

# Table of Content for Presentation

<b>Introduction to carbon farming day</b>	<b>2</b>
<b>Scene setter: What's next for carbon farming in the EU?</b>	<b>8</b>
<b>Agriculture (agroforestry, soil organic carbon)</b>	<b>24</b>
<b>Peatlands</b>	<b>54</b>
<b>Forestry</b>	<b>66</b>



# 4<sup>th</sup> Meeting of the Carbon Removals Expert Group

15 - 17 April 2024

# Housekeeping Rules

## **1. IN-PERSON PARTICIPANTS: WEAR YOUR BADGE + SIGN THE ATTENDANCE LIST**

Keep your badge (V-Pass) visible.

## **2. ONLINE PARTICIPANTS: TURN ON YOUR VIDEO & MUTE YOURSELF**

We encourage you to turn on your video. Please leave your microphone on mute, unless you take the floor.

## **3. ASK QUESTIONS & INTERACT (in the room + Webex & Slido)**

We want to hear from you! Please ask questions & share comments! We will try to take at least one question from each Webex and Slido in the Q&A.

## **4. CONSENT FOR THE WEBSTREAM RECORDING & PICTURES**

Be informed that the meeting will be web-streamed, recorded and pictures will be taken.

## **5. SOCIAL MEDIA: #EUCarbonRemovals**

Your posts and comments can help others learn more about the topic and connect with like-minded professionals in the industry.

Join via Webex



## AGENDA

# Day 2: Carbon farming

9:30	Welcome and structure of the day
9:40	Scene setter: What's next for carbon farming in the EU?
10:00	Discussion session: Agriculture (agroforestry, soil organic carbon)
12:00	Lunch break
13:00	<i>Discussion session: Peatlands</i>
14:45	Coffee break
15:15	<i>Discussion session: Forestry</i>
17:00	Round-up and next steps

# Relevant provisions for carbon farming



## Soil emission reductions

- Emission reductions from more efficient use of fertilisers included in the scope
- The activity must overall improve the LULUCF balance (i.e. only fertiliser reductions are not enough)



## Livestock emission reductions

- The inclusion of livestock emission reductions will be assessed in a report due by July 2026
- In the meanwhile, COM will develop a pilot certification methodology to inform that assessment



## Activity period and monitoring period

- A carbon farming activity must last at least 5 years
- Carbon storage must be monitored during a monitoring period, after which the unit expires



## Mandatory co-benefits

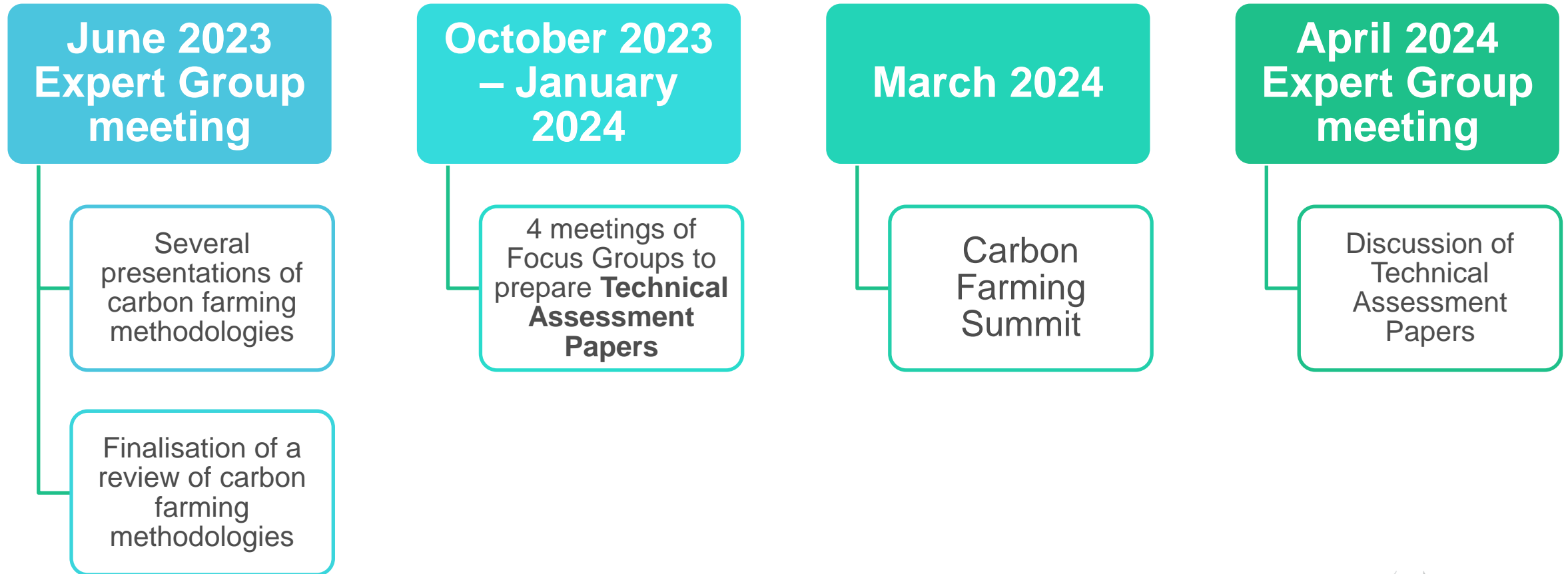
- Mandatory co-benefit for protection and restoration of biodiversity & eco-systems, soil health and avoidance of land degradation



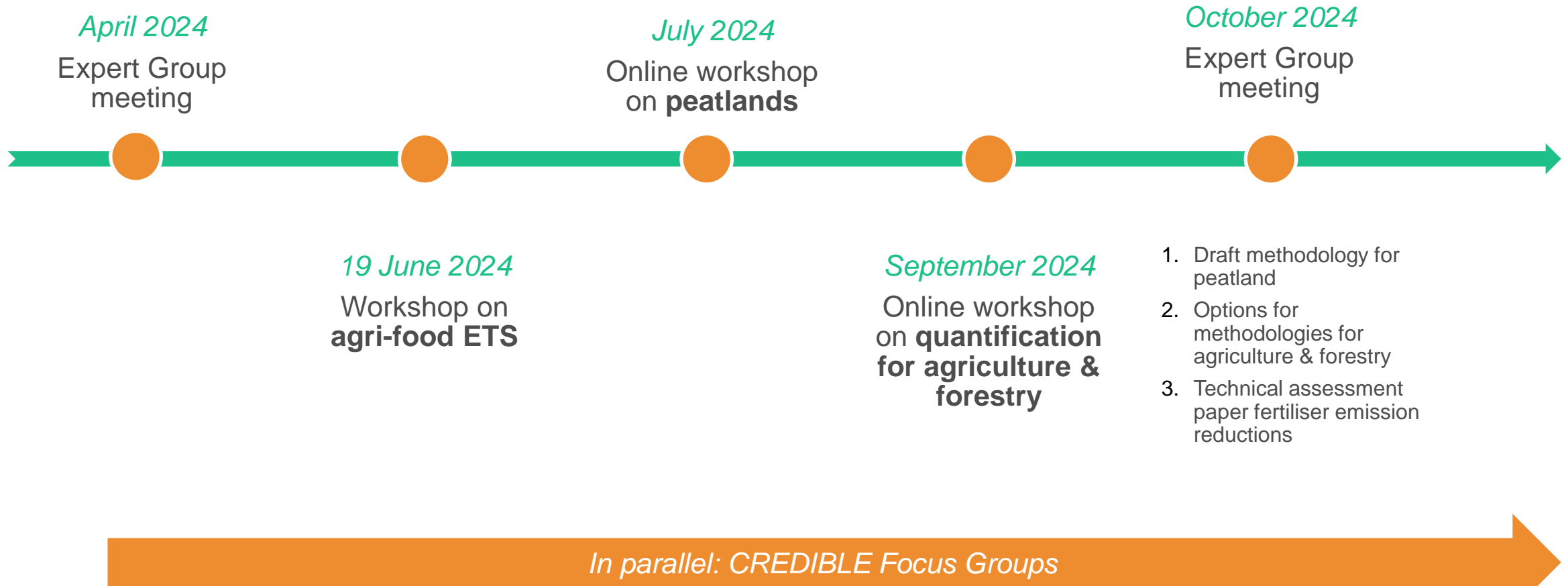
## Synergies with Land Parcel Identification System

- MS may include certification information in LPIS
- Operators may use info from LPIS in the context of certification audits

# Process and outputs so far



# Looking forward



PRESENTATION

# Scene setter: What's next for carbon farming in the EU?

Feedback from first Carbon Farming Summit by Credible, an EU Soil Mission initiative

#EUsoilmission



Fourth Meeting of the Carbon Removals Expert Group

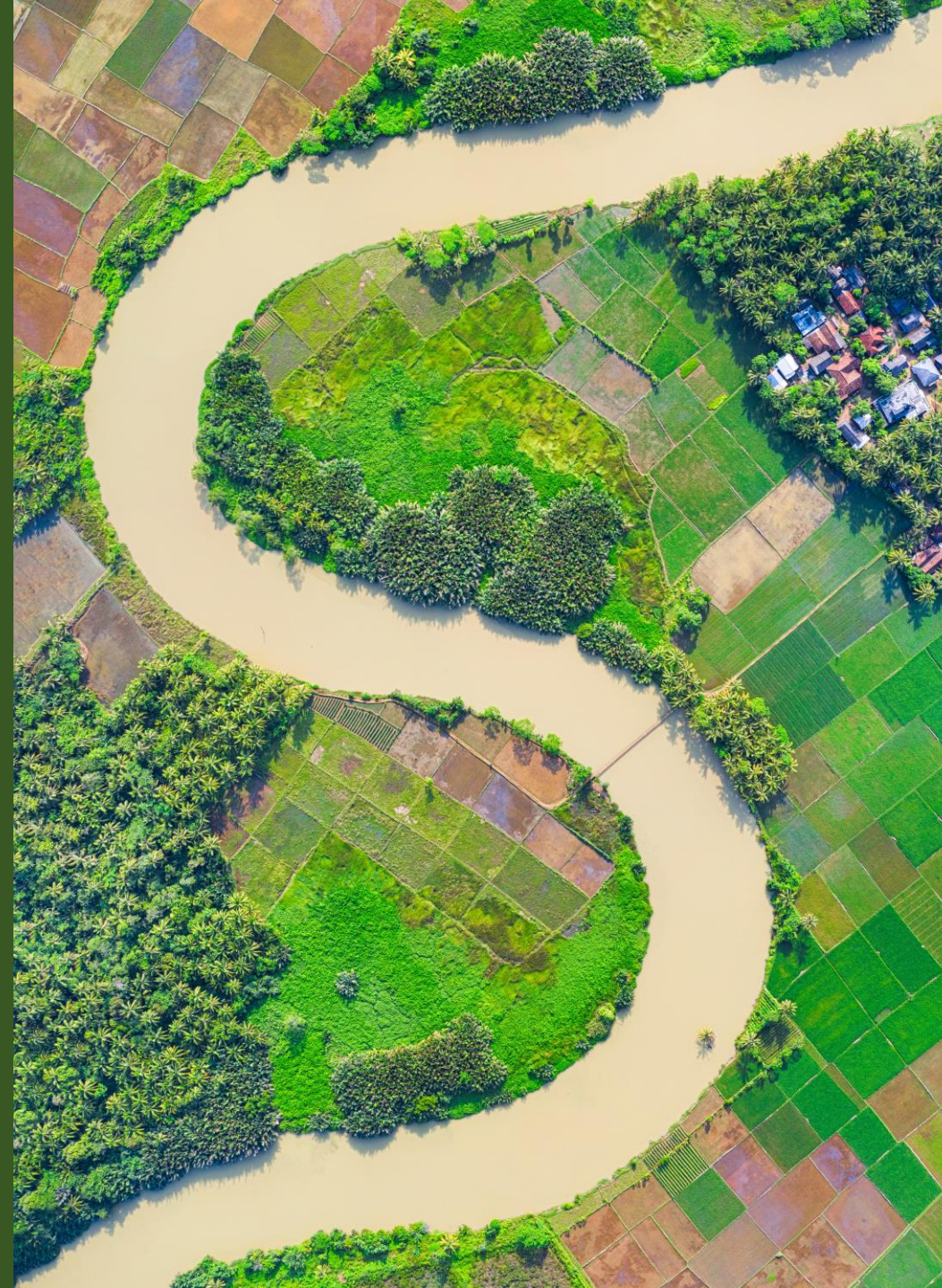
# Key messages from Project Credible and the European Carbon Farming Summit.

Tristano Bacchetti De Gregoris, PhD

Founder and head of R+I at SAE Innova

[www.carbonfarmingsummit.eu](http://www.carbonfarmingsummit.eu)

[www.credible-project.eu](http://www.credible-project.eu)



coordinator



WP leaders



Task leaders



UNIVERSITÀ CATTOLICA del Sacro Cuore



**CREDIBLE**  
EU carbon farming



**EEB**  
European Environmental Bureau



Climate-KIC



**EARSC**  
European Association of Remote Sensing Companies

Building momentum and trust to achieve credible soil carbon farming in the EU

Started on June the 1<sup>st</sup>, 2023

Funded under topic HORIZON-MISS-2022-SOIL-01-06 (CSA): 'Network on carbon farming for agricultural and forest soils'



**ILVO**  
Instituut voor Landbouw-, Visserij- en Voedingsonderzoek

**I4CE**  
INSTITUTE FOR CLIMATE ECONOMICS



Fourth Meeting of the Carbon Removals Expert Group. 16/04/2024 Brussels

# Knowledge is shared by coordinating 11 Focus Groups

## Which practices

1

How to identify **best practices** for local pedoclimatic contexts?

How to talk to farmers about **economic outcomes**?

2

3

Does carbon farming affect **food security** or **biodiversity**?

How can **regional synergies** be strengthened?

4

## What standards

5

How can carbon farming deliver **sustainability benefits**?

At what **scale** can carbon schemes deliver the highest impact?

6

7

What **policy mix** could speed up the adoption of carbon farming?

## How to monitor

8

How to **harmonise** public and private soil data?

9

How to integrate and compare data from **emerging technologies**?

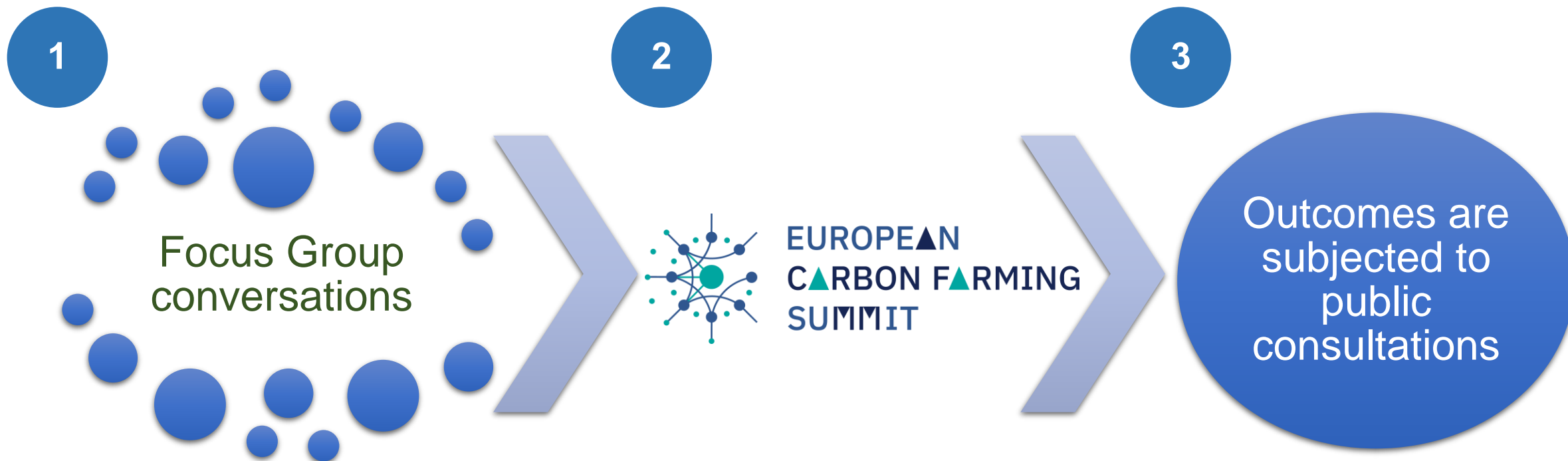
10

What role can **Earth Observation** have in MRV development?

11

How to involve **Long-Term Monitoring** sites?

# Through a 3-steps process that repeats 3 times



# Key messages

Trust is the currency of voluntary carbon markets. There are great expectations for the CRCF to boost trust and transparency.

An EU-level CRCF is needed to generate common rules; flexibility is required to adjust to local contexts.

# Carbon farming definition

Carbon farming is a way to **reward** farmers and foresters for implementing climate-friendly **practices** that enhance **carbon sequestration** and storage in forests and soils, or that reduce greenhouse gas emissions from soils.

Carbon farming is a new business model that **incentivises** the taking up of farming **practices** that deliver a **climate benefit**.

# Practices

Difficult to compare

Do not work in isolation

Prone to be prescribed

Generate little impact

# Transformation

Difficult to compare	→	Comparison loses relevance
Do not work in isolation	→	It is systemic by definition
Prone to be prescribed	→	The farmer is the master
Generate little impact	→	Deeper and long-term impacts



# Carbon sequestration

Biogenic carbon hardly fits  
current standards

Farmers seem to prioritise  
other benefits

Current prices too low to  
make an impact

# Climate, environmental and social benefits

Biogenic carbon hardly fits current standards



A different vocabulary should emerge (ESG/SDG aligned?)

Farmers seem to prioritise other benefits



Carbon sequestration is seen as a co-benefit

Current prices too low to make an impact



Premium prices but also the option to split certificates in its components.

# Proposed new Carbon farming definition

Carbon farming is a tool to **catalyse** the **transformation** of land management systems toward integrated production models that deliver **climate, environmental and social** benefits.

Carbon Farming is a framework for engaging with the agroecosystem processes that **drive system change** toward the positive **climate, environmental and social** outcomes.

# Other key messages

The CRCF should provide guidance and minimum quality standards for laboratories and VCM company for generating and managing soil data.

Countries should appoint a laboratory for maintaining analytical standards and harmonisation functions towards reference methods.

Mechanisms to promote FAIR data sharing should be identified.

# Other key messages

The lack operational standards for Earth Observation data that clearly define workflow and data needs is hindering the provision of coherent MRV solutions.

Long-Term Monitoring sites (LTMs) can contribute to adapt EU-level rules to local conditions and land uses, and help calibrating soil models as well as new sensors and digital technologies. Investment are needed 1) to cover underrepresented areas, 2) to train managers on FAIR data, 3) to better connect LTMs to the region they belong to.

# Other key messages

Carbon farming could represent an opportunity to move away from the current focus on yield maximisation, shifting the attention toward whole farm profitability, farm resilience etc.

# Concluding

Project Credible is building a network of networks and is available to dig deeper into questions and potential solutions from the Expert Group/CRFC.

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[www.project-credible.eu](http://www.project-credible.eu)

[www.carbonfarmingsummit.eu](http://www.carbonfarmingsummit.eu)



# Agriculture (agroforestry, soil organic carbon)



# Today's objectives

1. Discussion of preliminary findings of the Technical Assessment Papers

2. Questions for discussion:



**ACTIVITY**  
Which **agricultural activities** show the largest potential in terms of meeting the CRCF criteria?



**QUANTIFICATION**  
What is the most suitable mix of on-site measuring and remote sensing/modelling?



**STORAGE & SUSTAINABILITY**  
Best way to monitor **storage** and **sustainability**



**SCALABILITY**  
How can we ensure **large scale uptake** and keep the certification costs and **admin burden low**

# Agriculture: Presentation of the Technical Assessment paper

CRETA project



# Technical Assessment Paper Agricultural land methodology

Expert group meeting 16 April  
2024

# Content

1. Definition of carbon farming activities
2. Quantification, Baseline and Additionality
3. Storage, Monitoring and Liability and Sustainability

After each overview, room for discussion

# DEFINITION OF CARBON REMOVAL ACTIVITIES

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Inclusion of agro-forestry</b>	Inclusion of agroforestry in the agricultural land methodology (rather than in forestry methodology)	
<b>Inclusion of biochar in agri methodology</b>	Preference of focus group for inclusion of biochar under the methodology for agricultural land management (rather than permanent carbon removal methodology)	
<b>Eligibility criteria</b>	Criteria-based approach was preferred to specific list of eligible practices	
<b>Definition of the carbon pools – Soil depth</b>	Minimum sampling depth at 30 cm, but in the case of no/reduced tillage also look at sub-soil	

## Inclusion of agro-forestry

- Question:
  - Should practices that increase carbon stocks in biomass on agricultural land (agroforestry, perennial crops, hedges) be included in the agricultural land methodology?
- Preliminary findings:
  - Inclusion of agroforestry in the agricultural land methodology (rather than in forestry methodology)
- Next steps
  - Design a module on agro-forestry with MRV approach borrowed from forestry methodology



## Inclusion of biochar in agri methodology

- Question:
  - Should biochar application be part of the carbon farming methodology on agricultural land management?
- Preliminary findings:
  - Preference of focus group for inclusion of biochar under the methodology for agricultural land management (rather than permanent carbon removal methodology)
- Next steps
  - Propose detailed guidance on application and sourcing of biochar and alignment with other methodologies



(Photo: Daniel Warnock)



## Eligibility criteria

- Question:
  - Which approach is more appropriate for the exclusion of potential ineffective SOC practices
- Preliminary findings:
  - Criteria-based approach was preferred to specific list of eligible practices.
  - Potential tradeoffs should be prevented by the minimum sustainability criteria and potential lower effectiveness of a practice should be reflected in the quantification methodology
- Next steps
  - Propose specific eligibility criteria





## Definition of the carbon pools – Soil depth

- Question:
  - Should the methodology be limited to topsoil (0-30 cm) SOC stock changes?
- Preliminary findings:
  - Minimum sampling depth at 30 cm
  - In the case of no/reduced tillage also look at sub-soil
- Next steps
  - Elaborate rules



# Discussion - DEFINITION OF CARBON REMOVAL ACTIVITIES

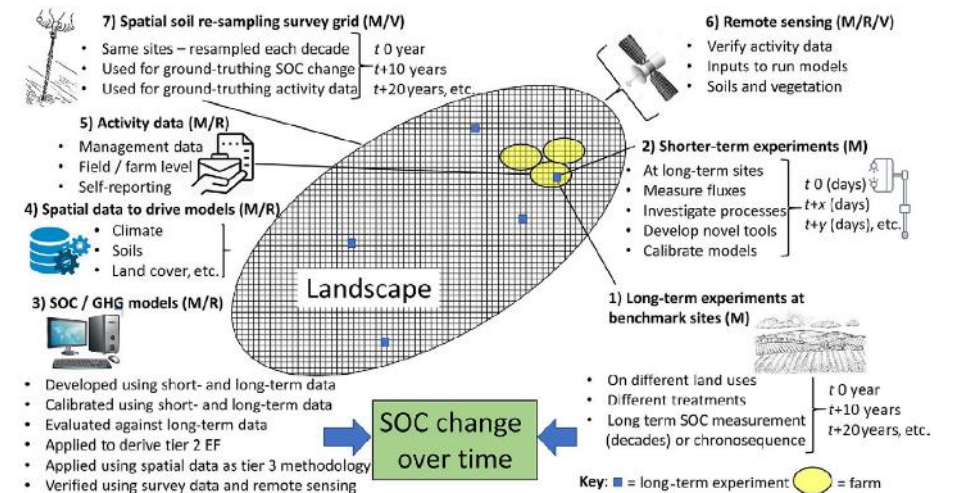
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# QUANTIFICATION

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Quantification approaches for soil carbon stock changes</b>	Hybrid approach combining soil sampling, modelling, and remote sensing, in line with CIRCASA recommendations. Set out criteria on transparency and accuracy of measurements rather than imposing forward specific measurement techniques.	
<b>Quantification of 'soil emission reduction' / 'carbon removal'</b>	This topic was not discussed at the Technical Focus Group meetings. In the provisional agreement the distinction between carbon removals and soil emission reductions is explicitly included, but for the development of the methodology, this topic that to be addressed, as it has implications for the quantification approach.	
<b>Quantification of the direct and indirect emissions</b>	Direct emissions: based on IPCC guidance. Indirect emissions from land use change: complex and not big magnitude, so avoid extensive data collection	
<b>Quantification of statistical uncertainty</b>	Express uncertainty at the level of a project (i.e. group of operators). Use the "probability of exceedance" approach. Tiered approach: use a default uncertainty factor with higher discount, and a lower discount can be used if the uncertainty is proven lower.	

# Quantification approaches for soil carbon stock changes

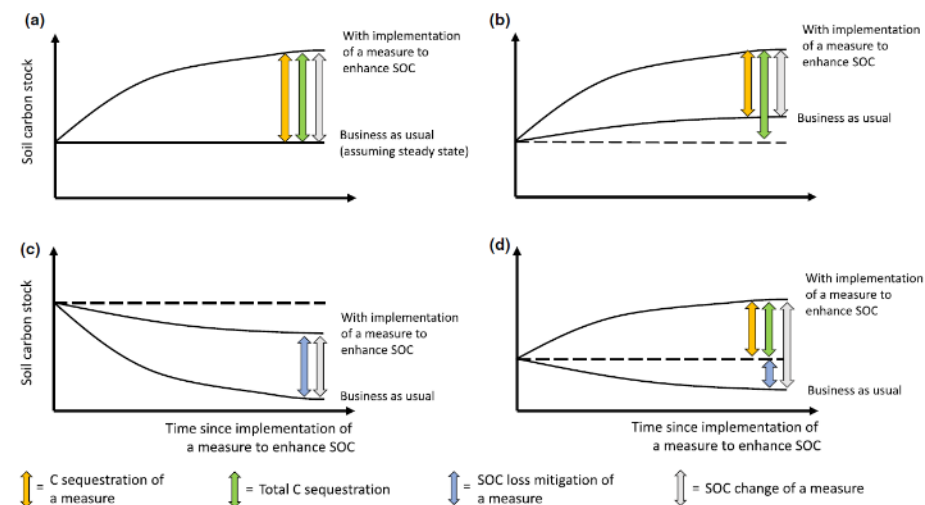
- Question:
  - Which approach should be used for the quantification of soil carbon stock changes?
- Preliminary findings:
  - Hybrid approach combining soil sampling, modelling, and remote sensing, in line with CIRCASA recommendations.
  - Set out criteria on transparency and accuracy of measurements rather than imposing forward specific measurement techniques.
- Next steps
  - Propose specific technical MRV rules



(Smith et al., 2020, Glob Change Biol. 26: 219–241)

## Quantification of 'soil emission reduction' / 'carbon removal'

- Question:
  - How should the methodology deal with the distinction between carbon removals and soil emission reduction?
- Preliminary findings:
  - Not discussed at the Technical Focus Group meeting
  - An explicit distinction between removals and emissions has implications for the quantification approach
- Next steps
  - Propose rules in line with the quantification approach



(Don et al., 2023, <https://doi.org/10.1111/gcb.16983>)

## Quantification of the direct and indirect emissions

- Question:
  - How to deal with emission from indirect land use change (ILUC)?
- Preliminary findings:
  - Direct emissions: based on IPCC guidance.
  - Indirect emissions from land use change: complex and not big magnitude, so avoid extensive data collection
- Next steps
  - Propose specific rules, to be aligned with RED approach when relevant



## Quantification of statistical uncertainty

- Question:
  - Should statistical uncertainty be quantified or should the methodology only have a mechanism to deal with uncertainty, e.g. discounting?
- Preliminary findings:
  - Express uncertainty at the level of a project (i.e. group of operators).
  - Use the “probability of exceedance” approach.
  - Tiered approach: use a default uncertainty factor with higher discount, and a lower discount can be used if the uncertainty is proven lower.
- Next steps
  - Propose threshold and specific rules for the probability approach.

# Baseline and Additionality

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Standardised baseline</b>	Hybrid approach with different types of data (national, regional, local and activity-specific data) to be incorporated in the standardised baseline	
<b>Activity-specific baseline</b>	Reference period of 3-5 years covering start and end of crop rotation. Measurement of activity and baseline should be comparable.	
<b>Additionality rules in case of an activity-specific baseline</b>	Low trust in financial additionality tests, in carbon farming non-financial barriers are more important. Allow public co-funding and sharing of financial risks.	



# Standardised baseline

- Question:
  - Range of questions regarding potential data sources (regional/national/EU) and quantification approaches (dynamic/static baseline, alignment with NIR?)
- Preliminary findings:
  - Hybrid approach with different types of data (national, regional, local and activity-specific data) to be incorporated in the standardised baseline
  - Discussion on feasibility of standardised baseline
- Next steps
  - Work further on the rules and on collection of default values

# Activity-specific baseline

- Question:
  - How long should the pre-project reference period for setting the activity specific baseline be?
- Preliminary findings:
  - Reference period of 3-5 years covering start and end of crop rotation.
  - Quantification approach of activity and baseline should be comparable.
- Next steps
  - Propose specific rules on how to deal with LUC not captured in the baseline.

## Additionality rules in case of an activity-specific baseline

- Question:
  - Which aspects would be relevant to consider when assessing co-funding with public support, e.g. Eco-schemes from CAP or national subsidies?
  - Which approach should be used for demonstrating financial additionality?
  - Would it be relevant to demonstrate that a project activity is not common practice?
- Preliminary findings:
  - Low trust in financial additionality tests, in carbon farming non-financial barriers are more important.
  - Allow public co-funding and sharing of financial risks.
- Next steps
  - Propose additionality tests, building on the existing RED implementing rules; consider how to integrate a 'common practice test'.

# Discussion – Quantification, Baseline and additionality

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Quantification approaches for soil carbon stock changes</b>	Hybrid approach combining soil sampling, modelling, and remote sensing. Set out criteria on transparency and accuracy of measurements rather than imposing forward specific measurement techniques.	
<b>Quantification of ‘soil emission reduction’ / ‘carbon removal’</b>	Not discussed at the Technical Focus Group meetings, but an explicit split has implications for the quantification approach.	
<b>Quantification of the direct and indirect emissions</b>	Indirect emissions from land use change: complex and not big magnitude, so avoid extensive data collection	
<b>Quantification of statistical uncertainty</b>	Express uncertainty at the level of a project. Use the “probability of exceedance” approach.	
<b>Standardised baseline</b>	Hybrid approach with different types of data (national, regional, local and activity-specific data) to be incorporated in the standardised baseline	
<b>Activity-specific baseline</b>	Reference period of 3-5 years covering start and end of crop rotation.	
<b>Additionality rules in case of an activity-specific baseline</b>	Low trust in financial additionality tests, in carbon farming non-financial barriers are more important. Allow public co-funding and sharing of financial risks.	

# Storage, Monitoring and Liability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Minimum duration of the activity period</b>	Short activity period (e.g. 5 years), but in grassland / perennial cropping systems it could be longer than in arable systems.	
<b>Minimum duration of the monitoring period</b>	No consensus whether monitoring period should be the same or longer than activity period.	
<b>Rules for liability mechanisms</b>	Use a buffer pool approach, possibly combined with other mechanisms (e.g. insurance products).	

# Minimum duration of the activity period

- Question:
  - What should be the minimum activity period?
- Preliminary findings:
  - Short activity period (e.g. 5 years)
  - In grassland / perennial cropping systems it could be longer than in arable systems
- Next steps
  - Propose specific activity periods for different types of farming activities

## Minimum duration of the monitoring period

- Question:
  - What should be the minimum monitoring period?
- Preliminary findings:
  - No consensus whether monitoring period should be the same or longer than activity period
  - Liability mechanisms and incentives should take into account a longer monitoring period.
- Next steps
  - Propose for discussion specific monitoring periods for different types of farming activities.

## Rules for liability mechanisms

- Question:
  - Which liability mechanism is most appropriate for the agricultural land carbon farming activity?
- Preliminary findings:
  - Use a buffer pool approach, possibly combined with other mechanisms (e.g. insurance products)
- Next steps
  - Propose specific rules on the buffer pools, including thresholds associated to risks of reversal



# Sustainability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Minimum sustainability requirements</b>	Use a negative list of practices that risk harming the sustainability objectives. Avoid metrics that imply additional data collection. Quantitative assessment can be applied in case no additional data collection is needed.	
<b>Mandatory co-benefits for carbon farming &amp; monitoring and reporting of co-benefits</b>	Combination of on farm data collection, remote sensing (e.g. crop diversity, landscape features, agro-ecological practices), and modelling (nutrient/sediment run-off, surface and groundwater withdrawals).	

# Minimum sustainability requirements

- Question:
  - Which approach should be used to define and assess compliance with the minimum sustainability requirements?
- Preliminary findings:
  - Use a negative list of practices that risk harming the sustainability objectives.
  - Avoid metrics that imply additional data collection.
  - Quantitative assessment can be applied in case no additional data collection is needed.
- Next steps
  - Build on Taxonomy DNSH and other EU approaches, propose specific minimum sustainability requirements for different activities.



# Monitoring and reporting of co-benefits

- Question:
  - Which methodology could be used to certify biodiversity impacts/co-benefits?
- Preliminary findings:
  - Combination of on farm data collection, remote sensing (e.g. crop diversity, landscape features, agro-ecological practices), and modelling (nutrient/sediment run-off, surface and groundwater withdrawals)
- Next steps
  - Building on the IMAP database, propose positive list of activities providing biodiversity co-benefits
  - Building on existing best practice develop rules for a cost-effective and scalable methodology for quantitative co-benefit monitoring



## IMAP Home page

- Expand all Collapse all -- Use
- > Impacts of farming practices on environment and climate Restrict
  - > Real cases examples of farming practices The iV
  - > Farming practices related to animal welfare and antimicrobials use impler
  - > Events A sign
  - Publications and th
  - Social media campaign The pr
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## Discussion - Storage, Monitoring and Liability; Sustainability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
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# Key takeaways from agricultural session



## ACTIVITY

Which **agricultural activities** show the largest potential in terms of meeting the CRCF criteria?



## QUANTIFICATION

What is the most suitable mix of on-site measuring and remote sensing/modelling?



**STORAGE & SUSTAINABILITY**  
Best way to monitor **storage** and **sustainability**



## SCALABILITY

How can we ensure **large scale uptake** and keep the certification costs and **admin burden low**

# Peatlands

# The context of peatland/wetlands



Largest terrestrial source of global carbon stock <> source of emissions if drained/degraded



CRCF enabling certification of soil emission reductions



Wider ecosystem benefits linked to rewetting/restoration



Existing national certification methodologies

# Peatlands: Presentation of the Technical Assessment paper

CRETA project





Partners **for**  
Innovation

Climate  
Neutral  
Group<sup>©</sup>



# Technical Assessment Paper Peatland methodologies

Expert group meeting 16 April 2024



# CONTENT PRESENTATION PEATLANDS

1. Definitions of carbon reduction/ removal activities
2. Quantification and baseline
3. Additionality, storage, Liability and sustainability

Afterwards: discussion



# DEFINITION OF CARBON REMOVAL/REDUCTION ACTIVITIES

1. **Rewetting of peatlands to develop natural values**
  - rewetting of drained peatlands
  - rewetting combined with additional non-hydrological measures
2. **Rewetting of Peatlands while maintaining present agricultural use**
  - Intensive agricultural function (pasture, arable)
  - Extensification of present agricultural function
3. **Peatland rewetting with conversion to paludiculture**
  - Cropping (for example cattail, reedbeds)
  - Forestry on peatlands
4. **Other uses of peatland**

## Question:

*Which activities meet the CRCF criteria?*

## Next steps

- Guidance on full/partial rewetting
- Assess the usefulness of distinction intense/ extensive agriculture
- Guidance needed for forestry on peatlands
- Which other uses should be included?

# EXAMPLES



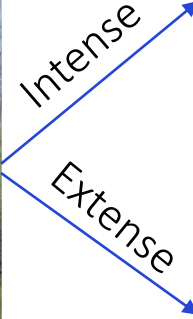
Picture: Innovation Centre Peatlands (NL)

*Rewetting, while maintaining current agriculture*



Picture Onlanden: Bart Kruijt (WU)

*Rewetting, nature restoration*



Picture: LTO Nederland



Picture: WUR



*Non-hydrological measures*



Picture: Jeroen Geurts (KWR Water Research)

*Rewetting, paludiculture*



shutterstock.com • 250560337

*Rewetting combined with Finishing peat extraction*

# QUANTIFICATION CARBON REMOVAL/REDUCTION (PEATLANDS)

- 1. Quantification approaches for soil carbon stock change**
  - Check fluxes not stocks
  - Combine direct measuring with RS, modelling and indirect measuring (hydr, veg)
  - Set criteria on transparency instead of imposing specific techniques
- 2. Quantification of associated (in)direct emissions**
  - Direct: use IPCC guidelines, Indirect: Complex and uncertain
- 3. Standard baseline (JRC)**
  - Requires Hybrid approach with EU/national/regional/local and activity specific data
  - Data is not enough harmonized and in many member states not available
- 4. Activity specific baseline**
  - Reference period preferably > 1 year, baseline and activity are measured in same way
  - Data gap: national data sets hydrological conditions on peat
- 5. Quantification of statistical uncertainty**
  - Manage uncertainty in CR/Cred on programme level (group of operators)
  - Long activity period is preferable in relation to peatlands (CH4)

## Question

How to combine quantification approaches?

## Next steps

- Guidance on level of prescriptiveness (criteria on transparency)
- Standard baseline is to be further conceptualized
- Activity specific baseline: Guidance needed to balance financial risks and flux/stock uncertainties

# ADDITIONALITY, STORAGE AND LIABILITY (PEATLANDS)

1. **Additionality rules in case of an activity specific baseline**
  - No consensus on use of regulatory and financial tests
  - How to reward also continuation of a practice after ending the activity period?
  - Rewetting: is it always additional, also in case a legal obligation to do so?
2. **Minimum duration of the activity period**
  - Minimum 10-20 years
  - Rewetting nature (upper limit): 30 years or more
  - Agriculture (lower limit): as short as possible (10 yrs)
3. **Minimum duration of monitoring period**
  - Consensus that monitoring should be the same as activity period
  - However, how to avoid reversal of activities ...
4. **Rules for liability mechanisms**
  - Use of a collective buffer pool (programme based)

## Question

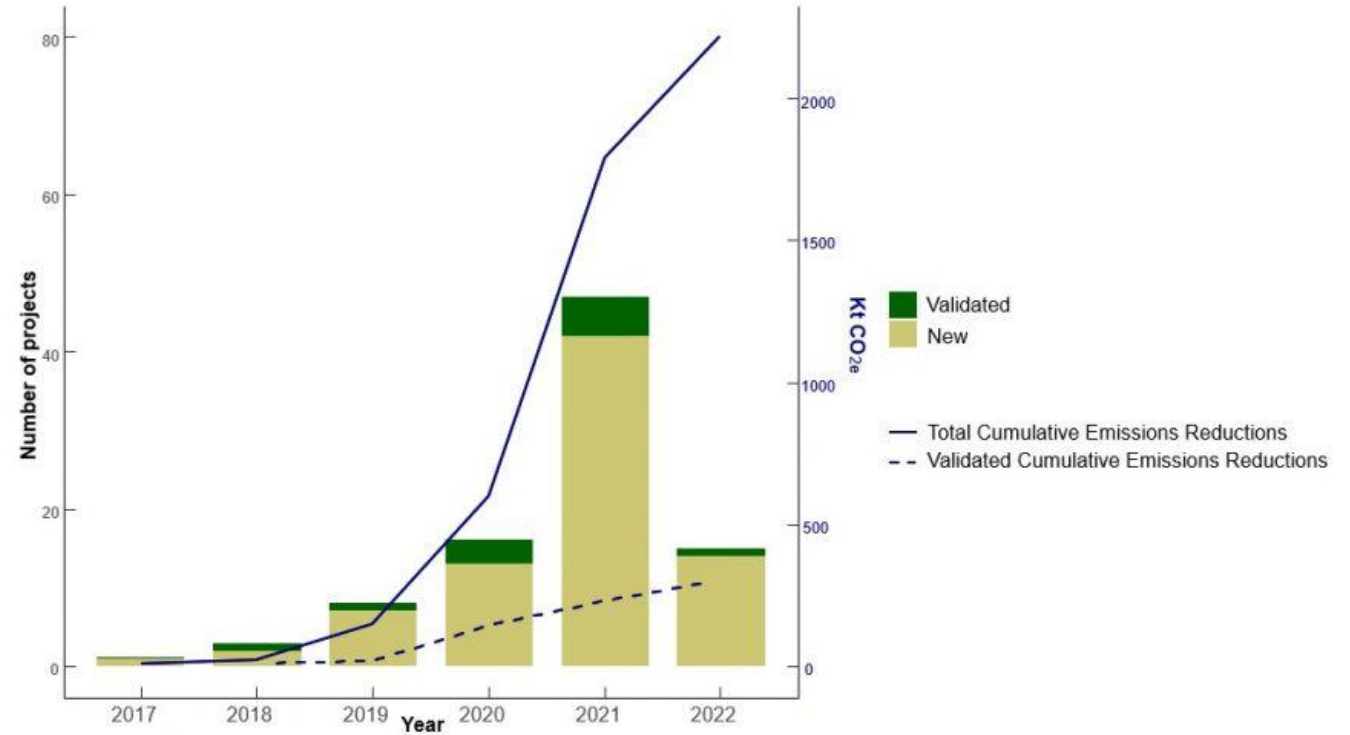
*How to assess additionality in a simple and liable way?*

## Next steps

- Tests: Consider a common practice test, give justice to different peatland types and activities, align with LULUCF Accounting
- Develop a rewarding mechanism after the carbon credit period.
- Define a threshold for the buffer pools

## EXAMPLE: UK PEATLAND CODE

- **Test 1 - Legal Compliance:** There shall be no legal requirement specifying that peatland within the project area must be restored.
- **Test 2 – Financial Feasibility:** Projects shall have a maximum level of non-carbon income of 85% of the project’s restoration and management costs over the project duration. This non-carbon income could be public grant funding or other private income. The remaining minimum 15% shall come from carbon finance.



<https://www.iucn-uk-peatlandprogramme.org/news/update-peatland-code>

Source: [UK Peatland Code \(March, 2023\)](#)



# SUSTAINABILITY (PEATLANDS)



## 1. Minimum sustainability requirements

- Use existing environmental legislation as a basis
- Reward action rather than results
- Wider co-benefits beyond environmental ones



## 2. Monitoring and reporting of co-benefits

- Combination of data collection, remote sensing and modelling
- Use existing frameworks as developed for EU environmental directives

### Question

What is the best way to account and reward co-benefits and create a premium value for the operator?

### Next steps

- Define sustainability, taking into account the regional situation/legislation and active involvement of local community
- Develop a cost-effective and scalable methodology for quantitative co-benefit monitoring



# Key questions



## ACTIVITY

Which **peatland activities** show the largest potential in terms of meeting the CRCF criteria?

## QUANTIFICATION

What is the most suitable mix of on-site measuring and remote sensing/modelling?

## SUSTAINABILITY + STORAGE

What is the best way to monitor **storage** and **sustainability**?

## SCALABILITY

How can we ensure **large scale uptake** and keep the certification costs and **admin burden low**?

# Forestry

# The context of forests



Forests key to address climate change – vital for the EU sink – but also vulnerable to the effects of climate change



CRCF enabling certification of activities both in the forest and long-lived products from the forest (such as wooden construction material)



Forests provide several co-benefits, strong potential for positive synergies



Long lead times in sector an important aspect to consider

# Structure of the session

- Divided in three parts
- Each part will begin with a short overview by CRETA of the technical assessment paper
- One main thematic guiding question per session – but the floor is open!
- Also, question of scalability of cross-cutting relevance
- **17:00** Summary and a few words on next steps



# Key questions



## ACTIVITY

Which **forestry related activities** show the largest potential in terms of meeting the CRCF criteria?

## QUANTIFICATION

What is the **most suitable mix** of on-site measuring and remote sensing/modelling?

## SUSTAINABILITY + STORAGE

What is the best way to monitor **storage** and **sustainability**?

## SCALABILITY

How can we ensure **large scale uptake** and keep the certification costs and **admin burden low**?

# Forestry: Presentation of the Technical Assessment paper

By CRETA project



# Technical Assessment Paper Forestry methodologies

4<sup>th</sup> Expert group meeting 16 April  
2024

# Content

1. Forest definitions and activities
2. Quantification, Baseline and additionality
3. Storage, monitoring and Sustainability

After each overview room for discussion



# Definitions

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Forest definition</b>	Align the definitions with other policy, laws and carbon certification standards like the LULUCF regulation, the EU Taxonomy framework and definitions used by certification bodies	
<b>Forestry activities</b>	Set clear definitions of the different activities.	
<b>Carbon pools</b>	All forest carbon pools should be taken into account	

# Forest Definition

- Question:
  - Which forest definition should be followed?
- Preliminary findings:
  - Align the definitions with other policy, laws and carbon certification standards like the LULUCF regulation, the EU Taxonomy framework and definitions used by certification bodies.
- Next steps
  - Decide upon a final definition of forest land that takes other policy, laws (FML) and carbon certification standards like the LULUCF regulation, the EU Taxonomy framework and definitions used by certification bodies into account.

# Forestry activities

- Questions:
  - Which forestry activities (af/re-forestation + Forest management) can be certified?
- Preliminary findings:
  - Set clear definitions of the different activities.
- Next steps:
  - Decide upon exact definitions for the different forest activities.



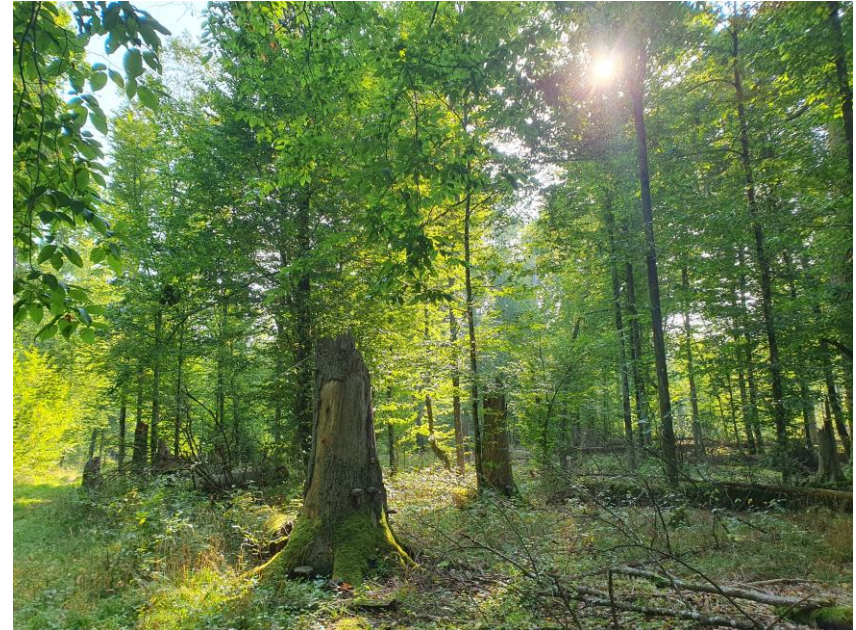
(Photo: Silke Jacobs)



(Photo: Gert Jan Nabuurs)  
European Commission

# Carbon pools

- Questions:
  - Should all forest carbon pools be taken into account?
- Preliminary findings:
  - All carbon pools should be taken into account
- Next steps:
  - Practical, workable and cost-effective methods should be developed to determine all forest carbon pools.



# Discussion - Definitions

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Forest definition</b>	Align the definitions with other policy, laws and carbon certification standards like the LULUCF regulation, the EU Taxonomy framework and definitions used by certification bodies	
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# Quantification

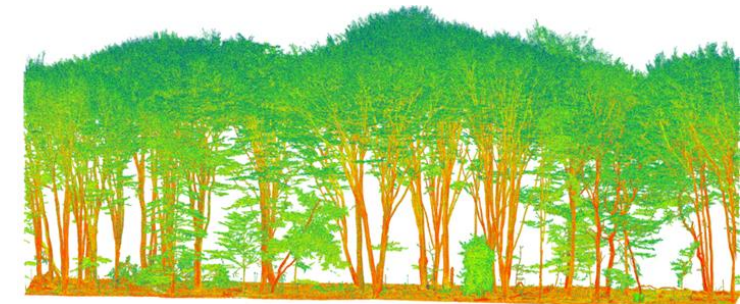
<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Quantification approaches for forest carbon stock changes</b>	Hybrid approach combining modelling, sample data and remote sensing	
<b>Quantification of the direct and indirect emissions</b>	Challenging to develop an approach that is accurate, administratively feasible and cost-efficient	
<b>Quantifying uncertainty</b>	Discounting could be an appropriate tool, but must be calibrated in relation to cost-effectiveness	

# Quantification of forest carbon stock changes

- Questions:
  - What role could earth observation and modelling play in quantifying carbon stocks and carbon removals?
- Preliminary findings:
  - Hybrid approach combining modelling, sample data and remote sensing
- Next steps:
  - Define the optimal combination of approaches in a hybrid approach for the relevant activities



(Photo: Bas Lerink)



(Photo: Berde et al.

# Quantification of the direct and indirect emissions

- Questions:
  - How can the increase in direct and indirect GHG emissions be measured?
- Preliminary findings:
  - Challenging to develop an approach that is accurate, administratively feasible and cost-efficient
- Next steps:
  - Further review of available approaches



# Quantifying uncertainty

- Questions:
  - Should statistical uncertainty be quantified or should the methodology only have a mechanism to deal with uncertainty, e.g. discounting?
- Preliminary findings:
  - Discounting could be an appropriate tool, but must be calibrated in relation to cost-effectiveness
- Next steps:
  - Further review of available approaches

# Baseline and additionality

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Rules for setting a Standardised baseline</b>	The value of the approach has been recognised in terms of fairness with early movers, and reduction of administrative burden for the forest owners. However, there are still concerns on key aspects of a standardised baseline.	
<b>Rules for setting activity-specific baselines</b>	Pre-project plots and historical data mainly relevant for afforestation considering the performance of previous land use. For forest management practices, national forest resource models or management plans could be relevant starting points (similar to Forest Reference Levels)	
<b>Additionality</b>	Additionality requirements must allow for early movers to participate in the scheme and must not be too complex, while ensuring that certification constitutes an incentive to go beyond (minimal) standard practice	

# Standardised baseline

- Question:
  - Range of questions regarding potential data sources (regional/national/EU) and quantification approaches (dynamic/static baseline, alignment with NIR?)
- Preliminary findings:
  - The value of the approach has been recognised in terms of fairness with early movers, and reduction of administrative burden for the forest owners. However, there are still concerns on key aspects of a standardised baseline.
- Next steps:
  - Continue discussion on how a standardised baseline can be achieved for forestry.

# Activity specific baseline

- Questions:
  - How long should the pre-project reference period for setting the activity specific baseline be?
  - In order to ensure a certain level of consistency in the approach between project-specific and standardised baselines, would it be relevant to prescribe a set of standard methods/tools to assess/calculate the net carbon removal benefit?
- Preliminary findings:
  - Pre-project plots and historical data mainly relevant for afforestation considering the performance of previous land use.
  - For forest management practices, national forest resource models or management plans could be relevant starting points (similar to Forest Reference Levels)
- Next steps:
  - Develop method for activity specific baseline.

# Additionality rules in case of an activity-specific baseline

- Questions:
  - Which aspects would be relevant to consider when assessing co-funding with public support, e.g. Eco-schemes from CAP, national subsidies, etc?
  - Which approach should be used for demonstrating financial additionality?
- Preliminary findings:
  - Additionality requirements must allow for early movers to participate in the scheme and must not be too complex, while ensuring that certification constitutes an incentive to go beyond (minimal) standard practice
- Next steps:
  - Continue discussion on defining and quantifying additionality for forestry activities.

# Discussion – Quantification, Baseline and Additionality

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Quantification approaches for forest carbon stock changes</b>	Hybrid approach combining modelling, sample data and remote sensing	
<b>Quantification of the direct and indirect emissions</b>	Challenging to develop an approach that is accurate, administratively feasible and cost-efficient	
<b>Rules for setting a Standardised baseline</b>	The value of the approach has been recognised in terms of fairness with early movers, and reduction of administrative burden for the forest owners. However, there are still concerns on key aspects of a standardised baseline.	
<b>Rules for setting activity-specific baselines</b>	Pre-project plots and historical data mainly relevant for afforestation considering the performance of previous land use. For forest management practices, national forest resource models or management plans could be relevant starting points (similar to Forest Reference Levels)	
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<b>Additionality</b>	Additionality requirements must allow for early movers to participate in the scheme and must not be too complex, while ensuring that certification constitutes an incentive to go beyond (minimal) standard practice	

# Storage, Monitoring and Liability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Duration of activity period</b>	<p>The duration of the activity period will differ between activities. For management practices, an activity period of five years will likely be the most attractive for foresters, combined with a longer monitor period.</p> <p>Regional conditions could be relevant to consider.</p>	
<b>Duration of monitoring period</b>	Every activity should have its own (minimum) monitoring period.	
<b>Rules for liability mechanisms</b>	Buffer method may be the preferred option as it best meets the forest owner's needs	

# Duration of the activity period

- Questions:
  - Should the activity period and monitoring period be the same?
  - Should every forestry carbon removal activity have its own minimum activity period?
  - What should be the minimum activity period per activity?
- Preliminary findings:
  - The duration of the activity period will differ between activities. For management practices, an activity period of five years will likely be the most attractive for foresters, combined with a longer monitor period.
  - Regional conditions could be relevant to consider.
- Next steps
  - Monitoring periods should be longer than the activity period.
  - For af/re-forestation, the activity and monitoring period must take into account the long- time frames in the sector.
  - For management practices, further review and discussions are needed to identify the appropriate durations.



# Duration of the monitoring period

- Question:
  - Should every forestry carbon removal activity have its own minimum monitoring period?
  - What should be the minimum monitoring period per activity?
- Preliminary findings:
  - Every activity should have its own (minimum) monitoring period.
- Next steps
  - Further define monitoring periods for forestry activities.

# Rules for liability mechanisms

- Question:
  - Which liability mechanism is most appropriate for forestry activities?
- Preliminary findings:
  - Buffer method may be the preferred option as it best meets the forest owner's needs
- Next steps:
  - Further develop method for liability mechanisms for insurance and buffer pool for forestry activities.

# Sustainability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Sustainability requirements</b>	Current EU legislation and certification methods, such as the Taxonomy and FSC/PEFC, include relevant indicators that should form the basis for the biodiversity indicators.	
<b>Monitoring and reporting of co-benefits</b>	Absence of a commonly accepted and widespread methodology for monitoring and reporting biodiversity co-benefits	

# Sustainability requirements

- Question:
  - Which approach should be used to define and assess compliance with the minimum sustainability requirements? A positive list of practices, quantification of indicators, literature, other?
- Preliminary findings:
  - Current EU legislation and certification methods, such as the Taxonomy and FSC/PEFC, include relevant indicators that should form the basis for the biodiversity indicators.
- Next steps:
  - Identify list of relevant indicators for forest related carbon farming activities based on relevant policies, legislation and certification methods.

# Monitoring and reporting of co-benefits

- Question:
  - Which methodology could be used to quantify co-benefits?
- Preliminary findings:
  - Absence of a commonly accepted and widespread methodology for monitoring and reporting biodiversity co-benefits
- Next steps:
  - Develop method for monitoring and reporting of sustainability co-benefits and positive list of activities.

# Discussion - Storage, Monitoring and Liability and Sustainability

<i>Topic</i>	<i>Preliminary findings</i>	<i>Colour</i>
<b>Duration of activity period</b>	<p>The duration of the activity period will differ between activities. For management practices, an activity period of five years will likely be the most attractive for foresters, combined with a longer monitor period.</p> <p>Regional conditions could be relevant to consider.</p>	
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