LIFE Carbon Farming

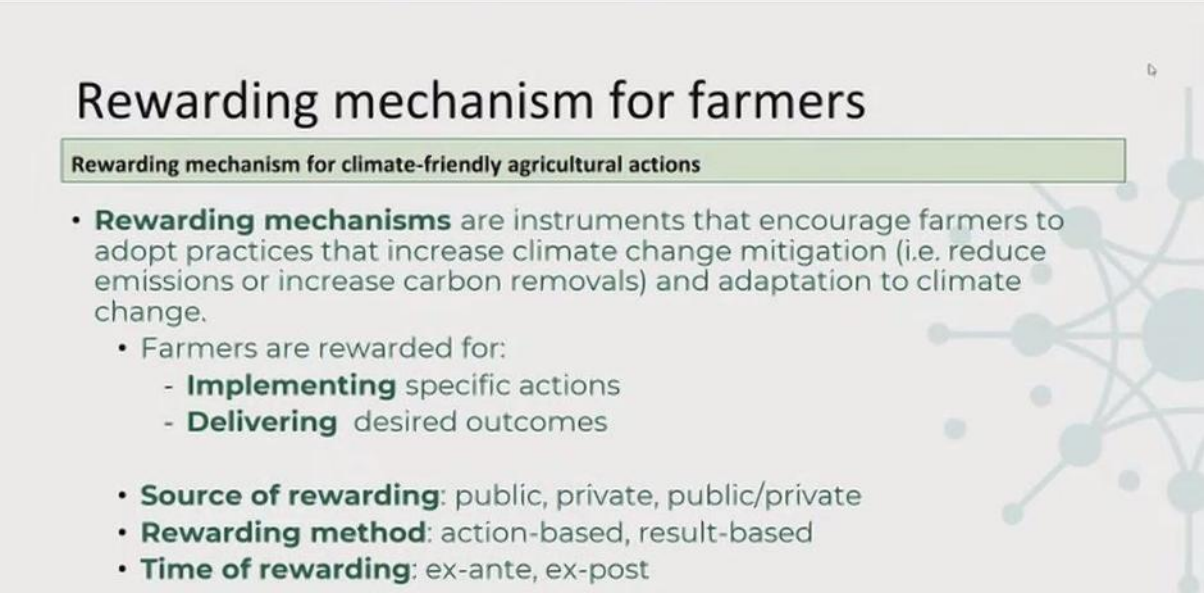
Newsletter #7- June 2025

Welcome to the seventh issue of the Irish newsletter for LIFE Carbon Farming.

In this issue, we highlight gatherings that took place in Ireland the first quarter of 2025 such as the European carbon farming summit and detail upcoming events centered on advancing climate action in the livestock sector.

European Carbon Farming Summit

The European Institute of Innovation and Technology (EIT) Climate-KIC, as part of Project Credible, organized the 2nd European Carbon Farming Summit, which took place in Dublin, Ireland, from 4 to 6 March 2025. The summit, held in partnership with the Government of Ireland's Department of Agriculture, Food and the Marine (DAFM), gathered policy makers, farmers, researchers and other stakeholders who discussed the various transitionary approaches for scaling up carbon farming from theory to practice. Below are the excerpts from the 3 days event.



Description of rewarding mechanism to scale up carbon farming (Source: Julia Pasmino, Ecologic institute)

Rewarding mechanisms: Insights from farmers, agri-food companies and researchers for a successful approach

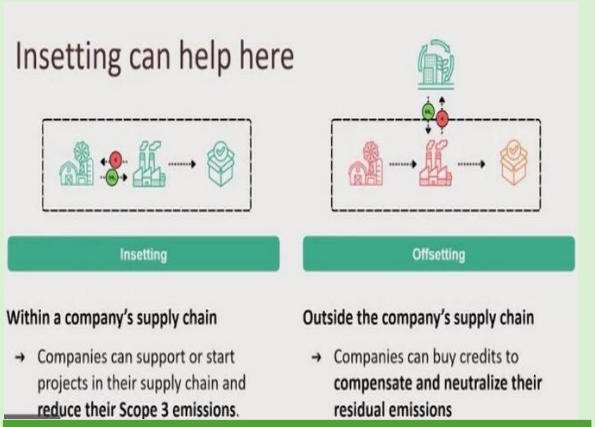
This session explored rewarding methods as a major element of the Carbon Removals Certification Framework (CRCF) and discuss which mechanisms would be most effective in promoting substantial progress in carbon farming. Julia Pasmino Murillo, Researcher at the Ecologic institute, and Laurene Lebelt, Project Manager at Climate-KIC, jointly opened the session with an overview of the current state of knowledge on existing rewarding mechanisms for climate-smart farming, especially insights from the European carbon farming context. Julia explained that rewarding mechanisms serve as instrument for encouraging farmers to adopt practices that advance climate change mitigation. In this context, farmers are rewarded for implementing mitigation actions and providing desired outcomes. Julia highlighted that there are three main sources of rewarding mechanism, namely, public, private and mixed/hybrid, which are linked to financial, non-financial and regulatory categories of incentives. This discussion also brought to light the various challenges and opportunities associated with designing an efficient rewarding

mechanism for farmers engaging in carbon farming. The session then shifted to real-world business applications, examining a case study from the agri-food sector with a focus on private rewarding mechanisms that incentivise farmers to increase carbon sequestration (Insetting approach), highlighting the challenges in transitioning from a system focused solely on greenhouse gas (GHG) reduction to a broader carbon farming approach that includes both emissions reductions and removals. Lebelt concluded their presentation on how current sustainability investments for agriculture resilience remain insufficient and thus, requires attention. Dr. Suzanne Reynders followed with a discussion on the role of monitoring, reporting, and verification (MRV) systems in ensuring the credibility of these incentives, as well as the revision of economic models to support this transition. She emphasized that the following points are essential for establishing a robust MRV system:

a) The MRV system must be modular, consistent and cost-effective in compliance with international standards (e.g., IPCC guidelines).
b) MRV system should be linked to ecological strategies and benefits (e.g carbon sequestration linked to equitable revenue distribution).
c) There is a need for collaborative efforts for public research and private sector in building scalable and practical MRV system (MRV tool must be accessible, reliable, and beneficial to farmers and other sector players).
d) The MRV system should be tailored to the local or regional context.
e) Research and knowledge sharing through international collaborations is highly needed.

The presentations ended with valuable feedback from a French farmer, Joselyn Gainche, on his experiences with carbon farming and how the different rewarding mechanisms and MRV systems can harness farmers climate change mitigation efforts. Key message includes the need for additional incentives, farmer-friendly methodology and technology, and increased communication towards farmers about carbon farming.

Insetting for carbon farming: Turning challenges into opportunities



A snapshot of insetting versus offsetting of carbon (Source: Emma van de Ven, Rabobank)

In this session, Emma van de Ven of Rabobank kicked start the discussion on the insetting of carbon by exploring the role of insetting as a credible alternative for scaling up carbon farming by enabling farmers to adopt practices that increase soil organic carbon (SOC) sequestration. Through an insetting approach, suppliers integrate sequestered carbon into the carbon footprint of products within their value chains. While insetting presents income opportunities for farmers, it also

introduces challenges such as financial and administrative costs both for farmers and food companies as well as additional market regulation. She highlighted that the European Carbon Removal Certification Framework (CRCF) has the potential to establish essential standards for insetting, but it must address the needs of all stakeholders to be effective.

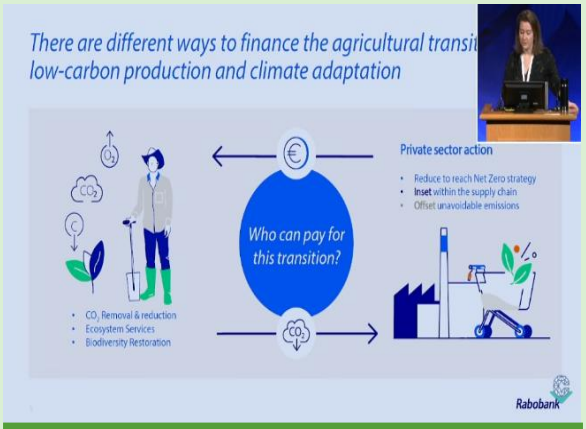
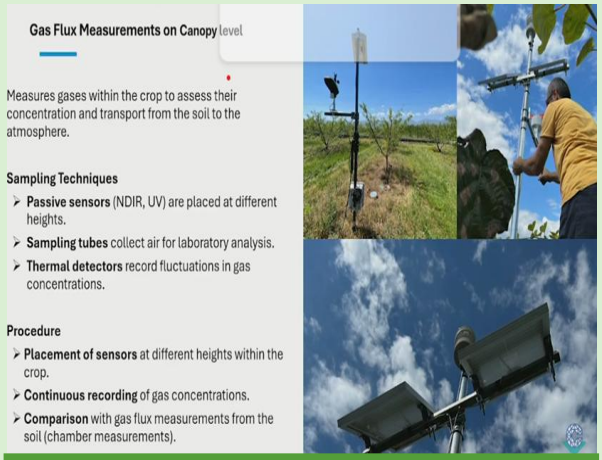


Illustration of incentive mechanisms for low-carbon agriculture (Source, Emma van de Ven, Rabobank)

Emma further emphasized that the private sector outside of agri-food can also optimize their engagement with farmers to help reduce their residual emissions (offsetting approach). This was followed by a joint presentation by MRV4SOC and MARVIC, which explored how to ensure credible and cost-effective insetting under the CRCF framework and how the opportunities and challenges of insetting can be approach in a holistic manner.

Integrating MRV methodologies, and incentives to reduce emissions in carbon farming

During the 3rd breakout session on March 4, Georgios Galanis of Interbalkan Environment Center (i-BEC) focused on integrating MRV methodologies, and incentives to enhance reduction of emissions through carbon farming. He emphasized that reduction of emissions requires a broad adoption of sustainable practices such as the application of biostimulants and biochar. This technology supports yield benefits and removal of carbon though further research is required. Despite the agronomic and environmental benefits of these practices, such innovations often come with cost burden that limit adoption at the farm level. Addressing these financial constraints, Georgios emphasized that a well-structured incentive models such as voluntary carbon credits and insetting programs embedded within agri-food supply chains provide critical support.



Non-dispersive infrared sensor being used to measure greenhouse gases (Source, Georgios Galanis, Interbalkan Environment Center (i-BEC))

By integrating these methodological approaches to field-level climate action provides revenue streams for farmers and ensure alignment with internationally recognized carbon accounting standards. Additionally, Georgios highlighted various approaches in measuring GHG fluxes including field sampling and use of passive sensors (Non-Dispersive infrared and

Ultraviolet). He mentioned that while these technologies offer accurate and continuous GHG measurements, their performance can be influenced by environmental conditions, particularly humidity and temperature, which may affect data reliability in certain settings.

In summary, the summit underscored that carbon farming is more than a policy tool. It is a catalyst for transformation, driving positive change in agriculture. It spans a wide range of impacts, from unlocking soil biodiversity and linking land restoration to economic opportunity, to leveraging monitoring, reporting, and verification technologies for efficient and high-integrity carbon markets. Additionally, carbon farming offers a diverse, region-specific solution that must be tailored to local realities. This requires tailoring practices to the unique agricultural systems, ecological conditions, and socio-economic contexts across Europe. As the shift from conceptual frameworks to practical implementation gains momentum, one thing remains clear: carbon farming holds great potential for Europe's sustainability agenda, but its success hinges on shared commitment, innovation, and coordinated action.

Watch videos of the 2nd European Carbon farming Summit here for more information.

Latvian Farmers visit Irish Farms to Explore Carbon Farming Innovations

A group of Latvian farmers learning about Irish Carbon farming project on John Dunne's farm

A group of Latvian farmers recently visited Signpost farms as part of a knowledge exchange initiative focused on sustainable agriculture. The visit highlighted the practical effort Signpost farmers are making to reduce the carbon footprint of livestock production, and provided insights into how Irish farms are applying carbon farming practices. During the visit, the group toured a few Irish dairy and beef enterprises known for integrating environmental stewardship with high-quality livestock production. At John Dunne's farm, one of the leading Future beef farmers, various actions such as calving rate, use of protected urea, and age at first calving as well as other sustainability measures that can improve farm profitability and biodiversity were discussed. Another key highlight of the visit was a presentation by Donal O'Brien and Bright Ketadzo on the progress of carbon farming projects in Ireland. The presentation outlined how Irish farmers are becoming aware of carbon farming actions, supported by research. Topics

included soil carbon sequestration, and the economic potentials for engaging in carbon farming initiatives. The Latvian group also received information from Teagasc Technologist, Jack Bishop on using Eddy covariance technology, a cutting-edge method for measuring carbon sequestration and emissions directly on farm. Jack explained how high-frequency sensors are used to monitor carbon dioxide, methane, and moisture content of soil and other variables in the land surface and the atmosphere. While the technology is primarily used in research contexts, the group learned how its data can inform farm-level decisions, contribute to national emission inventories and innovation across European agricultural communities.

Upcoming Event

The next EU networking event of LIFE carbon farming will take place in Ireland at Teagasc Grange, Animal and Grassland Research Centre, Co. Meath from the 23rd to 25th June 2025. The event will gather insights from key sector players in Ireland on supporting innovative climate actions on livestock farms. The event will welcome farmers, advisors, researchers, and industry representatives from France, Germany, Belgium, Spain, Italy, and Ireland to share knowledge and experiences in line with promoting sustainable agriculture and climate resilient environment. The activities of this event will include farm visits, seminar presentations by researchers and industry actors, and short testimonies from project participants.

The biannual Teagasc Moorepark Dairy Open Day is scheduled for Wednesday, 2nd July 2025, themed 'Innovating for the Future'. This event will explore the major development in the dairy sector over the past decade, following the removal of milk quotas, and the sectoral commitment to reducing carbon emissions, enhancing animal welfare, and improving air and water quality aimed at ensuring the continued profitability of dairy farms.

See you in the next issue

Newsletter compiled by Bright Ketadzo and edited by Dr. Donal O'Brien

Teagasc, CELUP, Johnstown Castle, Co. Wexford.

To find out more about LIFE Carbon Farming in Ireland and Europe visit:

- LIFE Carbon Farming Ireland
- LIFE Carbon Farming EU