

**What?**

# **GEO WEEK & MINISTERIAL SUMMIT 2023**

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**How?**

# **Carbon removals**

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**Where?**

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**GEO WEEK  
2023 MINISTERIAL  
SUMMIT**

**GEO GROUP ON  
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2023  
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SUMMIT**

#TheEarthTalks GEO WEEK & Ministerial Summit 2023

# **CREDIBLE - Building momentum and trust to achieve credible soil carbon farming in the EU**



06/11/2023 – 11:30 – 11:40

Flash Talk – Room Daisy

**Ms. Monica Miguel-Lago**  
**EARSC Senior Project Manager**



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EU carbon farming

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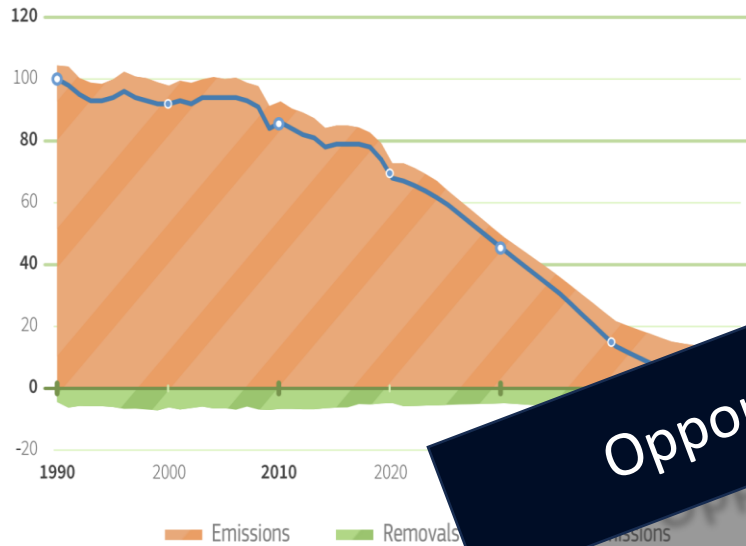
# What?

# Legislative acceptance?



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## Towards climate neutrality



Opportunity but also a challenge

## Proposal setting out a voluntary framework for carbon removal certification in the EU

**European Commission - Press release**

**European Green Deal: Commission proposes certification of carbon removals to help reach net zero emissions**

Brussels, 30 November 2022

Today the European Commission adopted a proposal for a **first EU-wide voluntary framework to reliably certify high-quality carbon removals**. The proposal will boost innovative carbon removal technologies and sustainable carbon farming solutions, and contribute to the EU's climate, environmental and zero-pollution goals. The proposed regulation will significantly improve the EU's capacity to quantify, monitor and verify carbon removals. Higher transparency will ensure trust from stakeholders and industry, and prevent greenwashing. Carbon removals can and must bring clear benefits for the climate, and the Commission will prioritise those carbon removal activities which will provide significant benefits for biodiversity. Moving forward, the Commission, supported by experts, will develop tailored certification methods for carbon removal activities delivering on climate and other environmental objectives.

To ensure the transparency and credibility of the certification process, the proposal sets out **rules for the independent verification of carbon removals**, as well as **rules to recognise certification schemes** that can be used to demonstrate compliance with the EU framework. To ensure the quality and comparability of carbon removals, the proposed regulation establishes **four QUALITY**



# What?



## Benefits

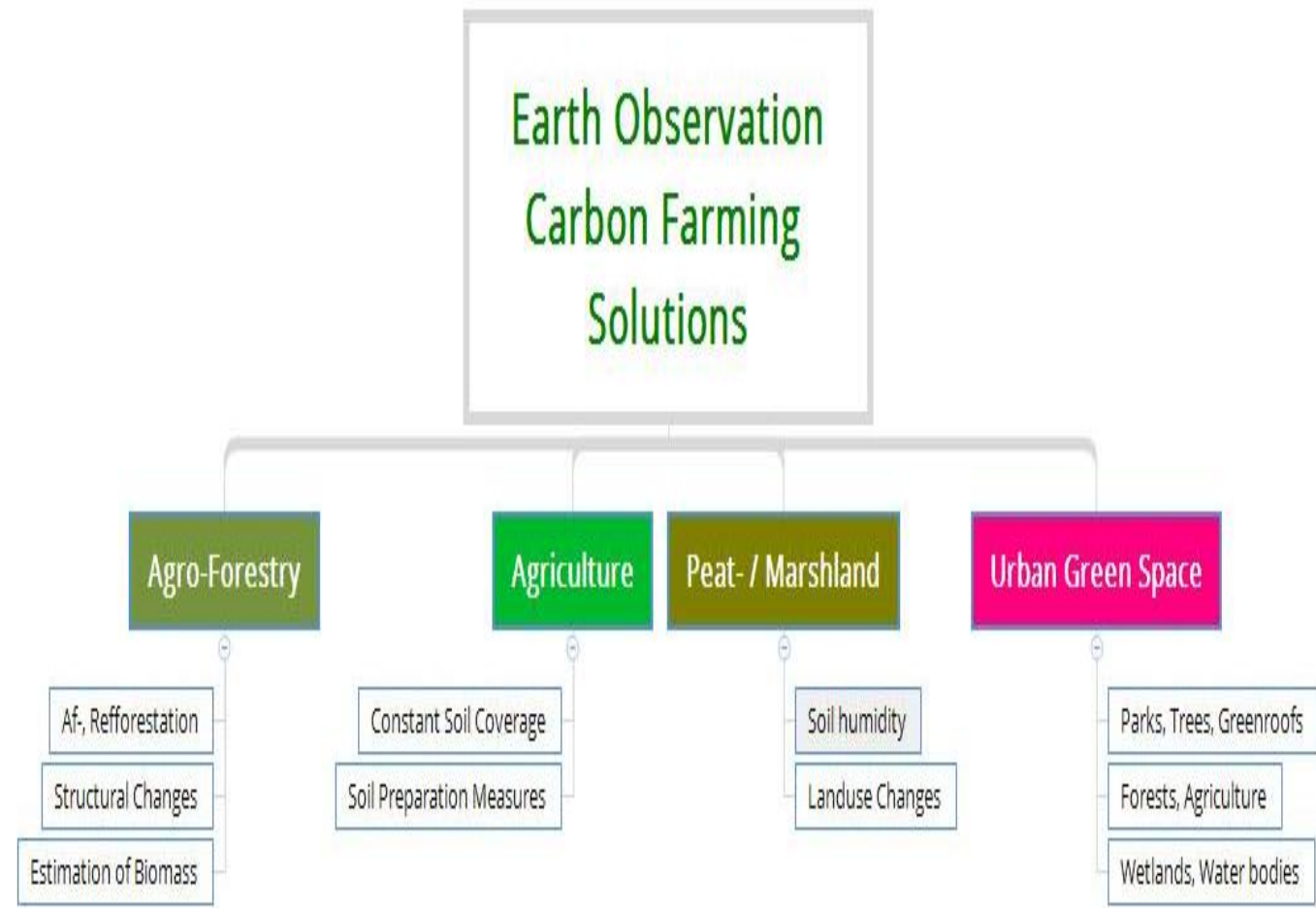
- increase carbon sequestration
- more biodiversity and nature
- increased climate resilience of farm and forest land
- new business opportunities, additional income for land-owners
- cost efficient monitoring
- Innovation methods
- ....

## Challenges

- credible accounting, quality standards and harmonization
- build trust
- interest for carbon credit markets
- access financing & funding for implementing cost
- advisory services to manage the risk
- ...

# Why do we need carbon removals

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# How?

# Holistic approach



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which practices?

how measure economic impact?

how to inspire regional clusters?

what combination of policy instruments?

how to harmonize dataset for mapping and monitoring?

how proximal sensing contributes to characterization?

**how satellite-derived data contribute to carbon removals?**

how long-term monitoring sites support MRV systems?

**carbon  
removals  
holistic  
approach**

how to avoid food/biodiversity threats?

how to scale up at national level?

which standards and requirements?

# How?

# Building momentum and trust



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## What is the challenge?

- Importance of a **unified** accounting system for MRV



## What re



- **Technologies** for processing and analysis of data, as well as ensuring the **availability** and **accessibility** of EO datasets



## will be managed?

- **Technical, financial, and organizational** pillars for successful implementation
- **Efficient** and **reliable** monitoring of the environment over time at a global, regional, and local scale

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EU carbon farming



# How?

## Space Based data & services support



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- Planting trees on agricultural land
- Maintaining winter/spring crop cover
- Crop rotation
- Usage of organic fertilizers
- Avoid chemical fertilizers
- Reduce pesticides (herbicides, insecticides)
- Maintaining ecological features along water bodies and crop fields
- Avoiding crop burning
- Maintaining crop residues after harvest
- Maintaining grass in woody cultivation
- Limiting actions on the terrain when ploughing
- Adopt precision farming techniques
- Adopt rice cultivation techniques with low methane emissions



Perform specific actions  
on the ground



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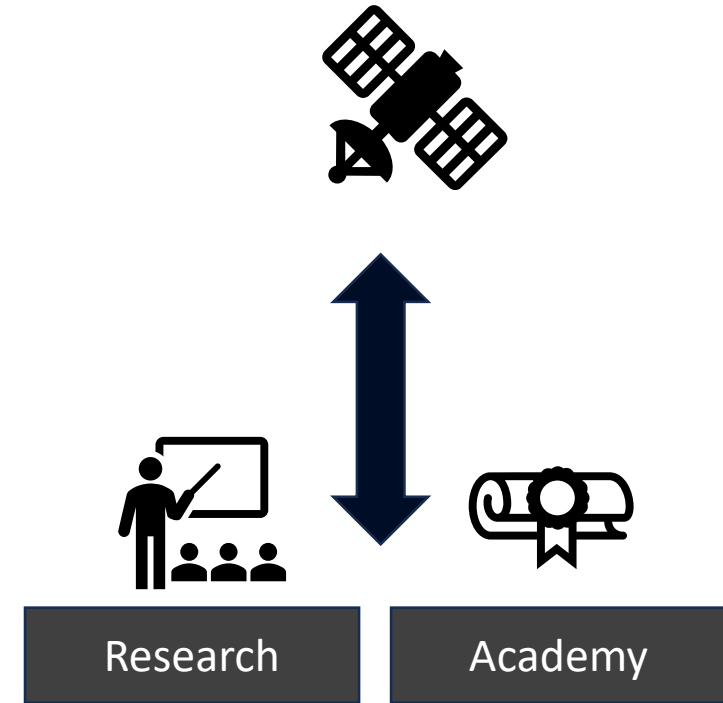
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- Models are not yet fully mature
- EO data provides a seamless continuous measurement
- Integrate EO derived information into models
- Taking into account different climates, landscapes, etc
- Turn pixels into information at different scale along time
- Demonstrate information reliability and level of confidence
- Lack of political and financial guidance

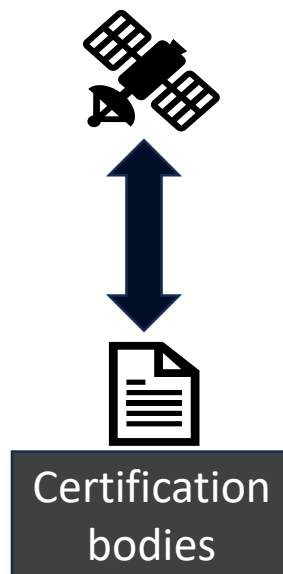




# Where?



- **Close and proactive interaction with certification bodies**
- **Increasing transparency and objectivity** in certification different scale along time
- **Demonstrating information reliability and level of confidence** through tests and scientific support
- **Integrating EO derived information into models** developed by academy and research



# Use of EO into Certification schema

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Assess / Verify / Validate	
Governance	<ul style="list-style-type: none"><li>• active stakeholder participation</li></ul>
Transparency	<ul style="list-style-type: none"><li>• system document in public</li><li>• public consultations</li></ul>
Practicability	<ul style="list-style-type: none"><li>• supply chains</li><li>• pilot conceptual development</li></ul>
Effectiveness	<ul style="list-style-type: none"><li>• avoid and burden and high cost</li><li>• risk based verification approach</li></ul>
Competencies	<ul style="list-style-type: none"><li>• training guidance</li></ul>
Development and responsiveness	<ul style="list-style-type: none"><li>• knowledge sharing &amp; learning</li></ul>
Integrity	<ul style="list-style-type: none"><li>• impartial audits</li><li>• verification</li></ul>

# Where?



# Monitoring, Reporting & Verification

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EO will **simplify** and **modernize** reporting:

- Improves the **Integrated Administration and Control System**
- **Cost effective** solution and reduce complexity on-the-spot checks
- **Continuous global view** of the Earth parameters
- **Wide range of applications** combination of satellite data, ground-based measurements and machine learning
- **Independent intelligence** to take action

## Monitoring

Understand the setting, detect & measuring emissions...

## Reporting

Design, analysis & quantify the measurements (predictive analysis)

## Verification

Evaluating the data & actionable metrics to comply with requirements

# Where?

# Why apply for carbon removal certification?



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**Carbon credits** need to be more attractive for farmers  
→ Support from policy (i.e., Common Agriculture Policy)

Revenues schemas based on:

- **results** (only following evidence of an envi-improvement)
- **actions** (only on the certification of having completed the required actions, regardless of the result)

**To support the voluntary market**

MRV, with focus on **Monitoring**.

Concerning the **Reporting** and **Verification**

- use of EO is dependent on what the Regulation will specify in this regard

**Services provision to:** Administration, Certification bodies, Private companies



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Have your say on how to  
enable quick and scalable  
carbon removal in  
agricultural soils.

**Welcome to chat today Monday 6<sup>th</sup> November  
at 13h30, European Commission Stand**

 The Future is Now  Global Collaboration  Join the Focus Group discussions







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6-10 NOVEMBER

CAPE TOWN, SOUTH AFRICA

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