining livestock numbers and limited access to organic amendments. Participants also expressed caution toward emerging carbon-market mechanisms, noting that monitoring and reporting requirements still lack clarity and may not yet align with the realities of smaller or mixed farming systems.

Feedback on workshop organisation was highly positive, with participants praising the professionalism of hosting institutions, the clarity of agendas and the quality of presentations. Still, several practical lessons emerged: afternoon sessions—especially on Fridays—tended to reduce attention and participation, while online-only events lacked the experiential depth provided by field demonstrations. Participants consistently requested more time for practical



components, longer breaks for networking and opportunities to tailor content to their own farming context.

The seminars generated several important achievements. They improved participants' understanding of carbon-sequestration dynamics, indicators and monitoring tools; enhanced their ability to design context-specific practice mixes; and strengthened their familiarity with CAP and CRCF frameworks. They also facilitated new professional relationships, encouraged cross-country learning and helped build emerging communities of practice around soil stewardship and climate mitigation.

Looking forward, the pathway to wider adoption of carbon-farming practices will depend on expanding hands-on training opportunities, providing clear financial and regulatory guidance, improving access to technology and advisory services, and strengthening cooperation across the entire agricultural value chain. Scaling carbon farming in Central Europe ultimately requires a combination of practical know-how, institutional support and ongoing peer exchange—elements that this seminar programme has successfully initiated and that must now be deepened through continuous capacity-building actions.

# INTRODUCTION AND SCOPE OF THE TASK



The Carbon Farming CE project, implemented under the Interreg Central Europe Programme, addresses the strategic challenge of developing and upscaling carbon-farming practices across Central European regions [1]. The project focuses on increasing soil organic carbon (SOC), improving soil health, and reducing greenhouse-gas emissions from agriculture by testing a diverse set of management techniques, developing business models, building monitoring tools and strengthening institutional capacities. Although carbon farming remains underused in Central Europe, its potential is substantial; thus, the project aims to familiarise regional stakeholders with the concept and provide practical pathways for implementation [1].

Carbon farming is defined in a number of scientific, policy and institutional sources. According to the FAO, it refers broadly to agricultural practices that increase carbon sequestration in soils and biomass while delivering environmental and socio-economic co-benefits [2]. The European Parliament describes it as “sequestering and storing carbon and/or reducing greenhouse-gas emissions at farm level,” stressing that while carbon farming offers considerable mitigation potential, it also requires robust governance, monitoring and safeguards to ensure that sequestration outcomes are durable and verifiable [3]. Scientific literature reinforces this view: Strauss, Paul, Dönmez and Burkhard conceptualise carbon farming as an integrated land-management approach aimed at maximising climate-change mitigation and ecosystem-service provision, shaped by soil characteristics, farming systems, socio-economic drivers and enabling policies [4]. Sharma, Kaushal, Kaushik and Ramakrishna emphasise biological, ecological and agronomic strategies that enhance carbon storage while supporting biodiversity and the long-term sustainability of agroecosystems [5]. Within the Carbon Farming CE project, carbon farming is defined as “changing agricultural practices to increase the amount of carbon stored in the soil, or to reduce greenhouse-gas emissions from livestock,” with the overarching objective of strengthening climate resilience in Central Europe [1].

To operationalise these definitions, the Carbon Farming CE partnership tests a wide spectrum of carbon-sequestration practices grouped into three thematic clusters:



## A - Organic inputs and biomass management

A1. Use of organic fertilisation

A2. Relocation of harvest residues

## B - Crop diversification and biomass enhancement

B1. Additional cover crops

B2. Diversification of crop rotation

B3. Intercropping in orchards

B4. Agroforestry

## C - Soil disturbance reduction and land-use change

C1. Reducing tillage to different extents

C2. Peatland restoration

C3. Conversion of arable land to grassland

C4. Liming and soil pH improvement

These practices reflect the agroecological diversity of Central Europe and the need for tailored solutions suited to local soils, climate regimes and agronomic traditions. In Central Europe, such factors are further shaped by a mosaic of small and medium-sized family farms coexisting with remnants of former large-scale cooperative structures, high variability in soil quality and increasing exposure to climate extremes such as prolonged droughts and irregular precipitation. These conditions influence both the technical feasibility of carbon-farming practices and the pace at which they can be adopted.

The adoption of carbon-farming practices is influenced not only by environmental and climatic conditions but also by economic, technological and social factors. Farm structure, financial



constraints, access to machinery, perceived risks associated with long-term commitments and the availability of advisory services all play a crucial role. Social factors—including trust in advisory systems, familiarity with regenerative practices and local traditions of land stewardship—also shape willingness to adopt these techniques.

Countries in Central Europe have been actively exploring carbon farming through research initiatives, demonstration activities and pilot programmes. These efforts aim to evaluate the technical feasibility, economic viability and environmental benefits of different sequestration practices under local conditions. Moreover, carbon farming in Central Europe is increasingly embedded within emerging policy and market frameworks. Instruments such as the Carbon Removal Certification Framework (CRCF) and national incentives under the Common Agricultural Policy (CAP) begin to provide structures through which farmers may quantify and monetise verified carbon sequestration.

However, both CRCF and related performance-based mechanisms remain under development, and critical operational questions—including baseline definition, permanence, leakage, monitoring intervals or risk-management protocols—still require clarification. While the CAP supports climate-friendly practices, a harmonised, outcome-based compensation system for verified soil-carbon gains is not yet fully established. As a result, many farmers in Central Europe approach carbon markets with caution, underlining the need for clear rules, reliable MRV systems and trusted advisory support.

The dynamics described above highlight the importance of knowledge transfer. Capacity-building and training activities enable farmers, advisors, NGOs and institutional representatives to understand carbon-farming techniques, apply them effectively and participate in emerging market mechanisms. Overall, carbon farming represents a strategic approach to combining environmental sustainability with productive agriculture, offering Central European farmers a pathway to contribute to climate mitigation while maintaining resilient and economically viable farming systems.

Within this context, the objective of this joint report on carbon-farming seminars is to provide a comprehensive summary of the educational and training activities designed to strengthen knowledge, skills and capacities among participants. The report documents the structure of the



seminars, including presentations, practical sessions, discussions and Q&A components. It assesses educational effectiveness by identifying the teaching methods that participants found most valuable, the extent of engagement and the perceived usefulness of the materials. It also synthesises key insights, practical experiences and challenges encountered by participants when implementing carbon-farming practices.

As a transnational Interreg CE initiative, the report provides added value by enabling cross-country comparison of training approaches, fostering shared learning across regions and supporting the development of harmonised training structures that can be replicated beyond national contexts. This collective perspective strengthens the foundation for a coherent carbon-farming ecosystem across Central Europe.

Capacity building plays a crucial role in promoting and disseminating carbon farming. Through structured educational activities, farmers, advisors and institutional representatives gain both theoretical knowledge and practical skills necessary to implement soil-carbon sequestration effectively. Strengthening participants' competencies enhances their understanding of the links between agriculture, climate policy and the economy—knowledge essential for informed decision-making at both farm and institutional levels. The seminars also reinforce regional Agricultural Knowledge and Innovation Systems (AKIS), improving the long-term institutional environment needed to support carbon-farming transitions. By improving information flows between farmers, advisors, researchers and policymakers, the seminars help bridge knowledge gaps and foster continuous innovation.

Equally important is the role of the seminars in fostering knowledge exchange and collaboration. They strengthen communities of practice, encourage peer-to-peer learning and promote solutions tailored to local conditions. Such exchanges are particularly valuable in Central Europe, where regenerative agriculture and carbon farming remain emerging fields, and farmers often rely on regionally validated examples before undertaking significant changes. Strengthening communities of practice accelerates not only the diffusion of knowledge but also confidence in adopting innovative techniques.

After analysing the available data, the report evaluates opportunities to support future initiatives by providing guidance for subsequent trainings, seminars and projects, reflecting participant needs, effective teaching methods and potential directions for carbon-farming development. It



opens access to seminar outcomes for a wider audience, including farmers, advisors, researchers, institutions and policymakers, offering practical examples and recommendations for implementing regenerative agriculture.

In summary, this report not only documents the proceedings and outcomes of the carbon-farming seminars but also serves as an educational and strategic tool supporting further development, institutionalisation and scaling of carbon-farming practices across Central Europe.

# PREPARATION FOR THE CAPACITY BUILDING SEMINARS



The preparation phase of Activity 1.3 was designed as a structured and participatory process to ensure that all partners were well-equipped to plan, implement and report their national capacity building seminars. This stage consisted of two complementary components: (1) a series of individual consultation meetings with each partner institution, and (2) the development of a comprehensive Capacity Building Manual, supported by standardised annexes such as the list of participants and the national seminar report template.

## INDIVIDUAL CONSULTATION MEETINGS

To understand partners' existing experience, expectations and needs, the project team conducted individual interviews with each organisation. These meetings served as an explorative diagnostic tool, helping to assess whether and how previous capacity building activities had been carried out at national or institutional level, what formats had worked well, and what challenges partners typically faced in organising seminars.

Across the consultations, several common patterns emerged. Partners emphasised that past capacity building efforts were generally implemented in traditional formats—short in-person workshops, expert-led presentations, field visits or small discussion-oriented meetings. These initiatives were often targeted at farmers or advisors, and less frequently at policymakers, businesses or students. Digital formats had been used occasionally, but in several countries the uptake of online events remained limited, either due to low digital engagement among farmers or logistical barriers.

Partners also shared similar expectations regarding the structure of the upcoming seminars. Many preferred in-person meetings as the most effective way to engage farmers and stakeholders, highlight practical demonstrations and facilitate open discussion. Online seminars were considered useful for broader audiences, but partners stressed the need to keep such events simple, interactive and supported by Q&A sessions. Promotion was usually conducted through familiar communication channels—email invitations, institutional websites, social media, messaging applications and sectoral mailing lists.



Regarding content, partners requested clear, concise and easily transferable materials, including short descriptions of carbon farming techniques, examples of business models, and simplified explanations of carbon sequestration monitoring. Many underlined that farmers would expect practical information—costs, benefits, implementation requirements and local examples. An important recommendation across meetings was to build the seminars around concrete practices, supported by illustrations from trials or best-practice cases from other EU regions.

Partners also highlighted several recommendations for the organisation of seminars:

- keep group sizes manageable to allow discussion;
- combine presentations with interactive elements;
- ensure agenda clarity and thematic focus;
- link the seminar content to national farming realities;
- provide simple evaluation tools, such as questionnaires or short knowledge quizzes;
- encourage learning through field examples, peer exchange and problem-solving.

These insights helped shape the structure and expectations presented later in the Capacity Building Manual.

## DEVELOPMENT OF THE CAPACITY BUILDING MANUAL

Based on the findings from individual meetings, the project team prepared a detailed Capacity Building Manual designed to guide partners through all organisational steps of the seminars. The Manual provided a practical framework covering the full lifecycle of the event—from planning to delivery, evaluation and reporting. It included the following core elements:

- Objectives of the seminars, emphasising that capacity building should strengthen knowledge, skills, cooperation and readiness to adopt carbon farming practices.
- Target audiences, with recommendations for engaging landowners, farmers, advisors, policy makers, businesses, NGOs, academia and other relevant groups.
- Possible scenarios for workshop implementation, including technique-oriented, cooperation/business-model-oriented, monitoring-oriented or mixed events.
- Methodological guidance on planning agendas, selecting topics, defining goals, choosing formats (in-person, online, hybrid) and preparing educational content.



- Good practices for knowledge transfer, including interactive discussions, on-farm demonstrations, practical exercises and peer-to-peer learning.
- A timeline outlining the expected scheduling of seminars, promotional activities and reporting.
- A detailed to-do list, covering logistics, materials, venue arrangements, speaker selection and evaluation requirements.
- Promotion strategies, encouraging the use of diverse communication channels to reach both familiar and new stakeholder groups.
- Additional suggestions, such as involving external experts, integrating results from WP1-WP3, and tailoring discussions to local contexts.
- Guidelines for planning seminar agendas, helping partners balance technical content, discussions, local examples and cross-package elements.
- Evaluation recommendations, including surveys, quizzes, feedback forms or certificates as ways to measure training impact.

The Manual was supplemented by three annexes made available to all partners:

- Annex 1 - National Seminar Report Template, enabling consistent reporting across countries.
- Annex 2 - List of Participants, standardising participant documentation and consent for photography.
- Annex 3 - Photo documentation guidelines, specifying the minimum visual material required for final reporting.

This set of tools ensured that all partners followed a harmonised approach, enabling a coherent transnational comparison across all seminars delivered within the Carbon Farming CE project.

## IMPLEMENTATION OBLIGATIONS FOR PARTNERS

In line with the Activity 1.3 requirements, each partner had three core obligations:

1. Organisation of a minimum of three national seminars addressed to stakeholders relevant for carbon farming in the given country.
2. Preparation of a national report for each seminar, based on the common template and including agenda, participant information, key discussion points, evaluation results and lessons learned.



3. Provision of photographic documentation, ensuring visual evidence of seminar delivery for communication and reporting purposes.

These obligations guaranteed that each partner contributed both substantively and administratively to the transnational output of the project. The structured preparation phase—combining diagnostic consultations, the Manual and unified templates—ensured consistency, comparability and high-quality implementation across all nine participating countries.

# OVERVIEW OF THE SEMINARS



Each of the nine partner countries implemented the plan requiring the organisation of three seminars, though the events differed across several dimensions, including timing, duration, participation format, thematic focus, number of attendees, and stakeholder categories.

The first seminar was delivered by the Italian partner on 22 April 2024, while the final one took place on 6 September 2025 in Slovakia, marking a 17-month period of preparation and implementation of diverse seminar formats (Table 2.1). Altogether, partners conducted 92 hours of lectures, seminars, and discussions. On average, each country devoted 3 hours and 25 minutes to its seminar programme.

The longest seminar, lasting 8.5 hours, was organised by Germany, whereas the shortest ones – each 1 hour – were held by Germany and Slovenia (Figure 2.1).

There were three modes of participation in the seminars: in-person, online and hybrid. The in-person format was used in 22 out of 27 seminars (81.5%). Four seminars (14.8%) were conducted fully online – one each in Austria, Hungary, Italy and Slovakia. In Poland, one seminar was organised in a hybrid format (3.7%), combining in-person and online participation

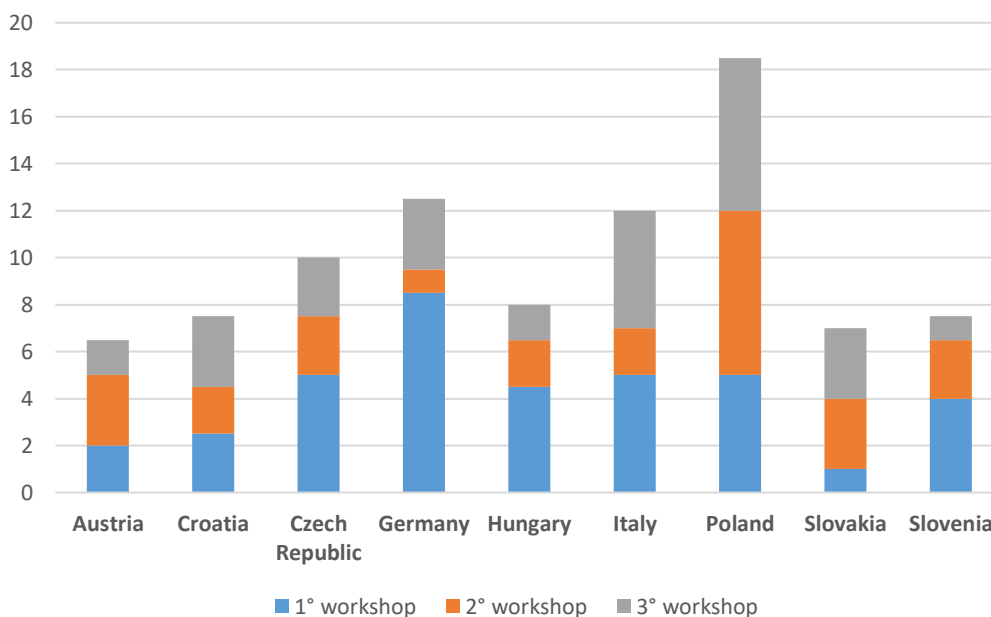


Figure 1: Duration of the seminars in each country [hours]



Tabel 1: Brief information about each workshop

Country	Title of training	Date	Duration [hours]	Main topic	Way of participating
Austria	Humus build-up & carbon farming in viticulture	17.05.2024	2	Humus	in person
	Discussing humus-promoting measures for healthy and drought-resilient soil management	19.11.2024	3	Humus	in person
	How do carbon-farming techniques such as “diversification of crop rotation (B2)”, “additional cover crops (B1)” and “reduced tillage (C1)” influence carbon sequestration?	11.12.2024	1,5	Crop rotation, cover crops, reduced tillage	online
Croatia	First Carbon Farming CE seminar under the project “Development of Carbon Farming in Central Europe”	06.06.2024	2,5	Relocation of crop residues, intercrops	in person
	Second Carbon Farming CE seminar under the project “Development of Carbon Farming in Central Europe”	13.09.2024	2	Business models, EU regulations	in person
	Third Carbon Farming CE seminar under the project “Development of Carbon Farming in Central Europe”	03.03.2025	3	Soil fertility, carbon sequestration	in person
Czech Republic	Development of carbon farming in Central Europe	22.08.2024	5	Carbon sequestration	in person
	Development of carbon farming in Central Europe using techniques from the Carbon Farming CE project	06.11.2024	2,3	Carbon sequestration, cover crops, compost	in person
	Carbon Farming: techniques, advisory services and business models for soil carbon sequestration	04.02.2025	2,5	Cover crops, reduced tillage, organic fertilizer	in person
Germany	Eco-Arable Farming Conference South	22.01.2025	8,5	Humus, lime effect, EU regulations, fertilizer regulations	in person



Country	Title of training	Date	Duration [hours]	Main topic	Way of participating
	Carbon Farming in Central Europe - Techniques, Business Models and Strategy	14.02.2025	1	Carbon sequestration, business models	in person
	Legumes: Good for the Climate and the Environment	28.02.2025	3	Carbon sequestration, legumes	in person
	Recommendations of the Carbon Farming Central Europe programme from the perspective of Hungarian practices	14.10.2024	4,5	EU regulations, carbon sequestration, business models	in person
Hungary	Carbon Farming Online Seminar - Focus on Farm Advisory Services and Grazing Livestock	03.04.2025	2	Carbon sequestration, livestock grazing, business models	online
	Seminar on the Development of Carbon Farming in Central Europe	20.06.2025	1,5	Carbon sequestration, crop rotation, tillage methods, intercrops, fertilisation methods	in person
	Demo Day @ Cadriano	22.04.2024	5	Soil quality indicators, carbon sequestration	in person
Italy	Methodological Approaches for Assessing Organic Carbon Sequestration in Agricultural Soils and Carbon-Farming Practices	04.12.2024	2	Soil quality indicators, carbon sequestration	online
	Carbon Sequestration: Indicators of Soil Functionality and a Methodology for Soil Quality Assessment	27.02.2025	5	Soil quality indicators, carbon sequestration, business models	in person
	Farming techniques supporting carbon sequestration in soil - the pros and cons of using cover crops	18.10.2024	5	Carbon sequestration, cover crops, agriculture 4.0	in person
Poland	Carbon farming capacity building seminar: „Soil, Carbon, Value - The Role of Carbon Farming in the Agriculture-Centred Value Chain“	29.05.2025	7	EU regulations, carbon sequestration, natural & organic fertilizers, reduced	hybrid



Country	Title of training	Date	Duration [hours]	Main topic	Way of participating
				tillagee, short value chain, agriculture 4.0, business models	
	Carbon farming capacity building seminar: „Soil, Carbon, Value - The Role of Carbon Farming in the Agriculture-Centred Value Chain“	30.05.2025	6,5	agroforestry, soil quality, extensive livestock grazing, business models, agroforestry, silvopastoral systems	in person
	Carbon-Farming Business Models - An Opportunity Not Only for Farmers	14.05.2025	1	business models, carbon sequestration	online
Slovakia	Soil Carbon Sequestration: Techniques, Business Models and Best Practices	05.08.2025	3	Carbon sequestration, business models	in person
	Tested Practices of Regenerative Agriculture and Their Perspectives for Practical Implementation	06.09.2025	3	Carbon sequestration	in person
	Carbon-Farming Maize Day Held in Slovenia	19.09.2024	4	Flower crops, carbon sequestration, EU regulations	in person
Slovenia	Carbon Farming in the EU	12.03.2025	2,5	Carbon sequestration, business models	in person
	Carbon Farming in the EU	04.04.2025	1	Carbn sequestration, business models, soil quality	in person



Carbon Farming CE

The seminars were rather heterogeneous in context of issues that were covered. The most recurrent theme (N = 19; 70.4%) related to foundational knowledge on carbon sequestration, which served as an essential reference point for the more specialised topics addressed. Considering the number of workshops exploring a given topic, the next in order are the following: business models (N=10; 37,0%), soil quality (N=6; 22,2%), EU regulations (5; 18,5%). Organic fertilizers and cover crops were ranked equally, with 4 workshops devoted to each. Other topics addressed during the workshops are presented numerically in Figure 2.2. In the graphs, topics marked in green correspond to those discussed during the seminars that were also carbon sequestration techniques tested within the project.

Topics marked in orange represent other workshop themes. Mostly the workshops touched multiple subjects as these areas are closely interrelated with knowledge from one domain complementing and overlapping with the other. However, aside from that, two seminars organised by the Austrian partner were entirely devoted to the humus topic. To better present the topics addressed in this task, they would be briefly outlined below.

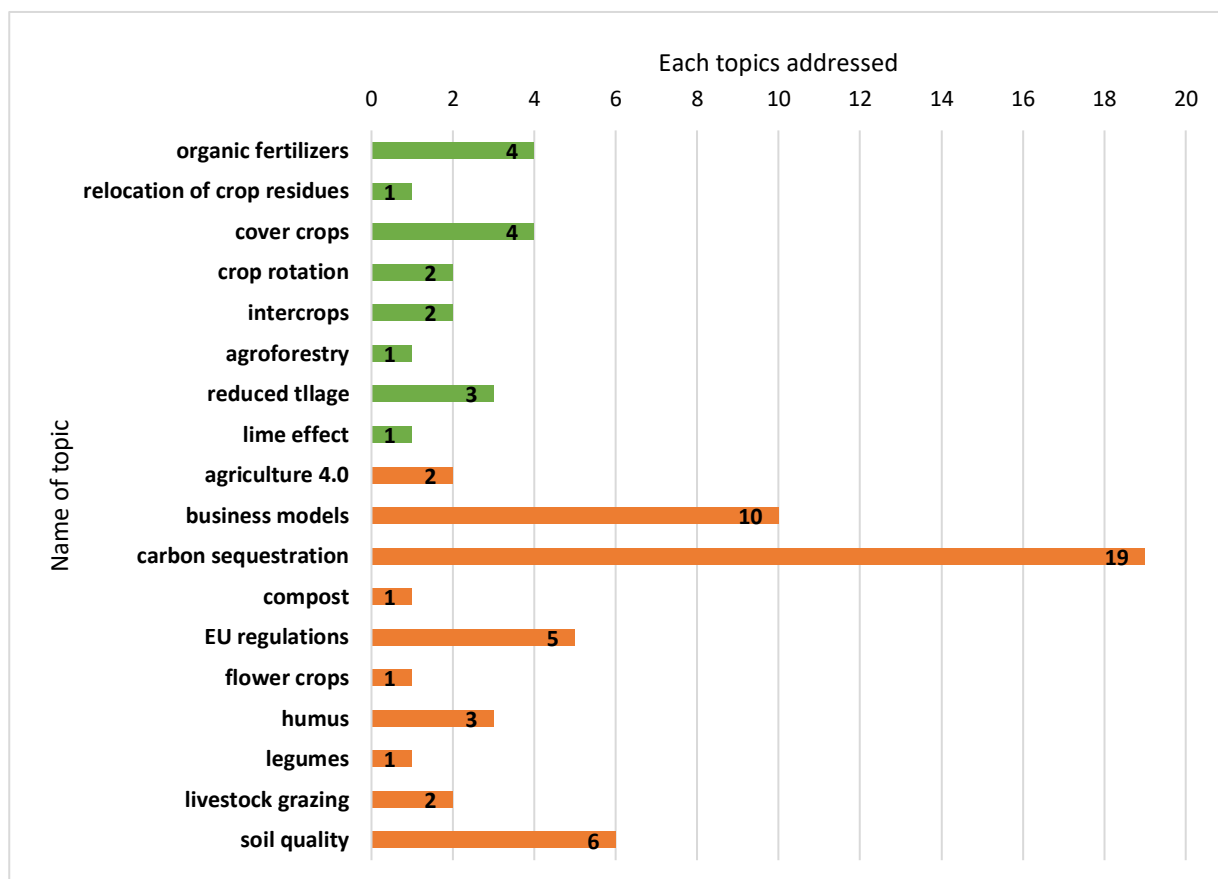


Figure 2: Number of seminars addressing each topic. Green - topics representing tested methods of carbon farming; orange - other topics



## **Natural and organic fertilizers**

The role of natural and organic fertilizers in agriculture has been gaining importance, as they constitute a key component of carbon-farming practices aimed at restoring, maintaining, and enhancing soil fertility. During the seminars, particular emphasis was placed on clarifying what qualifies as natural and organic fertilizers, the types of nutrients they supply, and how their effects on soil processes differ from those of mineral fertilizers. Participants were also introduced to methods for assessing the quality, stability, and agronomic effectiveness of such fertilizers.

Only after establishing this conceptual foundation were practical examples of their application at farm level presented. This structured approach enabled participants to better understand that natural and organic fertilizers not only improve soil structure and biological activity, but also support long-term nutrient cycling, reduce dependency on mineral inputs, and contribute to the overall sustainability and economic resilience of agricultural systems.

## **Relocation of crop residues**

The relocation of crop residues remains an underappreciated yet valuable practice for enhancing soil management. As this technique is being tested in Croatia within the project framework, it was also addressed in detail during the Croatian partner's workshops. Evidence indicates that residue relocation contributes to reducing CO<sub>2</sub> emissions, improving soil fertility, structure and moisture retention, and suppressing weed development. Croatian farmers additionally report that, in practical terms, the use of this technique leads to lower crop production costs, confirming its agronomic and economic relevance.

## **Cover crops**

The use of cover crops is becoming increasingly common among farmers as part of sustainable farm management strategies. In the workshops, this topic was addressed to consolidate theoretical knowledge and to discuss practical aspects of implementing cover crops under different farming conditions. The benefits of this technique are well documented: cover crops improve soil structure, enhance soil fertility, and increase water-retention capacity. They also support carbon sequestration, thereby contributing to reduced CO<sub>2</sub> emissions.



In addition, cover crops serve as an effective barrier against erosion and help protect the soil from excessive drying. Their flowering phase provides resources for pollinators and contributes to greater on-farm biodiversity. From a farmer's perspective, the direct advantages include reduced fertilisation costs, healthier subsequent crops, and improved overall profitability of production.

### **Crop rotation**

Crop rotation remains one of the fundamental principles of sustainable and resilient farming systems. As many large-scale farms have moved away from diverse rotations in recent decades, the German workshops used this opportunity to re-emphasise its relevance and reintroduce its core principles to participants. Although the topic is multifaceted and requires a sound understanding of agronomic foundations, the benefits of implementing crop rotation are well established: enhanced biodiversity, improved soil fertility, reduced pest and disease pressure, and more stable, diversified production.

The main challenge associated with crop rotation is the increased need for planning and operational adjustments at the farm level. Nevertheless, the long-term agronomic and environmental advantages outweigh these difficulties, making crop rotation a key component of effective carbon-farming and soil-health strategies.

### **Intercropping**

Many farmers already use intercrops as part of their routine management practices. In the workshops, this topic was addressed to consolidate theoretical knowledge and to facilitate discussion on the practical implementation of intercrops under different production conditions. Intercrops offer several recognised benefits: they help reduce weed and pest pressure while simultaneously enhancing on-farm biodiversity. They also contribute to improved soil structure and fertility, partly through increased soil biomass, which in turn supports carbon sequestration and reduces CO<sub>2</sub> emissions.

From the farmers' perspective, key advantages include production diversification, more efficient nutrient use, and reduced fertilisation costs, making intercrops a valuable element of sustainable and carbon-efficient agricultural systems.



## **Silvopastoral systems**

Agroforestry systems have long been present in traditional agriculture, yet their potential to enhance soil fertility, strengthen ecosystem functions and support biodiversity has only recently gained broader scientific attention. This topic was discussed during one of the workshops held in Poland and generated considerable interest among participants, reflecting a growing recognition of agroforestry as a promising component of climate-resilient and environmentally sustainable farming systems.

## **Reduced tillage**

Reduced tillage is a highly relevant topic, as it represents one of the core components of carbon-farming strategies and has a demonstrably positive impact on soil health and its capacity to store carbon. In the workshops, the discussion began with clarifying the concept of reduced tillage, outlining its main advantages compared with conventional ploughing, and presenting the range of techniques that can be applied. This was followed by an overview of methods used to assess the effects of reduced tillage on soil structure, fertility, and water-retention capacity.

Only after establishing this theoretical foundation were practical examples of on-farm implementation and the associated benefits for farmers introduced. This stepwise approach enabled participants to recognise that reduced tillage not only protects soil and enhances biodiversity, but also lowers labour and fuel costs and supports more sustainable, resource-efficient agricultural production.

## **Lime effect**

Liming is a well-established agronomic practice; however, during the seminars particular emphasis was placed on its specific benefits for root development, including improved nutrient availability, reduced aluminium and manganese toxicity, and enhanced soil structure. Farmers participating in the workshops noted that the application of liming can lead to lower fertilisation costs and improved overall profitability, highlighting its relevance as a supportive measure within sustainable soil-management and carbon-farming strategies.



## **Agriculture 4.0**

In the current agricultural landscape, farmers increasingly seek to remain informed about technological innovations. The topic of autonomous robots was addressed during two workshops held in Poland and generated significant interest among participants. The discussion focused in particular on the potential of robotic solutions to reduce soil degradation associated with the use of conventional heavy agricultural machinery, highlighting their relevance for sustainable and soil-friendly farm management.

## **Business and cooperation models**

Business and cooperation models in carbon farming were among the most frequently discussed topics during the seminars. Participants were introduced to various forms of collaboration, including carbon credits and certification schemes, sustainability-linked premium payments, public support instruments and subsidy programmes, as well as partnerships with private-sector actors. This knowledge helps farmers identify opportunities to diversify income streams, improve the financial viability of their operations, and strengthen their market positioning as environmentally responsible producers.

## **Carbon sequestration concept**

The topic of carbon sequestration is of central importance, as it represents the core mechanism underpinning carbon-farming approaches and plays a crucial role in mitigating climate change. During the workshops, the discussion initially focused on clarifying what carbon sequestration entails, how the process occurs in soils, and which methods can be used to measure and monitor it. A broader future-oriented perspective was also provided from the viewpoint of a climatologist.

Only after establishing this conceptual foundation did the workshops move on to specific agricultural practices that enhance carbon storage within farming systems. This structured approach enabled participants to understand more clearly why carbon sequestration serves as a cornerstone of both climate-change mitigation and long-term soil-health improvement.



## **Compost**

The use of organic residues in the form of compost has a long tradition in agriculture. During the workshops, participants were provided with a structured overview of compost production methods, appropriate application techniques, and the associated agronomic and environmental benefits. These include improved soil fertility, enhanced soil structure, and the closing of organic-matter cycles within the farm system. For farmers, the practical advantages of applying compost are reflected in reduced fertilisation costs, more efficient nutrient use, and—in many cases—increased yields.

## **EU regulations**

European Union (EU) regulations constitute an essential framework shaping the development of carbon farming and sustainable agricultural practices. During the workshops, participants were first introduced to the overarching objectives of EU agricultural and climate policies and the ways in which these objectives influence day-to-day farm operations. The discussion then moved to strategies for adapting farms to new regulatory requirements, as well as to the opportunities created by support instruments and funding programmes.

Only after this introductory overview were practical examples of regulation implementation and the resulting benefits for producers presented. This structured approach helped participants recognise that EU regulations should not be viewed solely as constraints, but rather as drivers of farm modernisation, gateways to financial support, and catalysts for strengthening long-term market competitiveness.

## **Flower crops**

The topic of flowering cover crops was addressed by the Slovenian partner during one of the workshops. This issue is highly relevant today, as flowering cover crops provide essential forage for pollinators, enhance on-farm biodiversity, improve soil fertility, and help prevent erosion and excessive soil drying. For farmers, the practical application of this method can also reduce the need for plant-protection products, thereby lowering production costs and supporting more sustainable cropping systems.



## Humus

Humus is a fundamental component of carbon-sequestration farming and a key indicator of soil health. It acts as a stable reservoir of carbon and nutrients, contributing to improved soil structure and enhanced biological activity. An important aspect highlighted during the workshops was the increased resilience of humus-rich soils to nutrient leaching and, consequently, to erosion. Such soils also provide favourable conditions for earthworm development, which further improve soil porosity and aggregation, thereby creating an optimal environment for root growth and overall plant development.

## Legumes

Legumes were an important topic in two seminars held in Germany. Owing to their well-known ability to fix atmospheric nitrogen, legumes contribute to improved soil fertility and help reduce soil erosion. They also offer farmers an opportunity to diversify production systems, which can enhance resilience and reduce agronomic risks. Despite their proven benefits, the potential of legumes remains underappreciated in many farming systems. Wider adoption of legume species could substantially decrease the need for nitrogen fertilisers, leading to cost savings for farmers while simultaneously supporting long-term soil fertility and soil health.

## Soil fertility

The topic of soil fertility and soil quality is fundamental to achieving stable and high yields, which is why many carbon-farming techniques are specifically designed to enhance these parameters. During the workshops, participants were first introduced to the concept of soil fertility—how it is defined, which factors influence it, and how it can be assessed and measured using agronomic and soil-science indicators. Only after establishing this conceptual basis did the discussions shift to practical agricultural methods and management practices that can positively affect soil fertility and soil quality. This structured approach enabled participants to clearly understand why soil fertility forms the foundation of both sustainable farming systems and economically viable agricultural production.

# ATTENDEE INFORMATION



According to task A1.3, each of the nine partner countries organised three capacity-building seminars. The primary objective of this activity was not to maximise attendance, but to strengthen practical knowledge and competencies related to carbon-farming techniques among relevant stakeholder groups. In total, the seminars brought together 818 participants, representing a broad and diverse audience.

When looking at the countries with the highest number of participants, the following order can be observed: Poland, Italy, Germany, Czech Republic, Croatia, Austria, Slovenia and Slovakia (Table 3.1). While all seminars focused on aspects of carbon farming, partners were provided with a set of four recommended scenarios. These scenarios covered thematic orientations such as: carbon-farming techniques, cooperation and business models, strategy and action-plan development, monitoring methods, or combinations of these elements. Importantly, organisers had full flexibility to adapt the scenarios to national contexts, stakeholder needs and thematic priorities.

This flexibility resulted in a noticeable diversity in the composition of participants across countries, reflecting each partner’s specific agricultural structure, institutional landscape and engagement priorities. The distribution of participant categories is presented in Figure 3.1.

**Tabel 2:** Number of participants in each country at each seminar

	Austria	Croatia	Czech Republic	Germany	Hungary	Italy	Poland	Slovakia	Slovenia	
1 <sup>st</sup> workshop	24	13	35	79	42	10	30	10	33	
2 <sup>nd</sup> workshop	18	19	25	30	40	104	72	14	13	
3 <sup>rd</sup> workshop	14	34	47	11	15	14	46	16	10	
<b>Total</b>	<b>56</b>	<b>66</b>	<b>107</b>	<b>120</b>	<b>97</b>	<b>128</b>	<b>148</b>	<b>40</b>	<b>56</b>	<b>818</b>



For analytical purposes, workshop participants were broadly assigned to one of eight categories based on their institutional affiliation. Although the relative importance of these groups varied both between countries and across individual workshops, a consolidated overview and general characteristics of the participating stakeholder categories have been compiled.

### **Ministry/Policy Makers**

Representatives from the Ministry of Agriculture of Poland, the Ministry of Agriculture, Forestry and Fisheries of Croatia, as well as the Ministry of Agriculture, Forestry and Food of Slovenia participated in several workshops. Although ministry officials routinely engage with internal experts on agricultural and climate-related matters, their presence at these events served a complementary purpose. By attending, they were able to gain first-hand insight into the perspectives of practitioners and stakeholders directly involved in farming and land management.

Their interest extended beyond hearing promotional narratives about carbon farming; instead, they sought a balanced understanding that included practical limitations, barriers to adoption, and the day-to-day realities faced by farmers. Direct interaction with workshop participants deepened their appreciation of implementation challenges, regional specificities and the diversity of needs across farm types and production systems.

The knowledge gathered through these exchanges can support policy-making processes at national and regional levels. It enables public administration to refine existing regulations, design more effective support schemes, and develop future policies that are better aligned with agricultural realities. Ultimately, this contributes to a more responsive and evidence-based governance framework for carbon farming and sustainable agriculture.

### **Farmers**

Farmers participated in the workshops in every partner country, forming the key target group for this capacity-building activity. The seminars were designed primarily with their needs, challenges and practical realities in mind, as they are the actors directly responsible for implementing carbon-farming techniques on the ground. Their involvement was therefore essential for ensuring



that the knowledge transferred during the workshops was relevant, applicable and grounded in everyday agricultural practice.

Farmers contributed insights based on both their experience with adopting carbon-farming practices and the challenges faced in systems where such practices are not yet in place. Their perspectives offered valuable evidence on the practical benefits and obstacles associated with implementation. Throughout the workshops, they explored how carbon-farming measures can enhance soil fertility, reduce erosion, improve moisture retention, and support long-term productivity and farm resilience.

The knowledge and feedback gathered from farmers will play an important role in shaping future research directions, refining advisory approaches and informing policy recommendations aimed at strengthening the uptake of sustainable agricultural practices across Central Europe.

## Students

Students from both secondary agricultural schools and universities participated in the carbon-farming workshops organised in all partner countries. Their engagement brought a valuable fresh perspective, combining classroom-based theoretical knowledge with a strong interest in real-world agricultural challenges. By listening to the presentations, asking questions and engaging in discussions, students deepened their understanding of both the scientific foundations and the practical implementation of sustainable and climate-friendly farming practices.

Importantly, the workshops also created opportunities for direct interaction with farmers, advisors and researchers. For many students and vocational-school pupils, this represented a unique chance to confront textbook knowledge with the realities of agricultural production, management constraints and environmental considerations. These exchanges not only broadened their horizons but may also influence their future academic pathways and career choices.

Their participation highlighted the importance of education and early engagement in preparing the next generation of agricultural professionals—those who will be responsible for applying, developing and promoting the principles of regenerative and carbon-smart agriculture in the years to come.



## **Scientists**

Researchers participated in workshops in eight partner countries, representing a wide range of research institutes, universities and specialised scientific organisations. They brought with them extensive expertise in both the theoretical and applied dimensions of carbon farming, which significantly enriched the seminar discussions. In several workshops, researchers also served as speakers, presenting scientific evidence, methodological approaches and practical case studies directly to farmers and other stakeholders.

Thanks to their broad disciplinary knowledge, they were able to propose scientifically grounded solutions to the common challenges faced by farmers, such as improving soil health, selecting appropriate techniques or interpreting monitoring data. Their presence also facilitated meaningful exchanges between science and practice. In many cases, these interactions continued beyond the formal workshop sessions, resulting in extended—and at times highly dynamic—discussions that are likely to contribute to the integration of practical field experience into future research activities.

These interactions strengthened the link between research and agricultural practice, helping ensure that future studies, recommendations and innovations better reflect real-world conditions and the needs of end users.

## **Agriculture Advisors**

Representatives of regional agricultural advisory centres participated in the workshops in eight partner countries. Their primary objective was to deepen their understanding of both the opportunities and challenges associated with implementing sustainable and carbon-farming practices. By engaging in the seminars, advisors were able to update their technical knowledge, learn from practical case studies and gain insights into farmers' real needs and constraints.

The knowledge acquired during the workshops will enable advisory services to provide more context-specific, locally adapted recommendations and to better support farmers in adopting carbon-smart and climate-resilient practices. Strengthening advisory capacity in this way is essential, as advisors play a pivotal role in bridging the gap between scientific knowledge, policy requirements and practical on-farm decision-making.



## **Business companies**

Agricultural and agri-food companies participated in the carbon-farming workshops in seven partner countries, bringing with them an important business-oriented perspective. As key actors positioned between sustainability objectives and market realities, their involvement helped highlight how carbon-farming practices translate into economic opportunities, supply-chain requirements and emerging commercial models.

Business representatives actively contributed to the discussions, presenting their viewpoints, raising concerns, sharing success stories and asking practical questions. The workshops offered them a valuable platform for exchanging insights with farmers, researchers and policymakers, enabling a deeper understanding of both the challenges and the potential associated with implementing sustainable practices at scale.

This direct interaction provided companies with up-to-date knowledge on evolving market trends, consumer expectations and regulatory developments. As a result, it supports them in aligning their strategies with the growing demand for climate-smart products and services, while strengthening cooperation across the entire agricultural value chain.

## **Consumers**

The participation of consumer groups enabled an important exchange of perspectives on sustainable food production, the climate impacts of agriculture, and the ways in which citizens can support environmentally friendly initiatives. Many participants were seeking inspiration for making more conscious and responsible choices in their everyday lives.

Through direct interactions with farmers, advisors and subject-matter experts, consumers gained a clearer understanding of both the practical challenges and the tangible benefits associated with regenerative and carbon-farming practices. This dialogue helped bridge the gap between food production and consumption, highlighting the role of informed consumers in driving demand for climate-smart and sustainably produced food.



## **Consortium Expert Team**

The carbon-farming workshops were supported by the Consortium Expert Team, composed of specialists with extensive experience in sustainable agriculture, soil management and capacity building. Their role extended far beyond logistical coordination: the team carefully designed the workshop formats, ensuring an appropriate balance between scientific knowledge, practical case studies and interactive learning.

They adapted the content to the needs of diverse participant groups, facilitated discussions among farmers, advisors, researchers, companies and consumers, and ensured that complex concepts were communicated in an accessible and engaging way. Their contribution significantly strengthened knowledge transfer, enhanced stakeholder cooperation and helped create a constructive environment for developing shared understanding of carbon-farming opportunities and challenges.

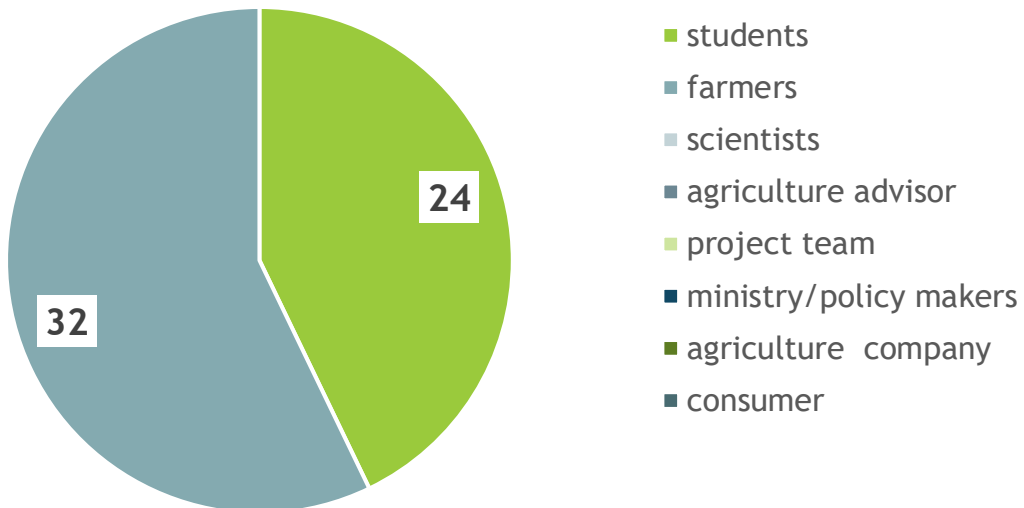
## **Invited Experts and Presenters**

A diverse group of invited experts contributed to the seminars across all partner countries. One of the core objectives for each organiser was to design the programme in a way that would engage participants and stimulate meaningful interest in carbon-farming topics. Depending on the target audience and the thematic focus of each event, partners decided either to invite experts from a single stakeholder group—to provide a more in-depth perspective—or to combine various types of expertise for a richer, multi-angle discussion.

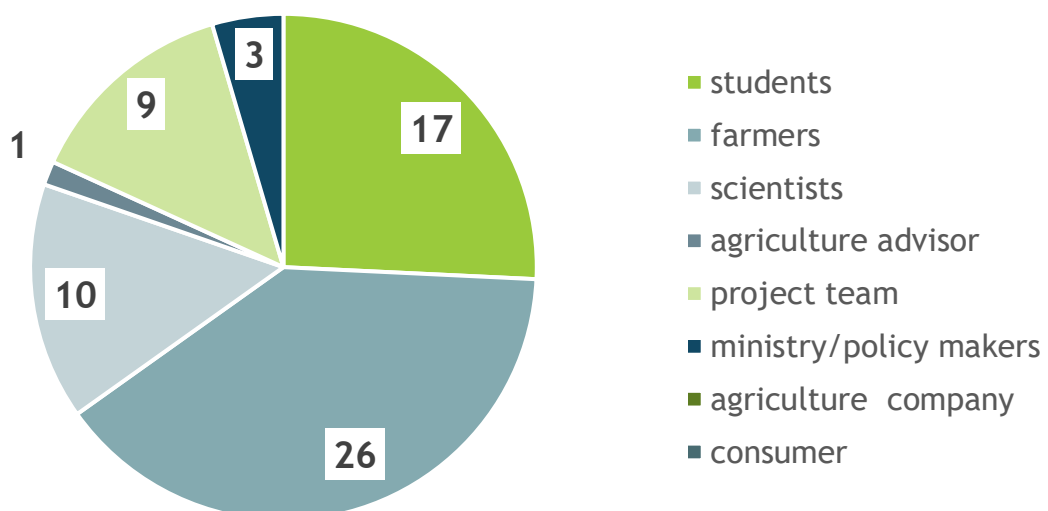
Across the full cycle of seminars, the panels and presentations included contributions from consortium team members, scientists, business representatives, policymakers and farmers. This diversity of voices ensured that participants were exposed to both scientific evidence and real-world practice, as well as to policy, market and implementation perspectives, creating a balanced and comprehensive learning environment.



## Austria (N=56)

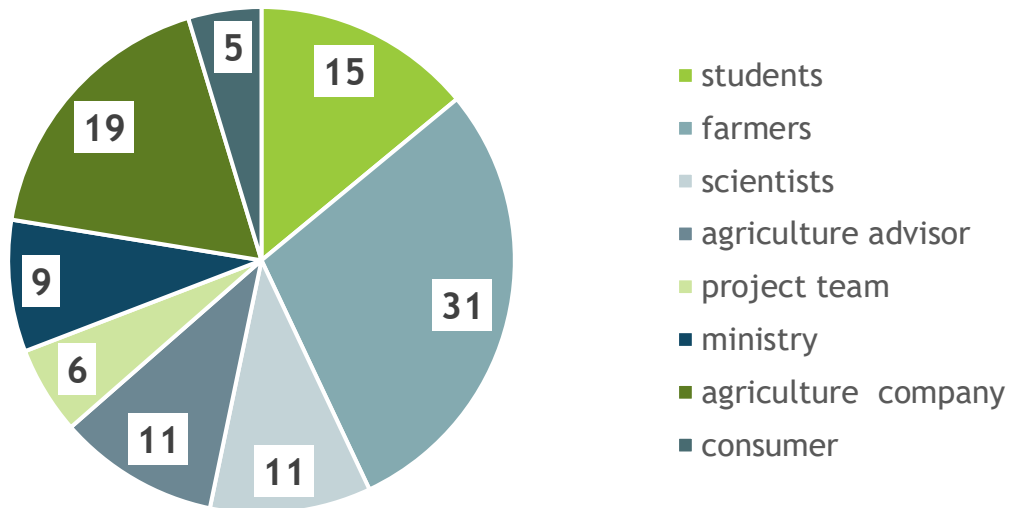


## Croatia (N=66)

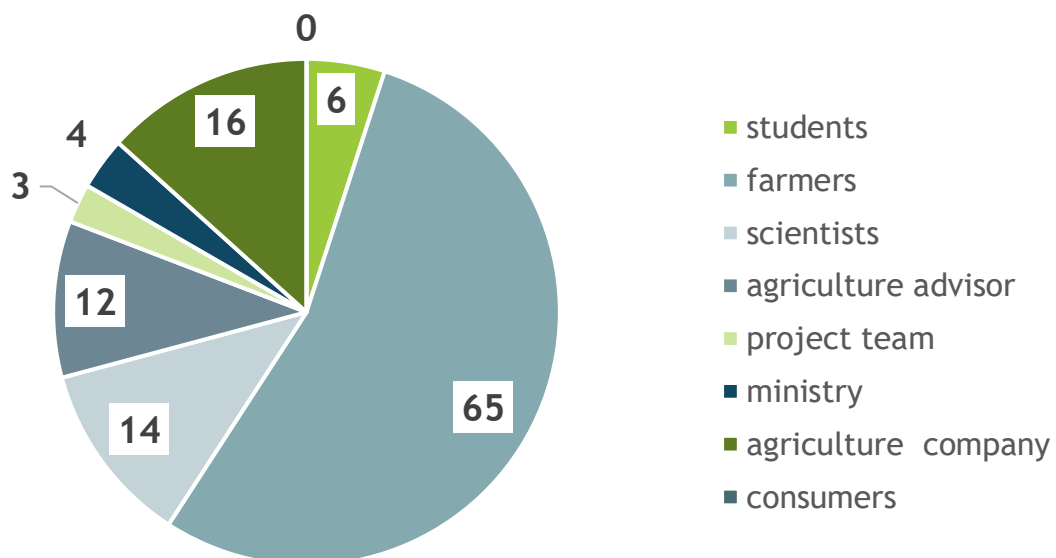




## Czech Republic (N=107)



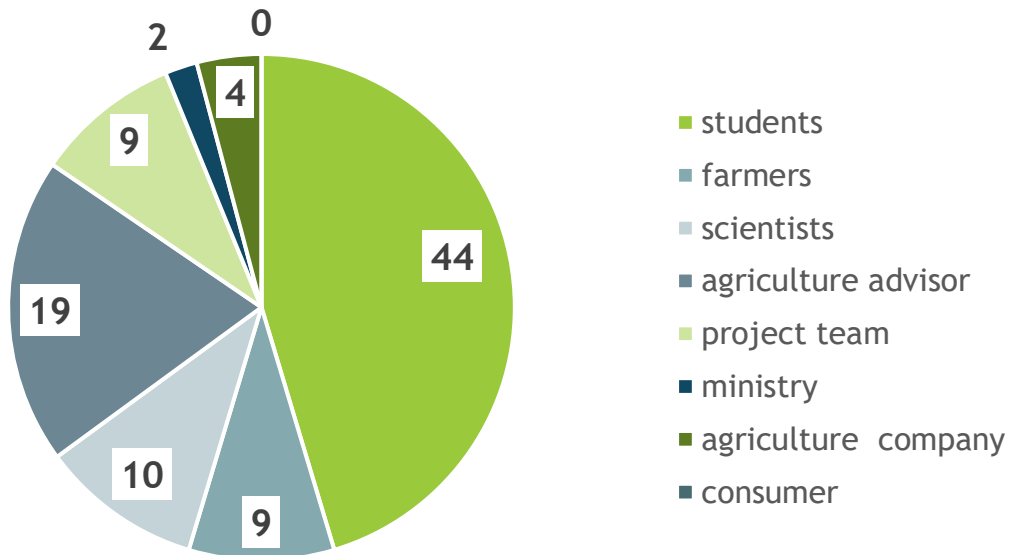
## Germany (N=120)



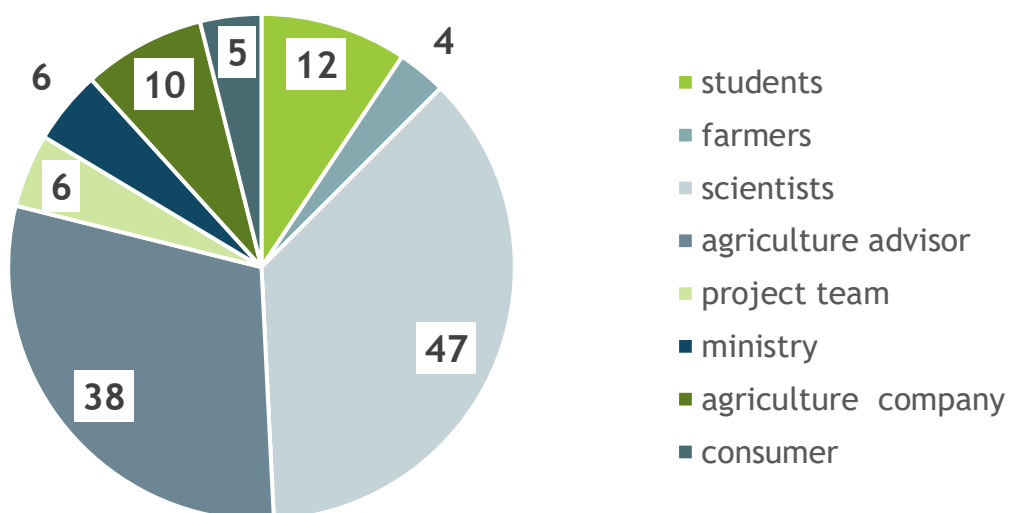


Carbon Farming CE

### Hungary (N=97)

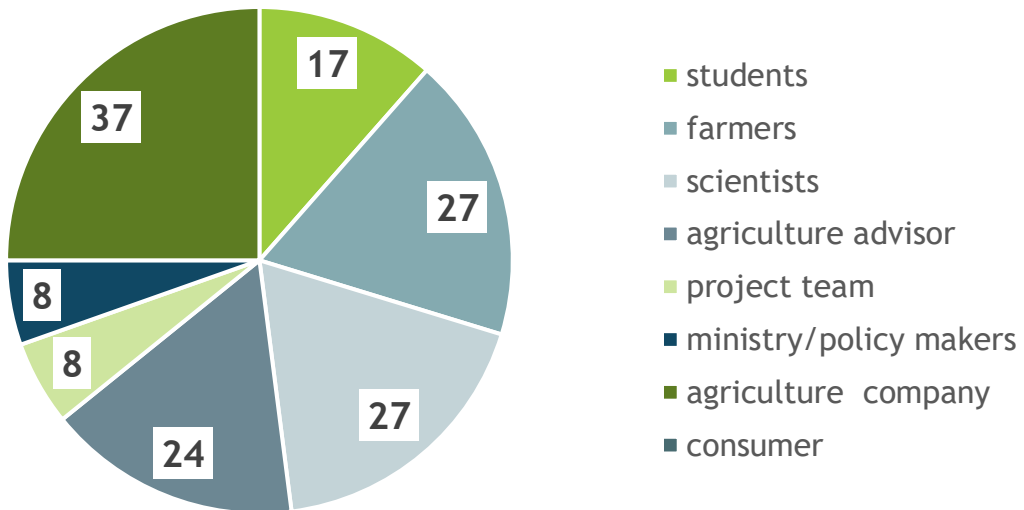


### Italy (N=128)

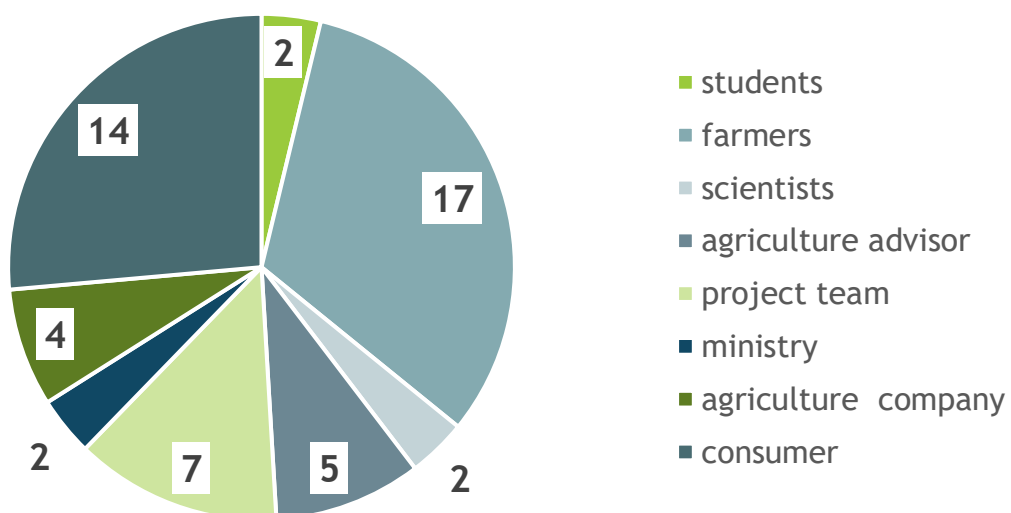




### Poland (N=148)



### Slovakia (N=53)



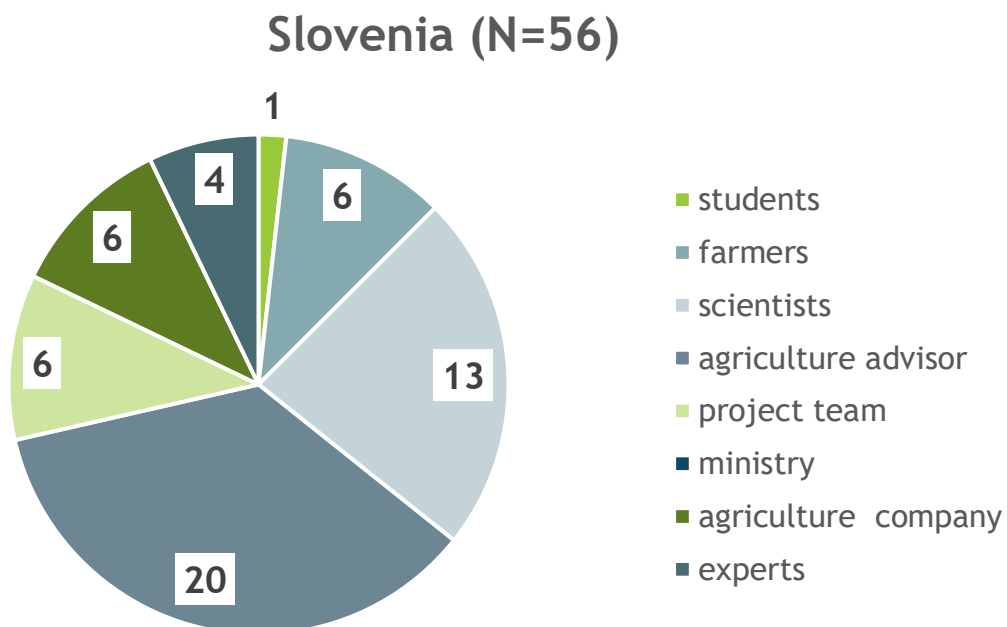


Figure 3: The composition of seminar participants across different countries

# METHODS AND CAPACITY-BUILDING APPROACHES USED IN THE SEMINARS



The primary objective of all workshops was to strengthen participants' competencies, practical skills and understanding of carbon-farming approaches. Effective capacity building is essential: only a well-prepared group of farmers, advisors, students, policymakers and other stakeholders can implement carbon-farming practices and contribute meaningfully to climate-neutrality goals.

Across the nine partner countries, organisers applied a broad range of educational methods tailored to local agricultural contexts, the diversity of participants and the specific needs of each group. These approaches did not operate separately. Instead, theoretical inputs, field demonstrations, peer-to-peer exchanges and interactive elements were intentionally combined, forming an integrated learning environment in which each method reinforced the others. This holistic structure enabled participants to connect scientific knowledge with real-life farming conditions, reflect on their own experiences and collaborate on solutions relevant to their local contexts.

## **Lectures and Theoretical Foundations**

Lectures formed the core of most workshop agendas. Delivered by researchers, practitioners or consortium experts, they introduced key concepts related to carbon sequestration, soil health and climate impacts. These sessions provided up-to-date scientific insights and methodological developments, explained how carbon-farming practices influence greenhouse gas emissions and nutrient cycles, and created a shared knowledge base essential for informed discussion. Lectures also served as a bridge between theory and practice, helping participants understand how scientific principles translate into operational decisions on farms.

## **Case Studies and “Living Examples” from Farmers**

Case studies were used to illustrate how carbon-farming methods function in real-world settings. By analysing examples from different regions, soil types and production systems, participants gained insight into practical challenges, environmental and economic outcomes, and strategies for adapting practices to local conditions. A particularly valuable component was the involvement



of farmers sharing their own experiences as “living examples.” Their testimonies—describing what worked, what did not and why—added authenticity to the learning process and strengthened peer-to-peer knowledge exchange.

### **Field Demonstrations and Study Visits**

In several partner countries, workshops included practical sessions at agricultural research stations or commercial farms. Participants observed ongoing experiments and demonstration plots, including cover crops, reduced tillage, intercropping, compost application and precision technologies. These field visits allowed participants to see practices “in action,” compare different soil conditions and ask detailed questions. Outdoor sessions were often cited as the most engaging part of the workshops, greatly enriching the learning experience.

### **Visual Soil Assessment (VSA)**

The Visual Soil Assessment method played a central role in building practical skills related to soil evaluation. By visually assessing soil structure, porosity, root development and biological activity, participants gained a deeper understanding of the interplay between soil quality, carbon sequestration and ecosystem resilience. Because VSA does not require laboratory testing, participants learned that effective soil diagnostics can be conducted directly in the field, making the method especially valuable for farmers and advisors.

### **SOC/GHG Measurement Demonstrations**

Hands-on demonstrations of Soil Organic Carbon (SOC) and greenhouse gas (GHG) measurements provided participants with insight into monitoring and reporting techniques. These activities helped participants understand how farming practices influence emissions, how monitoring data is collected and how it is used in MRV (Monitoring, Reporting, Verification) frameworks. Importantly, these demonstrations built trust in scientific tools and reinforced the value of evidence-based farm management.



## **Agricultural Machinery and Technological Innovations**

In workshops including visits to experimental farms, participants were introduced to modern machinery and digital technologies supporting carbon farming. These included precision fertilisation equipment, reduced-tillage machinery, robotic tools and digital soil-monitoring systems. Observing equipment in real conditions helped participants understand how technology can enhance soil health, reduce emissions, increase efficiency and facilitate data-driven decision-making.

## **MRV Systems and Data-Based Decision-Making**

Some workshops focused specifically on practical aspects of MRV systems. Participants learned how environmental data is collected, reported and verified and how MRV contributes to carbon markets, certification schemes and climate policies. These sessions generated strong interest because they helped participants understand not only the technical aspects of MRV, but also its economic importance, including potential eligibility for future incentive programmes and carbon-credit schemes.

## **Business Models and Economic Opportunities**

Workshops also explored the economic dimension of carbon farming, including cooperation models, financing mechanisms, certification systems and carbon markets. Discussions highlighted how sustainable practices can deliver environmental benefits while also improving farm resilience and profitability. Many participants noted that this component helped them understand the economic rationale for adopting carbon-farming techniques and the opportunities for cooperation across the agricultural value chain.

## **Policy and Programme Review**

Participants received an overview of national and European Union (EU) strategies and support instruments relevant to carbon farming. Presentations covered climate-neutrality objectives, sustainable agriculture initiatives and available funding opportunities. This information enabled farmers and advisors to better understand the institutional and regulatory framework governing carbon farming and supported informed planning of future investments.



## **Interactive Discussions, Q&A Sessions and Expert Panels**

Interactive dialogue played a central role in the workshops. Q&A sessions and expert panel discussions allowed participants to ask questions, express concerns, and engage directly with farmers, researchers, business representatives and advisors. These exchanges created an open and inclusive environment, encouraged critical thinking and deepened the collective understanding of challenges associated with carbon-farming implementation.

## **SWOT Analysis as a Collaborative Learning Tool**

To consolidate knowledge and encourage strategic thinking, many workshops included a SWOT analysis focusing on strengths, weaknesses, opportunities and threats associated with carbon farming. Participants jointly analysed economic, organisational, environmental and social factors influencing adoption. This exercise promoted collaboration between diverse stakeholder groups and helped build strategic-planning skills.

## **Networking and Relationship Building**

Networking opportunities were an integral part of the workshops, enabling participants to build new relationships, strengthen existing ones and explore possibilities for joint projects. Networking supported the creation of a community of practice around carbon farming and contributed to longer-term cooperation both nationally and internationally.

## **Educational Materials and Follow-Up Resources**

Participants received a variety of educational materials, including leaflets, brochures, infographics and electronic presentations. These resources supported learning retention and served as practical reference tools for farmers, advisors and students. In some cases, workshop organisers also distributed recorded presentations or supplementary materials after the event.



## Evaluation and Reflection

At the end of each workshop, participants were invited to complete an evaluation questionnaire assessing organisation, content quality and the usefulness of newly acquired knowledge. This feedback helped organisers improve future events and prompted participants to reflect on their learning, identify knowledge gaps and consider next steps for continued development.

## Video Documentation and Wider Dissemination

Several workshops were documented through video recordings capturing key presentations, field demonstrations and participant testimonials. These videos were later used for educational and promotional purposes, enabling the project to reach a wider audience and increasing overall visibility of the initiative.

Table 4. 1 Capacity building activities undertaken in individual countries during the workshops

Austria	<b>Theoretical introduction to carbon-farming concepts</b> <i>An overview of the fundamental principles of carbon farming, the objectives of the project, the experimental methods tested within the initiative, and the key results obtained.</i>
	<b>Strengthening knowledge on humus dynamics and soil quality</b> <i>Sessions focused on deepening participants' understanding of humus formation, soil functions and the role of organic matter in enhancing soil health and long-term productivity.</i>
	<b>Humus balance calculation using the site-adapted Kolbe method</b> <i>Participants calculated the humus balance of their own farms using the Kolbe site-specific approach, supported by practical demonstrations with the HuBi Tool and real farm examples.</i>
	<b>Developing knowledge on crop-rotation diversification with cover-crop mixtures</b> <i>Workshops explored strategies for designing diversified crop rotations, with particular emphasis on the use of cover-crop mixtures adapted to local soil and climatic conditions.</i>
	<b>Integrating farmers' experiences with regional research findings</b> <i>Farmers' practical insights were combined with regional research data, enabling participants to compare empirical observations with scientific evidence and discuss the applicability of different carbon-farming techniques in local contexts.</i>



<b>Croatia</b>	<b>Theoretical introduction to carbon-farming concepts</b> <i>A structured overview of the principles of carbon farming, the objectives of the project, the experimental methods tested within the initiative, and the key results obtained.</i>
	<b>On-site presentation of intercrop experiments (corn, alfalfa and red clover)</b> <i>Participants observed experimental plots demonstrating the performance and benefits of intercrops under real field conditions.</i>
	<b>On-site presentation of the carbon-farming technique involving relocation of crop residues (alfalfa)</b> <i>A practical demonstration illustrating how residue relocation supports soil fertility, carbon retention and reduced input use.</i>
	<b>Conducting a SWOT analysis as part of the post-seminar evaluation</b> <i>Participants jointly assessed the strengths, weaknesses, opportunities and threats associated with carbon-farming implementation, contributing to strategic reflection and knowledge consolidation.</i>
	<b>Visit to an experimental field showcasing crop rotation and intercrop systems</b> <i>A field visit allowing participants to review diverse rotation schemes and compare their agronomic and environmental impacts.</i>
	<b>Developing knowledge on methods for monitoring carbon sequestration in soils</b> <i>Training focused on measurement tools, monitoring techniques and data interpretation relevant to carbon-stock assessment.</i>
	<b>Strengthening knowledge of organic matter dynamics, carbon sequestration and soil fertility</b> <i>Sessions highlighted the role of organic matter in sustainable agricultural production, emphasizing long-term soil health and productivity.</i>
	<b>Developing understanding of carbon-farming business models</b> <i>Participants explored economic frameworks, cooperation models and financial mechanisms supporting the adoption of carbon-farming practices.</i>
	<b>Building knowledge on eco-schemes and agricultural interventions</b> <i>Workshops examined policy instruments, support measures and strategic interventions relevant to sustainable and climate-friendly farming within national and EU frameworks.</i>



<b>Czech Republic</b>	<b>Theoretical introduction to carbon-farming concepts</b> <i>An overview of the fundamental principles of carbon farming, the project's objectives, the experimental methods tested within the initiative, and the key results generated.</i>
	<b>Interactive discussion on challenges and opportunities in the transition to carbon farming</b> <i>A facilitated exchange enabling participants to reflect on barriers, enabling conditions and practical pathways for adopting carbon-farming practices in their local contexts.</i>
	<b>Developing knowledge on crop-rotation diversification and reduced tillage</b> <i>Sessions focused on agronomic strategies that enhance soil health, improve resilience and support carbon sequestration through diversified rotations and low-disturbance soil management.</i>
	<b>Expanding understanding of current policies, support mechanisms and implementation challenges</b> <i>Participants explored the policy landscape, available support instruments and the regulatory and practical constraints that shape the uptake of sustainable agricultural practices.</i>
<b>Germany</b>	<b>Active inclusion of participants in discussions</b> <i>Participants were continuously encouraged to engage in dialogue, share experiences and contribute to the exchange of ideas throughout the workshop.</i>
	<b>Invitation to join the project through own demonstration fields</b> <i>Stakeholders received a direct invitation to participate in the project by establishing their own demonstration plots or testing selected carbon-farming techniques, including the application of gypsum as a soil amendment.</i>
	<b>Encouraging questions during and after presentations</b> <i>The audience was actively prompted to ask questions both during the presentations and in the follow-up sessions, fostering a dynamic and interactive learning environment.</i>
	<b>Establishing long-lasting written contacts</b> <i>Participants were supported in creating and maintaining written communication channels, helping to build durable professional relationships beyond the workshop.</i>



**Joint cooking and tasting activities as community-building moments**

*Shared cooking and tasting of local products provided an informal space for networking, strengthening trust and enhancing social bonds among participants.*

**Use of specific examples as case studies**

*Real-life cases were presented to illustrate practical challenges, solutions and the effectiveness of various carbon-farming methods.*

**Creating a positive atmosphere of a small, like-minded community**

*The workshops fostered a friendly and collaborative environment where participants with similar interests and goals could exchange knowledge and build mutual motivation.*

**Theoretical introduction to carbon-farming concepts**

*An overview of the core principles of carbon farming, the objectives of the project, and the agrotechnical methods developed and tested within the initiative.*

**Facilitated discussion on seminar-related topics**

*A structured exchange enabling participants to share views, raise questions and reflect on the challenges and opportunities associated with carbon-farming implementation.*

**Developing knowledge of business models supporting carbon management**

*Sessions focused on cooperation frameworks, financial mechanisms and value-chain models that can strengthen the economic viability of carbon-farming practices.*

**Expanding understanding of current and planned policies related to carbon management at national and EU level**

*Participants were introduced to the evolving policy landscape, including existing instruments and upcoming regulatory developments influencing carbon farming.*

**Strengthening knowledge transfer and advisory capacities**

*Workshops highlighted the role of training programmes, demonstration farms and consultancy services in accelerating the uptake of sustainable practices.*

**Field exercise using the Visual Soil Assessment (VSA) method**

*Participants applied the VSA tool to assess soil quality, structural characteristics and carbon-sequestration potential directly in the field.*

**Hungary**



**Visit to the agrotechnical experiment at MATE's Szárítópuszta demonstration farm**

*A practical visit provided insight into ongoing experiments, management techniques and the performance of carbon-farming practices under real conditions.*

**Developing knowledge of digital advisory tools for monitoring grazing livestock and pasture management**

*Training covered innovative digital solutions that support data-driven grazing decisions and improve pasture productivity and sustainability.*

**Enhancing understanding of carbon-farming business models**

*Participants explored different organisational and financial approaches that can facilitate the adoption of carbon-friendly practices on farms.*

**Building knowledge on agricultural carbon credits**

*Sessions addressed the principles, certification requirements and market mechanisms associated with generating and trading carbon credits in agriculture.*

**Theoretical introduction to carbon-farming concepts**

*A structured overview of the principles of carbon farming, the project's objectives, the experimental methods tested within the initiative, and the key results obtained.*

**Facilitated discussion on seminar-relevant topics**

*An interactive exchange allowing participants to raise questions, share experiences and reflect on the challenges and opportunities associated with carbon-farming implementation.*

**Developing knowledge on the use of the Visual Soil Assessment (VSA) method**

*Training focused on applying the VSA method for field-based evaluation of soil quality, structural condition and its capacity for carbon sequestration.*

**Developing knowledge of bio-functional soil indicators related to soil organic carbon sequestration**

*Participants explored biological, chemical and physical indicators that inform soil functionality and carbon dynamics, gaining insight into how soil health supports long-term sequestration.*

Italy



**Learning from carbon-farming good practices in Emilia-Romagna**

*Presentations highlighted regional experiences, showcasing successful management approaches and practical lessons learned from local farms and pilot activities.*

**Field exercise using the VSA method**

*A hands-on field session where participants practiced visual soil assessment techniques directly in agricultural plots, reinforcing theoretical knowledge with real-world observations.*

**Exchange of carbon-farming experiences and good practices**

*A dedicated discussion session in which participants compared strategies, shared insights and reflected on practical solutions for improving soil management and carbon outcomes.*

**Meeting at an experimental farm, including a working lunch based on local and organic products**

*Participants visited an experimental farm, where the programme included a working lunch featuring food sourced from local producers engaged in short supply chains. This element highlighted the links between sustainable farming, territorial value chains and carbon-friendly food systems, while also fostering informal networking among participants.*

**Field demonstration of greenhouse gas emission measurements with practical training**

*A hands-on demonstration showed how GHG emissions are measured under real conditions. Participants practiced using specialised equipment, observed differences between farming systems and learned how monitoring contributes to evidence-based carbon-farming decision-making.*

**Demonstration of drone applications for monitoring organic matter resources**

*The workshops included a practical presentation of drone technologies and their potential use in monitoring vegetation, soil organic matter distribution and indicators relevant to carbon dynamics. This session illustrated how remote sensing tools can complement field observations.*

**Presentation of Agriculture 4.0 through autonomous robots supporting carbon-farming practices**

*Participants observed autonomous robotic systems designed for precision operations such as targeted weeding, low-disturbance cultivation and optimised*

**Poland**



*input use. This demonstration highlighted how digitalisation and automation can reduce emissions, protect soil and improve efficiency.*

**A guided walk through the forest to observe extensive cattle grazing systems**

*A field excursion offered insight into extensive grazing as a nature-based solution contributing to biodiversity, carbon cycling and sustainable landscape management. Participants learned how agroforestry and silvopastoral systems fit within carbon-farming frameworks.*

**Practical training on meteorological stations and on-farm measurement equipment**

*Participants received hands-on instruction on operating meteorological stations, soil sensors and monitoring devices used in tracking microclimatic conditions and soil-plant interactions. This training emphasised the importance of accurate, continuous data in climate-smart agriculture.*

**Use of interactive tools for real-time engagement**

*Digital platforms such as Slido were used during the workshops to collect live input, conduct polls, gather questions and support collaborative exercises. These tools enhanced inclusiveness and allowed participants to contribute anonymously or in real time.*

**Hybrid participation through event streaming**

*To widen accessibility, selected sessions were streamed online, enabling hybrid participation for individuals unable to attend in person. This approach broadened the workshop's reach and facilitated cross-regional knowledge exchange.*

**Participation of international experts from leading carbon-certification companies**

*The workshops welcomed international guests representing major carbon-credit and certification organisations. Their contributions provided participants with an overview of emerging market trends, verification procedures and opportunities for farmers within carbon markets.*

**Organisation of a two-day event format**

*Some partners delivered extended two-day workshops, which allowed for a more comprehensive combination of theoretical sessions, practical demonstrations, networking activities and in-depth discussions. This format proved highly effective in strengthening learning outcomes and fostering community building.*

**Exchange of carbon-farming good practices and experiences in group discussion**

*A dedicated session was devoted to sharing experiences, comparing approaches and discussing practical solutions. Participants benefited from peer learning, cross-country insights and the integration of local and scientific knowledge.*



<b>Slovakia</b>	<b>Developing knowledge of carbon-farming business models</b> <i>Participants explored organisational and financial models that support the adoption of carbon-farming practices, including cooperation frameworks, incentive schemes and value-chain approaches that enhance both environmental performance and farm profitability</i>
	<b>Theoretical introduction to carbon-farming concepts</b> <i>An overview of the fundamental principles of carbon farming, the objectives of the project, the experimental methods tested within the initiative, and the main results achieved. This session provided the conceptual foundation for subsequent practical exercises and discussions.</i>
	<b>Strengthening knowledge of carbon-sequestration monitoring</b> <i>Training focused on tools, indicators and methodologies used to measure and monitor soil carbon stocks. Participants learned how monitoring data supports decision-making, compliance with sustainability standards and participation in emerging carbon-credit schemes.</i>
<b>Slovenia</b>	<b>Theoretical introduction to carbon-farming concepts</b> <i>A comprehensive overview of the core principles of carbon farming, the project's objectives, the experimental methods tested within the initiative, and the key results achieved. This session provided the conceptual groundwork for the practical components of the workshop.</i>
	<b>Visit to an experimental maize field</b> <i>Participants observed ongoing trials in maize production, enabling them to connect theoretical knowledge with field-level applications and to discuss the agronomic and environmental implications of tested practices.</i>
	<b>Developing knowledge on supporting pollinators in intensive agricultural landscapes</b> <i>Training sessions explored strategies to enhance pollinator habitats and biodiversity in high-intensity farming systems, emphasising their role in ecosystem functioning, crop productivity and long-term landscape resilience.</i>



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**Visit to the Jablje experimental field research station**

*A study visit to the Jablje station allowed participants to familiarise themselves with research infrastructure, long-term trials and applied carbon-farming techniques under controlled and field conditions.*

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**Strengthening knowledge of carbon-farming techniques and business models**

*Participants engaged with both the practical and economic aspects of carbon farming, learning about specific management techniques as well as cooperation frameworks and business models that support the financial viability of climate-friendly agricultural practices.*

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# NOTABLE IMPLEMENTATION FEATURES AND VALUE- ADDED ELEMENTS OF THE SEMINARS



## **Workshops Embedded in Major International Events (Germany, Slovakia)**

In Germany and Slovakia, the workshops were integrated into two major international trade fairs – Agrokomplex 2025 in Nitra and the BIOFACH 2025 Congress in Nuremberg. Delivering the seminars within these events significantly increased their visibility, reach and perceived credibility. This approach made it possible to engage a broader spectrum of participants, including farmers, advisors, researchers, certification bodies, and representatives of public institutions.

The use of existing infrastructure and organisational resources at large trade fairs also improved logistical efficiency and reduced operational costs. At the same time, the presence of the seminars in such high-profile environments strengthened their professional status and enabled participants to establish new partnerships, deepen cooperation networks and exchange experiences with a wide international audience. Importantly, situating carbon-farming workshops within major industry events offered an excellent platform to promote the topic, raise awareness and inspire stakeholders to explore innovative practices in their own agricultural systems.

## **Joint Organisation with European Carbon Farmers**

In Poland, two workshops were organised in partnership with European Carbon Farmers. The collaboration broadened the organisational team's expertise and expanded the network of contacts, facilitating smooth logistics, effective promotion and a well-targeted communication strategy. This cooperation also contributed to cost optimisation and allowed for a more efficient use of available resources.

Beyond operational benefits, the partnership strengthened the relationship between the public institution hosting the workshop and the external association. It fostered two-way knowledge exchange, laid the foundation for future collaborative initiatives and enhanced networking opportunities among participants. As a result, the workshops created a stronger, more integrated community of practice around carbon farming.



## **Professional Video Documentation and Dissemination**

Although recording workshop videos was optional, organisers invested considerable effort in professionally documenting the events. Two films were produced, each capturing the atmosphere of the workshops, presenting key presentations and practical demonstrations, and featuring interviews with speakers and participants. These materials serve both promotional and educational purposes by illustrating carbon-farming concepts, showing practical field applications and highlighting active stakeholder engagement.

The videos were disseminated widely through the project's social media channels, especially Facebook, and were made publicly available on YouTube. Their continued online presence ensures long-term outreach, enabling the workshops' educational content to reach audiences far beyond the immediate group of participants.

## **Expanded Outreach Through Digital Promotion and Hybrid Participation**

Workshop organisers cooperated with a specialised company responsible for social media promotion before and after the event. As part of this collaboration, a targeted online communication campaign was developed to increase visibility and attract a wider audience interested in carbon farming.

The company also facilitated professional YouTube live streaming, which enabled hybrid participation for individuals unable to attend in person. This significantly expanded the event's accessibility and impact. The recorded livestream remains publicly available on the project's YouTube channel, offering continued access for educational, promotional and informational purposes.

# FEEDBACK AND EVALUATION



A key component concluding each workshop was the evaluation survey, designed to gather participants' perceptions and levels of satisfaction with both the organisational arrangements and the substantive content of the events. Although the survey questions varied between countries—and in some cases between workshops within the same country—this flexibility reflected differences in thematic focus, format and specific objectives. Despite this diversity, the consistent use of evaluation tools made it possible to systematically collect feedback across a wide range of contexts.

Overall, participants responded positively, indicating that the workshops were well organised, the content was relevant and engaging, and the sessions met or exceeded their expectations. Tailoring the surveys to national and local conditions enabled organisers to account for contextual differences while still generating comparable insights on participant satisfaction. This approach enhanced the credibility of the findings and provided valuable guidance for improving future events. The results demonstrate that, regardless of variation in workshop design, the seminars successfully delivered knowledge, fostered participant engagement and contributed meaningfully to capacity building in carbon-farming practices.

It should be noted that not all organisers placed equal emphasis on evaluating organisational aspects. In several cases, surveys focused primarily on content-related components, while only a few included questions specifically addressing logistics and event management. However, where such questions were included, participants consistently reported a high level of satisfaction with the organisation and overall format of the workshops. The questions asked in this area included:

- How satisfied are you with the venue and conditions of the event?
- How up to date do you consider the information presented during the event?
- How do you assess the overall organization of the event (venue, promotion)?
- What is your overall impression of the event?
- How do you rate the organizational aspects of the event [invitations]?
- How do you rate the organizational aspects of the event [notifications]?
- How do you rate the organizational aspects of the event [agenda]?



- Did the event meet your expectations?
- Would you recommend a similar event to your friends and colleagues?

The descriptive feedback provided by participants often characterized the workshops as “professionally organized”, underscoring the importance of high-quality logistics, clarity of communication, and well-structured agendas in shaping positive learning experiences. These findings indicate that organizational excellence is not merely a supportive element but a critical factor that reinforces the effectiveness of knowledge transfer and participants’ overall engagement.

At the same time, certain critical remarks—such as the observation that Friday afternoon workshops were less effective due to fatigue and lower concentration—offer valuable insights for improving future events. This feedback highlights the importance of aligning organizational decisions (such as scheduling) with the participants’ capacity for active learning. Such details can significantly influence both the perceived quality of the event and the ability of participants to fully absorb the presented content.

From an analytical perspective, the organizational feedback complements the evaluations of the substantive aspects of the workshops. Together, they suggest that the success of these events rests on the synergy between well-prepared, scientifically sound content and an organizational framework that maximizes accessibility, comfort, and participant engagement. By integrating these two dimensions, future workshops can ensure not only the delivery of relevant knowledge but also its effective assimilation and long-term application.

Questions addressing the substantive aspect of the workshops were included in the evaluation surveys of all events, with the exception of one that was held online. These questions were crucial for gathering stakeholders’ perspectives and for reinforcing the main concepts discussed during the presentations. Overall, participants expressed strong appreciation for the focus on carbon farming practices and soil quality indicators, recognizing them as highly relevant and applicable to their everyday agricultural work.

The lectures generated significant interest, particularly among participants who had not previously been exposed in depth to the topic of carbon farming. Carbon sequestration, a core element of the project, remains a relatively unfamiliar concept to the wider public. By using the



questionnaires, participants were encouraged to actively reflect on the practices presented and to provide valuable feedback that will inform the design of future initiatives.

The following questions were asked in the surveys:

- How up to date do you consider the information presented during the event?
- How useful do you find the information provided by the presenters?
- Did you learn anything new that you can implement on your farm?
- Did the content meet your expectations?
- How do you assess the competence of the presenters?
- Are you satisfied with the methodological preparation of the content (practical usefulness)?
- How important was the topic to you?
- Did you receive any significant/new information that you did not have before?
- How would you rate the professionalism of the presenters?

For all of the above questions, the responses were consistently affirmative: “definitely yes,” “of course,” and “absolutely.” This strong feedback indicates that, while many participants were already familiar with the term carbon farming, they often lacked a deeper understanding of what it entails in practice and how it connects with other sectors of life and the economy. It is also possible that, although participants were aware that CO<sub>2</sub> emissions contribute to climate change, they had little knowledge of the mechanisms behind this phenomenon or of the measures available to mitigate it.

The consistently positive responses to questions related to the acquisition of new knowledge and the fulfillment of expectations are particularly encouraging. They demonstrate that the workshops successfully bridged an important knowledge gap, providing participants not only with theoretical insights but also with practical tools and ideas that can be directly applied to their agricultural practices. In this sense, the workshops played a dual role: raising awareness of the broader climate context while simultaneously equipping farmers and stakeholders with actionable strategies for sustainable land management.

At the beginning of each workshop, representatives of the partner institutions introduced the Carbon Farming CE project and highlighted its main objectives. This initial presentation provided



participants with an essential overview and set the stage for the more detailed thematic content that followed. Survey results from several participating countries indicated that most attendees had at least a theoretical—though often vague—understanding of the concept of carbon farming. Importantly, participants reported that their awareness of climate change came from a wide variety of sources, including:

- the internet,
- educational programs,
- social media,
- documentaries,
- professional literature,
- formal education, and
- dedicated training sessions.

This diversity of sources demonstrates the multiple entry points through which climate change knowledge can be disseminated, suggesting the value of combining different communication channels to broaden outreach and impact. However, the surveys also revealed that farmers, while familiar with the concept, generally do not apply carbon farming techniques in practice. This gap highlighted the importance of the workshops in providing structured and systematized knowledge on the subject. Participants considered it particularly valuable to receive clear explanations of:

- What carbon farming actually is,
- Which techniques are associated with it, and
- What concrete benefits it can generate.

Thanks to this approach, participants emphasized their appreciation for the potential of carbon farming practices to: improve soil health, increase biodiversity, and reduce the carbon footprint of agricultural production.

Another element that participants repeatedly underlined was the importance of learning from the experiences of scientists directly involved in the project. Farmers expressed strong interest in hearing about both the advantages and disadvantages of specific practices. They particularly valued results that were:



- based on scientific evidence,
- derived from experiments conducted in their own regions, and
- directly comparable to conditions on their farms.

This regional dimension made the content more relevant and relatable, encouraging farmers to reflect on possible implementation in their own contexts. While farmers are increasingly well-educated and open to scientific evidence, the feedback revealed that the presentation of overly complex or excessive data was not always effective. For many, long tables or highly detailed scientific figures were less engaging; instead, they preferred concise summaries, clear conclusions, and practical recommendations. Additionally, in some cases, participants noted that the workshops included “too much basic information.” This suggests the need for future events to better tailor the level of content to the specific target audience, ensuring that the material remains relevant, engaging, and appropriately advanced.

Across the participating countries, the workshops placed varying degrees of emphasis on selected techniques that support carbon farming. This differentiation was largely determined by the specific characteristics of each country, including its geography, agricultural systems, and economic context. Despite these variations, participants consistently expressed a positive attitude towards carbon farming practices. One of the recurring themes in the surveys was the recognition of the importance of becoming more familiar with these techniques in detail. Participants emphasized that learning about them was highly valuable, as they saw strong potential for such practices to improve soil health, increase carbon sequestration, and enhance agricultural productivity overall.

A significant environmental dimension also emerged from the feedback. Many respondents pointed out that carbon farming serves not only an agricultural purpose but also an important environmental one, contributing to improved biodiversity, better soil quality, and a more positive overall impact on the natural environment. This framing highlights participants’ awareness that carbon farming can play a key role in addressing climate change and sustainability challenges.

Notably, nearly three-quarters of the respondents identified simplified tillage and the use of cover crops as “techniques of the future.” These practices were seen as particularly promising because



they are among the easiest to implement within existing farm structures. Participants also repeatedly stressed the importance of specific agronomic measures, such as:

- the use of cover crops,
- the incorporation of crop residues,
- the application of manure, and
- the use of compost.

In the participants' view, these practices are highly beneficial both from an agricultural and an environmental standpoint. They were perceived as concrete, practical steps that farmers can take to transition toward more sustainable systems, while simultaneously strengthening the resilience and long-term productivity of their soils. Most of the workshops were organized in such a way that they included a practical, hands-on component. This practical part was conducted primarily on experimental fields, often directly linked to trials carried out within the Carbon Farming CE project. These sites provided a unique opportunity for participants to observe techniques supporting carbon sequestration under real field conditions.

In contrast, during the workshop conducted in an online format, participants expressed disappointment at the lack of a field-based practical session. They highlighted that this absence limited their learning experience and reduced the overall value of the event compared to in-person workshops. For those who attended stationary workshops, the feedback was overwhelmingly positive. Participants emphasized their satisfaction with the combination of lectures and field demonstrations, noting that this format not only enriched their understanding but also provided ample time for collective discussions. Such exchanges were regarded as both a valuable outcome of the workshop and a factor contributing to the atmosphere of trust and openness that characterized the meetings. Participants particularly appreciated the wealth of new, practical knowledge, complemented by the possibility of observing its real-life application in the field. However, in workshops where there was a strong imbalance between the time devoted to theoretical lectures and the time reserved for field demonstrations, survey respondents consistently suggested that future events should extend the duration of the practical sessions.

The field demonstrations themselves generated considerable interest. Participants were especially engaged in:



- learning about methods for measuring soil carbon content,
- exploring different ways of using these measurements to optimize agricultural practices,
- understanding how to monitor and evaluate the effectiveness of such practices over time.

One of the highlights was the demonstration of surface application of compost without mixing it into the soil. As this is an innovative technique, it attracted significant attention and was followed by extensive discussion. Participants were curious about the practicalities of implementing this method within existing farming systems, such as integrating compost application with the use of cover crops. Beyond composting, participants were also exposed to a variety of cutting-edge and complementary practices, like the use of drones for crop monitoring, allowing real-time observation of plant growth, soil conditions, and water management, demonstrations of autonomous robots and reduced tillage machinery, showcasing how automation and simplified cultivation techniques can contribute to carbon sequestration and improve soil health, observation of extensive cattle grazing systems, highlighting their role in nutrient cycling, biodiversity protection, and low-input farming, and exposure to agroforestry experiments, where the integration of trees with crops and livestock illustrated long-term benefits for soil structure, microclimate regulation, and carbon storage.

These diverse demonstrations significantly broadened the participants' understanding of carbon farming, showing them that it is not limited to a single practice but rather a holistic system that integrates technology, ecological processes, and sustainable land management. Beyond specific techniques, many participants expressed a strong interest in the transition process from conventional farming practices to regenerative farming. They wanted to understand not only the benefits but also the practical steps and potential challenges associated with this transformation.

The evaluation surveys contained several key questions that reflected these observations, including:

- How useful did you find the practical demonstrations?
- Did the balance between theoretical and practical parts of the workshop meet your expectations?
- How relevant were the techniques presented to your own farming practices?
- What aspects of the workshop format would you improve in the future?



The responses to these questions confirmed that while the practical components were highly valued, participants expect them to play an even larger role in future workshops. This indicates a clear demand for more hands-on, field-based training, which participants perceive as the most effective way to gain applicable skills and insights for carbon farming.

Participants also reflected on the long-term challenges that farming systems are likely to face in the context of climate change and shifting resource availability. One of the most prominent concerns raised was the pace of climate change itself, which many farmers felt could outstrip their capacity to build up soil organic matter (SOM) through agricultural practices. While measures to increase SOM are considered crucial for soil health and carbon sequestration, participants questioned whether the scale and speed of these efforts can realistically keep pace with the rapidly accelerating environmental changes. Another issue that drew considerable attention was the anticipated decline in the use of natural fertilizers such as manure. Farmers noted that, as livestock numbers continue to decrease across Europe, the availability of manure is expected to diminish accordingly. This trend, they warned, could have significant implications for soil fertility management and the effectiveness of carbon farming practices, many of which rely heavily on organic inputs to sustain productivity and ecosystem benefits. Related to this, participants raised ongoing doubts about whether cover crops can serve as a full substitute for the agronomic and environmental advantages traditionally provided by manure. While cover crops were generally acknowledged as a highly beneficial practice—contributing to soil protection, nutrient cycling, and carbon storage—several participants emphasized that their role should be seen as complementary rather than a direct replacement. The discussions highlighted a degree of uncertainty about whether cover crops alone can deliver equivalent long-term outcomes in terms of soil structure, fertility, and resilience. These reflections underscored the importance of addressing both ecological and resource-based constraints when considering the future scalability of carbon farming. Participants stressed that without reliable access to organic inputs and realistic timelines for soil improvement, the transformative potential of these practices may remain limited in practice.

Despite the many challenges identified, participants acknowledged that several techniques continue to stand out as both practical and beneficial in advancing the goals of carbon farming. Among these, the use of cover crops, the incorporation of crop residues into the soil, and the



application of manure and compost were frequently highlighted. These practices were widely regarded as effective in improving soil health, enhancing fertility, and contributing significantly to carbon sequestration. Farmers and advisors emphasized that, beyond their environmental benefits, such measures are already familiar to many practitioners and can often be integrated into existing farming systems with relative ease. The presentations, followed by lively group discussions, provided a platform for deeper reflection on which specific plant production practices hold the greatest potential for capturing and storing carbon in agricultural soils. Participants also considered the broader question of how agricultural land should be positioned within the European Union's policies and climate objectives. Many expressed the view that farmland must be recognized not only as a production base for food but also as a crucial resource in achieving Europe's long-term emissions reduction targets.

At the same time, the workshops made clear that technical solutions alone will not suffice without robust economic underpinnings. Participants repeatedly stressed the importance of conducting detailed economic analyses of carbon farming, including comprehensive cost-benefit assessments that would allow farmers to weigh environmental gains against financial viability. They also highlighted the need for clear and accessible information on financing opportunities, such as subsidies, incentives, or emerging market mechanisms.

While participants generally recognized the potential of carbon farming, their feedback was not limited to positive evaluations. Several concerns were raised, particularly in relation to legislative, financial, and practical aspects of implementation.

In the field of legislative and financial uncertainty, one of the main sources of uncertainty among both farmers and agricultural advisors was the lack of clarity regarding legislative frameworks and financial support mechanisms. Farmers reported insufficient knowledge about the subsidies they could apply for, as well as the additional costs they might incur when adopting carbon farming practices. Participants openly emphasized the urgent need for both legislative and technical support, highlighting that without clear guidance and structured frameworks, the adoption of carbon farming practices would remain uncertain. Equally important in their view were financial incentives, such as subsidies, tax reductions, or direct payments, which could significantly reduce the economic burden associated with introducing new methods. The idea of carbon credits or carbon certificates or similar market-based mechanisms was also frequently mentioned, as these



were seen as particularly powerful motivators for practitioners who might otherwise hesitate to invest in unfamiliar practices. The results of the survey strongly reflected these priorities: as many as 70 percent of respondents indicated that cost reduction was the main economic driver influencing their decision to adopt carbon farming techniques, while 60 percent pointed to the possibility of accessing carbon credits as a strong incentive.

Another set of challenges identified by participants was closely tied to the technical requirements of carbon farming practices. Farmers pointed out the lack of specialized machinery, particularly for tasks such as manure application, the use of cover crops, and the implementation of simplified tillage systems. They also stressed that certain techniques, such as reduced or no-tillage, are highly dependent on specific soil conditions, which makes their broader application more difficult. In addition, effective weed control was seen as an essential prerequisite for the successful introduction of carbon farming systems, yet one that often requires additional labor and resources. Participants further emphasized the difficulties associated with securing compost of sufficient quality, noting that this not only complicates farm operations but also generates additional costs for producers—and, in the longer term, may even translate into higher expenses for consumers.

During the seminars, considerable attention was also given to the business models linked with carbon farming, particularly in terms of their transferability and practical applicability across different agricultural sectors. Participants engaged in discussions about whether such models could be effectively adapted to diverse contexts, ranging from crop production to broader supply chains. Overall, the feedback was largely positive. Business models were considered particularly relevant for agri-food chains as well as for small and medium-sized enterprises (SMEs) operating within wood supply chains. The majority of participants recognized the cooperative model as a promising framework to support the development and scaling of carbon farming practices, especially in fostering collaboration and resource sharing among farmers. However, some also noted that its suitability might remain somewhat limited in scope. Indeed, only one participant expressed clear doubts about the applicability of such models, which suggests that, despite certain reservations, the potential role of structured business frameworks in advancing carbon farming was broadly acknowledged and welcomed.

Farmers also drew attention to the already significant regulatory burden within the EU agricultural sector. Many participants emphasized that agriculture is currently subject to an extensive



framework of rules and obligations, and they expressed concern that additional requirements arising from the European Green Deal could create further strain. A recurring theme in the discussions was the fear that the growing complexity of regulations might shift the focus away from the fundamental purpose of farming—namely, the production of food. Some participants warned that if stricter environmental standards result in reduced local agricultural output, this could inadvertently increase dependence on imports from countries with lower environmental requirements, thereby undermining the very goals of sustainability and climate action.

Particular attention was paid to the Carbon Removal Certification Framework (CRCF), which was a point of critical reflection among farmers. The majority of participants did not evaluate CRCF-based carbon credits favorably, pointing to the numerous restrictions and conditions that, in their view, limit the scheme's practicality and accessibility. They suggested that while the concept of certified carbon removal is theoretically attractive, the framework as currently designed may not be well suited to the realities of farm management.

Participants also noted that other stakeholder groups—such as national parks, managers of extensive grasslands, or even forest owners—appear far more likely to benefit from CRCF participation. Farmers who are already deeply embedded in the Common Agricultural Policy (CAP) structure, by contrast, face overlapping obligations that make additional certification requirements difficult to accommodate. This challenge was particularly emphasized by advisors from Slovenia, who underlined that the specific structure of farms in their country makes the combination of CAP requirements with CRCF carbon farming schemes nearly impossible in practice. Their concerns highlighted the broader issue of ensuring that new regulatory and certification frameworks take into account the diversity of European farming systems, rather than applying a one-size-fits-all approach.

A particular source of concern was the ongoing lack of clarity regarding the market value of carbon credits under the Carbon Removal Certification Framework (CRCF). Many details remain poorly understood, and this uncertainty continues to fuel hesitation among both farmers and advisors. Without transparent and reliable mechanisms for valuing and trading carbon credits, participants warned that confidence in carbon farming as a sustainable business model may remain limited, potentially slowing the adoption of practices that otherwise enjoy strong environmental and agronomic support.



**Carbon Farming CE**

# PARTICIPANT FEEDBACK BY COUNTRY



This section presents some observations, comments and reflections shared by participants during and after the workshops. The feedback highlights both strengths and areas for improvement, offering valuable insights into the effectiveness of the seminars and guiding future capacity-building activities.

## Austria

### Positive Feedback

- “There was sufficient time and space for open discussion.”
- “The practical use of a site-adapted humus balance as a decision-support tool was very valuable.”
- “The workshop offered a clearly practical orientation.”
- “A critical approach was appreciated – the workshop did not present carbon farming uncritically.”
- “The scientific and methodical approach enhanced the seminar’s overall credibility.”
- “Detailed information on humus content and different soil-carbon categories.”
- “Useful insights into different carbon-farming techniques and their applications.”

### Areas for Improvement

- “Lack of actual soil interaction – the session was limited to indoor presentations.”
- “Too many slides and an overly extensive action table.”
- “Insufficient data on soil interactions.”
- “Some recommendations felt too general or not sufficiently precise.”

## Croatia

### Positive Feedback

- “Field demonstrations are a far more effective educational tool than indoor presentations.”
- “Clear explanation of the difference between general carbon farming and the more specific concept of carbon sequestration.”



- “Comprehensive insights into effective strategies for enhancing soil-carbon sequestration.”

#### **Areas for Improvement**

- “The method of explaining carbon-farming concepts was too complex.”

### **Czech Republic**

#### **Positive Feedback**

- “The presentation was very clear and well structured.”
- “Sufficient time was allocated for open discussions and exchange of ideas.”
- “Participants had the opportunity to ask detailed questions and receive thorough answers.”
- “The overall organisation and professional delivery of the seminar were highly appreciated.”
- “The visual presentation of photographs and slides made the topic easier to understand.”
- “Practical examples demonstrated the real-world application of the techniques.”
- “On-site demonstrations of carbon-farming practices were particularly valuable.”

#### **Areas for Improvement**

- “No discussion addressing the economic aspects of implementing carbon-farming methods.”
- “Too little time dedicated to hands-on workshops or field sessions.”
- “More case studies from different regions would make the examples more transferable to diverse conditions.”

### **Germany**

#### **Positive Feedback**

- “Practical information that can be readily applied on farms.”
- “A trustful and friendly atmosphere.”
- “Enough time for discussion.”



## Hungary

### Positive Feedback

- “A lot of useful information.”
- “A clear and well-structured presentation.”
- “Monitoring and data collection are essential for understanding impacts and guiding improvements.”
- “Field trials are important for sharing good practices.”

## Italy

### Positive Feedback

“The workshop used effective approaches for knowledge transfer.”

## Poland

### Key Benefits Highlighted by Participants

- “An opportunity to discuss current issues related to agriculture and carbon farming.”
- “Gaining new knowledge and networking with other professionals.”
- “The possibility to compare my own farming practices with examples presented during the workshop.”
- “Very practical insights into soil testing, water-sorption assessment and the C:N ratio.”
- “A balanced presentation that included both benefits and challenges of using cover crops.”
- “A greater understanding of carbon-farming techniques and their role in sustainable agriculture.”

## Slovakia

### Positive Comments

- “Effective approaches to knowledge transfer.”

### Areas for Improvement

- “Lack of a field visit directly linked to the methodology.”
- “Too little time for hands-on workshops or field demonstrations.”



## Slovenia

### Positive Feedback

- “Balanced presentation of both the positive and negative aspects of carbon farming.”
- “Valuable presentation of 30-year SOM (Soil Organic Matter) results for selected practices.”  
(mentioned twice)
- “Good summary of relevant policies and EU ambitions.”
- “A workshop format that encouraged open discussion and sharing of individual perspectives.”
- “Useful presentation of the CF CE project team’s experience with practice effectiveness.”

# OUTCOMES AND ACHIEVEMENTS



The outcomes of the 27 carbon-farming seminars conducted across nine Central European countries demonstrate clear progress in strengthening knowledge, building practical skills, and enhancing cooperation among stakeholders engaged in climate-smart agriculture. Although the participating countries share geographical proximity, they differ significantly in climatic conditions, biogeographical zones, farm structures, and levels of prior knowledge related to carbon farming. The workshops were therefore designed to both broaden and deepen participants' understanding, addressing their diverse needs while ensuring a coherent capacity-building effort across the region.

## Strengthening Knowledge and Conceptual Clarity

Across all workshops, participants reported that they were familiar with the term *carbon farming*, yet their understanding was often superficial. More detailed discussions revealed that approximately one quarter of participants could not provide concrete explanations of the concept, and an even smaller number fully understood the meaning of *carbon sequestration*. The seminars successfully bridged these gaps.

Lectures consistently clarified the distinctions between:

- **carbon farming** - a set of practices increasing soil carbon storage or reducing agricultural emissions,
- **carbon sequestration** - the long-term storage of carbon in soils and biomass,
- **low-carbon agriculture** - farm management aimed at reducing greenhouse-gas emissions.

By approaching these topics step by step, the seminars helped participants understand how soil processes, farming practices and climate-mitigation goals intersect within the broader framework of sustainable agriculture. This conceptual clarity was repeatedly highlighted as one of the core benefits of participation.

## Expanding Knowledge on Carbon-Farming Techniques

A major component of the seminars involved detailed presentations of carbon-farming practices, particularly those tested during the project. Participants learned the scientific foundations of soil



carbon dynamics and the physico-chemical processes behind humus formation, soil-organic-matter increase, and long-term carbon storage.

The most frequently discussed techniques included:

- cover crops and catch crops,
- diversified crop rotations,
- compost application and organic fertilisation (including surface application of compost),
- liming and gypsum application,
- reduced and simplified tillage systems,
- agroforestry and silvopastoral practices,
- relocation of crop residues.

The seminar format ensured that theoretical explanations were complemented by practical evidence from ongoing field experiments, long-term trials, and farmers' experiences. Participants expressed appreciation for clear and practical guidance on tailoring techniques to different soil classes – a recurring challenge across Central Europe due to heterogeneous soils and micro-regional variability.

### Introducing Soil-Quality and Monitoring Tools

The workshops placed strong emphasis on measurement, monitoring and the use of indicators. Scientists explained both current and emerging biochemical indicators relevant for assessing soil quality and carbon sequestration.

Key tools presented included:

- **Visual Soil Assessment (VSA)** for rapid field-level evaluation,
- measurements of **SOC, GHG emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O)** and soil moisture,
- demonstrations of equipment such as chamber systems, meteorological sensors, and digital monitoring tools.

Participants particularly valued hands-on demonstrations, which helped them understand the reliability of scientific measurements and the role of monitoring in MRV systems, carbon markets and performance-based policy schemes.



### **Field-Based Learning and Practical Demonstrations**

Most in-person workshops included field components, which were consistently rated among the most valuable elements of the seminars. Participants observed:

- crop-rotation and intercrop experiments,
- cover crop mixtures,
- compost application trials,
- reduced-tillage demonstrations,
- drone-based monitoring,
- autonomous robots and Agriculture 4.0 solutions,
- extensive grazing and agroforestry systems.

Discussions in the field were lively and highly interactive. Participants asked detailed questions about machinery, timing, costs, labour demands, and soil-specific challenges. Those attending online seminars clearly expressed that the absence of a field component reduced the value of their experience – confirming the importance of hands-on learning for future events.

### **Linking Practices with Policies and Business Models**

Another essential achievement was enhancing participants' understanding of policy frameworks and economic instruments supporting carbon farming. The workshops clarified:

- the role of the CAP (eco-schemes, AECM, conditionality),
- national climate and soil-protection regulations,
- EU-wide initiatives such as the Green Deal and CRCF,
- business models including carbon credits, premiums, partnerships and advisory-service structures,
- possibilities for building cooperation across farmers, advisors, research institutions and private companies.

Participants widely acknowledged the added value of understanding how carbon-farming practices integrate within legal, institutional and market frameworks. Many farmers highlighted the need for further, more detailed guidance, especially regarding financial incentives and carbon-credit mechanisms.



### Stimulating Dialogue and Building Networks

One of the most significant achievements of the seminars was strengthening cooperation and building trust among stakeholders. Exchanges occurred not only between farmers and scientists but also with representatives of Ministries of Agriculture who attended selected seminars. These dialogues created a rare, multi-actor space in which practitioners could openly express concerns and policymakers could clarify priorities.

Participants emphasized that:

- hearing scientific results from local experiments increased relevance and credibility,
- discussing challenges (not only benefits) created a balanced learning environment,
- networking sessions helped form new professional connections and future collaborations,
- cross-sector exchanges enhanced understanding of different viewpoints and needs.

These interactions laid the foundations for a more integrated carbon-farming community in Central Europe.

### Revealing Barriers and Development Needs

In addition to the positive achievements, the seminars also revealed a number of constraints that must be addressed to enable broader adoption of carbon-farming practices:

- **Legislative uncertainty** – lack of clarity on support schemes, subsidies, and certification rules.
- **Economic concerns** – farmers stressed that cost-benefit assessments, compensation mechanisms, and access to organic inputs need improvement.
- **Technical barriers** – machinery shortages, weed-management challenges under reduced tillage, and limited availability of quality compost.
- **Resource limitations** – declining livestock numbers imply reduced manure availability, raising questions about the long-term feasibility of organic-matter management.
- **CRCF scepticism** – many farmers perceive carbon credit schemes as too complex or misaligned with CAP obligations.

These insights provide a solid evidence base for future targeted support, improved advisory services and clearer policy design.



## **Consolidated Achievements**

Overall, the seminars delivered substantial results across three strategic dimensions:

### **Knowledge and Skills**

- Improved understanding of carbon farming, carbon sequestration and soil-quality management.
- Strengthened capacity to implement practices adapted to local soils and conditions.
- Increased familiarity with monitoring tools, indicators and MRV requirements.

### **Practical Competence**

- Direct experience with field experiments and demonstration sites.
- Enhanced ability to assess soil conditions, interpret indicators and select appropriate techniques.
- Exposure to innovative technologies supporting carbon-farming implementation.

### **Cooperation and Community Building**

- Expanded networks connecting farmers, advisors, scientists, policymakers and businesses.
- Improved dialogue between practitioners and institutions responsible for policy development.
- Creation of a transnational learning community supportive of climate-smart agriculture.

# CHALLENGES AND LESSONS LEARNED



The carbon farming capacity building seminars represented a central component of the project's capacity-building efforts and played a key role in strengthening participants' understanding of soil-carbon management and climate-smart agricultural practices. Throughout the planning and implementation phases, organisers faced several logistical, organisational and content-related challenges that significantly shaped both the execution of the events and the learning experience of participants.

## **Logistical and organisational challenges**

A recurring logistical issue concerned the discrepancy between the number of registered and actual participants. Several events experienced last-minute cancellations, while others saw unexpectedly high attendance from individuals who joined spontaneously after encountering promotional materials or social-media posts. This unpredictability required a high level of organisational flexibility, particularly in reallocating seating, adapting materials and adjusting resources on the spot. Email proved to be the most effective communication channel for invitations and reminders, ensuring efficient information flow and facilitating timely responses from stakeholders.

Another important logistical factor was the timing of events. Across workshops, participants consistently indicated that Friday afternoons were the least suitable time due to farm duties, reduced concentration and limited availability. Morning or early-afternoon sessions were perceived as more conducive to active participation and engagement.

## **Heterogeneity of participant knowledge**

Workshops attracted a diverse audience—including farmers, advisors, researchers, students and representatives of public institutions—whose prior knowledge and experience levels varied widely. While this diversity enriched discussions, it also required careful moderation and thoughtful tailoring of content. Striking a balance between introductory explanations and advanced concepts proved necessary to ensure accessibility for all groups. This challenge underscored the importance of segmenting content or applying differentiated pedagogical approaches when targeting mixed audiences.



### Value of field-based and practical components

To address the challenge of uneven knowledge levels and to meet expectations for hands-on learning, many organisers incorporated extensive field components into their agendas. These practical elements were consistently rated as the most effective and engaging parts of the workshops. Participants valued opportunities to:

- observe experimental treatments and carbon-farming techniques directly in the field,
- apply practical methods (e.g., VSA, SOC/GHG measurement demonstrations),
- engage in open discussions based on real-world examples.

Field sessions helped bridge the gap between theory and practice, enabling participants to relate concepts to their own agricultural contexts. Workshops that lacked a field component—particularly those held online—received noticeably lower satisfaction ratings, highlighting the importance of practical demonstrations in future capacity-building initiatives.

### Content-related challenges and participant expectations

A number of content-related issues emerged during the workshops. Farmers, especially, reported difficulties engaging with carbon farming when presented solely as an abstract or externally imposed concept. The perception of carbon farming as “EU-driven” sometimes resulted in initial scepticism. This challenge was mitigated effectively when local farmers served as speakers or co-facilitators. Their practical experience, credibility and familiarity with local conditions significantly increased participant trust, motivation and interest.

Participants also expressed a strong desire for clear and concise explanations, preferring summaries, visualisations and practical recommendations over dense scientific tables or overly detailed datasets. This feedback indicates the need to tailor future materials to ensure they remain decision-relevant and easily digestible.



## Economic and financial considerations

Financial uncertainty emerged as a persistent concern. Many farmers were hesitant to adopt carbon-farming practices without a clearer understanding of:

- upfront costs and investment needs,
- long-term economic benefits,
- available subsidies, incentives and advisory support,
- the practical functioning and value of carbon credits.

Participants emphasised the necessity of structured financial guidance, transparent cost-benefit examples and simplified explanations of market and policy instruments. The importance of providing economic context, rather than focusing solely on environmental benefits, was a recurring theme in the discussions.

## Engagement in online formats

Online workshops facilitated participation from geographically dispersed advisors and stakeholders; however, they demonstrated limitations in maintaining engagement—particularly when lacking interactive tools or practical components. Participants recommended the use of live polls, moderated Q&A sessions, virtual breakout groups and other online facilitation methods to improve interactivity. Hybrid models—combining online theoretical content with on-site demonstrations—were considered a promising approach for future activities.

## Key lessons learned

Across all countries, several overarching lessons emerged:

### 1. Field-based demonstrations are essential

They substantially enhance learning outcomes, support practical understanding and increase participant satisfaction.

### 2. Timing and pacing matter

Longer breaks (~20 minutes) support richer discussions, while morning sessions increase concentration and attendance.



**3. Audience-tailored content improves engagement**

Workshops must adapt to the knowledge levels of farmers, advisors, students or policymakers to avoid oversimplification or unnecessary complexity.

**4. Financial clarity is critical to encouraging adoption**

Without transparent, accessible financial guidance—including subsidy pathways, cost-benefit analyses and carbon-credit mechanisms—participants remain hesitant to implement new practices.

**5. Local credibility strengthens acceptance**

Involvement of local farmers as speakers significantly enhances trust and motivates adoption.

**6. Hybrid formats offer scalability but require interactive design**

When used, digital tools must support engagement rather than replicate static lecture formats.

Overall, the workshops generated valuable insights into both the opportunities and constraints associated with strengthening carbon-farming capacities in Central Europe. They demonstrated that impactful capacity building requires a combination of practical demonstration, well-structured content, responsiveness to participant needs and clarity regarding economic and regulatory frameworks. By integrating these lessons into future initiatives, partners can further enhance the effectiveness, relevance and long-term impact of carbon-farming training across the region.

# RECOMMENDATIONS AND NEXT STEPS



Building on the insights gained from the 27 carbon-farming seminars delivered across nine partner countries, several strategic recommendations emerge for enhancing future capacity-building initiatives. These recommendations reflect the operational experiences of organizers, feedback from participants, and lessons learned regarding the design, delivery, and follow-up of educational activities in the field of carbon farming.

## **1. Strengthen Practical, Field-Based Learning**

Across all countries, field demonstrations were consistently rated as the most valuable component of the workshops. Participants indicated that hands-on observation substantially improved their understanding of soil processes, measurement techniques, machinery operation, and the real-world implications of different agricultural practices. Therefore:

- Future workshops should guarantee a substantial field component, ideally complementing each theoretical block with a practical session.
- When designing agendas, partners should increase the duration of hands-on sessions, ensuring that participants have adequate time for observation, questions, and guided exercises.
- Hybrid events may combine online theoretical modules with subsequent on-farm demonstrations to ensure both accessibility and practical value.

## **2. Ensure Logistical Flexibility and Improved Scheduling**

Partners frequently experienced discrepancies between the number of registered and attending participants, as well as last-minute walk-ins. Additionally, Friday afternoon seminars proved suboptimal in several contexts. To address these challenges:

- Organizers should prepare contingency plans, including additional seating, printed materials, and registration management.
- Morning or early-afternoon scheduling is strongly recommended to maximize participation, especially for farmers.



- Breaks of approximately 20 minutes between agenda blocks should be standard practice to support informal discussion, peer learning, and networking.

### **3. Tailor Content to Participant Profiles and Knowledge Levels**

Workshops gathered highly diverse stakeholder groups, including farmers, advisors, students, policymakers, NGOs, and businesses. While this diversity enriched discussions, it required careful content differentiation:

- Future seminars should segment content by audience type, offering alternative tracks or parallel sessions when feasible.
- Presentations should prioritise clear, concise messages and avoid excessive technical detail unless specifically intended for expert groups.
- Whenever possible, partners should employ case studies and regionally relevant examples, as participants consistently valued locally grounded evidence.

### **4. Expand Use of Interactive and Digital Engagement Tools**

Feedback demonstrated participants' appetite for more interactive formats, particularly in online or hybrid settings:

- Incorporation of tools such as live polls, moderated Q&A, short quizzes, breakout discussions, or Slido-type platforms can enhance engagement.
- Digital tools may also support pre-event needs assessments and post-seminar follow-up.
- Hybrid events should ensure equitable participation for remote attendees through moderated chat functions and interactive elements.

### **5. Address Financial and Regulatory Uncertainty More Explicitly**

Participants across all countries repeatedly emphasised the need for clearer guidance on financial, legislative, and administrative aspects of carbon farming:

- Future workshops should incorporate dedicated sessions on funding mechanisms, subsidies, CAP interventions, ecoschemes, and opportunities under the emerging Carbon Removal Certification Framework (CRCF).



- Presentations should include economic analyses, cost-benefit examples, and realistic assessments of resource requirements.
- Partners should provide updated policy briefs summarising current EU and national legislation in an accessible format.

## **6. Strengthen Technical Support and Demonstrations of Tools**

Participants expressed a strong need for practical guidance related to machinery, soil assessments, and monitoring systems:

- Workshops should continue to showcase machinery for reduced tillage, compost application, and precision fertilization, alongside tools for grazing management and Agriculture 4.0 applications.
- Demonstrations of VSA, SOC sampling, GHG measurement equipment, meteorological stations, and drones should be expanded and systematized.
- Development of template MRV checklists and easy-to-use field protocols is recommended to support on-farm implementation.

## **7. Deepen Engagement with Business Models and Market Mechanisms**

The substantial interest in carbon markets and business collaboration indicates the need for more structured and practical content in this area:

- Workshops should expand modules on cooperation models, certification schemes, buyer-farmer partnerships, and carbon-related services.
- Real-world testimonials from farmers, cooperatives, or companies successfully involved in such schemes should be included.
- Practical guidance on benefits, risks, and administrative requirements should be standardised.



## **8. Continue and Expand Collaboration with Local Experts**

The involvement of experienced farmers, advisory services, and local specialists proved crucial in building trust and facilitating uptake:

- Future events should consistently involve local farmer-leaders or practitioners who can contextualise information and provide real-world perspectives.
- Partnerships with advisory services, research institutions, and civil-society organisations should be strengthened to support ongoing knowledge transfer.

## **9. Develop Structured Follow-Up Activities**

Workshops should not be one-off events. To maximise long-term impact:

- Partners should consider establishing post-seminar advisory follow-ups, targeted consultations, or small-group technical training.
- Additional demonstration days, study visits, or cross-country exchanges may reinforce practical learning.
- A shared transnational learning network could further support collaboration among farmers, advisors, and researchers.

## **10. Support Long-Term Adoption Through Clear Roadmaps**

Participants highlighted concerns related to long-term soil fertility, livestock decline (affecting manure availability), and the realistic pace of SOM build-up. Future initiatives should therefore:

- Provide transition roadmaps illustrating realistic timeframes for soil improvement and carbon sequestration.
- Prepare guidelines for integrating carbon farming into existing farm systems, adapted to specific soil types and climatic conditions.
- Include risk-mitigation strategies, such as weed-management plans under reduced tillage or sourcing alternatives to organic inputs.



## Summary

Taken together, these recommendations underline the need for a learning model that is practical, interactive, and responsive to the real-world conditions faced by farmers and advisors. The next generation of capacity-building activities should therefore combine:

- robust scientific content,
- practical demonstrations,
- clear financial and regulatory guidance,
- audience-specific materials, and
- ongoing advisory support.

This integrated approach will strengthen the ability of stakeholders across Central Europe to adopt carbon-farming practices, contribute to climate goals, and build resilient agricultural systems.

# REFERENCES



1. Carbon Farming CE Consortium. Carbon Farming CE - Developing Carbon Farming in Central Europe. Interreg Central Europe; 2023-2026.
2. Food and Agriculture Organization of the United Nations (FAO). Soil Organic Carbon: The Hidden Potential. Rome: FAO; 2019.
3. European Parliament. Making Agriculture Fit for 2030: Carbon Farming. Policy Department for Economic, Scientific and Quality of Life Policies; 2021.
4. Strauss V, Paul C, Dönmez C, Burkhard B. Carbon farming for climate change mitigation and ecosystem services - potentials and influencing factors. Journal of Environmental Management. 2024.
5. Sharma M, Kaushal R, Kaushik P, Ramakrishna S. Carbon Farming: Prospects and Challenges. Sustainability. 2021;13(19):11122.
6. Carbon Farming North Sea Region Partnership. Healthy Soils, Healthy Climate. Interreg North Sea Region; 2018-2021.
7. Smart Carbon Farming Partnership. Smart Carbon Farming - Project Overview. Interreg North-West Europe; 2023-2027.
8. Carbon Farming Med Consortium. Carbon Farming Med - Regenerative Agriculture in the Mediterranean. Interreg Euro-MED; 2023-2026.
9. Bio Forschung Austria, Mendel University Brno, ZERA. RESISOL - Klimafitte Böden. Interreg Austria-Czechia; 2024-2027.
10. Bioeconomy Cluster Slovakia, Discovery Center Hungary, PD Krakovany-Stráže, AGRO-MARK Kft. Soil4Nature - Integrated Soil-Management Practices. Interreg Hungary-Slovakia; 2024-2026.
11. United Nations Development Programme. Capacity Development: A UNDP Primer. New York: UNDP; 2009.
12. Organisation for Economic Co-operation and Development. The Challenge of Capacity Development: Working Towards Good Practice. Paris: OECD DAC; 2006.



13. Convention on Biological Diversity. Capacity-Building Framework under the Convention on Biological Diversity. Montreal: CBD Secretariat; 2010.
14. Food and Agriculture Organization of the United Nations. Capacity Development for Agricultural Innovation Systems. Rome: FAO; 2015.
15. United Nations Framework Convention on Climate Change. Synthesis Report on Capacity-Building. Bonn: UNFCCC; 2025.
16. United Nations Framework Convention on Climate Change. Capacity-Building for Implementing Article 6 of the Paris Agreement. Bonn: UNFCCC; 2025.
17. Shah S, Meena MS, Singh B. Capacity building of farmers through e-extension: An assessment. Agricultural Extension Review. 2018.
18. Rana MM, Kiminami L, Furuzawa S. An analysis of factors affecting farmers' capacity building for sustainable rural and agricultural development in Bangladesh. Regional Sustainability Policy and Practice. 2025;100202. doi:10.1016/j.rspp.2025.100202.
19. Ministry of Agriculture, Republic of Kenya. Capacity Building Strategy for the Agricultural Sector 2016-2021. Nairobi: Government of Kenya; 2017.

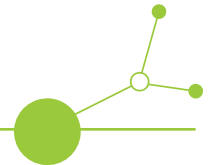
# APPENDICES



## A1.3 Capacity building for carbon farming techniques *(Guidelines for organisation of three seminars)*

# A1.3 Capacity building for carbon farming techniques

Guidelines for organisation of three seminars



Institute of Soil Science and Plant Cultivation State Research Institute





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## 1. Outline

- *Background of the activity*

Activity 1.3 ‘Capacity building for carbon farming techniques’ is a part of the WP1 task package “Testing carbon farming techniques” and is being implemented within the project “Development of Carbon Farming in Central Europe”. The overall objective of the project is to contribute to climate neutrality with development of agriculture-related solutions for capturing CO<sub>2</sub> from the air and deploying it into the soil. This can be done by introduction and uptake of “carbon farming” practices, business model, monitoring solutions and policies for storing GHG as soil organic carbon (SOC). Results and best practices should be transferred and communicated to relevant groups who build a network. To this end, the process known as capacity building can be helpful.

Farmers’ and related groups of stakeholders capacity building is a continuous process that allows access to information, facilitation, and empowerment, and fosters technical advancement. Within the realm of sustainable agriculture development (to which carbon farming concept belongs to), capacity building is conducted through cooperation. These cooperation prioritize the active involvement of individuals and rural communities. The objective of capacity building process in that project is to empower farmers and related groups important for carbon farming concept development to effectively address their daily challenges and seize opportunities that come their way. This approach places community engagement at the core of interventions, promoting the self-reliance of farmers with help of other groups.

Based on the project results, best practices, as well as workshops conducted in nine countries of Central and Eastern Europe (three workshops in each country), training materials will be developed. These materials will serve for three seminars focusing on techniques, business models, and CO<sub>2</sub> sequestration. The material will be accessible online for ongoing use. The aim of the training sessions (done in the future) will be to enhance knowledge for the scaling up of carbon farming. Finally a single comprehensive training report will be compiled, focusing on the impact of the training.

- *How the seminars will help?*

A seminar, also referred to as a panel discussion, serves as an educational gathering emphasizing interaction, where individuals sharing common interests convene to discuss, learn, and exchange ideas. Typically facilitated by subject matter experts who are adept speakers and educators, seminars aim to disseminate knowledge and experiences to the audience. Attendees are encouraged to pose questions and actively participate in discussions during these sessions. As part of the capacity-building initiative for the development of carbon farming concepts, three seminars will be organized in each participating country of the Carbon Farming CE project. These seminars will target different groups of stakeholders and will feature presentations on project findings (carbon farming techniques, business models, carbon sequestration methodology), as well as showcasing best practices in carbon farming from various regions of the EU.



## 1.1. Objectives

The document in question, containing guidelines, aims to provide information on the method and framework for conducting three national workshops aimed at capacity building for carbon farming techniques.

Conducting workshops at the national level will support the capacity building process for carbon farming techniques, as well as the finalization of training materials that can be utilized during the project's concluding phase and beyond. In each of the countries (Slovenia, Hungary, Poland, Italy, Austria, Slovakia, Croatia, Germany, Czech Republic), three seminars will be conducted, during which selected topics including carbon farming techniques, business models, and carbon sequestration methodology will be discussed in a format chosen by the partners from each country (in person, online, hybrid). The seminar agendas and key content will be tailored based on identified needs and opportunities in each country.

The contribution from each country within task A1.3 and the necessary steps for its implementation include the following tasks and steps:

- Familiarization with the document's subject matter and guidelines;
- Working on the concept of the planned seminars (seminar goals and purpose);
- Creating seminar agendas (in total three events) - including budget limitations;
- Selecting the format and date for seminar implementation;
- Choosing the target audience and venue;
- Selecting promotion methods for the event's execution;
- Promoting the organized seminars;
- Preparing substantive content for the seminars (including logistics);
- Conducting meetings, along with photographic documentation;
- Evaluation of the meeting jointly with the participants;
- Preparation of a post-meeting report and sending it to IUNG-PIB.
- Preparation of final report from each country (template will be delivered on later phase)

The reports developed by the partners from each country after each of the conducted seminars, along with the provided photographic documentation, and final report from each country, will serve as input for the development of deliverable D.1.3.1 'Training material and seminars report'.

## 1.2. Target Audience

- *What kind of stakeholders should be considered?*

Participants of the organized workshops may represent one of the target groups, but they can also constitute a mix of representatives from various groups. Depending on the chosen topic and the objectives of the workshop, we determine the target group. The most advantageous form (in terms of networking and knowledge transfer) would be to adapt the



topic for different target groups that would be present at one meeting, thus enabling information exchange and facilitating discussion. However, it is also feasible to organize a meeting for a single target group, such as farmers or policy makers. Within such a meeting, the topic can be discussed in a more detailed manner, focusing on the specific interests of the target group (which may not necessarily be of interest to other target groups).

- *Number of participants on each seminar*

The number of participants in the seminar should depend on the chosen format of the meeting (in-person, online, or hybrid). Based on available sources, it is assumed that the number of participants in an in-person seminar should range between 10-25 individuals. In the case of a larger number of attendees, the challenge lies in facilitating information dissemination and conducting discussions. Similarly, during online meetings, the ability for each participant to speak and engage in discussions is contingent upon the duration of the seminar and the number of attendees. In the project application form, the following target groups have been identified: landowners, farmers, businesses, decision makers, and NGOs. If partners deem it appropriate, these groups can be expanded to include representatives from academia or local governments, as well as other groups relevant to the development of carbon farming in the specific region or country.

### 1.3. Possible Scenarios for Workshops implementation

One of the biggest challenges in organizing seminars is selecting the content and defining the goals we aim to achieve through the seminar. Below are a few example scenarios that can be used to plan meetings. The chosen meeting scenario should be tailored to the specific target audience. Potential meeting scenarios:

- **Technique oriented:** During the seminar, we focus on one or several carbon farming techniques, showcasing them in the field, presenting substantive content regarding, for example, the use of cover crops, natural fertilizers, simplified cultivation practices, or the implementation of agroforestry systems. We also facilitate space for discussion, including in smaller groups. Invited guests are interested in the specific technique or several practices that they (1) can implement on their farms (farmers), (2) can recommend to others (agricultural advisors), (3) can be considered in policy-making (decision makers), (4) can be incorporated into business models and implemented (business representatives), (5) can be utilized in outreach and educational activities (association representatives), (6) can be subjects of research (scientists). The main element and theme of the seminar are the given technique, which is also discussed based on experiences from other countries, possibly involved in the project.
- **Cooperation/business model oriented:** The meeting agenda focuses on cooperation models, which are being tested as part of WP2. During the meeting, we focus on the main components related to the models: stakeholders defined in the model, goals that a particular model or models specify, description of activities necessary for implementation, risks, and impacts (social, environmental, and economic). Of course, various techniques are tested and utilized in all of this, but they are not the central focus of the meeting. Additionally, during the meeting, participants can share best practices and experiences from other countries/partners in the project, indicating existing alternatives in the implementation of cooperation/business models.
- **Strategy, action plan and monitoring methods oriented:** During the meeting, we focus on presenting developed soil monitoring methods (carbon sequestration), showcasing indicators,



various monitoring strategies, examples of application in different experiences along with demonstrations, and information on how farmers can independently conduct monitoring on their farms. Additionally, within the meetings, a 'strategy for carbon farming mainstreaming' may be presented along with a draft action plan for the development of the carbon farming concept. The invited stakeholder group would be tailored to the selected meeting theme.

- **Combination of all of the scenarios:** The meeting scenario combines various thematic issues such as: utilized and implemented techniques supporting the concept of carbon farming, cooperation and business models and their implementation, as well as developed soil monitoring methods for carbon sequestration and a developed strategy and outline of an action plan for the development of the carbon farming concept in Central and Eastern European countries. The meeting is planned in such a way as to discuss each of these issues and gather feedback from participants of the organized seminar. The scenario in question assumes a greater degree of generality rather than specificity.

## 1.4. Method of implementation of the workshop

*In each country, three seminars are to be organized. If there are two Partners participating from a given country in the project, then the Partners will mutually agree on the division of responsibilities in preparing and conducting the respective meetings.*

### *Live seminar*

Organizing a **live seminar** requires careful planning and attention to detail to ensure its success. Here are some important steps and considerations:

- **Define Objectives:** Clearly outline the goals and objectives of the seminar. What do you hope to achieve? What knowledge or skills do you want participants to gain?
- **Select a Topic:** Choose a relevant and engaging topic that will attract your target audience.
- **Choose a Venue:** Select a suitable venue that can accommodate the expected number of participants and has the necessary facilities (such as seating, audiovisual equipment, etc.).
- **Set a Date and Time:** Consider the availability of your target audience and choose a date and time that works for them. Avoid scheduling conflicts with other events or holidays.
- **Develop an Agenda:** Create a detailed agenda outlining the schedule of activities, including presentations, discussions, Q&A sessions, etc.
- **Invite Speakers:** Identify and invite knowledgeable and engaging speakers who can present on the chosen topic. Ensure they are well-prepared and have access to any necessary materials or equipment.
- **Promote the Seminar:** Use various channels (such as email, social media, flyers, etc.) to promote the seminar and attract participants. Clearly communicate the benefits of attending and provide registration instructions.
- **Prepare Materials:** Gather any necessary materials or resources for the seminar, such as handouts, presentation slides, name tags, etc.
- **Manage Logistics:** Arrange transportation, accommodation, and catering (if applicable e.g. for two days seminar) for speakers and participants. Ensure that all logistical details are taken care of to avoid any last-minute issues.
- **Set Up the Venue:** Arrive early to set up the venue, test audiovisual equipment, and ensure everything is in place for a smooth event.



- **Facilitate Engagement:** Encourage active participation and engagement from participants through interactive activities, group discussions, and Q&A sessions.
- **Collect Feedback (evaluation part):** After the seminar, gather feedback from participants to evaluate the event's success and identify areas for improvement.

*By following these steps and paying attention to the key aspects of organizing a live seminar, you can create a valuable and memorable experience for your participants.*

#### Online seminar

Organizing an **online seminar**, also known as a webinar, requires thoughtful planning and attention to detail to ensure a successful and engaging experience for participants. Here are some key steps and considerations:

- **Define Objectives:** Clearly outline the goals and objectives of the webinar. What do you hope to achieve? What knowledge or skills do you want participants to gain?
- **Select a Topic:** Choose a relevant and compelling topic that will attract your target audience and provide value to participants.
- **Choose a Platform:** Select a reliable webinar platform that offers features such as live streaming, interactive tools (such as polls and chat), and recording capabilities. Popular options include Zoom, GoToWebinar, and Webex.
- **Set a Date and Time:** Consider the availability of your target audience and choose a date and time that works for them. Be mindful of different time zones if your audience is international.
- **Promote the Webinar:** Use various channels (such as email, social media, website, etc.) to promote the webinar and attract participants. Clearly communicate the benefits of attending and provide registration instructions.
- **Create Engaging Content:** Develop a compelling presentation or agenda for the webinar, including slides, videos, and interactive elements. Keep the content concise, relevant, and engaging to maintain participants' interest.
- **Invite Speakers:** Identify and invite knowledgeable speakers who can present on the chosen topic. Ensure they are well-prepared and have access to any necessary materials or equipment.
- **Test Technology:** Conduct thorough testing of the webinar platform, audiovisual equipment, and internet connection to ensure everything is working smoothly. Encourage speakers and participants to test their setups beforehand.
- **Provide Technical Support:** Offer technical support for participants who may encounter issues accessing or navigating the webinar platform. Provide clear instructions for joining the webinar and accessing support if needed.
- **Facilitate Interaction:** Encourage active participation and engagement from participants through interactive features such as polls, Q&A sessions, and chat discussions. Designate a moderator to facilitate interaction and address questions.
- **Record the Webinar:** Record the webinar for participants who may not be able to attend live or for future reference. Share the recording with participants after the event.
- **Collect Feedback:** After the webinar, gather feedback from participants to evaluate the event's success and identify areas for improvement. Use this feedback to refine future webinars and enhance the participant experience.



*By following these steps and focusing on the key aspects of organizing an online seminar, you can create a valuable and engaging experience for participants, regardless of their location.*

Hybrid seminar can be a mixture of both proposed type of seminars.

## 1.5. Good practices

Conducting interesting and innovative workshops with farmers promoting carbon farming requires the use of creative approaches and interactive methods. Here are some ideas that could be useful:

- **Practical field demonstrations:** Organize on-farm workshops where farmers have the opportunity to participate in hands-on demonstrations of various carbon farming techniques, such as no-till, agroforestry, and rainwater harvesting irrigation techniques.
- **Leverage technology:** Demonstrate advanced carbon farming technologies to farmers, such as soil monitoring systems, field imaging drones, and precision irrigation tools. Show how these technologies can be useful on their farms.
- **Case studies and case studies:** Present successful examples of implementing carbon farming practices from different regions or farms. Discuss what benefits these practices brought and what challenges were overcome.
- **Practical workshops:** Organize interactive workshops during which farmers can independently experiment with various carbon farming techniques, such as composting, establishing tree shelters or using natural fertilizers.
- **Discussion panel with experts:** Invitation of experts, scientists and practitioners of carbon farming to participate in a discussion panel, during which they will be able to answer farmers' questions and share their knowledge and experience.
- **Simulation Games:** Create interactive simulation games that allow farmers to experiment with different carbon farming strategies and observe their impact on the environment and farm productivity.
- **Collaborative research projects:** Encourage farmers to jointly conduct research projects related to carbon farming, such as monitoring soil organic carbon or examining the impact of different cropping practices on greenhouse gas emissions.
- **Use of educational tools:** The use of modern educational tools, such as multimedia presentations, interactive applications, videos and computer simulations, to provide farmers with knowledge about carbon farming in an attractive and accessible way.

A key element of conducting interesting and innovative workshops with farmers promoting carbon farming is to ensure interactivity, so please consider using interactive techniques like brainstorming and feedback sessions to engage participants, and please, focus on providing specific, useful information that farmers can put into practice (if the farmers are the key group of the meeting).

*Innovations in organizing workshops for farmers, agricultural advisors, agricultural students and other interested people who want to explore carbon farming idea could include:*

- **Using of e-learning platform:** Creation of an interactive e-learning platform where participants can access educational materials, online courses, instructional videos and resources related to carbon farming. The platform can also enable communication and exchange of experiences between participants.
- **Virtual workshops:** Organize virtual workshops using video conferencing platforms that allow participants to participate in lectures, presentations and discussions without having to travel. This



can increase accessibility for people from different regions and reduce the environmental impact of travel.

- **Platforms for sharing knowledge and experiences:** Creation of an online platform where farmers, agricultural experts, scientists and other interested parties can share their experiences, best practices and research results related to carbon farming. This can promote the faster spread of knowledge and enable the building of communities interested in this topic. This may take the form of a Facebook event, discussion group, or chat on an online meeting platform (i.e. Teams).
- **Simulation Games:** Create simulation games that allow participants to experiment with different carbon farming practices and observe their impact on the environment and farm productivity. These games can be useful for education and promoting understanding of the complex interactions between agricultural practices and the environment.
- **Interactive farm planning tools:** Develop interactive computer tools that help farmers plan and implement carbon farming practices on their farms. These tools can take into account various factors such as soil type, climate, location and resource availability to provide personalized recommendations for a specific farm.
- **Live Streaming:** Consider live streaming parts of the workshop i.e. on Facebook for those who are unable to attend in person. This can increase engagement and allow a broader audience to participate virtually.
- **Hybrid meeting:** Please consider whether the organized online meeting could be supported by live streaming from a farm, providing a live feed of a specific experience. We don't necessarily have to be physically present on the farm to showcase practical data supporting carbon farming or methods of sampling and monitoring.
- **Good practices from other countries and EU:** To be employed during seminar organization, we recommend, in addition to the materials from the jointly implemented Carbon Farming CE project, familiarizing oneself with best practices from other parts of Europe. Examples of such are materials developed by the European Commission within the framework of the European Network for Rural Development: (1) [ENRD Thematic Group on Carbon Farming Good Practices](#) and (2) [Upscaling carbon farming in the EU ENRD Thematic Group on Carbon farming](#).

## 1.6. Timeline

- Activity A1.3 has started on month 7 (October 2023) and will last till month 30 (September 2025),
- **The first period (M7-M13)** was dedicated to conducting meetings with partners to assess their experiences in organizing seminars and to prepare guidelines for conducting three seminars.
- **The second period (M14 - M26)** between May 2024 and May 2025 is the time for implementing three seminars in each of the countries participating in the project, as well as preparing and submitting reports on the organized seminars.
- **The final period of A1.3, which is June to September 2025 (M27 - M30)**, is the time for preparing 'One joint training report will be prepared focusing on training impact,' as well as online training material available for conducting 3 seminars focusing on techniques, business models, and CO2 sequestration (the material will be available online).



## 1.7. To-do-list

- Identify locally or nationally occurring needs that can be partially addressed through the organization of seminars.
- Allocate time to develop and craft the purpose and format of the meeting - what key messages would you like to convey within the planned content?
- Ensure that the planned agenda includes strong program points, such as an interesting invited guest.
- Choose the appropriate month of the year that corresponds to the organization of the topic.
- Specify the venues or internet platforms where the meeting will take place.
- Plan in advance whom you will invite and send out invitations accordingly.
- Remember to promote the organized seminars.
- During the event, be a keen observer; take notes and document the event through video or photographs.
- Remember to evaluate the meeting - feedback from participants will contribute to the final development of training materials that can be used after the project's completion.
- After each organized seminar, prepare a report and submit it to the leaders of task A1.3 within 30 days, but no later than the end of June 2025.

## 1.8. Promotional activities

Promoting seminars/workshops aimed at farmers, agricultural advisors, landowners, decision makers, agricultural students and other stakeholders on carbon farming and supporting its development and implementation in practice can be achieved through various strategies and communication channels. Here are some suggestions:

**Social networks:** Use popular social media platforms such as Facebook, Twitter, LinkedIn and Instagram to promote your event. Create a Facebook event, share regular updates on the seminar topic, share photos and videos from previous editions or project meetings, and encourage participants to share information. Collaborate with your Partners from relevant organizations, agricultural experts, influencers, or environmental groups and leverage their i.e. Facebook presence to promote the workshop. Co-hosting the event i.e. on Facebook can help reach a wider audience and lend credibility to the workshop. Actively engage with the online platforms' communities (i.e. X, Facebook, LinkedIn) by responding to comments, answering questions, and fostering discussions related to carbon farming. Encourage participants to share their thoughts, questions, and excitement about the workshop on the event page.

**Website:** Create a dedicated website or subpage on your organization's website with detailed information about seminars, schedule, presentation topics, list of speakers, registration form, etc. Make sure the website is responsive and easy to navigate.

**Newsletters and mailing lists:** Send information about upcoming seminars to people signed up to your organization's mailing list or people who have expressed previous interest in similar events. Send regular reminders about the upcoming date and updates about the program and speakers. Don't forget to remind about the workshop day or two before its date!

**Collaboration with partners:** Partner with local agricultural organizations, universities, research institutions and government agencies that can help promote the seminars to their members, students and stakeholders.



**Articles and interviews in industry media:** Write articles or give interviews for industry media related to agriculture to increase the visibility of the event among people interested in the topic. Publish press releases on these media's websites and newsletters.

**Advertisements and posters:** Distribute posters, leaflets and advertising materials in public places such as universities, agricultural advisory centers, agricultural stores, markets and on notice boards in rural communes.

**Online paid advertising:** Consider using paid online advertising (within your partner's allocated budget) such as Google Ads campaigns or Facebook ads to reach people interested in carbon farming

## 1.9. Additional suggestions

- **Record the video:** In addition to photographic documentation of the meeting, it's worth considering, if budget allows, the production of a promotional or informational video. Such material effectively showcases the potential of the group participating in the seminar, as well as the seminar's goals and key content relevant to capacity building.
- *Consider focusing on different groups of stakeholders:*

**Tailored Content:** different stakeholders have varying levels of knowledge, interests, and needs. By planning seminars specifically for each group, you can tailor the content to address their specific concerns and provide relevant information and resources.

**Engagement and Relevance:** Stakeholders are more likely to engage with and benefit from a seminar that directly addresses their interests and concerns. Planning seminars for different groups ensures that the content is relevant and meaningful to participants, increasing their engagement and satisfaction with the event,

**Maximized Impact:** Different stakeholders play different roles and have different levels of influence within a project or organization. By planning seminars for different groups, you can maximize the impact of your efforts by targeting key decision-makers, influencers, and stakeholders who are critical to the success of your objectives.

**Building Relationships:** Seminars provide valuable opportunities for networking, collaboration, and relationship-building. By planning separate seminars for different groups, you can facilitate connections and interactions among stakeholders who share common interests or goals, fostering collaboration and synergy.

**Addressing Diverse Perspectives:** Stakeholders often have diverse perspectives, priorities, and priorities. Planning seminars for different groups allows you to address these diverse perspectives and ensure that all stakeholders feel heard and valued.

Overall, planning seminars for different groups of stakeholders allows you to provide tailored content, maximize impact, build relationships, and address diverse perspectives, ultimately contributing to the success of your project or organization.

- As part of the preparation for the meeting, it is important to utilize as many of the already developed materials within the Carbon Farming CE projects (reports, deliverables, etc.) as possible. After organizing the seminars, it is also valuable to promote the completed event for capacity building purposes, as well as for fostering a network of collaboration within the region or country that would support the development of the carbon farming concept.
- *Consider catering for seminars. Catering is important for organized seminars for several reasons:*



**Comfort and Convenience:** Providing food and beverages ensures that participants are comfortable and have their basic needs met during the seminar. Having access to refreshments allows attendees to stay focused and energized throughout the event.

**Networking Opportunities:** Meal breaks and refreshment breaks provide valuable opportunities for networking and informal discussions among participants. Sharing a meal or a coffee break can facilitate relationship-building and collaboration among attendees.

**Professionalism and Hospitality:** Offering catering demonstrates professionalism and hospitality on the part of the organizers. It shows that you value the well-being and comfort of your participants and are committed to providing a positive experience.

**Enhanced Participant Experience:** Good food and refreshments can enhance the overall participant experience and leave a lasting impression. Providing high-quality catering contributes to the success and reputation of the seminar and encourages attendees to return for future events.

**Sustained Engagement:** Hunger or thirst can distract participants and detract from their focus and engagement in the seminar. Providing catering helps to sustain participant engagement by ensuring that their physical needs are met, allowing them to fully concentrate on the content and objectives of the event.

**Accommodating Dietary Needs:** Offering a variety of food options allows organizers to accommodate the dietary preferences and restrictions of participants, including vegetarian, vegan, gluten-free, or other special dietary requirements. This ensures that all attendees feel included and valued.

Overall, catering (providing food) plays an important role in creating a comfortable, professional, and enjoyable seminar experience for participants, contributing to the success and effectiveness of the event.

- *It's worth waiting to conduct the seminars*

Beyond the appropriate timing (season, participant availability) for conducting the seminar, as well as selecting the suitable format, we suggest waiting until the end of August 2024 to carry out the seminars. By then, more information will have been gathered for use within the project (we will be nearing the end of the fourth period - M24). The preceding time should be utilized for developing the Agenda, promoting the meeting, as well as addressing all other pertinent aspects that may contribute to the best possible execution of the task.

## 1.10. How to plan the agenda for seminar?

Planning a good agenda for a seminar involves several key steps to ensure that the event is organized, engaging, and productive. Here's a guide to help you plan an effective seminar agenda:

**Define Objectives:** Clearly outline the goals and objectives of the seminar. What do you hope to achieve by the end of the event? Make sure your agenda aligns with these objectives.

**Identify Key Topics:** Determine the main topics or themes (also previously presented scenarios) that will be covered during the seminar. Consider the interests and needs of your target audience when selecting these topics.

**Allocate Time:** Allocate time for each agenda item based on its importance and complexity. Be realistic about how much time is needed for presentations, discussions, and breaks.



**Prioritize Content:** Arrange the agenda items in a logical sequence, starting with introductory or foundational topics and progressing to more advanced or specialized topics. Make sure to prioritize the most important content.

**Include Variety:** Incorporate a variety of presentation formats and interactive elements to keep participants engaged. Consider including presentations, panel discussions, Q&A sessions, case studies, and interactive activities.

**Allow for Interaction:** Schedule time for participant interaction and engagement throughout the seminar. This could include group discussions, breakout sessions, polls, and Q&A periods.

**Provide Breaks:** Include scheduled breaks in the agenda to give participants time to rest, refresh, and network with each other. Breaks also help to prevent information overload and maintain participants' attention.

**Manage Time Effectively:** Stick to the allocated time for each agenda item to ensure that the seminar stays on schedule. Consider appointing a timekeeper or moderator to help keep the event running smoothly.

**Plan for Flexibility:** Build flexibility into the agenda to accommodate unexpected changes or delays. Have backup plans in place in case of technical issues, speaker cancellations, or other unforeseen circumstances.

**Communicate the Agenda:** Share the seminar agenda with participants in advance so they know what to expect and can prepare accordingly. Provide clear instructions for accessing the event and participating in various agenda items.

**Collect Feedback (evaluation part):** After the seminar, gather feedback from participants on the agenda and overall event experience. Use this feedback to evaluate the effectiveness of the agenda and make improvements for future seminars.

## 1.11. Evaluation of the workshop

Collecting feedback from participants as part of the workshop evaluation is crucial, as it will allow us to assess the effectiveness of the event and adapt future editions (preparing also materials which will be available online). Overcoming the fear of criticism or conflict is one of the biggest challenges of getting honest and constructive feedback. To create a safe and respectful feedback culture, it necessitates the demonstration and encouragement of certain behaviors. These include fostering openness and a willingness to receive feedback, displaying respect and encouragement towards feedback, and upholding transparency and responsibility in response to feedback. Demonstrate appreciation for your team's contributions, express gratitude for their participation, and recognize their strengths. Refrain from critiquing or assigning blame to their feedback; instead, engage in active and empathetic listening and offer positive and constructive recommendations for enhancement.

Depending on the scale and structure of the workshop, various approaches can be employed to collect feedback from participants. Common methods include surveys, polls, quizzes, interviews, focus groups, or self-assessments. Select a method that is user-friendly, aligned with your workshop objectives and specificity, and enables the assessment of both quantitative and qualitative information. For instance, a survey could be utilized to gauge participant satisfaction by rating the workshop on a scale from 1 to 5, and open questions to provide comments on what they liked, learned, and suggested for improvement. Avoid asking vague or general questions that can lead to ambiguous or biased answers. Instead, ask specific and open-ended questions that invite your team to elaborate on their thoughts and feelings and to provide concrete examples and suggestions.

Here are some questions that may be useful as part of the evaluation of carbon farming workshops:

- How would you rate the overall educational value of this workshop on carbon farming?



- Were the topics covered in the workshop aligned with your expectations and needs related to carbon farming?
- Did the workshop provide you with sufficient practical knowledge and skills related to carbon farming?
- How would you rate the quality of the presentations and lectures delivered during the workshop?
- Was the workshop well-organized and run smoothly?
- Was the workshop format (e.g., lectures, panel discussions, hands-on activities) suitable for conveying knowledge about carbon farming?
- Did the workshop provide enough opportunities for asking questions and engaging in discussions about the topics discussed?
- Did the workshop provide you with new insights or inspiration regarding carbon farming?
- Did the workshop encourage you to consider implementing new carbon farming practices on your farm or in your professional activities?
- Would you recommend this workshop to other individuals interested in carbon farming?
- What one change would you recommend be made to the overall workshop?
- Do you have any suggestions or feedback for improving the organization and content of future editions of the workshop?

Remember to ensure the anonymity of participants during the evaluation, assure confidentiality to build trust, making participants more comfortable sharing candid opinions and to encourage honest feedback. Additionally, you may consider adding an open-ended field or box where participants can share their comments and suggestions regarding the workshop.

## 2. Annexes

### 2.1. Annex 1 (Report structure from each workshop organised in Partner's countries - three in summary)

*Plan of the document (also attached) - from every country three reports will be delivered in summary from three seminars*

#### **Executive Summary**

Please provide:

- Brief overview of the carbon farming concept in the country.
- Summary of key findings and insights from the seminar

→ *Extent: ½ page of text*

#### **Introduction**

Please provide:



- Please provide a brief overview of the capacity building seminar, including its objectives, duration, and target audience.
- Please mention the importance of capacity building within the context of the organization or community.

→ *Extent: ¼ - ½ page in a form of three above mentioned bullet points*

## Seminar Agenda

Please provide:

- Please present the agenda followed during the seminar, including topics covered, sessions conducted, and any deviations from the initial plan.

→ *Extent: ½ - 1 page of text;*

## Attendee Information

Please provide:

- Please include details about the participants, such as their roles, organizations, and any demographic information if relevant.
- Please highlight the diversity of participants and their respective contributions to the seminar.

→ *Extent: ½ page of text; refer mainly to question block #3 Scope of Work*

## Key Presentation and Discussions

Please provide:

- Summarize the main presentations, workshops, and discussions held during the seminar.
- Highlight key insights, strategies, and methodologies shared by speakers or facilitators.

→ *Extent: ~1 page of text;*

## Capacity Building Activities

Please provide:

- Describe any hands-on activities, exercises, or simulations conducted to enhance learning and skill development.
- Discuss the effectiveness of these activities in meeting the seminar's objectives.

→ *Extent: ~1 page of text;*

## Feedback and Evaluation

Please provide:



- Include feedback from participants, both qualitative and quantitative, obtained through surveys, questionnaires, or direct interviews.
- Analyze the strengths and weaknesses of the seminar based on participant feedback and observations.

→ *Extent: ½ - 1 page of text*

## Outcomes and Achievements

Please provide:

- Discuss the tangible outcomes of the capacity building seminar, such as new skills acquired, knowledge gained, or action plans developed.
- Highlight any immediate or potential impacts on individual participants or the organization/community as a whole.

→ *Extent: ½ - 1 page of text*

## Challenges and Lessons Learned

Please provide:

- Identify any challenges encountered during the seminar, such as logistical issues, engagement barriers, or content relevance.
- Reflect on lessons learned and recommendations for overcoming similar challenges in future capacity building initiatives.

→ *Extent: ½ - 1 page of text*

## Recommendations and Next Steps

Please provide:

- Provide recommendations for sustaining the momentum gained from the seminar, such as follow-up training sessions, mentoring programs, or resource allocation.
- Outline specific action steps or initiatives to further strengthen the capacity of participants and the organization/community.

→ *Extent: ½ - 1 page of text*

## Conclusion

Please provide:

- Summarize the key findings and insights derived from the capacity building seminar.
- Reiterate the importance of ongoing capacity building efforts in achieving organizational or community goals.



→ *Extent: ½ - 1 page of text*

## Appendices

Please provide:

- Include supplementary materials such as presentation slides, workshop materials, participant lists, or additional data for reference.

→ *Extent: ½ - 1 page of text*

## 2.2. Annex 2 (List of Participants)

*List of Participants (also attached)*

### Carbon Farming CE

### 1<sup>st</sup> Capacity Building Seminar

*Date:*

*City, Country:*

*List of participants*

N°	Name	Organization	E-mail	Signature*
1.				
2.				
3.				
4.				
5.				

### 2.3. Annex 3 Photo documentation from each workshop

*Materials attached from each Seminar (photos or link to video)*

### 2.4. Annex 4 (Involved PPs)

*Information about the Partners involved*

Project partner	Abbreviated name of organisation	Country
LP1	KIS	SI
PP2	ISD	SI
PP3	GAK	HU
PP4	RI.NOVA	IT
PP5	IUNG-PIB	PL
PP6	BFA	AT
PP7	No Gravity	SK
PP8	AIO	HR
PP9	UNIBO DISTAL	IT
PP10	ÖBG	DE
PP11	ART	CZ