Annual Report

Calendar Year – 2024

Cool Farm®

Contents

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Who We Are

Cool Farm is a science-led, not-for-profit membership organisation (community interest company) dedicated to advancing regenerative agriculture on a global scale. We own, manage, and continuously improve the Cool Farm Tool and Cool Farm Platform to provide credible, science-based metrics and resources for sustainable farming.

The Cool Farm Alliance

For over fifteen years, the Cool Farm Alliance (CFA) has united food and beverage companies, NGOs, academics, institutions, and farmer groups to empower farmers with the knowledge and tools needed to drive agro-ecological restoration.

Together, we work to build a global food system that:

- Enhances soil carbon.
- Mitigates climate change.
- Restores ecological balance.

What We Do

The CFA provides respected, standardised calculation engines for measuring and reporting agriculture's environmental impact. Using widely endorsed, science-based metrics for water, climate, and biodiversity, we support:

- Agro-ecological restoration.
- The transition to a sustainable global food system.

Our Digital Products

Cool Farm currently offers two digital products: the Cool Farm Tool and the Cool Farm Platform. The Cool Farm Tool, our trusted legacy product, has served the industry for over a decade. To meet the evolving needs of our users and align with industry standards, we've introduced the Cool Farm Platform, marking a significant step forward with the transition to Version 3.0 of our calculation methodology.

Cool Farm Tool

The Cool Farm Tool is a quantified decision support tool designed to measure and assess the environmental impact of agricultural practices. It focuses on key areas such as greenhouse gas emissions, water efficiency, food loss and waste, and biodiversity gas emissions and removals. Widely used by farmers and trusted by the world's largest food and beverage companies, it offers a standardised, independent engine for measuring and reporting on agriculture's environmental impact across the world.

Key features include:

- **Farmer-focused design:** Reflects common farm management practices and uses input data typically available to farm managers.
- **Science-based approach:** Utilises robust, peer-reviewed models and methods to calculate greenhouse gas emissions, carbon sequestration, and other environmental impacts.
- **Scenario modelling:** Allows users to model "what-if" scenarios to identify opportunities to reduce emissions, enhance soil health, and improve biodiversity.
- **Supply chain insights:** Supports Scope 3 greenhouse gas calculations, enabling companies to track emissions across their supply chains.
- **API Interoperability:** Crop and Dairy assessment API's enable the Cool Farm Tool to function as a calculation engine in third party digital products.

The Cool Farm Tool has been adopted by tens of thousands of users in over 160 countries, helping to drive sustainable farming practices on a global scale.

Cool Farm Platform

The Cool Farm Platform represents a significant evolution from the Cool Farm Tool, offering enhanced scalability, performance, and flexibility through its AWS Cloud-based infrastructure. It is designed to meet the evolving needs of users and align with industry standards, marking a major step forward in the transition to Cool Farm Platform 3.0.

Mission

To accelerate the transition to regenerative and sustainable agriculture by providing globally aligned, credible and science-based metrics, tools and resources that create impact.

Vision

A global food and agriculture system that builds soil carbon, mitigates climate change and allows for the restoration of ecological balance.

Welcome from Supervisory Board Chair

Giulia Stellari
Supervisory Board Chair

Dear Members,

As we review 2024, I would like to extend my sincere thanks to Richard Profit (CEO), and the entire Cool Farm Team for the solid progress made over the past year. In my role as Chair of the Supervisory Board, I am pleased to celebrate the advancements made toward the organisation's vision of a global food and agriculture system that builds soil carbon, mitigates climate change and restores ecological balance.

This past year, under the guidance of Richard Profit, the organisation successfully transitioned the Cool Farm Tool from traditional to cloud-based hosting, and to a new Support Team with extensive experience of modern data systems; and secured accelerated funding which has enabled the team to advance key strategic initiatives. This has enabled the major technical update to the Cool Farm Tool in the form of the new Cool Farm Platform which promises improved reliability and scalability, consistency with the forthcoming Land Sector Removal Guidance and sets the stage for further enhancements. This benefits all Members of the Alliance now. With a proactive communication plan in place for the year ahead, you will be supported by the Alliance in benefiting from those critical developments. (See Future Fit CFP section for more information.)

The release of significant updates to the Cool Farm Tool architecture and methodology, demonstrates the organisation's ongoing commitment to refining its tools and delivering actionable insights to users. In addition, considerable work has been undertaken on Equity, Diversity, and Inclusion, with both the Staff and the Board contributing to building a more inclusive culture within the organisation. (See Highly Effective Secretariat section for more information). We see this as a high priority area

In a time of growing complexity and uncertainty in the agricultural landscape, it is essential that we collaborate across companies and organisations to support farmers.

as the development of an inclusive Alliance is central to the future growth of the organisation and maintaining its leadership as a globally applicable platform.

The addition of nine new team members this year has broadened the organisation's expertise and capacity, and the largest Cool Farm Alliance conference to date brought together industry leaders, innovators, and stakeholders in a productive forum. Furthermore, updates to policies, processes, and methods have helped streamline operations and better position the organisation for the future.

Looking ahead to 2025, the key goals are clear. The organisation will actively engage Cool Farm Alliance Members in providing feedback to shape the next five-year plan, ensuring that our strategic direction remains aligned with the needs and insights of our community. We urge you to contribute your thoughts when prompted to ensure that the Cool Farm Alliance, as it embarks on designing its plan, continues to reflect the vision of its Members. For more information, see 2027-2031 Strategy Planning.

As every year, we will welcome new Supervisory Board Members who bring fresh perspectives and expertise to our governance. Most critically, there will be a strong focus on growing our partnerships with other organisations.

In a time of growing complexity and uncertainty in the agricultural landscape, it is essential that we collaborate across companies and organisations to support farmers. By fostering these collaborative partnerships, we aim to create a stable path toward a more sustainable and low-carbon future for agriculture.

Once again, thank you to Richard Profit, and the entire Cool Farm Team for your hard work and dedication throughout 2024. I look forward to the continued progress and meaningful work in 2025 as the organisation builds on these achievements and moves forward with its mission.

Sincerely,
Giulia M. Stellari
Supervisory Board Chair, Cool Farm

We encourage you to share your thoughts when prompted, helping to shape the Cool Farm Alliance's next five-year Strategic Plan so it continues to reflect the vision of its Members.

Welcome from CEO

Richard Profit
CEO

It is my great pleasure to welcome you to our Annual Report for 2024, a year of remarkable progress, collective success and setting the agenda for a promising 2025. This report will highlight some of our key achievements, but as we reflect, I want to draw your attention to the inspiring efforts made by the Secretariat. Bringing a range of different styles, skills and experience, I have been impressed by the way the team have come together, collaborated and overcome challenges to deliver the significant progress described in this report.

Over 2024, we have continued to successfully deliver double digit growth in membership, delivering **14% net growth, with 27% of our members joining in the last year and maintaining an 87% retention rate of our existing members. It is clear that we continue to deliver value and play a key role for our members. However, we must not be complacent, and we will work in 2025 to increase our focus on value creation**

Listening to our members remains at the heart of what we do.

and seek to improve retention rates. We also saw a 27% increase in API licenses, underscoring the growing adoption of our Cool Farm calculations within our members' digital services globally. A key highlight of 2024 has been the **deployment of the Perennials Pathway on the new Cool Farm Platform (CFP)**. This provided both a significant improvement in the perennial crop methodologies and an upgraded architecture to support future upgrades to Cool Farm calculations. Through generous support from our members, the Alliance was able to secure significant funding to accelerate our development programme. This has enabled us to build on the new CFP the groundwork for the Cool Farm Platform 3.0 update. CFP 3.0 will be delivered in 2025 and will bring upgrades to our core methodologies for crops (including rice and potatoes), dairy and beef along with consistency to the anticipated GHG Protocol's Land Sector Removals Guidance (LSRG).

Listening to our members remains at the heart of what we do. The insights from our 2024 Member Survey have guided our efforts to enhance services and ensure we continue to meet your evolving needs. We have strengthened our support and delivery with new highly capable staff joining our team, helping to position us for even greater impact in the years ahead.

Looking to 2025, we are excited about the opportunities on the horizon. It will be a year where we deliver on the investment made to CFP 3.0 upgrade, and will focus on engagement with our members to build the vision and priorities for our next strategic phase to see us beyond the end of the decade.

Thank you for being part of this journey. I look forward to another year of growth, impact and success together.

Richard Profit
Chief Executive Officer,
Cool Farm

We must not be complacent, and we will work in 2025 to increase our focus on value creation and seek to improve retention rates

Alignment of core workstreams

In 2022, we identified five **strategic pathways** to steer and concentrate our efforts.

Under the guidance of the Supervisory Board, we have collectively determined that the single top-level priority for Cool Farm is to build **Trust.** This priority is supported by four key areas 1) Transparency, 2) Diversity, representativeness and outreach, 3) Regulatory and Standards Alignment, and 4) Credible, usable Cool Farm Platform, as illustrated below:

Cool Farm Alliance High-Impact Hub	Establish Range of Training and Advisory Services	Cool Farm Science and Methodology	Robust High-Quality Future Fit Cool Farm Platform	Highly Effective Secretariat Team
Transparency, Diversity, representativeness and outreach	Diversity, representativeness and outreach, Credible, Usable Cool Farm Platform	Regulatory and Standards Alignment, Credible, usable Cool Farm Platform, Transparency	Credible, usable Cool Farm Platform, Transparency	Diversity, representativeness and outreach, Transparency

Strategic Pathways

Key Priority Areas

Meet the Supervisory Board

In 2024, the Cool Farm Alliance saw a significant transition in its **Supervisory Board leadership**. Giulia Stellari stepped into the role of **Supervisory Board Chair**, bringing her deep expertise in sustainability and agricultural supply chains to guide the Cool Farm Alliance forward. This change marks an exciting phase for Cool Farm as we continue to drive impactful change in sustainable agriculture.

The board have a wealth of experience from across the agriculture supply chain. Covering in depth farming experience, agriculture science and chemistry, community led change, supply chain reporting requirements and the carbon markets. Explicitly, Richard Profit, as CEO, would personally like to thank them for their support and insights over the year.

Giulia Stellari
Chair
Fall-Line Capital

Graham Mullier
Vice-Chair
Syngenta

Tobias Bandel
The Landbanking Group

Dr. Frank Brentrup
Science Engagement
Yara

Eduard Merger
Community
Solidaridad Network

Richard Profit
CEO
Cool Farm

Mateusz Ciasnocha
Farming

Sarah Lockwood
Danone

Andrew Voysey
Soil Capital

Meet the Secretariat

In 2024, our team expanded significantly, allowing us to enhance member support, engagement, and technical capabilities.

With the addition of new training officers, a dedicated member services officer, a communications intern, we have improved response times, introduced regular drop-in sessions, and strengthened overall member support. At the same time, the method team grew from one full-time modeller, and a Cirevo contractor, to four internal staff, plus additional support from Cirevo. This expansion increased in-house coding capacity, enhancing responsiveness, transparency, and accuracy. By directly coding methodologies, the team gained greater control over implementation, ensuring scientific integrity and quality.

As we grew, we also bade farewell to valued team members: Daniella Malin (Head of Impact and Collaboration), Charlie Curtis (Head of Agronomy and Environment), and Honor Leyson (Project Support Officer). We are incredibly grateful for their hard work and dedication and wish them all the best in their future endeavours.

With fresh expertise and energy, our growing team is better positioned than ever to support our members and advance the credibility of our products to serve sustainable farming practices worldwide.

Richard Profit
CEO

Michaela Aschbacher
Training and Consulting Manager

David McMahon
Product Manager

Kirsten Crutchley
Finance and Admin Manager

Dr. Megan McKerchar
Science & Methods Manager

Nina Fischer Yargici
Membership Manager

Emily Durrant
Operations Manager

Adam Slate
Technical Manager

Kandia Appadoo
Communications Manager
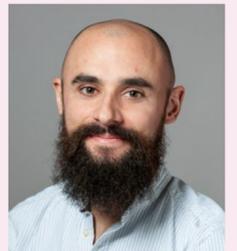
Dr. Ryan Sharp
Methods Modeller

Claire Rogers
Member Services Officer

**Dr. Eleanor Durrant**
Training Officer

Dorcas Agedah
Communications Intern

Rebecca Hesketh
Agriculture and Environment Advisor and Trainer
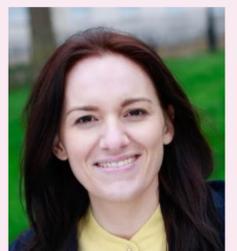
Angela Szucs
Projects Officer

Timi Odubola
Software Engineer

Julia Hunt
Methods Modeller

2024 Milestones

Launching the Perennial Pathway in CFP
The Perennial Pathway was the first in CFP, serving as a proof of concept for method implementation. It enabled assessments for long-term crops like coffee, cocoa, apple, and citrus, introduced life cycle scaling.

Improvements in Quality for New Models
The restructured development process on CFP has led to significant improvements in the quality of new models. By streamlining workflows and reducing bottlenecks, our team can now implement updates and new features with robustness.
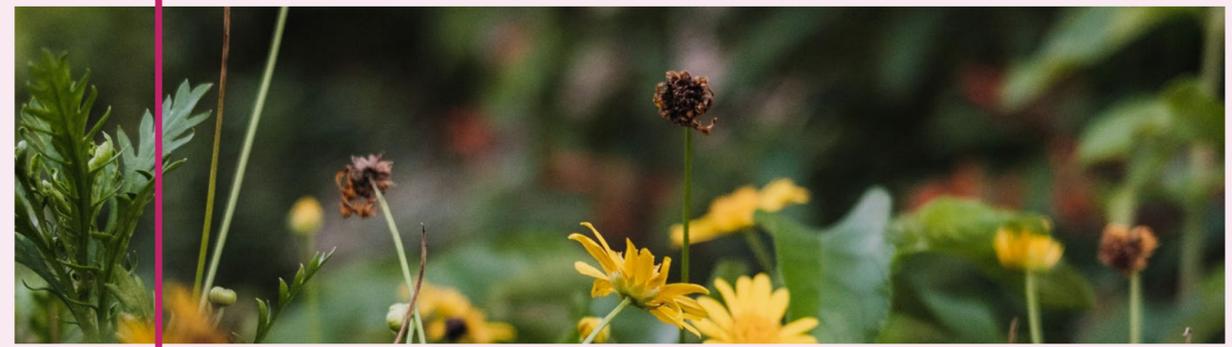
Implementing Structured Review and Unit Testing for Methods
A structured unit testing and review process was introduced to ensure every new and migrated method undergoes rigorous validation before deployment. This significantly improved model reliability by detecting errors early, refining assumptions, and ensuring consistency and accuracy.

More Intricate Model-to-Model and Pathway-to-Pathway Interactions
Our updated architecture on CFP now supports more intricate interactions between models and across pathways, enabling seamless data flow and enhanced integration. Members benefit from a cohesive system where interdependencies are managed efficiently, driving smarter decision-making and continuous innovation.

Enabling Multi-Developer Collaboration in CFP
Autonomic supported the dairy method migration, demonstrating that multiple developers can code within CFP effectively. Standardised coding, reviews, and version control improved quality, ensuring CFP's scalability for future expansions and broader method implementation.

Process-Based Modelling with the SOC Model

The first process-based Soil Organic Carbon (SOC) model in CFP replaced empirical emission factors with dynamic simulations allowing real world scenarios to be modelled. Using Monte Carlo-based uncertainty analysis, it improves precision, enhances scenario analysis, and allows users to assess management impacts for better reporting and decision-making, strengthening the scientific validity of soil carbon modelling in CFP.

Carbon Trust Tool Gap Analysis

The Carbon Trust has reviewed CFP's methodology against global standards and guidances, ensuring credibility and standard/ guidance consistency. This methodology has not yet been assured but has prepared Cool Farm Platform for verification in Q4 2025. See here for more details.

Member-funded development drives Cool Farm Platform upgrades

Another standout moment of 2024 was the collective effort of Cool Farm Alliance members to fund the accelerated development of Cool Farm Platform. This powerful show of support underscores their confidence in our scientific and technological expertise and highlights their commitment to driving progress not just for themselves, but for the entire industry .

Enhancing Member Support

The Cool Farm Alliance experienced remarkable growth in 2024, welcoming a surge of new members and API users. This expansion empowered the engagement team to bring on three members of the team. As a result, we've significantly enhanced member support—cutting response times in half and introducing regular drop-in sessions for real-time assistance.

New Methods Researched for CFP 3.0

Research for CFP 3.0 focused on expanding methodology coverage, including refrigerant emissions, seed production modelling, and embedded livestock purchased emissions. We also refined emission factors in existing models—a process that required thorough research, careful analysis, and extensive review. These additions enhance the platform's ability to assess upstream impacts, improve supply chain transparency, and refine emission calculations, ensuring CFP remains scientifically robust and aligned with evolving sustainability standards.

Huge Increase in User Participation in CFP Member Testing

User participation in member testing has seen a remarkable surge, reflecting growing engagement and confidence in the new platform. Record-breaking involvement in testing phases has provided invaluable feedback, enabling rapid refinements. This increased collaboration not only improves platform functionality but also fosters a community-driven approach to continuous improvement and innovation.

Growth in Membership

Cool Farm's success is shaped by our diverse and committed members, who work to drive positive environmental change in agricultural supply chains. By collaborating and sharing knowledge, our community strengthens the effectiveness of our tools and solutions.

In 2024, we welcomed **47 new members** from a wide range of industries, including **food & beverage, consultancy, agribusiness, and technology**. Many joined to integrate **carbon footprinting, API capabilities, and sustainability strategies** into their operations, reflecting the growing demand for data-driven climate action.

At the same time, 33 members chose to leave, citing reasons such as completing their initial goals, shifting priorities, or no longer requiring our platform's services. While we're always sad to see members go, their feedback is invaluable in refining our offerings and ensuring we continue to provide meaningful value.

Looking ahead, we remain committed to supporting our members with the tools, insights, and community needed to create a more sustainable agricultural future.

Total Members
By Member Profile

35 Food & Beverage Company

33 Consultancy

22 Agribusiness

18 NGO

18 SaaS

12 Agricultural Initiative/ Network

9 Agtech

8 Carbon Credits

7 Fertiliser producer

6 Food & Beverage Trader

4 Financial Institution

3 Chemical Company

2 Blank

2 Animal Food/ Feed Additives

1 Water supply company

Total Members by Membership Tier
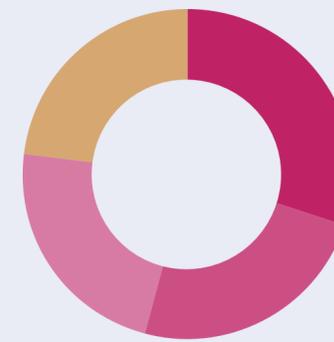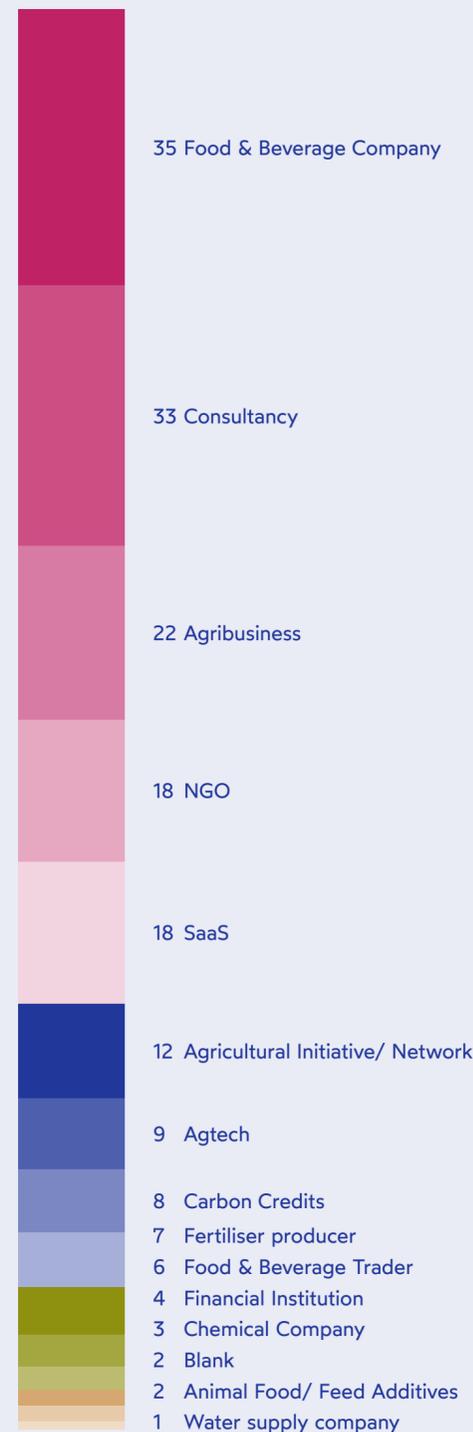
■	84	Small Member
■	29	Medium Member
■	23	Large Member
■	22	Corporate Brand Member
■	22	Corporate Group Member
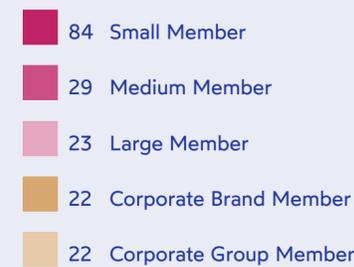
180

Members
155 Members in 2023

New Members

New Members by Membership Tier
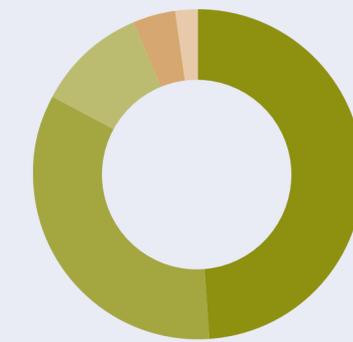
■	23	Small Member
■	16	Medium Member
■	5	Large Member
■	2	Corporate Group Member
■	1	Corporate Brand Member
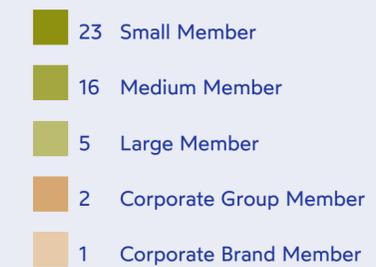
Top reasons for joining Cool Farm Alliance:

1. API Integration

2. Carbon Footprinting

3. Sustainability Strategy

Cool Farm Alliance Members* (as of December 2024)

2024 Performance in Numbers

Europe
52%

North America
15%

South America
15%

Africa
4%

Asia and Oceania
14%
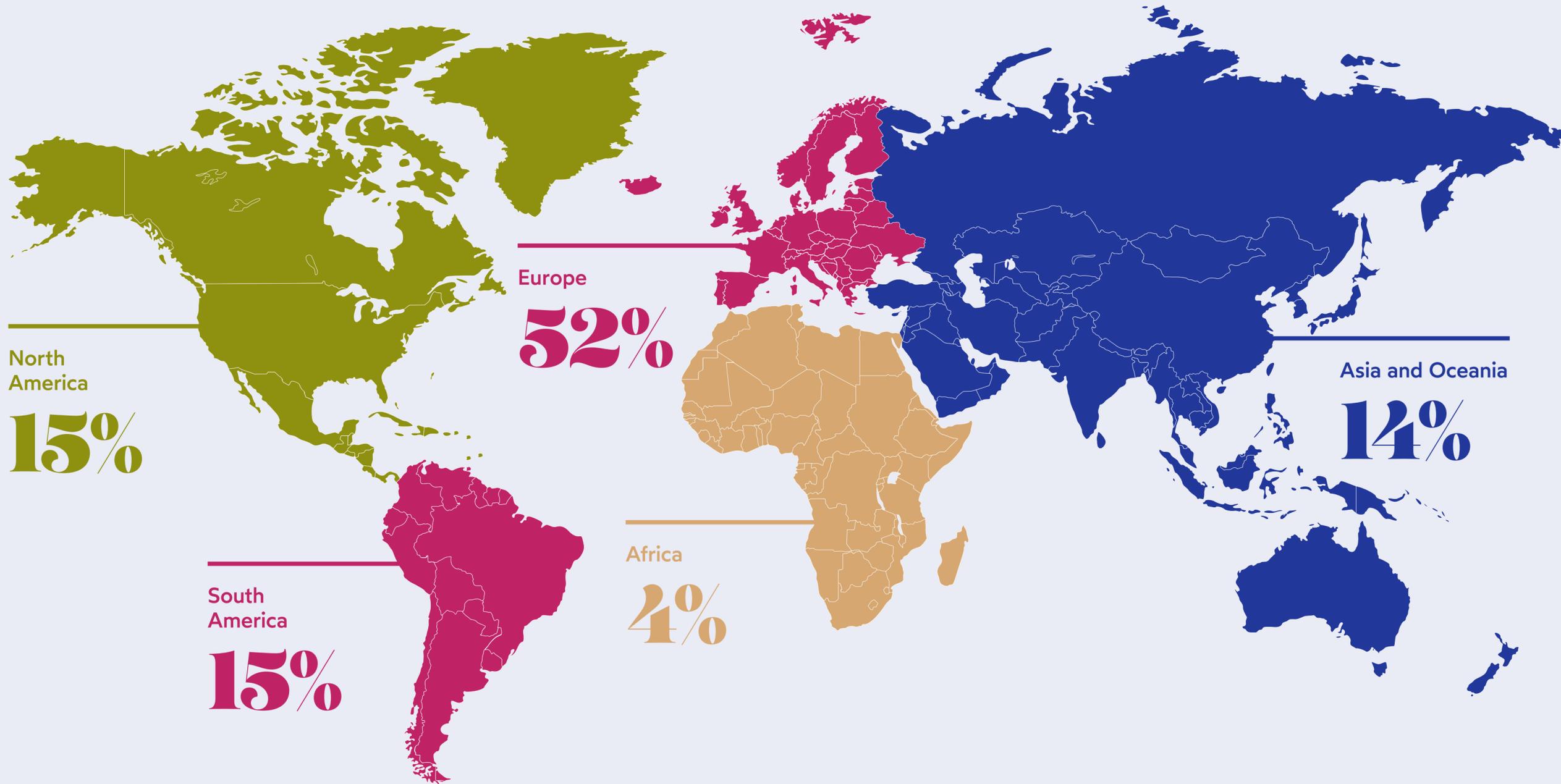
Cool Farm Tool

Operating at both ends of the supply chain, the Cool Farm Tool empowers farmers with knowledge and helps corporate buyers understand where and how to support change.

WebApp Users
44,000
+14%

Assessments
230,000
+25%

Countries
160
+2%

API Connections
72
18,600,000 API calls

Accounts Summary

Notes on 2024 Budget

Revenue

Membership: Growth in Membership

Revenue up on 2023

29%

Other Funds:

- **Accelerated Development:** Generous member contributions to the accelerated development fund. Due to delays in funds arriving to Cool Farm core funds relied on to initiate and deliver early stages of the development, with accelerated funds being released later in 2024, and carried forward to 2025 accelerated development activity. This additional use of core funds eroded our final surplus value and consequently a lower reserves position than planned.
- **Dreamfund:** Bulk of the development work delivered in 2024 with the support of Edinburgh University and Cirevo.
- **Cool Farm Manure:** Newly won project with grant funding, initial instalment received, bulk of the funds carried forward to 2025.
- **LUNZ:** Newly won multi-year project with UK government grant funding, initial instalment received.
- **AGM:** Cool Farm Annual Event in Amsterdam – twice the income compared to 2023, but with a matching increase in costs to host in Amsterdam.

- **API Licencing:** Revenue up 50% on 2023, 27% more licences than in 2023, the difference attributable to increased call volumes.
- **CFA Training:** Launch of Certified Advisor Training supported by specific training requests from a number of members.

Expenditure

Technical Sub-Contractors

Significant uplift in year end spend vs the 2024 plan was driven by the accelerated development investment in modelling subcontractors to support 3.0 development.

Technical Product Development

Again, the uplift versus plan was driven by the additional accelerated development spend on the new architecture and user interface for Cool Farm Platform and preparation for the v3.0 upgrade.

Additionally, we migrated Cool Farm Tool to AWS Cloud servers and adoption of a new support sub-contractor. As part of this move, we implemented a code freeze on further CFT development in favour of investing in the CFP.

Management Costs

Nine new staff joined the team in 2024 to build inhouse capability and capacity and reduce reliance on third party sub-contractors. The gap to plan was due to delays in bringing onboard the new staff.

Operational Costs

Deliberate attention to cost saving, reinforced by favourable exchange rate fluctuations delivered better than plan performance.

Account Summary 2024

	2024 Plan	2024 Plan Accelerated Development	2024 Actual	Notes
PY Reserves b/f	£342,560	£342,560	£342,560	
Income				
Membership Fees	£1,926,918	£1,926,918	£1,994,714	Growth in membership
Other Funds	£826,040	£1,576,040	£971,925	Includes Accelerated Development, Dreamfund, Cool Farm Manure and LUNZ projects. Plus AGM revenue, API Licencing, Member project contributions, training services
Drawdown from Reserves	£	£	£	
Total Income	**£2,752,958**	**£3,502,958**	**£2,966,639**	
Expenses				
Technical Sub-Contractors	£254,908	£484,908	£383,805	Science, methods & project management
Technical Product Development	£761,709	£1,281,709	£999,960	CFT / CFP maintenance and development cost
Management Costs	£836,870	£836,870	£793,119	Secretariat staff including new hires
Operational Costs	£617,087	£617,087	£593,891	AGM costs, CPD, Professional fees, Pensions, NI, recruitment costs etc
Total Expenses	**£2,470,574**	**£3,220,574**	**£2,770,775**	
Net R&D Tax Credit Benefit	TBC	TBC	TBC	
YE P&L	£282,384	£282,384	£195,865	Annual Contingency reserve
YE Reserves c/f	£624,944	£624,944	£538,425	

Notes on 2025 budget

Revenue
Membership: We budget conservatively basing our 2025 membership revenue on our 2024 year end membership numbers, however we target at 10% net growth in members.

Other funds:
- **Accelerated Development:** The bulk of the member accelerated development contributions have been allocated into 2025 to secure project delivery.
- **Cool Farm Manure:** Project funding runs through 2025.
- **LUNZ:** Continuing throughout 2025.
- **AGM:** A more modest and even more engaging event planned this year near Bristol, UK.
- **API Licencing:** Revenues are expected to remain flat on 2024.
- **CFA Training:** Continued deployment of Certified Advisors course, upgrades for 3.0.

Expenditure
This year's expenses have been broken out differently to previous years to provide better visibility of the investment into the different value offerings of the CFA.

Technical Product Management
This reflects the spend on staff, sub-contractors and associated licences involved in the development and maintenance of our Cool Farm Tool and Cool Farm Platform digital products. It includes both the architecture and software aspects. Given the accelerated development funding in 2025, this represents 49% of our total spend.

Science & Methods Development
Our staff and sub-contractors involved in the translation of science into our calculation methodologies for adoption in our digital products. They maintain the scientific credibility of the CFT and CFP as well as provide the scientific input to our learning materials and technical documentation. Currently 13% of the budget allocation with the intention to grow the investment in this area.

Engagement & Support
Our support team deliver the first line response to member enquires and provide the training knowledge transfer to our community, underpinned by communication and social media presence along with external engagement to reinforce and grow the Alliance community. 23% of the budget allocation.

Operational Costs
These costs reflect our central costs of running the Alliance as a whole, including subscriptions and licencing, central staff employment costs such as national insurance and pensions, as well as professional fees such as legal, HR support and insurance. 15% of the budget allocation.

Account Summary 2025 Plan

	2025 Plan	Notes
PY Reserves b/f	£538,425	
Income		
Membership Fees	£2,105,783	Growth in membership and membership fee revenue.
Other Funds	£1,143,943	Includes Accelerated Development and LUNZ projects. Plus Annual Conference revenue, API Licencing, Member project contributions and training services
Drawdown from Reserves	£	
Total Income	**£3,249,726**	
Expenses		
Technical Product Development	£1,550,122.43	CFT / CFP product maintenance and development cost, incl staff & sub-contractors
Science & Methods	£391,628.97	Science and methods development in support of CFT/CFP, incl staff & subcontractors
Engagement & Support	£715,486.55	Member service support, training and comms, LUNZ project, includes Annual Conference, incl staff & sub-contractors
Operational Costs	£488,107.51	Centralised CPD, Professional fees, Pensions, NI, recruitment costs, insurance etc, incl staff & subcontractors
Total Expenses	**£3,145,345**	
Net R&D Tax Credit Benefit	TBC	
YE P&L	£104,381	Annual Contingency reserve
YE Reserves c/f	£642,806	YE Core reserves position, assuming no contingency spend.

2024

Income

■	Membership Fees	67%
■	Member Project Contributions	7.5%
■	Grant Income & Other Funds	17%
■	API Licensing	8%
■	Non-Member Project Contribution	0.5%

Expenses

■	Technical Product Development	36%
■	Management Costs	29%
■	Operational Costs	21%
■	Techincal Sub-Contractors	14%

2025

Income

■	Membership Fees	65%
■	Member Project Contributions	17%
■	Grant Income & Other Funds	10%
■	API Licensing	7.5%
■	Non-Member Project Contribution	0.5%

Expenses

|		
■	Technical Product Development	49%
■	Science & Methods	13%
■	Engagement & Support	23%
■	Operational costs	15%

Income and Expenses 2019-2025

■ Income   ■ Expenses
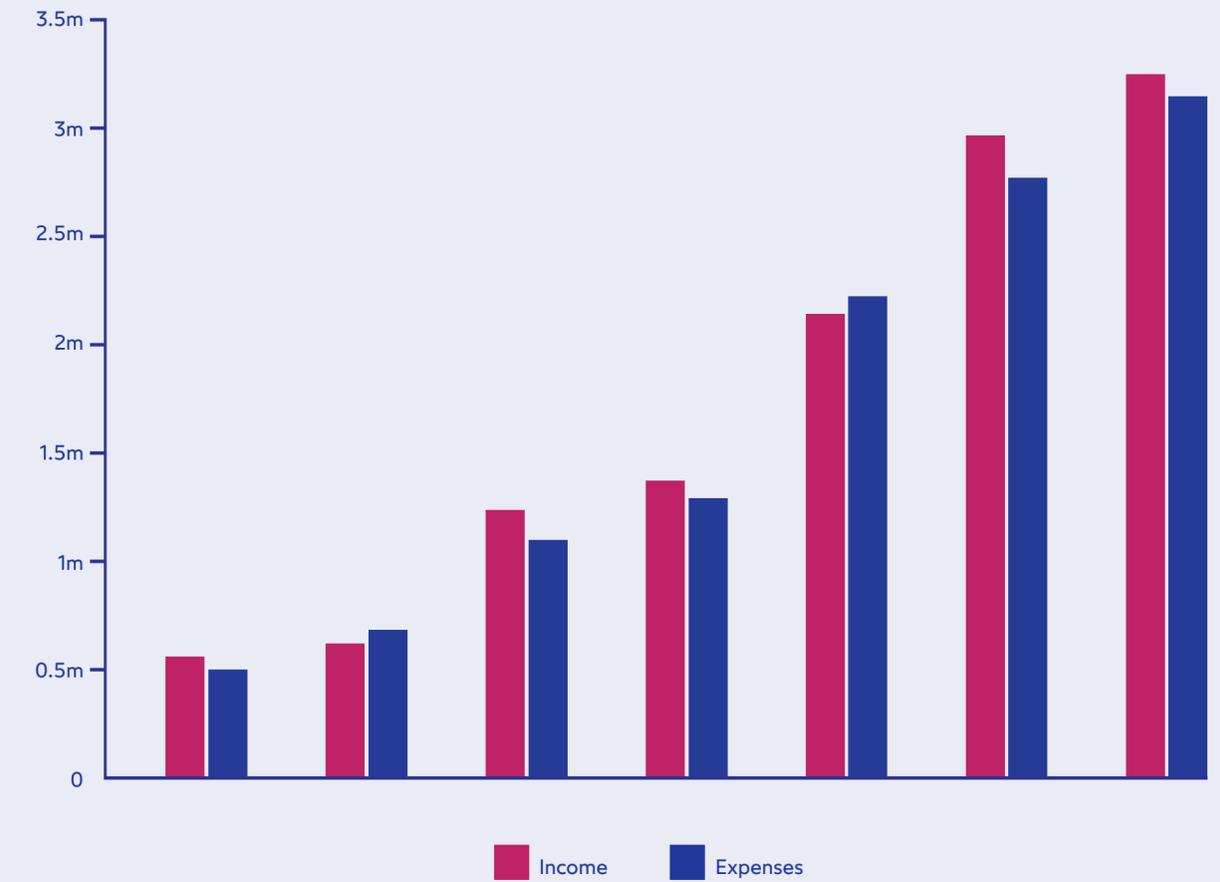
Strengthening Impact and Driving Collaboration

Eduard Merger
Solidaridad Network
MAC Chair

In its second year, the Cool Farm Member Advisory Council (MAC) made significant strides, holding four key meetings throughout 2024.

This year's achievement included:

- Refining its scope and Terms of Reference.

- Taking a more active role in shaping and facilitating the Cool Farm Annual Event.

- Doubling response rates for the member survey — strengthening its impact across the Cool Farm Alliance (CFA).

The MAC also saw changes in its dynamic team. We bade farewell to Brandy Wilson from Simplot, a dedicated Working Group participant and CFA brand ambassador, with Phoebe Dowling (Simplot) stepping in to fill her role.

Khaoula Essoussi passed the torch to her colleague Anvita Srivastava from Danone as the new Dairy and Beef Working Group representative. Georg Lemperg from ICL took over from Cristian Terrones, representing the Soil Consortium in the MAC. Additionally, after two years of valuable contributions, Peter-Erik Ywema from Avebe and James Holmes from Unilever concluded their MAC tenure, making way for fresh voices. To welcome new participants, we hosted a 'Get to Know the MAC' webinar in November, opening observer seats and applications for those eager to contribute.

A short note from Co-Chair of the MAC, Nina Fischer Yargici
"As we reflect on two incredibly productive years, we extend a heartfelt thank you to our chair, Eduard Merger, whose leadership brought structure, neutrality, and compassion to the group. While he will step down from the chair position in Q1 2025, we look forward to continuing our collaboration with him within the wider Cool Farm community."

"Working with the Membership Advisory Council was really valuable. Firstly, it helped streamline processes and ensured the Cool Farm Tool could be the best it can be, benefiting everyone. Secondly, working with such a knowledgeable and a passionate group of people was truly inspiring."

James Holmes, Global Sustainability Manager, Unilever

Purpose of the MAC
The MAC acts as the primary conduit through which the Cool Farm Alliance (CFA) members' voice, collectively, reaches the Cool Farm secretariat and Supervisory Board.

Key Responsibilities
Strategy: The MAC supports the Cool Farm mission of accelerating change, not just measuring emissions.

Governance: The MAC acts as a bridge between Cool Farm Governance and CFA members with a focus on bidirectional expectation management and transparency.

Engagement: The MAC has representatives from Working Groups (WGs) through which CFA members engage, network, collaborate, express needs, compare interests, and share accomplishments.

Ethos
The MAC holds responsibility for cultivating and nurturing the human-centered culture of the Cool Farm Alliance.

The Impact of our Working Groups

If the Cool Farm Alliance was a vehicle, and the Cool Farm Tool the engine, the Working Groups would be the wheels—spinning us forward into new territories of innovation and sustainability.

These groups are where ideas come to life, solutions are shared, and progress is made. Our Working Groups provide a space for members to connect, collaborate, and drive positive change together. Whether refining methods, developing tools, or sharing insights, each Working Group plays a vital role in the growth and success of the Cool Farm Alliance (CFA).

Biodiversity (BWG)

The Biodiversity Working Group exists to strengthen the representation of biodiversity in the Cool Farm methods and CFA more generally. The Working Group will consolidate member requirements and centralise engagement on biodiversity to focus and catalyse progress in the development of updated biodiversity methods and tool development.

Key Achievements in 2024

The Biodiversity Working Group assessed how the Cool Farm Biodiversity Metric (CFBM) aligns with Taskforce on Nature-related Financial Disclosures (TFND) and Science Based Targets Network (SBTN) frameworks. The group also explored its use in businesses and identified an opportunity to communicate it's functionality and potential impact.

Looking Ahead to 2025

In 2025, the focus will be on improving communication around CFBM's capabilities and identifying necessary enhancements to ensure the biodiversity methodology remains scientifically robust and aligned with evolving sustainability frameworks when we migrate it from Cool Farm Tool to Cool Farm Platform in the future.

NEW Coffee Subgroup

The Coffee Working Group acts as forum for discussion and collaboration around coffee, the Cool Farm Platform and wider coffee thought leadership; it is a space for Cool Farm members with an interest in coffee to engage, network, collaborate, express needs, compare interests, and share accomplishments ().

Dairy & Beef (DBWG)

The DBWG is comprised of CFA member organisations that have common interests in these modules of the CFT, and a desire to work together to maximise knowledge exchange and jointly refine the use of the CFT. This is the longest running Working Group and was established in 2016 to shepherd a major revision to the dairy and beef pathway.

Sarah Wynn, Managing Director at ADAS Climate & Sustainability and Chair of the Dairy and Beef Working Group:

"We have seen some exciting developments across the Dairy and Beef Working Group this year. The main piece of work we have been focusing on has been progressing the development of a new and improved Cool Farm Manure that will capture some of the newer and more complex approaches to manure management that our members are encountering in their supply chains. The project funded by UK Research and Innovation (UKRI) and Cool Farm Alliance will bring significant improvements to the cattle manure calculations in the future."

"We have also looked at the other priorities members have to continually improve the Tool to meet the industry's needs and looked to share knowledge. For example, discussions have looked at how companies use the CFT for reporting purposes and challenges around verification of farm level emissions against their Science-Based Targets Initiative (SBTi) requirements. We also had a presentation by Semex on the latest developments in genetics for reducing methane production in cattle."

"I find chairing the Working Group a rewarding role, it allows me to understand how the industry are interacting with the supply chain around emissions, whilst supporting on understanding technical aspects of Greenhouse Gas (GHG) emission measurement."

GHG Protocol (GHGp)

The GHG Protocol Working Group ensures that the Cool Farm Platform (CFP) aligns with standards and guidances for greenhouse gas accounting. Throughout 2024, the group held regular meetings to integrate these requirements and guidances into CFP's methodology, including the GHG Protocol Product Life Cycle Accounting and Reporting requirements, ISO 14067 (carbon footprint of products), Science-Based Targets Initiative (SBTi) FLAG requirements, and GhG Protocol (GHGp).

Key Achievements in 2024

The Working Group made significant progress in defining linear discounting for land-use change, data quality assurance, refining emissions boundary tagging, and improving disaggregated reporting and enhancing transparency in CFP's greenhouse gas calculations.

Looking Ahead to 2025

In 2025, the group will focus on ensuring CFP 3.0 maintains consistency with key standards and finalising alignment with SBTi Forest, Land and Agriculture (FLAG) requirements. Once the final LSRG guidance is available, CFP 3.0 will be reviewed and updated accordingly. Additionally, the group will transition into a broader "Guidance and Standards Working Group" to future-proof CFP, ensuring it remains adaptable to evolving sustainability frameworks.

Perennials

The Cool Farm Perennial Working Group acts as a forum for discussion and collaboration around perennial crops, the Cool Farm Platform and wider perennial crop thought leadership; it is a space for Cool Farm members with an interest in perennial crops to members engage, network, collaborate, express needs, compare interests, and share accomplishments.

Namy Daniela Espinoza-Orias, Chair and MAC representative of the Perennials Working Group:

"In 2024, the Perennials Working Group made significant strides in enhancing the accuracy of perennial cropping systems assessment in the new Cool Farm Platform by validating the dedicated perennials pathway. This year, the objective of the Working Group is to continue to provide support and guidance on the use of this new pathway. Additionally, we will focus on the holistic assessment of greenhouse gas emissions and carbon removals in perennial crops, facilitated by the introduction of the Soil Organic Carbon (SOC) module."

Soil Consortium (SC)

The Soil Consortium is made up of two key Working Groups: the Soil Organic (SOC) Working Group and the Soil Health Working Group. Together, they focus on improving soil-related methodologies within the Cool Farm Platform (CFP).

Key Achievements in 2024

The SOC Working Group was a key stakeholder group when developing the process-based SOC model [see SOC model section for details] to ensure the usability of the model.

The Soil Health Working Group focused on defining the need for soil health metrics within CFP and whether a future soil health framework is needed and how it could be funded.

Looking Ahead to 2025: Merging the Soil Working Groups

In 2025, the SOC Working Group and Soil Health Working Group will merge into a single Soil Working Group, fostering stronger engagement, streamlined discussions, and a more cohesive approach to soil-related methodologies in the Cool Farm Platform (CFP). This consolidation aims to enhance collaboration, reduce overlap, and ensure a focused effort on both SOC model development and broader soil health discussions.

Georg Lemperg, Global Sustainability Partnerships ManagerGlobal Sustainability Partnerships Manager at ICL Growing Solutions, Chair of the Soil Health Working Group and MAC representative for the Soil Consortium:

"I find working in the MAC and Working Group context very rewarding, as it allows me to contribute to the CFA community and its important mission even though my background is non-scientific. The SOC WG made big strides this year due to their great leadership and will move the model into a wider testing phase in Q1 of 2025. The new year will also bring some changes to the wider Soil Consortium and associatedWGs as we will re-align them with our original roadmap to best serve the needs of our community."

Technology Partners (TPWG)

The objective of the TPWG is to provide independent guidance to the Cool Farm Secretariat in the following key areas:

1. Development of the APIs including input on data standards, data ethics and interoperability.
2. Commercial model for technology partners – technical and financial aspects.
3. A framework for collaboration.

The Technical Partners Working Group has established strong momentum with bi-monthly meetings, ensuring close collaboration on business-to-business, system-to-system API messaging for the Cool Farm Tool (CFT). This group plays a vital role in maintaining CFT's reliability while actively shaping the future of the Cool Farm Platform (CFP).

By refining requirements, participating in testing, and supporting development, this partnership helps ensure a smooth transition and the successful delivery of CFP. Together, we are building the foundation for a powerful, future-ready solution, driving sustainable impact through the decade of action ahead.

Join the Alliance

The power of collaboration is key to driving meaningful change in sustainable agriculture. As a member, you'll collaborate with like-minded professionals to drive sustainability and reduce carbon footprints in agriculture.

If you'd like to find out more, reach out to us.

The Year of Partnership in Advancing Coffee Sustainability

Cool Farm and Conservation International joined forces to launch a global initiative aimed at reducing the carbon footprint of coffee production.

Cool Farm Alliance member Conservation International leads the Sustainable Coffee Challenge (SCC), a global coalition bringing together diverse stakeholders from the coffee sector to drive actions and investments aimed at making coffee the world's first sustainable agricultural product. A key aspect of this initiative is the partner pledge to "secure 100 million tons of carbon" by 2025. As part of these efforts, the Sustainable Coffee Challenge is spearheading a large-scale study to establish carbon footprint baselines for major coffee-producing regions in Latin America. This research will provide critical insights to support industry-wide alignment and guidance on carbon accounting, reduction, and removal.

Cool Farm and the Sustainable Coffee Challenge share a common vision of advancing a sustainable global coffee supply chain. In the summer of 2024, Cool Farm and Conservation International partnered to establish the Cool Farm - Sustainable Coffee Challenge Coffee Working Group. This Working Group serves as a collaborative forum focused on the application of the Cool Farm Platform (CFP) to coffee production and fostering broader thought leadership in the coffee sector. It has become a well-attended space for Cool Farm members passionate about coffee to engage, network, collaborate, share insights, align interests, and celebrate accomplishments.

Now at around 45 members and Chaired by Flaam Hardy at Rainforest Alliance, the Working Group met three times in 2024 and agreed to focus work on three key areas for the first 12 months;

1. The ground-breaking SCC Latin America Coffee Carbon Footprint Baseline Study project

2. Exploration of a popular request by coffee companies – a 'lite' version of the Cool Farm perennial crop tool; what is the problem we are trying to solve? What might that look like? What's the best solution?

3. Development of an SCC pocket guide on carbon footprint accounting in coffee, including but not limited to the use of the CFP.

In September, the Sustainable Coffee Challenge team brought the technical plans for the Latin America Coffee Carbon Footprint Baseline Study project to the Working Group for review and consultation. This research will provide critical insights to support industry-wide alignment and guidance on carbon accounting reduction and removals and can support further refinements of the Cool Farm Platform with rich data sets from approximately 10,000 farms. These insights will be brought to the Working Group in 2025 where next steps and actions for the coffee sector can be discussed.

The Working Group's next focus was a concept that some coffee members proposed in 2023 to address a specific need. As data collection is very costly and time consuming, members wanted a way to collect only the data that has a material impact on the product farm gate carbon footprint (such as fertiliser quantities applied) to get an estimate of carbon performance, with appropriate default values for the rest. The aim of the session was to examine variability in what farm data is most impactful on the carbon footprint, better understand the use case, highlight which data is always available and which data is hard to obtain.

In theory, a 'lite' version of the CFP would enable greenhouse footprint estimates with a reduced data burden, making use of assumptions and defaults. The tension between the vital need for scientific rigor and the practicality of an increasing data burden is an ongoing point of discussion at Cool Farm. It is recognised that users of the Cool Farm Platform run greenhouse gas assessments for a wide range of purposes. Whereas for reporting, a complete set of data is necessary, other uses such as scenario planning, decision support and annual monitoring, could make use of default data or make other assumptions.

The Working Group discussion provided useful learnings and insights;

- The most impactful farm practices on the coffee carbon footprint are variable across regions and coffee varieties.

- Differences in washing and other post-harvest treatment practices can have a significant impact on the carbon footprint and assessment boundaries are variable depending on the farmer and/or assessment completer.

- The most readily available farm data sets across all regions include yield, crop variety, field size, number of trees, fertiliser type and amount, pesticide type and amount and intercrops/shade trees species.

- Data that is particularly hard to obtain includes fertiliser origin, wastewater, soil organic carbon data, deforestation records and residue type and amount.

- Caution is required when using secondary data and applying assumptions in carbon assessments. Where default values are applied, appropriate warnings should be copied through to results.

- Development of a 'lite' tool could imply significant investment. Instead, collection and integration of series of optional default data sets in the existing tool would be better use of resources.

Needless to say, the Working Group achieved a huge amount in one meeting and the agreed actions for 2025 are to focus on specific data points in the perennial assessment that are important for coffee and research and agree appropriate default values. The group also agreed to spend time looking more closely at wastewater in coffee production in 2025.

A Year of Community and Progress

The Cool Farm Alliance continued to expand its reach in 2024, welcoming a diverse group of new members dedicated to driving sustainable change.

This year saw a strong surge in engagement, with 47 new organisations joining our thriving community. Together, we remain committed to advancing our shared vision. Hear directly from some of our newest members about what inspired them to become part of the Cool Farm Alliance.

Sustainable Coffee Challenge

As part of the initiative's collective 2025 targets, partners in the Challenge have pledged to secure 100 million tonnes of carbon by 2025. To unlock further investment and collective action in supply chain decarbonisation, the Challenge is currently facilitating an industry supported, precompetitive study to determine robust carbon footprint baselines for coffee production in Brazil, Colombia, Honduras, Mexico, and Peru building on a similar study led by USAID Green Invest Asia which focused on Indonesia and Vietnam.

Like the study in Asia, the Latin American iteration will use the Cool Farm Tool/Platform as the carbon accounting tool and will contribute to industry-wide alignment and guidance for carbon accounting, reduction, and removal.

Concurrently, the Challenge and Cool Farm teams have agreed to co-lead a Coffee Working Group to leverage our aligned visions and overlapping membership to build out the coffee tool within the Cool Farm Platform and provide technical review of the baseline study. We are looking forward to deepening our partnership to achieve our shared aims! The Sustainable Coffee Challenge is convened and facilitated by Conservation International and brings together 120+ partners from across the coffee sector in a vibrant, nimble, and inclusive community of coffee sustainability professionals. Learn more about the Sustainable Coffee Challenge.

Timac Agro

Aligned with the decarbonisation plan we are carrying out at TIMAC, we have calculated our organisational carbon footprint and continue to calculate the product carbon footprint of our portfolio. We are making significant efforts to decarbonise our production process, focusing primarily on activities within Scope 3. Our product emission factors are certified by an external entity under ISO 14067.

Additionally, we are conducting trials with universities to demonstrate the reduction in field-generated footprint when our nutritional solutions are applied.

Furthermore, we wish to participate in various conferences and communicate our results to the scientific community and other members, so that they can be considered when accounting for emissions in the field.

Lipton

Tea has a comparatively low carbon footprint but all of us in the industry have a duty to identify areas for improvement. We have contributed our own data from years of research and, together, we will create a reliable tool that will help the industry make progress for the benefit of all.

Novalait

Our organisation uses the Cool Farm Tool to assess GHG emissions and carbon sequestration of our 20 dairy farms, part of our newly living-lab (dairy net zero). The farm CFT assessments, as well as, other calculators will be instrumental in developing a best management implement plan. This 5-year project will allow us to implement well known Best Management Practice (BMP) at the dairy farm and also, in collaboration with researchers, implemented new innovative BMP's. This 5-year living lab project is key to advance the dairy farms of Quebec sustainable action plan.

List of new members in date order of joining

- Novalait
- Ceres Rural LLP
- Atlas AGro
- Savencia Fromage & Dairy
- Ever.Ag
- JD Agro Cocora SRL
- Union de Cooperativas Agaca
- Stichting reNature
- Epoch Blue Ltd.
- Freshroyal SL
- TheoryMesh Corp
- LIPTON Teas and Infusions
- Laborural Servicos e Empreendimentos LTDA
- Agrita
- Truterra
- Dossche Mills
- RAM
- Dairy Farmers of Canada
- Timac Agro Espana, S.A.
- Beratungsring Ackerbau Rheinhessen Pfalz im Ring landwirtschaftlicher Betriebsleiter
- Prolacto - Lacticinios de Sao Miguel S.A.
- NEPCon F.M.B.A. (Preferred by Nature)
- Walther Farms LLC
- Comercializadora de Mani SA
- Perennial
- Sustainable Coffee Challenge - convened by Conservation International
- Agolin S.A.
- Mtech Digital Solutions Oy
- Systemiq Ltd
- Stichting IDH
- SES, Inc.
- Clover-Stornetta Farms, LLC dba Clover Sonoma
- GIZ (Deutsche Gesellschaft fuer Internationale Zusammenarbeit GmbH)
- Enveritas, Inc.
- Calidad Pascual S.A.
- Weaver Popcorn Bulk,LLC
- BioFiltro USA, Inc.
- Earthworm Foundation
- AgriCapture Inc.
- Demeter Biosystems Kft.
- Gradable
- Upstate Niagara Cooperative Inc
- Gabinete de Iniciativas europeas SL
- Nuveen Natural Capital Sp.zo.o.
- Rikolto Indonesia
- Cooperativa Central dos Produtores Rurais de Minas Gerais
- Agraves Sp. z o.o.

Shaping Cool Farm Alliance with Member Insights

60+

responses
(up from 37 in 2023)

Over 40

organisations participated

As the Cool Farm Alliance continues to grow and evolve, understanding the needs and experiences of our members is crucial.

The feedback from our members helps to shape the Alliance's priorities and strengthen our collective impact. The Annual Membership Survey remains an invaluable tool for gathering these insights and driving positive change. Now in its second year, it continues to provide a platform for member voices to be heard and guide meaningful improvements.

The purpose of this survey, which is intended to be renewed annually, is to:

1. **Guide Strategic Focus:** Prioritise efforts based on members' evolving interests and needs.

2. **Monitor Membership Dynamics:** Maintain a pulse on engagement, satisfaction, and interests, providing key metrics to track progress over time.

3. **Survey Design:** An inclusive process involving the MAC, Secretariat and the Supervisory Board.

What worked to increase member participation?

The number of respondents nearly doubled, from 37 in 2023 to over 60 in 2024, thanks to our Alliance members, as well as a fresh approach to engagement, which included:

• Personalised newsletters and outreach

• Targeted communication from key team members

• Direct one-on-one engagement

• Outreach from the MAC and Working Groups
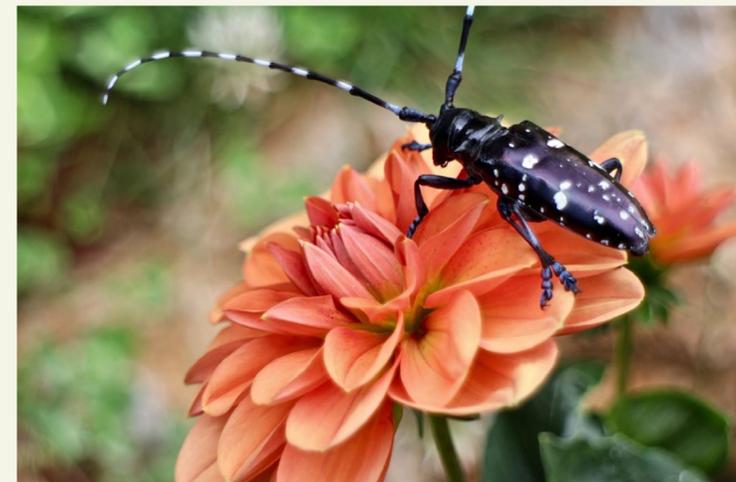
We analysed feedback across 30+ questions and identified three key themes. These themes highlight the most important ways we can enhance satisfaction and add value for our community. To learn more about the actions we're taking, see the next page.

While the survey summary can be broken down into three key themes, there is one overarching takeaway to:

Improve satisfaction and value

Breakdown of three themes:

1. Hands-On Training & Support That Works

2. Keeping our members in the loop with regular and consistent CFT and CFP updates Tool and Platform Updates

3. Building Collaboration opportunities and knowledge sharing within the Alliance
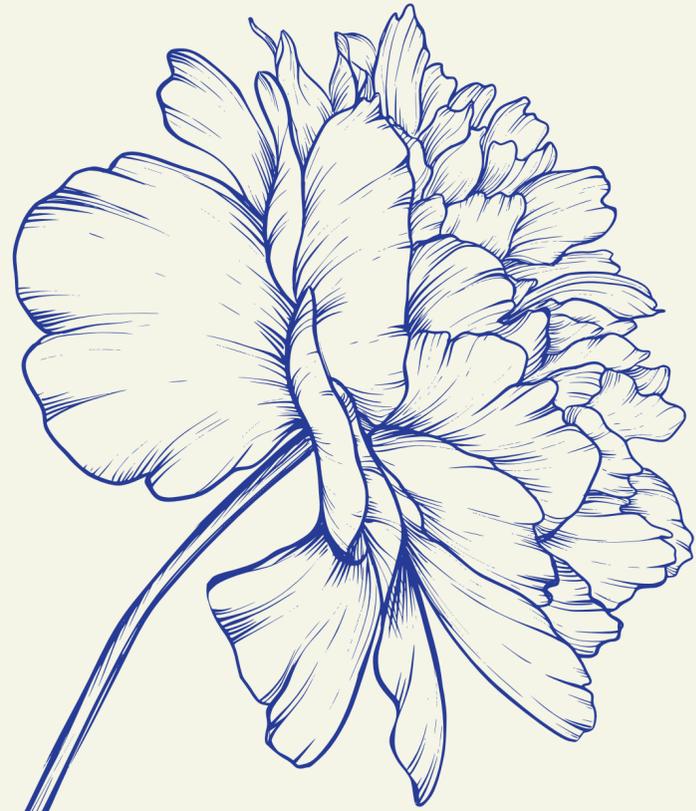
Based on the feedback from our members, actions that are being implemented to improve the Cool Farm Alliance.

1. Hands-On Training & Support That Works

Members wanted easier access to training resources to get the most out of our tools. They asked for more practical, hands-on support, interactive sessions, and clear guidance —especially for non-experts and specific agricultural practices.

We did: We launched a dedicated training page, built a comprehensive Knowledge Base, and introduced support drop-in sessions to make learning more accessible.

We will do: We will improve how we communicate our training and support options, making it easier for our members to find and access the help you need.

2. Regular Tool and Platform Updates

Members wanted regular updates on feature upgrades and improvements to Cool Farm Tool and Cool Farm Platform.

We did: We launched quarterly Pipeline Webinars to provide in-depth updates on the latest science, methods and development. We have also improved our API integration process, leading to more positive feedback from members. Through the support of our members, we have introduced key tool developments, such as the launch of the perennials pathway.

We will do: With the launch of the new Members Hub, we are exploring ways to provide more regular updates about CFP. This space may include a live wall/feed for instant updates. We will continue with our Pipeline Webinars and newsletters to keep you informed about the latest tool and platform developments.

3. Building Collaboration Opportunities and Knowledge Sharing within the Alliance

Members asked for more opportunities to collaborate, share best practices, and engage through webinars and events. Our membersalso value CFA's collaborative network and pre-competitive space for exchanging insights and working towards long-term sustainability goals.

We did: We have peer-to-peer support through Working Groups and CFA events. We also launched our Thought Leadership webinar series, Regen Reflections, in partnership with SAI Platform .

We will do: We are introducing the Members Hub, with plans to include features such as a matchmaking directory to help members connect, collaborate, and share knowledge more easily. We are also working with Cool Farm Alliance members to build the agenda for the 2025 Cool Farm Annual Event, where we will incorporate networking opportunities.

As part of the survey, the Cool Farm team also identified the top reasons influencing members' decision to join the Alliance:

1. Industry Standards and Credibility
Alignment with international standards and its credibility among multinational companies. CFA supports corporate sustainability.

2. Tool and Platform Development
A voice in the future development of the and Cool Farm Platform: through voting rights, participation in Councils and Working Groups.

3. Networking & Collaboration
Connect with other members playing an active role in driving sustainable agriculture to share best practices, referrals and holistic support.

4. Knowledge Transfer
Via our advisory services, Annual Event and peer-to-peer learning.

A Year in the Alliance with Agmatix

Agmatix joined forces with the Cool Farm Alliance (CFA) to enable farmers and agricultural stakeholders to optimise field-level practices, with a particular emphasis on reducing fertiliser-related carbon emissions and assessing the impact of regenerative agriculture pratices at scale.

Key Milestones & Achievements

Since 2023, Agmatix has integrated the Cool Farm Tool (CFT) into its platform, initially targeting the reduction of fertiliser-related carbon emissions in India and Brazil—achieving an average savings of 140 kg of CO_2 per ton of yield.

Building on these early successes, Agmatix expanded its collaboration to additional regions and crops while incorporating RegenIQ, the company's regenerative agriculture framework. By aligning with global sustainability standards through both CFT and RegenIQ, Agmatix has enhanced its ability to measure and track key environmental indicators. This approach empowers farmers to make informed, data-driven decisions that balance productivity with environmental responsibility.

Collaboration & Working Groups

Agmatix is actively engaged in the CFA community, contributing to several Working Groups. These collaborations provide valuable insights into best practices, field-level data collection, and sustainability measurement challenges. They also highlight the critical role of consistent, scalable, and science-backed assessment tools in tracking sustainability progress across diverse farming systems.

Looking Ahead in 2025

Agmatix looks forward to continuing its collaboration with the CFA, expanding its use of the Cool Farm Platform in more regions and crop types, and further refining how it supports farmers in adopting regenerative practices. Agmatix's focus remains on leveraging data and technology to enhance sustainability strategies, ensuring that field-level insights translate into meaningful action across the agricultural value chain.

We are excited about the opportunities ahead and grateful to be part of an alliance that shares our commitment to building a more sustainable food system.

Learn more about Agmatix's RegenIQ framework.

Sustainability report

Carbon Footprint

LOW

The selected fertilization program impacting moderately on the carbon footprint Co2 emissions. You should consider adjusting the fertilizers products, schedules, and/or agricultural practices to reduce risks

Emissions

Total Emissions
Kg CO_2e

471.98

Emissions Per ha	Emissions Per Tonne yield
kg CO2e	kg CO2e
541.05	90.17

Fertilizer Emissions Kg CO_2e

- Urea — 62%
- Diammonium phosphate (DAP) — 3…
- Potassium chloride 60% (MOP) — 5%

Example of a Single Field Sustainability Report from the Agmatix Platform

Driving change together

Across the Cool Farm Alliance, our members are turning insights into action —pioneering innovative solutions, driving sustainability, and making a tangible impact in their industries.

From measuring carbon footprints to implementing regenerative agriculture, these organisations are leading the way. This snapshot highlights the incredible work some of our members are doing as they share their experiences, challenges, and successes in driving a more sustainable future.

Lizz Aspley
Metrics Architect at HowGood

HowGood's membership with Cool Farm has brought noticeable, far-reaching impacts not only in our data but how it is being used across the food industry to drive impact reduction.

Throughout 2024, we used Cool Farm to model the impacts of on-farm agricultural practices across various crops. After integrating that data into HowGood's Latis platform, our users are now able to instantly measure the impacts of intervention projects and explore decarbonisation pathways.

These results enable our users to to track progress against SBTi carbon reduction targets, engage their supply chain on impact reduction planning, and set accurate, measurable net-zero targets. In addition to our data integration work, HowGood - and by extension, our customers - has benefited greatly from the range of working groups powered by the team at Cool Farm. We look forward to the year ahead and close collaboration on launching Cool Farm's new platform. What we are making possible for the food and beverage industry is critically important, and Cool Farm is the ideal partner to have in the journey.

Cool Farm Alliance Member since **2023**
Working Groups: **Biodiversity, Coffee Subgroup, Dairy & Beef, GHGp, Perennials, Soil Consortium, Technical Partners**

Laura Hanciu
Sustainability Manager at JD Agro Cocora

At JD Agro Cocora, sustainability is integral to our farming operations. Managing over 17,000 hectares in Romania, we've independently developed and implemented environmentally responsible practices. In 2024, we enhanced our approach by utilising the Cool Farm Tool to quantify our carbon emissions and gain deeper insights into our environmental impact.

While our sustainability initiatives have been internally driven, the **Cool Farm Tool provided valuable data, helping us identify key areas contributing to emissions**. The main contributors across our crop production include:

- Fertiliser Production CO_2: A significant source due to synthetic fertiliser use.
- Crop Protection CO_2: Emissions from pesticides and herbicides.
- Field Energy Use (Machinery) CO_2: Reduced in many areas thanks to no-till practices.
- Electricity (Grid) CO_2: Related to storage and processing operations.

Our conservation agriculture practices, particularly no-till farming, have demonstrated measurable benefits. They significantly reduce fuel consumption, lower the need for chemical inputs, and promote healthier soils, which indirectly reduces emissions.

We aim to deepen our carbon footprint analysis, integrate more data-driven strategies, and continue growing with care—for people, the planet, and future generations.

Cool Farm Alliance Member since **2024**

M. Paige Oliver
R&D Sustainability Program Lead at Corteva

Last year, our interaction with Cool Farm advanced significantly, revealing that Cool Farm is not merely a tool, but a community. We are eager to further explore both the tool and the community this year, and to actively contribute to developing solutions that enhance value for food chain farmers.

"Cool Farm is not merely a tool, but a community"

Cool Farm Alliance Member since **2023**
Working Groups: **Biodiversity, Dairy & Beef, GHGp, Soil Consortium**

Ricardo Pereira
Chief Business Development Officer, Purity Coffee®

In 2024, Purity Coffee deepened its commitment to sustainability by leveraging the Cool Farm Tool (CFT) to measure and reduce our environmental footprint. As a member of the Cool Farm Alliance, we have gained valuable insights into the carbon impact of our coffee supply chain, helping us make informed decisions that align with our mission of offering to our clients the healthiest and most sustainable coffee possible.

Through the CFT, we assessed key factors such as soil health, carbon sequestration, and emissions across our sourcing regions. These insights guided our sustainability initiatives, enabling us to support regenerative farming practices and work collaboratively with our producing partners to implement measurable improvements. **Our engagement with the Cool Farm Alliance community has been instrumental in sharing best practices and learning from industry leaders.**

Looking ahead to 2025, we are excited to further refine our sustainability strategy by expanding our data collection efforts and deepening our collaborations with farmers and researchers. Our goal is to continue reducing our environmental impact while promoting a more transparent and responsible coffee industry. We look forward to continued innovation and collective progress within the Cool Farm Alliance community.

Cool Farm Alliance Member since **2023**
Working Groups: **Perennials**

Anvita Srivastava
Climate and Regenerative Agriculture Specialist at Danone

Danone has been using Cool Farm Tool (CFT) since 2016 on an inventory basis to track our annual performance for dairy farms for external disclosure. We have been an active participant in technical Working Groups as well. CFT plays a critical role in tracking and reporting our progress towards SBTi 2030 GHG reduction target and our commitment to reduce methane emissions in fresh milk supply.

Danone has used the tool to project and assess the impact of implemented projects as well as communicate the results with the supply chain partners. We look forward to the release of Cool Farm Platform (CFP) and the continuous support from Cool Farm Alliance (CFA) to improve the accuracy of GHG reporting.

Cool Farm Alliance Member since **2016**
Working Groups: **Dairy & Beef, GHGp, Soil Consortium**
MAC Representative

Jinal Surti
Co-Founder & CEO at Epoch

The Cool Farm Tool (CFT), through Cool Farm, brings together learnings from over a decade of scientific collaboration across the food and agriculture industry – including farmers, multinational food corporations, NGOs, and universities. We integrated with CFT this year to bring those capabilities to our customers - agricultural commodity producers in the Global South.

This integration combined our capability to quantify biomass emissions, biodiversity and water metrics along with supply chain data-sharing infrastructure with Cool Farm's scientifically rigorous emissions calculations, offering a holistic view of carbon footprints across supply chains, while minimising data requests to producers and farmers. This has already unlocked a path to streamlined footprinting commodities like tea, coffee, palm oil, cocoa and even shrimp and a path to scalable interventions to decarbonise for these customers. We continue to be impressed with the collaborative approach and the convening power of the Cool Farm Alliance to make a real difference in decarbonising the food sector.

Cool Farm Alliance Member since **2024**

"We continue to be impressed with the collaborative approach and the convening power of the Cool Farm Alliance to make a real difference in decarbonising the food sector." Jinal Surti, CEO at Epoch

Shaping the UK's carbon footprint strategy

Dr. Eleanor Durrant
Training Officer,
Cool Farm

Q&A with Dr. Eleanor Durrant, Training Officer at Cool Farm, to find out more about the LUNZ-Footprint project.

Q: Can you give us a brief overview of the Land Use to Net Zero Greenhouse Gas Accounting project and what it aims to achieve?

Absolutely! The LUNZ Greenhouse Gas (GHG) Accounting project aims to provide evidence about the means for driving effective and informed usage of GHG accounting tools to inform policy and help achieve a net zero in the UK. It is led by Professor Julie Ingram at the University of Gloucestershire and Professor Paul Burgess at Cranfield University. The project aims to:

- **Build** capacity and net zero literacy
- **Test** sequestration predictions
- **Assess** validation methods
- **Explore** the governance and equitability implications of scaling greenhouse gas assessments

The project is a partnership between Countryside and Community Research Institute (CCRI) at the University of Gloucestershire, Cranfield University, University of Aberdeen, Scotland's Rural College (SRUC), Harper Adams University, AgreCalc, Farm Carbon Toolkit, Cool Farm and Savills.

Q: How did the idea for LUNZ come about, and how did Cool Farm get involved?

Professor Paul Burgess and Professor Julie Ingram approached us with the project concept, and we were immediately interested. We joined a series of workshops to develop the idea and build the methodology. Researchers were very interested to understand the carbon audit landscape better and think about how research findings could bring about real benefits for farmers and the sector. On this basis, we then all collaboratively worked on the proposal.

Q: Why is this project so important for UK land use and the journey to net zero?

As we approach 2050, farm businesses will increasingly need to demonstrate net-zero compliance both to supply processors and retailers who have Scope 3 net-zero targets, and to export produce in compliance with developments such as the EU's Carbon Border Adjustment Mechanism. However, there are multiple tools available and to enable the changes required at the UK scale, we need to evaluate and converge approaches, build understanding about optimal use and minimise the negative social impacts. We need to enable farmers to actively manage and reduce GHG emissions at scale.

Q: What is the core goal of the project?

The primary goal of the project is to explore the best ways to use greenhouse gas accounting tools to benefit farmers, the environment, and the future of farming.

Q: How will the project's findings benefit farmers, policymakers, and other stakeholders in the long-term?

Firstly, the project was co-developed with DEFRA (Department for Environment, Food and Rural Affairs) and national representatives of the land use sector including Savills, the NFU (National Farmers' Union of England and Wales), and the main three UK GHG accounting companies: AgreCalc, Farm Carbon Toolkit, and Cool Farm, with input from farmer-centred organisations: Farming Connect, AgriSearch, accredited adviser trainers (BASIS), and value chain actors (e.g. Morrisons). This means that the work is directly relevant to policy maker and supply chain actors.

The project operates as a 'living lab' that allows policy makers, agri-food system actors and the farming communities to develop mutually valued solutions. For instance, Cool Farm helped develop the proposal, research objectives and aims to ensure that the outcomes are relevant to us and the broader GHG accounting sector. The project also has a Steering Group with government and value chain stakeholders to provide a mechanism for policy and practice dialogue.

Providing evidence on how to drive effective and informed usage of GHG accounting tools will lead to economic (market access, targeted inputs and efficient food production), social and environmental benefits (avoidance of perverse impacts, informs natural capital accounting).

Q: Where are you in the process, and what are the key milestones?

For Cool Farm, two major milestones stand out:

1. **September 2025:** once we have done the initial greenhouse gas assessment with our 28 participating farmers

2. **September 2026:** once they have completed their second assessment with us

Q: What's the best way for interested farmers or stakeholders to reach out or learn more?

If you are interested in learning more about the project, reach out to Eleanor. There is also further details on the University of Gloucestershire website or you can contact Professor Paul Burgess.

The Launch of Regen Reflections

Robyn Cooper
Crops Manager,
SAI Platform
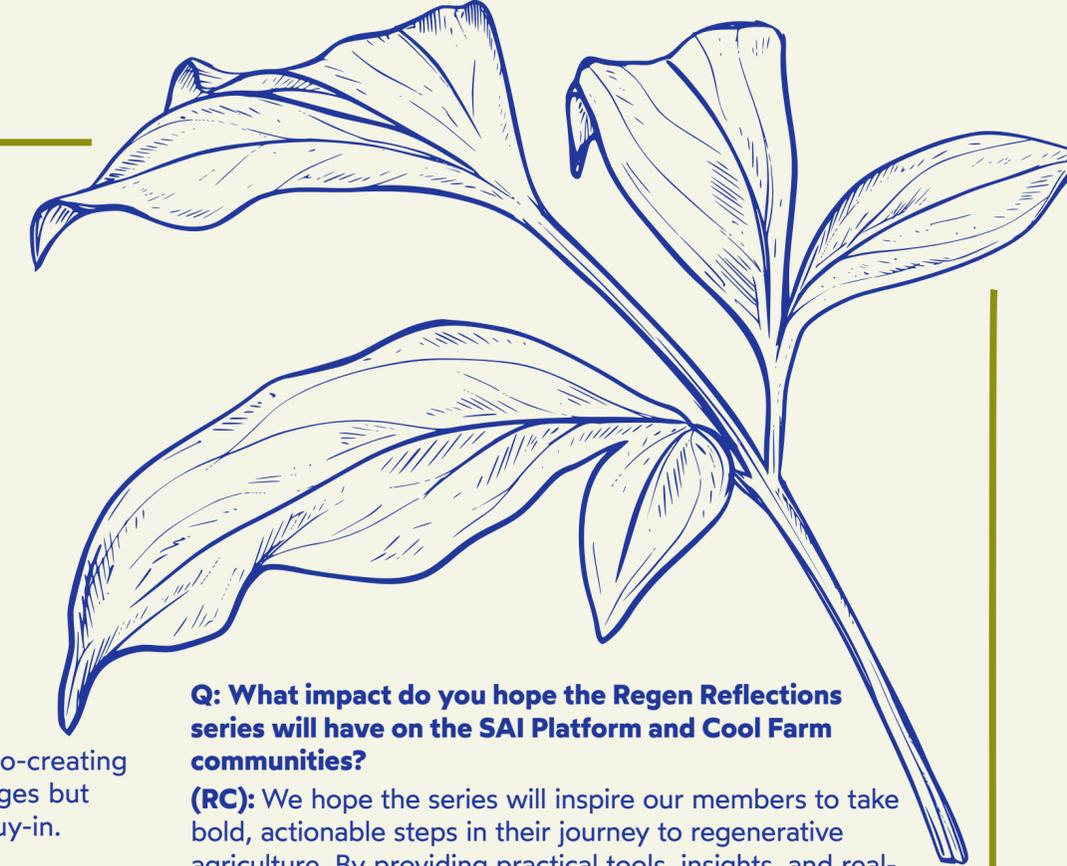
A collective journey to scale regenerative agriculture

In 2024, SAI Platform and Cool Farm joined forces to launch an innovative partnership aimed at accelerating the transition to regenerative agriculture. Their collaborative effort gave rise to Regen Reflections, a member-only webinar series designed to inspire action, strengthen collective expertise, and support the adoption of regenerative practices across global supply chains.

We sat down with Robyn Cooper (RC), Crops Manager at SAI Platform, to discuss the exciting new Regen Reflections webinar series, a collaborative effort between SAI Platform and Cool Farm aimed at advancing the Food and Beverage sector's journey to regenerative agriculture.

Q: Robyn, can you tell us what the Regen Reflections series is all about?

(RC): The Regen Reflections series is a member-only webinar series designed to inspire action and provide practical guidance on navigating the regenerative agriculture transition. It is a collaborative effort between SAI Platform and Cool Farm, two organisations with a shared vision of accelerating sustainability and system change in the agriculture sector. We launched this series to support our members in scaling regenerative agriculture within their supply chains. It is designed to mirror the journey that our member organisations are on, offering valuable insights from peers and experts along the way.

Q: What motivated you to launch the series in partnership with Cool Farm?

(RC): In the year preceding the series, SAI Platform and Cool Farm began to increase their collaborative efforts, based on the conviction that by combining our expertise, we can achieve much more collective value for our members. Building on the success of previous initiatives which aim to provide tangible examples to learn from, including Cool Farm's Measurement That Counts report and SAI Platform's Climate Conversations series, we wanted to create an interactive and practical space to challenge existing perspectives and explore how to scale regenerative agriculture. The series aims to move beyond theory by providing actionable insights for people on the ground, wherever they are on their regenerative journey.

Q: 2024 welcomed the first three sessions in the series, setting a clear tone for the future. Can you share what key messages have been conveyed so far?

(RC): The first session centred on grounding our community in their individual purpose behind and collective commitment towards regenerative agriculture. We focused on highlighting regen ag as a context specific, farmer-centric, and science-based approach with significant implications for the agri-food industry. In the subsequent two sessions, we took a more technical approach, addressing two key challenges organisations face when commencing regenerative agriculture initiatives. First, we explored strategies for shifting internal culture

and gaining buy-in across the organisation, emphasising a clear business case to create a supportive setting. Then, we shifted focus to co-creating initiatives with farmers, tackling similar challenges but through the lens of farmer engagement and buy-in.

Q: What can participants expect in the upcoming sessions?

(RC): Each upcoming session will build on what our members have identified as the key steps in the transition to regenerative agriculture. In the upcoming sessions, we'll dive into topics like:

- **Getting Results:** We'll discuss how to generate meaningful insights to drive change across key impact areas including soil health, biodiversity, water, and climate.

- **Achieving a Just Transition:** This session will explore how to ensure equity and share risks fairly within the value chain.

- **Reaching the Tipping Point:** Scaling efforts and learning from successful case studies.

- **Tying it All Together:** Connecting the work on the ground with corporate commitments, ensuring trust and transparency in regenerative systems.

Each of these sessions is designed to provide our members with additional tools, knowledge, and inspiration to tackle the complexities of regenerative agriculture.

Q: What impact do you hope the Regen Reflections series will have on the SAI Platform and Cool Farm communities?

(RC): We hope the series will inspire our members to take bold, actionable steps in their journey to regenerative agriculture. By providing practical tools, insights, and real-world examples, we want to empower organisations to not only commit to regenerative practices but also to implement them in a way that delivers tangible, positive results. At the end of the day, it's about shifting from a mindset of challenge to one of opportunity while creating a network of like-minded organisations who are working together to scale regenerative practices and make a real impact.

Q: What's the most exciting part of this series for you?

(RC): The most exciting part of delivering this series in partnership with Cool Farm is the energy and inspiration that it's generating. It has been such a privilege to engage with and learn from the diverse perspectives and stories held within our shared vibrant community. Alongside SAI Platform and Cool Farm's role to develop aligned industry solutions, I believe that our ability to create space for shared learning and capability development is core as to driving sector wide action.

Join Us

The Regen Reflections webinar series promises to be a game-changer in the movement towards regenerative agriculture, contact us for more information.

Driving Collective Action at the Cool Farm Annual Event

Key Themes and Discussions

Over the course of two dynamic days, the event encouraged collaboration and authenticity while addressing critical themes such as:

- Expanding efforts beyond supply chains to landscape-level and multi-crop collaborations.
- Shifting mindsets toward long-term investments and community-centred solutions.
- Prioritising climate justice in agricultural practices.
- Balancing data with storytelling and contextual insights.

Continuing the Momentum

The ideas and connections sparked at the event continue to inspire action within the agricultural sector. As we reflect on the outcomes, planning is already underway for the 2025 Cool Farm Annual Event, which will build on this year's discussions and amplify collective efforts toward sustainability and regenerative agriculture.

Exploring Practical Solutions

The 2024 Cool Farm Annual Event brought together stakeholders from across the agricultural sector to address some of the most pressing issues in sustainability. The event featured a series of sessions that tackled key challenges and offered practical solutions, including:

- How industry platforms are working together to scale projects from pilots to impactful change.
- The real-world challenges faced by farmers and the need for practical, scalable solutions.
- The critical role corporations play in supporting sustainable practices through incentives and partnerships.

One sentiment that captured the spirit of the 2024 Cool Farm Annual Event is:

"If you want to go fast, go alone. If you want to go far, go together. And that is the essence of the Cool Farm Alliance."

African Proverb

Acknowledgements

This event was made possible by the generous support of our sponsors:

Platinum Sponsor:
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Innovation Showcase Exhibitors:
Agricarbon, Agriplace, Epoch, Improvin', Kynetec, MyEasyFarm, Peterson, Root Global

How the Cool Farm Tool is Creating Global Impact

Impact at a Glance

Impact Stories

14 stories covering diverse crops and regions

Case Studies

6 case studies spanning multiple countries

Global Reach

13+ countries benefiting from the tool

Crops Include

Coffee, cotton, dairy, barley and more

In 2024, Cool Farm Alliance members made significant strides in promoting sustainable agriculture, with remarkable progress tracked through the Cool Farm Impact Report.

This report celebrates the collective achievements of stakeholders who have harnessed the power of the Cool Farm Tool to make real-world impacts with farmers and the environment.

Measuring Progress: The Cool Farm Tool in Action Worldwide

The Cool Farm Impact Report offers a comprehensive look at how the Cool Farm Tool is being utilised across the globe. From cotton to coffee, dairy to barley, the tool has supported agricultural practices in 13 countries and beyond. In total, the report includes 14 impact stories, with six cases spanning multiple countries.

These stories showcase the diverse crops and communities benefiting from the tool, demonstrating its versatility and growing global presence. The collection of these stories is just the beginning – and the impact is already vast and varied.

Why It Matters

The Cool Farm Impact Report offers a glimpse into how the Cool Farm Tool is being used to drive sustainable change. It underscores the importance of this tool in enabling farmers to assess their carbon emissions and adopt practices that benefit both their land and their livelihoods.

Building Momentum for Sustainability

This report marks just the beginning. As we collect more stories, we aim to expand the reach and impact of the CFT and CFP to more farmers, regions and supply chains. We're building momentum for a more sustainable future.

Get Involved

Interested in sharing your impact story or being part of the next report?

Get in touch to share your Impact Story

Download the Cool Farm Impact Report

Measurements that count

Impact Report 2023

Cool Farm

Highlights

This report provides examples but is not comprehensive and should not be taken as the complete picture of collective impact.

The largest estimate of impact

2 million tons CO₂ eq avoided

and 49,000 tonnes CO₂ eq sequestered 2018-2021. A subset was directly measured, the rest extrapolated. Directly measured: 21,942 tonnes of CO₂ eq reduced on 16,840 ha (Solidaridad).

Depth of impact

Impact from the use of the tool can be evaluated based on breadth but also depth.

Using the tool to bring humanity, dignity, fairness, justice and rebalance of power emerged explicitly in a number of projects (Cooperative Coffees, Caravela, Fairtrade, Solidaridad).

$4,542,260 in additional funds distributed to farmers

Many projects couple climate and farmer prosperity goals – building farmer prosperity and additional income through the use of the Cool Farm Tool or using climate projects to direct more funds to farmers with this total - as summed from all projects that report financial metrics.

Multiple companies have built data dashboards to visualize, analyse, model and in various ways, utilise Cool Farm Tool data more fully. (McCain and Solidaridad).

The largest verified report of impact

180,000 tons CO₂ eq

in reductions and enhanced removals with ~400 large scale arable farmers in Europe over two years, 2021-2022 (Soil Capital).

Geographic reach

A number of projects are **active in more than 10 countries** (McCain, Danone, Unilever)

To baseline and build informed action plans is the most common reported Cool Farm Tool use by companies large and small.

Throughout most impact stories, the Cool Farm Tool emerges as **a bridge between farmers (suppliers) and buyers** who want to move in the same direction but wouldn't otherwise have a way to communicate and work together.

Highlights

Empowering Stakeholders for Meaningful Climate Action

In the first half of 2024, the Cool Farm Training Team has been actively equipping members, advisors, and farmers with the knowledge and tools to drive meaningful climate action.

From launching the enhanced **Certified Advisor Training** to hosting **13 webinars, 14 member support drop-in sessions,** and **15 new training videos**, our commitment to supporting the agricultural sector's sustainability journey has never been stronger.

With a focus on **practical learning, expert collaboration, and cutting-edge resources**, our training initiatives help participants navigate the complexities of environmental metrics and regenerative agriculture.

Read on to discover key highlights, milestones, and what's coming next in 2025!

Webinars

13 webinars held, including:

6 Farm Advisory Board events

3 Regen Reflection webinars with SAI Platform ([see page 28](#))

2 Quarterly Pipeline sessions

1 Industry Collaborative events with SAI Platform

1 Biodiversity Deep-dive webinar

Resources

15 Cool Farm Tool training videos

Launched Perennials pathway resources, including:

15 Knowledge Base articles

3 Updated Excel Data Input Sheets

2 Videos (Registration, Top Tips How to Move Through CFP)

Manure Guide updated

Training

14 Virtual Beginner & Intermediate Trainings

1 Face-to-face training held in Uganda ([see page 34](#))

5 Certified Advisor Trainings held with:

    31 people

    8 companies

Launch of Certified Advisor Training

At Cool Farm, we believe in the power of simplicity and knowledge to drive future-proof agricultural practices, but we understand that navigating the complexities of environmental metrics can feel daunting.

That's why in the first half of 2024, the Cool Farm Training Team meticulously revised and relaunched Certified Advisor Training. The result is an exciting and impactful programme designed to inspire and empower participants to leverage the Cool Farm Tool for impactful climate action and meaningful change. The course was expanded from six to nine in-depth modules, each lasting one hour, to cover critical areas like data aggregation, supply chain implementation and regenerative agriculture, along with a deep dive in the tool's multiple pathways and methodology.

What is the Certified Advisor Training?

This training equips participants with a deep understanding of the Cool Farm Tool and its applications in real-world agricultural settings. With climate change significantly affecting farming worldwide, the course provides a clear roadmap for tackling greenhouse gas (GHG) emissions, improving biodiversity, and adopting sustainable practices. By completing the course, participants become Certified Advisors, joining a global network of experts who guide farmers and supply chains in their journey toward sustainability.

The course covers essential topics around the Cool Farm Tool, such as assessing carbon for crop and livestock, water efficiency in crop systems, biodiversity management, and supply chain implementation. From understanding how to collect and organise critical data to recognising GHG emission hotspots and mitigation strategies, participants learn how to translate complex sustainability metrics into actionable solutions. Being a decision-making tool that can show the impact of regenerative agriculture practices, you learn how the Cool Farm Tool supports the shift toward resilient and sustainable food systems.

Find out more about our Certified Advisor programme here.

Why is it important?

The agricultural sector is responsible for a significant portion of global GHG emissions—about a quarter of all emissions. Half of this stems directly from agricultural practices, while the other half arises from land use changes, such as deforestation. The Cool Farm Tool addresses these challenges head-on by enabling users to identify emission sources, measure carbon footprints, and develop effective mitigation strategies.

By understanding where emissions are generated and how to reduce them, farmers can not only combat climate change but also unlock economic benefits. Improved efficiency, reduced costs, and enhanced resource use help farms build resilience and secure a sustainable future. However, farmers cannot achieve this alone. They need the expertise and guidance of advisors who understand both the challenges and solutions of sustainable agriculture. This is where certified advisors step in, bridging the gap between tools and action.

The course emphasises the importance of biodiversity conservation, regenerative agriculture, and supply chain collaboration, highlighting their roles in fostering long-term environmental health. It also prepares participants to leverage data-driven insights, and guide farmers in creating sustainable, climate-conscious farming systems.

Certified Advisor Snapshot

1 Number of in-person training

5 Number of CA courses

13 Number of webinars held

14 Number of virtual training sessions

17 Number of training videos

Who is it for?

The training is ideal for advisors, sustainability managers, and farmers eager to lead environmental change. Whether you're helping others reduce their environmental footprint or reporting on sustainability metrics for your business, this course will enhance your skills and credibility.

Certified Advisors gain exclusive benefits, such as being listed on the Cool Farm Certified Advisors Registry and the right to use the Cool Farm logo. By joining this community, you'll be recognised as a trusted expert in climate-smart agriculture and the use of the Cool Farm Tool and Platform.

What's coming in 2025

In 2025, the Certified Advisor Training will see another update to include the latest exciting advancements, including the new Cool Farm Platform interface, the newest integrated models and its consistency with the land sector removal guidance. By mastering one of the most market-backed carbon accounting tools available and getting to ask your questions directly to Cool Farm, you'll stay ahead in sustainable agriculture and position yourself as an expert ready to drive meaningful change.

More detail on duration, prices and learning outcomes can be found on our website

What Our Participants Are Saying

"The course offers a very good balance between technical training to using the tool and recalling those practices that allow you to reduce emissions and impacts at the farm."

Dominique Maxime
Dairy Production Sustainability Expert, Lactanet Canada

"The course overall was very helpful, I brought a lot of questions to the table as I work in this tool every day, so I was able to get clear guidance on special cases of data and how those are integrated into the tool."

Courtney Titus
Technical Services Manager, Eocene Environmental Group

"The course was well structured, thorough, and delivered by engaging and knowledgeable instructors. I now feel confident in using the tool and effectively training others."

Mark Rakoczy
Director, Global Sustainable & Regenerative Agriculture, Suntory

How did Cool Farm Innovations Empower Farming Practices in Uganda?

In July 2024, Dr. Megan McKerchar and Michaela Aschbacher travelled to Uganda to collaborate with Solidaridad, an international network focused on sustainable farming practices.

From the coffee and palm oil regions of Masaka to the tea plantations of Bushenyi, the team collaborated with Solidaridad's field officers to introduce Cool Farm's innovative greenhouse gas emissions and carbon sequestration tool to local farmers.

Transforming Local Agriculture through Training and Collaboration

The primary goal was to train Solidaridad's agricultural team in Uganda on how to use the Cool Farm perennial methodology methodology for assessing greenhouse gas emissions and carbon sequestration in perennials systems. The aim was to ensure a thorough understanding and correct application of the methodology in their continuous collaboration and support of farmers. The energy, knowledge and creativity of the staff that joined from across the country made the training a great learning experience for everyone.

Testing Real-World Impact: Adapting Tools for Diverse Farms

By visiting smallholder farms, the team had the opportunity to test the methodology in real-world conditions. This on-the-ground evaluation helped identify areas for improvement, ensuring that the tool was practical, user-friendly, and adaptable to diverse farming environments.

Innovating for New Crops: Enhancing the Calculator for Tea, Coffee and Palm Oil

The team also explored how the methodology could be applied to different crops, including tea, coffee and palm oil. Working closely with local farmers, they identified adjustments needed to enhance the tool's applicability for these crops, laying the groundwork for future updates.

Key discoveries to shape the future of farming

- **Positive Feedback:** The team received encouraging feedback on the new methodology, confirming its effectiveness in covering sources of greenhouse gas emissions and sequestration. Field visits provided valuable insights into areas that work well and those needing enhancement, making the methodology more robust and tailored to real-world conditions.

- **Effective Training:** The training sessions were a highlight, with participants gaining a deeper understanding of the Cool Farm Platform directly from its developers. This knowledge exchange not only improved their technical skills but also enhanced collaboration between the trainers and trainees.

- **Cultural and Agricultural Insights:** The team's experience in Uganda went beyond just professional exchange. They were deeply inspired by the dedication of local farmers, their resourcefulness in adopting sustainable practices, and their passion for empowering their communities. These insights reinforced the importance of making scientific tools accessible and relevant to local farmers.

Why It Matters?

The visit emphasised how crucial it is to equip farmers with tools like the Cool Farm Platform, which not only help with environmental sustainability but also provide economic benefits. By understanding GHG emissions and applying this knowledge, farmers can improve both the health of their land and their livelihoods.

Ready to make a difference? Are you interested in supporting farmers in your community with innovative tools that can drive sustainability and improve livelihoods? Whether you're a farmer, agronomist, or part of an organisation focused on sustainable agriculture, we invite you to join us in making a difference. Let's work together to empower farmers with the knowledge and tools they need to thrive.

Explore the Cool Farm training opportunities on our website!

A Year of Innovation and Growth

Dr. Frank Brentrup
Yara
SAC Chair

Purpose of the SAC
The Science Advisory Council (SAC) ensures that the Cool Farm Tool (CFT) and Cool Farm Platform (CFP) remain scientifically robust, transparent, and aligned with global standards.

Key Responsibilities
Strategy: Prioritise the science and methods pipeline and integrate new research.

Credibility: Ensure robust governance, peer-review methods, and validate outputs.

Development: Facilitate research, funding, and expert collaboration.

Ethos
The SAC promotes collaboration, inclusivity, and scientific integrity to advance sustainable agriculture.

2024 in Review
This year marked innovation, growth, and resilience for the SAC, with major strides in scientific advancements and policy discussions shaping the Cool Farm Alliance (CFA).

We were deeply saddened by the passing of Dr. Dali Rani Nayak, a valued SAC member. She was instrumental in developing the rice methane model and supporting Soil Organic Carbon (SOC) modelling. Her mentorship and contributions to rice methane and nitrous oxide models have left a legacy that will continue to inspire our work.

The SAC convened four times in 2024—January, May, September, and November—each meeting driving forward scientific priorities, decision-making, and expert collaboration.

Additionally, we welcomed Dr. Sylvia Vetter, a researcher from the University of Aberdeen, who brings expertise in agricultural emissions. Her contributions will strengthen ongoing methodological advancements in the Cool Farm Platform.

Key achievements
- Reviewed new methodologies, including embedded livestock emissions, SOC modelling, and seed production lifecycle assessments for CFP 3.0 Development.

- Influenced policy development and review, including fertiliser production policy and regionalisation policy.

- Facilitated knowledge sharing and participatory discussions at the Cool Farm Annual Event, shaping future research priorities.

Looking ahead to 2025
- Enhancing SAC governance through a co-chair or shadow-chair structure to support leadership transitions.

- Finalising and launching CFP 3.0, ensuring rigorous peer review and testing.

- Strengthening user support for data entry sensitivity and validation guidance.

- Expanding collaboration with Cornell University on livestock and manure management research. See here for more details

> "In 2024, the SAC played a key role in advancing CFP 3.0 and supporting the method team, ensuring greater scientific rigour and quality. In 2025, we will build on this momentum, refining methodologies, science strategy and strengthening collaborations to enhance the platform's impact on sustainable agriculture."

Dr. Frank Brentrup, SAC Chair

Strong Governance Control for Methods

Ensuring robust governance in method development is critical to maintaining the scientific credibility, accuracy, and transparency of the Cool Farm Platform (CFP). The new method development process ensures that all methodologies are rigorously tested, reviewed, and aligned with global standards and guidances before release.

Structured Development, Guidances and Review Process
The method development process follows a structured, multi-step workflow to ensure scientific validity and implementation quality. Each stage is clearly defined, involving modeller coding, reviews, unit testing, pathway validation, and documentation updates.

2. Core Method & Scientific Review
The method is developed using best scientific practices, documented and reviewed to ensure accuracy, feasibility, and compliance with accounting rules.

1. Model Initiation
The model begins by assigning a modeller, identifying scientific and code reviewers, estimating effort, and setting up workflow and jira tickets.

3. Coding

3a. Modelling
The method is coded into the platform, unit tests are written to check accuracy, and initial user guidance is created to support implementation.

3b. UI Requirements
Modellers and developers work together to design and build the user interface, ensuring inputs, outputs, and validation messages are clear and practical.

5. Testing
The method undergoes internal and stakeholder testing to ensure it performs as expected in real-world scenarios, with adjustments made based on feedback.

4. Quality Review
Independent reviewers evaluate the model's scientific validity, coding accuracy, and data references before it is approved for testing.

New Methods Process and Future Improvements
With CFP 3.0, the method governance process has become more robust. The new methods process, detailed in the governance framework, ensures:

- Full transparency from initiation to release.
- Expanded modeller team, allowing for faster, more efficient development.
- Stronger collaboration with external reviewers and working groups.

By embedding scientific integrity, review, and structured validation into method governance, the method team ensures that every update in CFP meets the highest standards of accuracy, transparency, and reliability.

Root cause investigation process
When a bug is found in production, a structured root cause investigation is conducted to identify, resolve, and prevent recurrence. The process includes problem identification, containment, root cause analysis, corrective actions, and review. Tools like 5 Whys and Fishbone Diagrams help prevent future issues by improving processes and code robustness.

From Vision to Verification Why Verification Matters

Dr. Megan McKerchar
Science & Methods
Manager, Cool Farm

A Q&A with Dr Megan McKerchar, Cool Farm's Science and Methods Manager, on our Third-Party Verification Journey.

Q: As someone who is clearly very passionate about sustainable agriculture and helping businesses make the change to more sustainable processes, why, in your view, is third-party verification important for Cool Farm Platform (CFP)?
A: I feel it is all about maximising the credibility of the tool. Cool Farm is underpinned by rigorous science and a fully transparent methodology, which is integral to its credibility. External verification can only strengthen this and add an extra layer of trust to the platform.

Essentially, it reassures users that the high standards of accuracy, reliability, and transparency that we claim for the tool have been tested and verified by a credible third party.

Q: During your time with Cool Farm, you've been clear that external verification is one of the most important things that needs to be achieved. What motivates you personally about the verification process?
A: For me, it is about empowering producers and businesses in the food supply chain to be able to make

tangible, measurable change. Obviously, to achieve this, they need accurate and reliable tools, but in an increasingly packed space, how can people identify which platform will provide that?

External verification is a useful way to demonstrate this. It goes back to the credibility issue we spoke about earlier. It is not just Cool Farm saying the Cool Farm Platform is accurate and transparent, but an independent third party. That is why I am so passionate about this journey.

Q: What does the verification process generally involve?
A: The process began with the 3Keel review back in 2023, which was then followed with a review stage that was completed last year. The formal verification to ensure consistency should take place in 2025.

During the review, our methodology, user interface, and guidance were assessed, with recommendations provided for verification.

Evaluation was conducted on the platform's consistency with key standards including the Greenhouse Gas Protocol (Product Life Cycle Accounting and Reporting Standard), ISO 14067 (carbon footprint of products), Science-Based Targets initiative (SBTi) FLAG requirements, and WRI Land Sector and Removals Guidance (LSRG), GHGp Land

Sector Removals Guidance and feedback focused on improvements to enhance credibility and practical usability for users.

It is an in-depth process that takes time to complete. But that is what makes it valuable and gives verification its integrity.

Q: What will this verification mean for our Cool Farm Alliance members and users of CFP?
A: Verification is a very positive step for our members and users. It proves that Cool Farm Platform is a credible and accurate tool for on-farm GHG assessments, helping members report emissions and removals confidently to support their sustainability goals.

Ultimately, it provides is peace of mind. Members can be assured that the methodology aligns with the guidelines they report to and base their decisions on. This ensures clarity on the impact of their choices on both their business and the environment.

Q: What would you say to members who need more information about the significance of this verification?
A: Verification is a step forward in ensuring trust and transparency. It demonstrates that Cool Farm is not only

committed to providing scientifically robust tools but also to aligning with the highest international guidance and standards.

However, we understand that members might want a deeper understanding of the process and what it entails as we move forward. We will be updating our stakeholders as the process continues. We invite any members who want a more in-depth understanding of how verification will benefit them to join our Guidance and Standards Working Group.

Q: What are the broader implications for the agricultural sector if more tools are verified for accuracy and reliability?
A: The implications of demonstrably accurate sustainability reporting tools on agriculture are profound. It has the potential to drive meaningful change in sustainability and climate action on a global scale.

Of course, there needs to be widespread adoption of such tools for this to happen, but I believe that as everyone in the food supply chain gains a greater understanding of both the issue and how agriculture could be one of the biggest drivers of climate mitigation, adoption, measurement, and most importantly meaningful decision making, will become the norm.

Advancing Cool Farm Platform (CFP) with 3.0 Development

The development of Cool Farm Platform (CFP) 3.0 has been a significant focus in 2024, preparing for the full integration of six pathways: **paddy rice, potatoes, annual crops, perennial trees, dairy, and beef**. Each of these pathways consists of multiple models—32 in total—that must be integrated and tested, resulting in over 100 different model-pathway combinations. This extensive work ensures that each model functions correctly within its respective pathway while maintaining scientific robustness, preventing code duplication, and enhancing usability for end users.

Crops

The Perennial Pathway is now live on CFP, representing the first fully integrated crop pathway on the platform. This was a critical milestone as perennials introduced new modelling challenges, including residue calculations and lifecycle scaling i.e. inc. the whole lifecycle of the orchard in the assessment. We also added a new typology to the perennial pathway, almond, showing that modellers can directly update models without software development support. Similarly, the foundational annual crop models have been successfully migrated (e.g. residue), ensuring alignment with new modelling standards.

Cattle

The Dairy Pathway underwent significant development in 2024, requiring a complete redesign of the software architecture to support more sophisticated calculations. Working closely with Autonomic and Cirevo, we implemented a new modular structure to accommodate complex interactions between enteric fermentation, grazing, feed intake, and manure management. This modular design prevents code duplication, making the system more scalable, maintainable, and accurate. In 2025, efforts will focus on testing and reviewing the Dairy Pathway. The Beef Pathway migration is planned to be completed in 2025.

Bug Fixes and Quality Process

The migration of legacy models from Cool Farm Tool to Cool Farm Platform revealed multiple challenges, including calculation errors, logic issues, and typos in datasets. Each issue was reviewed and resolved through:

- Review Process – Ensuring model accuracy and scientific validity by comparing technical descriptions, worked examples, and unit tests.

- Pathway Validation – Verifying model interactions across multiple scenarios to catch edge cases and unintended interactions.

- Technical Documentation Updates – updating where needed to reflect the latest methodology improvements.

To date, 27 bugs have been identified and resolved, improving calculation reliability across pathways. As part of data migration and the full 3.0 release, a comprehensive bug impact analysis will be published to inform users of all changes and fixes.

Looking Ahead to 2025

With the foundational work completed in 2024, 2025 will focus on finalising the full CFP 3.0 release, including:

- **Model Refinements and LSRG Consistency:** Aligning models with updated reporting standards and guidelines.

- **Boundary Expansion Models:** Coding up new methods for seed production, refrigerant emissions, and purchased livestock emissions..

- **Final Integration and Testing:** Ensuring seamless functionality across all pathways.

- **User Interface Enhancements:** Improving data input consistency and usability.

- **Soft Validation Features:** Implementing additional quality checks to reduce user errors and improve accuracy.

- **Extended Beta Testing:** Gathering stakeholder feedback to refine models before full release.

By the end of 2025, CFP 3.0 will offer a fully integrated, scientifically robust tool for agricultural sustainability assessments, marking a major milestone for the Cool Farm Alliance.

Introduction to the Soil Organic Carbon (SOC) Model in Cool Farm Platform

The Soil Organic Carbon (SOC) model is a significant enhancement in the Cool Farm Platform (CFP) 3.0, developed in collaboration with the University of Edinburgh and Cirevo.

This advanced model follows the IPCC Tier 2 approach, employing a steady-state methodology derived from the Century model to improve the accuracy of carbon removals, emissions, and land management impact assessments. The SOC model offers greater flexibility in reflecting real-world farming practices, ensuring a more adaptable approach to tracking SOC changes.

Why is the new SOC Model Necessary?

The existing Tier 1 SOC model is limited in its ability to capture on-farm management effects beyond land-use change for perennial crops. Likewise for annuals, the set of options in the Tier 1 is limited and can be difficult to understand e.g. low or medium carbon inputs. The new Tier 2 model provides greater flexibility in carbon inputs, management variability, and uncertainty reporting, ensuring a more comprehensive evaluation of soil carbon dynamics (for example quantity of organic fertilisers like manure or compost, crop residue management or cover crop type and management).

Key Features of the SOC Model

- Monte Carlo Simulations – Enables uncertainty estimation, improving confidence in carbon sequestration assessments.
- Continuous Management Variables – Inputs such as manure, compost, and crop residues are modelled as continuous rather than discrete values.
- Weather Data Integration – Uses ERA5-Land monthly climate data for improved precision.
- Crop-Specific Carbon Factors – Incorporates carbon, nitrogen, and lignin content specific to different crops, including perennials.
- Residue Management & Crop Rotation – Captures the impact of management practices on SOC, allowing for one crop per year and multiple cover crops.
- Cover Crop Modelling – Accounts for cover crop type, coverage, and biomass, enhancing SOC input calculations.
- SOC and N_2O Emissions Linkage – Includes emissions from crop residues and cover crops.

Key Milestones Achieved in 2024

- Model Design and Development Completed
- Internal code review completed
- Expert Model review Initiated
- Integration into fertiliser and residue model completed
- Engaged with members to refine usability and requirements through SOC Working Group
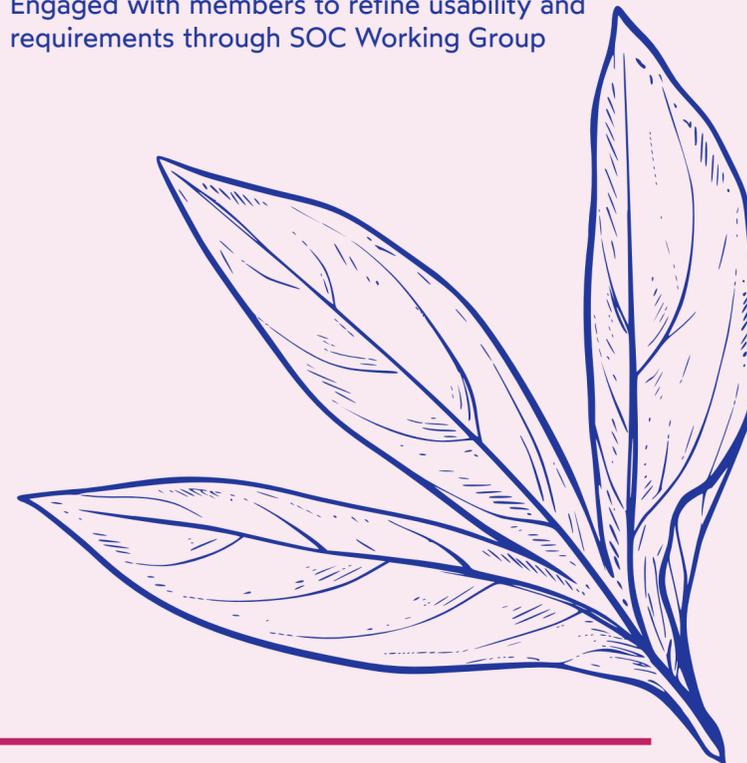
Looking Ahead

We will also assess the gap between our current Tier 2 SOC model and the requirements for Tier 3, as outlined in the forthcoming LSRG final guidance. Any transition to Tier 3 capabilities will depend on the specific requirements and feasibility outlined in the finalised framework.

For 3.0 release the SOC model will undergo final integration, validation, and user testing, with a focus on:

- Refining Uncertainty Calculations – Enhancing Monte Carlo outputs for clearer user interpretation and defining the number of iterations required.
- Improving UI and Data Input Processes – Ensuring ease of use for diverse farm management scenarios.
- Member Testing– Involving users to assess real-world performance.

By the end of 2025, the SOC model will provide a comprehensive, scientifically validated tool for soil carbon accounting, ensuring compliance with evolving sustainability frameworks and supporting informed decision-making in regenerative agriculture.

Paving the Path to Harmonised Carbon Calculators in Agriculture

In 2024, three major carbon calculators—Farm Carbon Toolkit, Agrecalc, and Cool Farm —joined forces to harmonise their methodologies for calculating greenhouse gas (GHG) emissions from farming.

This collaboration follows the recommendations in the UK's DEFRA Report on the harmonisation of carbon accounting tools for agriculture. The trio aims to streamline their tools, ensuring consistency, transparency, and scientific robustness in carbon calculations.

Their collective goal is to support UK agriculture in improving resource efficiency, optimising production practices, and reducing GHG emissions.

The calculators will work together to agree on a common set of data sources and ensure that their methodologies align with global standards, where applicable, like the Science-Based Targets Initiative (SBTi) and Greenhouse Gas Protocol. While the companies retain their independence, this collaboration will help improve the accuracy and reliability of emissions data across the agricultural sector. The calculators will incorporate the latest scientific findings, providing farmers and stakeholders with up-to-date carbon calculations.

All three organisations understand the importance of this partnership in enhancing transparency, aligning data sources, and improving the overall accuracy of carbon calculators. The collaboration seeks to support industry-wide sustainability goals while maintaining each calculator's unique approach.

In September 2024, the three calculators hosted a joint webinar aimed at harmonising greenhouse gas emission methodologies. The webinar attracted over 500 attendees, highlighting strong industry interest in the harmonisation of carbon accounting.

One attended remarked: "I am pleased you all recognise the value of commanding trust from the farming/agriculture industry. Thank you for your presentations. Farmers simply want to know that they are dealing with tools that are standardised and achieve the accurate answer for whatever is being measured."

These reflections underscore the pressing need for consistency and transparency across carbon calculation tools and methodologies, and we are committed to continuing this work.

Feel free to watch the webinar recording here.

Ongoing research

Expanding Crop Typologies – Tea and Palm
New research is underway to expand CFP's perennial tree crop typologies, incorporating tea, palm. These will be live in CFP v3.0.

New PhD Research in Climate-Smart Practice
A new PhD student, Martin Parker, has joined the research team to investigate climate-smart agricultural practices using crop modelling, machine learning, and remote sensing. This work, part of the Panorama DTP programme, will provide data-driven insights into sustainable farming practices, helping to support CFP's methodologies and improve climate resilience assessments for users.

Cool Farm Manure
An Innovate UK funded project to enhance the manure management tool in the CFP with advanced nitrogen-based GHG emissions accounting, initially targeting cattle. Cool Farm is partnered with RAFT Solutions and Keele University on the project and has been exploring the extent to which an existing excel prototype tool is adaptable for the Cool Farm Platform.

PhD on hydrological science
Jordi Buckley Paules is advancing hydrological science under the guidance of Dr. Thanos Paschalis by developing an intricate model that integrates 'biology' and topography with water dynamics. His focus on nutrient flows and the influence of field topography is set to improve our water module, incorporating factors such as slope for better runoff and percolation vector predictions. Jordi recently published a paper on improving the representation of crop processes in terrestrial biosphere models and is now researching the spatial heterogeneity of climate change-induced changes in crop growth (maize and wheat) across the UK.

Looking ahead
As we move into 2025, our focus will be on finalising Cool Farm Platform (CFP) 3.0, ensuring alignment with key standards and guidance, including WRI's Land Sector and Removals Guidance (LSRG). This will apply across all methodologies and new additions such as refrigerants and seed production, enhancing CFP's credibility for corporate reporting and sustainability assessments.

Supporting the training team will be a priority, ensuring the 3.0 release and new methods are accompanied by clear user documentation to facilitate adoption. Additionally, external verification of these methods will provide independent validation, reinforcing scientific robustness and transparency in our approach.

We will also begin preparing and planning for 2026, with a focus on biodiversity model migration and further improvements.

With these advancements, 2025 will be a transformative year, solidifying Cool Farm's leadership in agricultural GHG metrics and positioning us to expand our leadership into broader sustainability metrics.

A New Architecture to Underpin Cool Farm

We currently have two major projects running simultaneously, and they are so intertwined and dependent on each other that it is sometimes tricky to tell where one starts and the other finishes. The first is the build of our new flagship product, the Cool Farm Platform (CFP). The second is the upgrade of our underlying scientific methods from CF 2.0 to CF 3.0.

It has been felt for some time that, although the legacy Cool Farm Tool (CFT) has served us incredibly well over the years, it was beginning to show some signs of aging. After a decade of reliable service, it became clear that the technology powering CFT was no longer up to date with modern software development practices. At the same time, there were key science and methods that we wanted to implement. We realised that it would not be efficient or cost effective to first upgrade CFT and then later migrate those changes over to CFP. Instead, we made the decision to build CF 3.0 directly on the new CFP infrastructure, so that both the tool and the methodology evolve together.

## So, what is CFP and why should you care?

Cool Farm Platform is simply the next incarnation of Cool Farm Tool. We have taken all the best bits of CFT – the cutting-edge models and features that have empowered you to carry out your work – and combined them with modern technology to create a more dynamic, scalable, and flexible

solution. A key element of this upgrade is our commitment to an API-first approach and hosting on AWS, which brings a host of benefits to users of the web app.

An API-first design means that every function and data interaction within CFP is built around well-defined APIs. This modular framework allows for seamless integration with external data sources, third-party applications, and advanced analytical tools. In practice, this simplifies the process of connecting CFP to external tools such as Data Collection Apps, IoT sensors, leveraging remote sensing data, or integrating with other farm management systems. The ability to connect and exchange data effortlessly will result in simplified workflows, less manual data inputs and improved operational decision-making.

We have also taken this opportunity to move to a cloud-based architecture hosted on AWS. AWS's scalable infrastructure ensures that as demand increases, the platform dynamically adjusts to maintain optimal performance.

For users, this means faster load times, reduced downtime, and an overall smoother experience, even during peak usage periods. Additionally, AWS's robust security protocols – including advanced encryption, continuous monitoring, and strict access controls – offer enhanced protection for your valuable data, which is essential in today's digital landscape. Furthermore, AWS's component-based architecture unlocks generative AI capabilities and integrated data insights out of the box, providing advanced analytics which in future will improve how users make informed, real-time decisions.
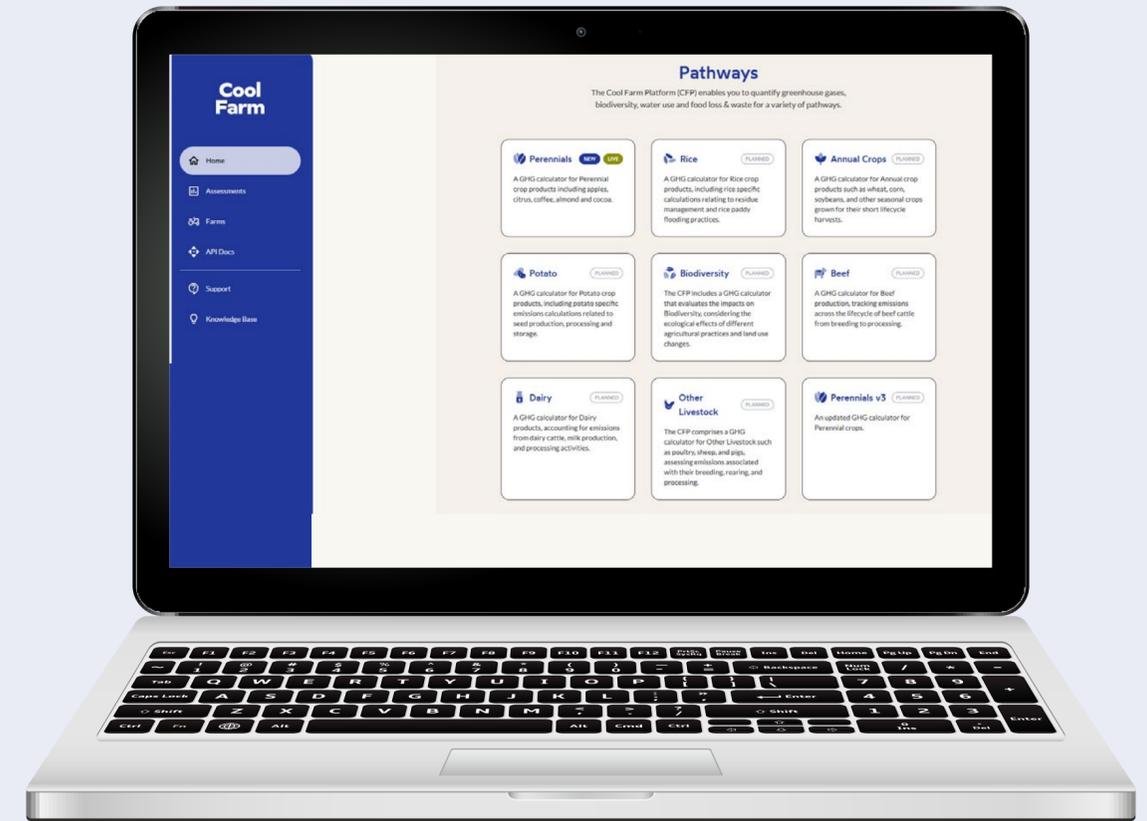
The combined upgrade of our scientific methods to CF 3.0 and the technological advancements in CFP are designed not just for immediate improvements, but to set the stage for ongoing innovation. By building CF 3.0 on CFP, we have created a platform that is agile, secure, and capable of integrating new developments as they emerge. The result is a tool that meets the modern demands of sustainable agriculture and offers significant enhancements over CFT.

CFT has served us incredibly well for more than a decade. However, the time has come to embrace the future. CFP, with its API-first, AWS-hosted, cloud-based infrastructure, provides a more robust, integrated, and forward-thinking solution that benefits every user by offering enhanced performance, improved security, and greater flexibility in managing your data and sustainability practices.

Cool Farm Platform is simply the next incarnation of Cool Farm Tool. We have taken all the best bits of CFT the cutting-edge models and features that have empowered you to carry out your work and combined them with modern technology to create a more dynamic, scalable, and flexible solution.

Member-Driven Investment in the Cool Farm Platform
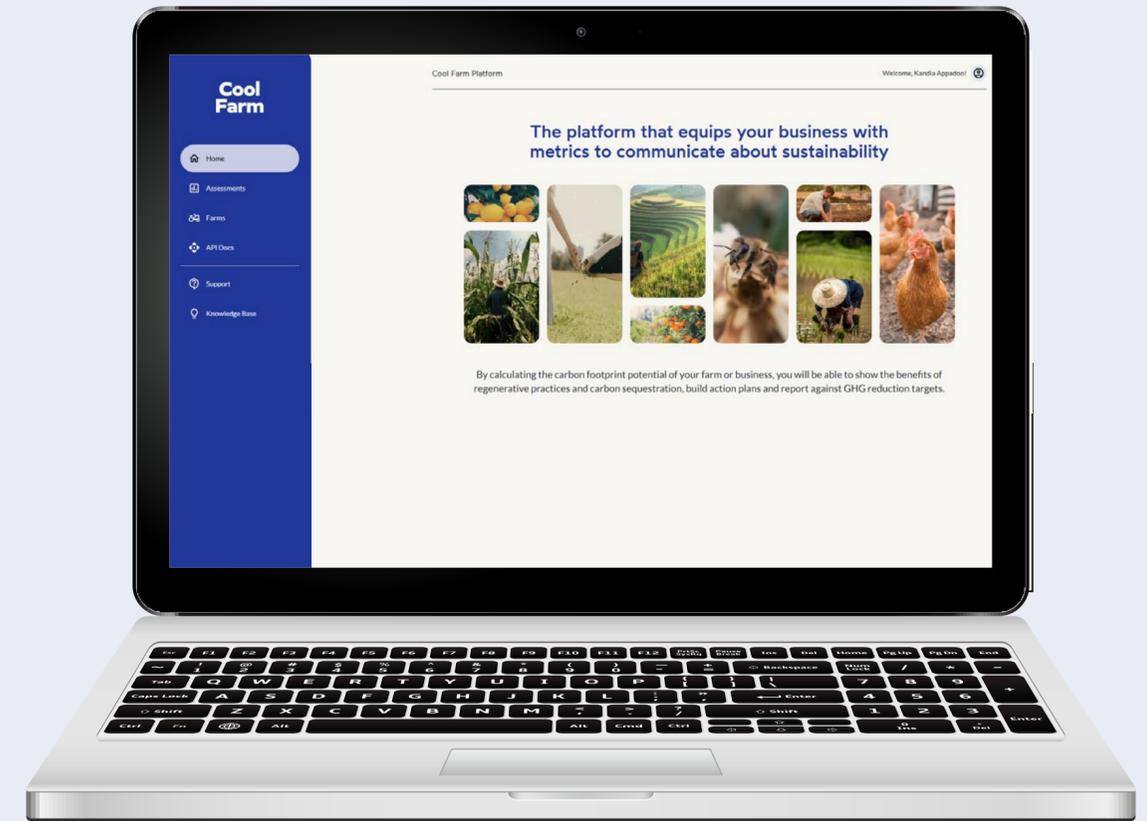
At the end of 2023, we asked members to support our development ambition to create a major upgrade to the Cool Farm Tool.

Approaching 10 years old, the Cool Farm Tool had been through a number of updates and functionality developments, it was reaching the end of life for further development. The ask was for £1million from member project contributions to supplement core Cool Farm Alliance funding in order to build a new architecture platform upon which we could refactor and recode the existing Cool Farm methodologies, update them to the latest science and bring them into consistency with the GHG Protocol LSRG and reporting to support SBTi FLAG.

The Alliance gratefully received £954,425 from nine members. The generosity of Simplot, Solidaridad, Suntory, Unilever, Yara and four other members has enabled us to accelerate approximately three years of development work into eighteen months of activity. As of the end of 2024, we are about two thirds of the way through the journey and our development team working with Cirevo, our development partner, have made significant progress. All of the methods and software improvements described in this report have been made possible by this support.

Major achievements in 2024 include:

- New methods governance processes and testing regime established.

- New platform architecture on AWS, building on the Perennials investment.

- New web app with an upgrade to the user interface and experience.

- Recoding of the CFT 2.0 calculation models into Cool Farm Platform for Annual Crops, Rice, Potatoes, Dairy and Beef, including addressing much of the technical debt accumulated in the 10 years of the Cool Farm Tool.

- New Tier 2/3 Soil carbon sequestration calculation methodology for perennial and annual crops.

- Land-use change linear discounting model.

CFP timeline and looking ahead

For 2025, members can expect a series of exciting updates as we continue to enhance the Cool Farm Platform. Our upcoming 3.0 release will incorporate new pathways for annual crops, paddy rice, potato, dairy, and beef, ensuring that all assessments are consistent with the latest guidance and standards (e.g., GHG). Alongside these pathway updates, we are rolling out several key features to improve functionality and user experience. These include assessment sharing, aggregation reporting, support for Own Grown Crops for livestock feeds, soft validation tools, and detailed assessment comparisons. This year will also see the deployment of our brand-new process based SOC model on CFP which is most sophisticated and ambitious model to date.

Our next major project will focus on migrating GHG assessments created on the legacy CFT system to CFP, this is a major data migration exercise and needs to be handled carefully and executed with data integrity and security at the forefront. We look forward to seeing you and all your assessments on CFP.

Cool Farm Platform is built on Amazon Web Services (AWS) and utilises their architectural principles and components engineered for data security, reliability and efficient design in a modular component-based architecture. This enables us to deliver efficient, scalable, and agile approaches centred on product focussed development teams to deliver enhanced value for our stakeholder needs.

This work will continue into 2025 and has been instrumental in setting the foundation for our future success. I extend my deepest gratitude to our members who contributed to the funding to enable this to take place.

Cool Farm Tool Update

The Cool Farm Tool (CFT) remains under a strict code freeze to align with the broader Cool Farm Platform project. However, where key updates are necessary to maintain high standards of data integrity, performance, security, and user experience we do so without introducing major functional changes.

1. Data Integrity & Accuracy

Several fixes ensure accurate assessments and reporting:

- **Incorrect Assessments Cleanup:** A high-frequency API call issue caused incorrect assessments to appear in aggregation reports. Hundreds of incorrect links were removed, ensuring reports only reflect valid data.

- **'Save As' Results Fix:** A database logic issue caused incorrect display of results for assessments created via 'Save As.' This has been resolved to ensure consistency.

- **API Schema Validation Bug:** A Python rounding error caused false negatives in API request validation. Adjustments now prevent these failures, improving API reliability.

- **Duplicate Assessments Fix:** Deprecated machine entries caused duplicate assessments to appear; this issue was resolved for a clearer user experience.

2. Performance Enhancements

Significant speed improvements across the platform:

- **Results Page Load Time:** Optimised database queries led to a 30% faster load time.

- **Aggregation Report Generation:** Report logic was restructured, improving run times by 30%.

- **'My Assessments' Page Load Time:** Cloud architecture improvements reduced load time from over a minute to under a second.

3. Infrastructure & Security Upgrades

- **Python Upgrade to 3.11** extends security support until 2027.

- **AWS Cloud Backend Optimisation** enhances performance, stability, and deployment efficiency.

4. Improved User Experience

- **Live Version Links:** Webapp now links directly to release notes for transparency.

- **Water Metric Fix:** A previous regression issue that caused water calculations to fail was quickly resolved.

- These updates ensure CFT remains secure, reliable, and efficient, reinforcing its role as a leading tool for sustainable farming.

Looking ahead

Keeping Cool Farm Tool Strong While Advancing the Future

As the Cool Farm Platform (CFP) drives innovation, the Cool Farm Tool (CFT) remains a trusted resource for farmers and businesses, delivering reliable service via the webapp and API. While CFP takes shape, we'll ensure stability of the tool with essential updates and fixes.

With the launch of 3.0 science models for Crop, Dairy, and Beef Pathways, the Cool Farm Data Migration Project relies on the CFT technical team to identify and transfer key data. The CFT team will work closely with the CFP team to ensure a smooth transition, migrating historical assessments and calculations while unlocking new possibilities in CFP.

We're committed to seamless continuity and future-ready innovation, supporting you every step of the way as we build a smarter, more impactful platform for sustainable farming.

Migrating the Cool Farm Tool to AWS Cloud

David McMahon
Product Manager,
Cool Farm

In 2024, the Cool Farm Alliance successfully migrated the Cool Farm Tool (CFT) to AWS Cloud, enhancing its scalability, security, and long-term resilience.

In this Q&A, David McMahon, Product Manager, shares insights into the migration process, key milestones, and how this transition is paving the way for improved performance and innovation for Cool Farm members and farmers.

Q: What is the Cool Farm Tool, and why was it migrated to AWS Cloud?
A: The Cool Farm Tool (CFT) is the core product used by our members and farmers for calculating and managing environmental impacts. To enhance its scalability, security, and resilience, we successfully migrated the CFT to AWS Cloud in 2024. This strategic upgrade aligns the CFT's technical architecture with that of the Cool Farm Platform, improving efficiency, security, and driving skill development across our Secretariat.

Q: What were the key goals of this migration?
A: The primary objectives were to:

- Increase system security and stability.
- Reduce technical support costs.
- Consolidate technical architecture across Cool Farm Tool and Cool Farm Platform.

- Invest in new skills and expertise for long-term sustainability.

Q: Who were the key partners involved in this project?
A: We partnered with several key stakeholders:

- **Anthesis:** Our long-time technical support and development partner, who provided critical knowledge transfer and support throughout the transition.

- **Data Language:** Selected through a rigorous process, they delivered the transition effort and now provide third-line technical support for the CFT.

Q: Can you provide an overview of the project timeline and milestones?
Late 2023: Decision to migrate to AWS Cloud

The decision to move the CFT to AWS Cloud was taken at the end of 2023 to enhance security, stability, and long-term sustainability, with gratitude to Anthesis for their years of support.

Early 2024: Selection of Data Language

A Request for Proposal was launched at the beginning of 2024, leading to the selection of Data Language, a firm with the skills and expertise needed to manage the transition and support the CFT going forward.

Spring 2024: Transition to AWS Cloud

Cool Farm, Anthesis, and Data Language collaborated closely to ensure a smooth migration. The primary and secondary environments of the CFT were successfully transitioned to AWS Cloud by May 29, 2024.

Summer 2024: Post-migration optimisation

Since May, we have been fine-tuning the system configuration to resolve teething issues and optimise performance under the new AWS environment.

Q: How was the transition process managed?
A: The transition was a collaborative effort:

- **Cool Farm** managed the project and conducted testing.

- **Anthesis** maintained steady support and provided effective knowledge transfer.

- **Data Language** built the new technical infrastructure on AWS Cloud.

Support from Cool Farm Alliance members during testing was invaluable, ensuring a seamless transition.

Q: What are the benefits of migrating the Cool Farm Tool to AWS Cloud?
A: The migration offers numerous benefits, including:

- Enhanced scalability to meet growing user needs.
- Improved security and resilience of the system.

- Greater technical efficiency and alignment with the
- Cool Farm Platform.
- Expansion of technical capabilities and skill development within the Secretariat.

Q: Were there any challenges encountered during the migration?
A: As with any large-scale technical migration, there were some teething issues following the transition. We continue to closely monitore and address these to ensure optimal performance.

Q: What's next for the Cool Farm Tool?
A: Looking ahead, we are excited to leverage the capabilities of AWS Cloud to enhance the functionality and reliability of the Cool Farm Tool further. This migration is a stepping stone toward delivering more innovative services and features for our members and farmers.

Q: Any final thoughts?
A: This migration marks a significant milestone in the evolution of the Cool Farm Tool. We extend our sincere thanks to all partners, members, and stakeholders for their invaluable support during this transformative journey.

Building an Equitable and Inclusive Future

Vimla Appadoo
CEO, Honey Badger

HONEY BADGER

Honey Badger CEO Vimla Appadoo reflects on the experience of working with Cool Farm to embed Equity, Diversity, and Inclusion (ED&I) into their culture and operations.

At Honey Badger, we work to embed ED&I into every aspect of an organisation. It needs to be a part of business as usual, otherwise we fail to have true equity.

At Honey Badger we take a people first approach to ED&I. People have to understand their own bias, their own journey and their own place in the world - before they can understand how to have an effective ED&I strategy. We also understand that the success of an ED&I strategy is dependent on senior buy-in and leadership backing, so we work with both boards and employees to ensure that everyone is aligned, open and honest on where the business needs to be.

We were lucky to partner with Cool Farm, knowing how integral ED&I is to their overall business, not just as a team but the people they serve and the change they want to see in the world. It was challenging to break down barriers to ED&I at Cool Farm. As an organisation that's doing such good work, it's easy to take for granted that there's a journey that needs going on to ensure you're being inclusive and fair to everyone - and more importantly, measuring that change.

What stood out to us, is the shift at Cool Farm from understanding ED&I and its importance, to being allies and having an active voice in calling out inappropriate behaviour and discourse. The Cool Farm team and board leant into their discomfort to understand how to be active bystanders and use their individual voices and privilege to have a measured impact and difference.

We're seeing a sea change across the world. Organisations can no longer ignore ED&I and having a strategy in place puts Cool Farm ahead in the market to recruit future talent and in a better position to secure partnerships and new business.

Embedding ED&I

Equity, Diversity, and Inclusion (ED&I) are integral to Cool Farm's culture and operations. We understand that embracing diverse perspectives, backgrounds, and experiences not only enriches our workplace but also drives innovation and success.

Recognising that building an inclusive environment is a continuous journey, we took a major step forward in 2023 by partnering with Honey Badger, a culture design consultancy, to develop a comprehensive ED&I strategy.

Meet the EDI Committee

Emily Durrant
Operations
Manager

Kandia Appadoo
Communications
Manager

Kirsten Crutchley
Finance and Admin
Manager

Dr. Megan McKerchar
Science & Methods
Manager

Nina Fischer Yargici
Membership
Manager

Our Key Initiatives and Progress

Workshops with the Board and Secretariat

To ground our efforts in real-world insights, Honey Badger hosted workshops to encourage open discussions about ED&I. As part of this initiative, we also read *'Why I No Longer Talk to White People About Race'*, by Reni Eddo-Lodge to provide a deeper understanding of the complexities surrounding race and its impact on our efforts to create an inclusive environment.

Inclusive Recruitment Practices

We redesigned our recruitment process to prioritise fairness and accessibility. This included providing salary bands, sharing interview questions in advance, fully anonymising applications by removing profiling data (such as names, date of birth, location, etc, and focusing on specific qualities to attract a diverse talent pool. Additionally, we introduced a scoring matrix where we score interviews based on a set of pre-agreed core competencies. This ensures the fair treatment of all applicants and helps remove unconscious bias, promoting a more equitable hiring process.

Climate Justice Panel

At the Cool Farm Annual Event, we hosted a Climate Justice panel to amplify underrepresented voices. This initiative underscores our commitment to inclusive decision-making that reflects the needs of all stakeholders.

Launch of the ED&I Committee

To ensure ED&I remains a central focus, we established a dedicated ED&I Committee. Comprising team members from across Cool Farm, the committee guides the ED&I strategy and ensures diversity and inclusion are embedded in every aspect of the organisations work.

Employee Survey

We launched a pulse employee survey to gather insights, track engagement, and identify areas for improvement. The feedback helps shape policies, build trust, and ensure continuous progress in fostering an inclusive workplace.

Global Training and Enhancing Platform Accessibility

In collaboration with Solidaridad, Dr. Megan McKerchar and Michaela Aschbacher travelled to Uganda to introduce Cool Farm platform to local farmers .

Platform Accessibility

With support from Solidaridad, we tested Cool Farm Platform with farmers and technicians in Uganda, Kenya and Nicaragua in 2024 to gather in-depth feedback in preparation for the official launch.

A Commitment to Transparency

Our ED&I strategy is a living document, updated quarterly to reflect our progress and learnings. This commitment to continuous improvement ensures that we stay accountable and adaptive in our efforts to create a supportive, inclusive, and equitable workplace.

Driving Change Together

By embedding ED&I into our culture and operations, we are building an environment where everyone can thrive—ensuring that Cool Farm continues to grow stronger through diversity. We recognise that diversity is not just about creating an inclusive workplace; it's essential for making better decisions, driving innovation, and future-proofing our business. Diverse teams contribute to better problem-solving, improved sustainability practices, and stronger business outcomes, which are vital for our long-term success*.

* How diversity, equity, and inclusion (DE&I) matter | McKinsey

2024-2025
Certified
AS A TRULY FLEXIBLE COMPANY

Our Commitment to Flexibility

At Cool Farm, we believe in the power of flexibility to support both personal and professional growth. To enhance our employee experience, we partnered with Flexa, a platform dedicated to promoting flexible work practices.

In 2024, this collaboration resulted in Cool Farm earning an 84% Flexa score and a spot in the top 20 of the Flexa 100 Awards. This recognition underscores our commitment to creating an empowering and adaptable work environment, which is key to our mission of sustainable agriculture.

Our Year on Flexa in numbers

Over 100K+
Times Cool Farm appeared in search results

15k+
profile views

3k+
company saves

70%
of company saves from women

Molly Johnson Jones
CEO and Co-Founder
Flexa

What does Flexa think of Cool Farm?
"It's been wonderful to see how Cool Farm are so open to remote working, flexible hours and general flexibility. Their employees feel valued and this is reflected by their high FlexScore!"

Hear directly from an employee about Cool Farm's approach to flexible working
"As a company we strive to provide flexible working. We all work from home, with a generous home working allowance which allows staff to use shared co-working spaces for more human contact. There are no core hours other than joint meeting times with the acceptance that everyone is an adult with the responsibility to deliver against their work priorities as best fits their lifestyle." Kandia Appadoo, Brand and Communications Manager at Cool Farm.

Learn more about Cool Farm's Flexa achievements

A Collaborative Strategy for 2027-2031

2025 will see us engaging our members to define the strategic future of the organisation.

This will be a dynamic, member-focussed collaborative process. Our approach to the strategy development will be undertaken over three 6-month phases. In the first half of 2025 we will undertake an initial discovery phase, which will focus on understanding broader landscape trends, opportunities, threats and insights. This will then help inform a refined discovery phase in the second half of 2025. During this phase we shall reach out to our member and user community, leveraging surveys, workshops and direct conversations, we will seek detailed input and insights. By participating, members will have the opportunity to influence our strategic direction; identify the opportunities, products and services that are most useful to you and the community; and play a key role in shaping the future success of Cool Farm.

In 2026, we will refine the insights gathered to develop the strategic plan, priorities and associated business model for Cool Farm.. Further member engagement will refine the plans. Finally, in the second half of 2026 we will transition into the new strategy ready for 2027.

This process will explore a range of themes including defining value for members and users, product and community priorities, science and modelling priorities, the role of AI and data insights, Alliance governance, funding and business model. The discovery phases seek to ensure our strategy not only reflects current trends but also prepares us for emerging challenges. Through iterative feedback with members and through the Working Groups, the insights gathered will be synthesised into a coherent strategy to guide our organisation from 2027 to 2031.

This is about engaging our members to collaboratively define the strategic future of our organisation, ensuring as many voices are heard, and every idea is valued as we build a resilient roadmap together.

Get in touch

Email us:
support@coolfarmtool.org

Follow us:
in @CoolFarmAlliance

Visit us:
coolfarm.org

Cool Farm®

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Strategy Development Roadmap

Initial Discovery Phase → Refined Discovery Phase → Plan Development Phase → Implementation Transition Phase → Go-live Monitor & Adjust →

J F M A M J J A S O N D	J F M A M J J A S O N D	J F
2025	**2026**	**2027**