Forest Carbon Farming in the EU: Current Landscape and Future Outlook

FORESTCARBOVISION Kick-off Meeting; May 27.-28. 2025

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FORESTCARBOVISION

VH CREDENTIALS – OVERVIEW TO EXPERIENCE

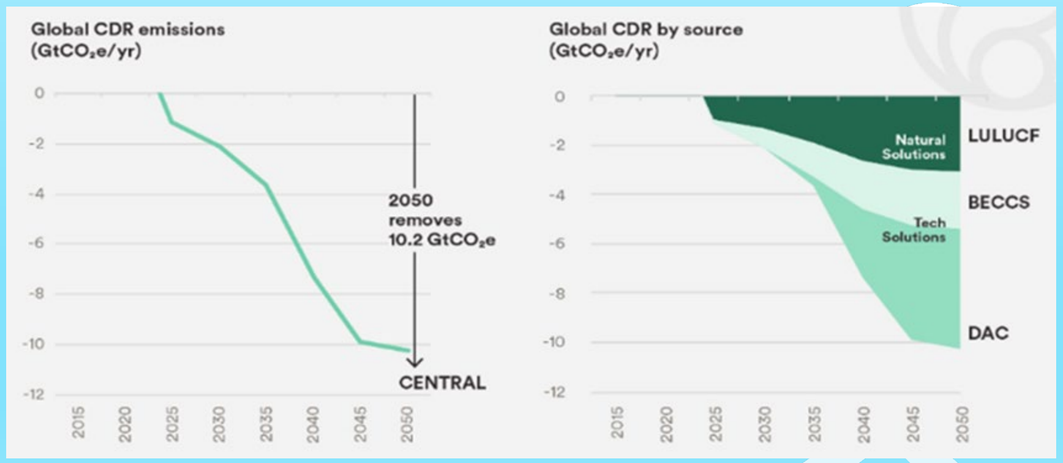
For a more comprehensive work history, pls see: (25) Ville Hietalahti | LinkedIn

The Role of Carbon Dioxide Removals in Achieving Global Climate Objectives

- In order to limit global warming to 1.5°C (Paris Agreement), the large-scale deployment of carbon dioxide removal (CDR) is now needed alongside deep and rapid emissions reductions
- If global emissions reduction targets are not met, the need for CDRs will only increase
- 10 billion tons annual Co2 reduction need by 2050 is becoming an increasingly likely scenario
- This requires rapid scale-up and deployment of all viable CDR pathways and progressive liquidity in the voluntary carbon markets (VCM)

10 Gt

annual Co2 reduction need by 2050



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Key dynamics at play

- Limited supply of high quality CDRs
- Over $900 million “avoidance offsets” rightfully labeled as greenwashing in 2023
- Policy response: EU´s Certification framework (CRCF 2024) sets strict quality criteria for CDRs, methodologies
- Complexity and cost of CRCF-compliant carbon farming CDRs
- Insufficient maturity of carbon measurement and verification (MRV) technologies, lacking capabilities to ensure CRCF compliance

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CRCF explained

CARBON REMOVALS AND CARBON FARMING CERTIFICATION FRAMEWORK

QU.A.L.ITY CRITERIA
Quantification, Additionality, Long-Term Storage, Sustainability

PERMANENT CDRs (no expiery)	CARBON STORAGE IN PRODUCTS (temp)	CARBON FARMING (Temporary storage)	
BECCS	Wooden construction elements	Sequestration	Emissions reductions
DACCS			
BIOCHAR*			

- AgrMineral soils carbon
- Peatland rewetting
- Afforestation
- Reduced fertilization
- Agroforestry
- Improved Forest Mgmt*

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CDR standards and CRCF quality criteria

- CDR standards are a pre-requisite for voluntary carbon market integrity
- Convergence of CDR Standard Frameworks; CRCF (EU), NIST (US), ISO (ISO 14064-2), Carbon Removal Standards Initiative (CRSI), Verra/VCM, Gold Standard
- All built around the key principles on certification quality criteria

- CRCF QU.A.L.ITY sets the bar:

Quantification:	Accuracy of measurement
Additionality:	Beyond baseline business-as-usual impact, also financial additionality
Permanence:	Long term impact, except for temporary storage
Sustainability:	Carbon removal activities must avoid negative environmental, social and economic impacts – also co-benefits
Verification:	Third-party validation and verification (audit assurance)

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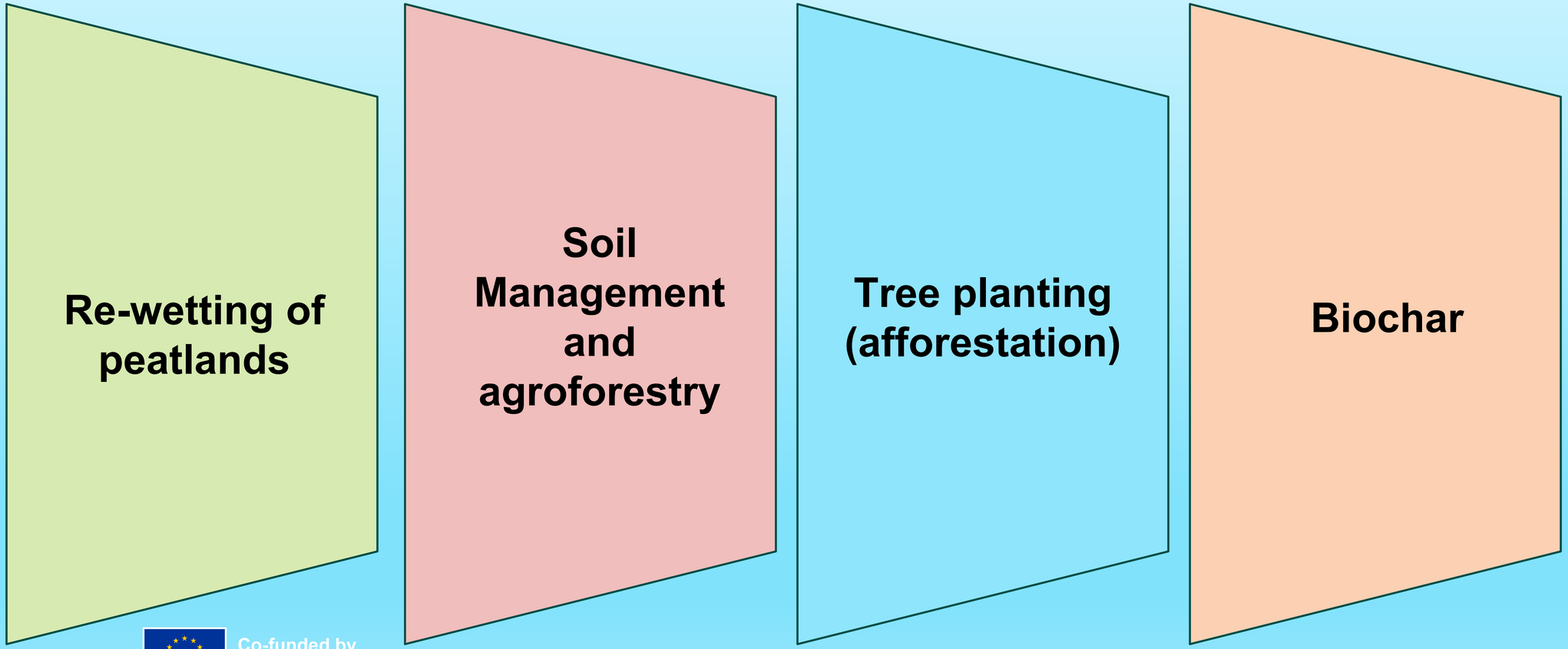
Carbon Farming Certification Methodologies to be developed in 2025 (=> delegated acts)



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Next steps

2024
- Entry into force of CRCF Regulation - EU - 2024/3012 - EN - EUR-Lex

2025
- Proposal of first certification methodologies
- Proposal on certification schemes, registries, and verification by independent third parties

2026
- Recognition of certification schemes and (possibly) first issuance of certified units
- Proposal of next certification methodologies, including Sustainable Forest Management and Carbon Storage in Buildings

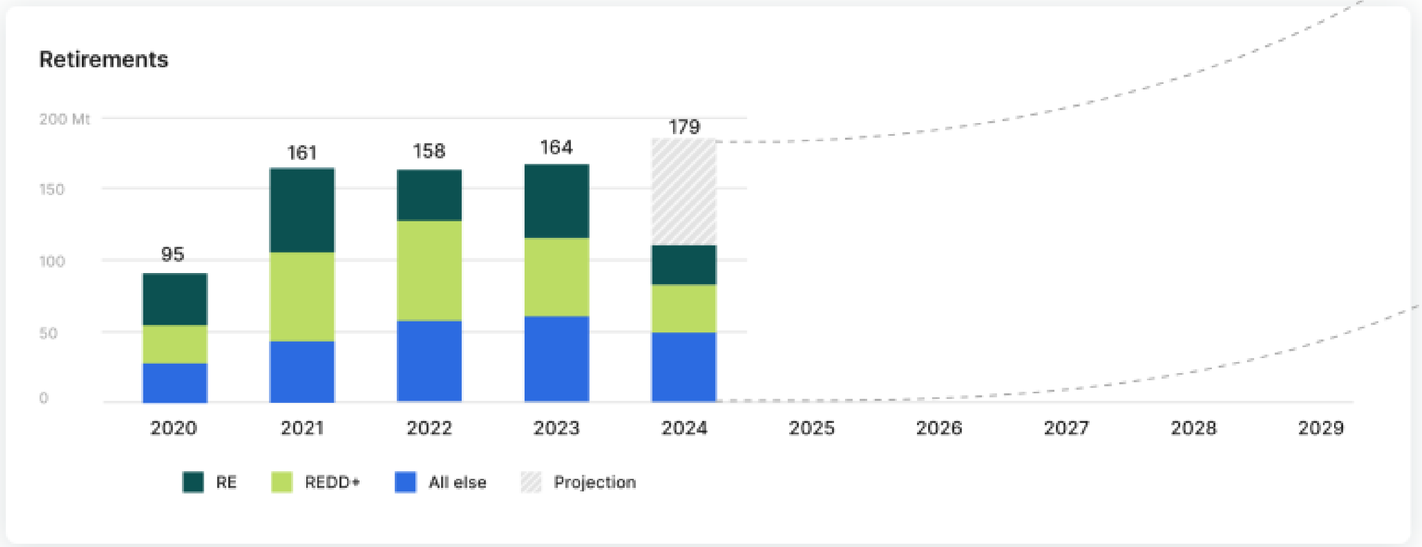
2028
- Start of EU registry

European Commission

#1: The VCM needs to grow substantially

Over the last two years, demand in the VCM as a whole has been more-or-less unchanged. In 2023, total carbon credit demand, as measured in retirements, reached 164 million tonnes (Mt), **up just 3% from 2022**. Overall demand in 2024 has stayed consistent and will likely match or slightly exceed that of 2023. This contrasts with demand for CDR credits, which has been increasing quickly (see the **CDR Market Trends** section of this report).

Critically, the total value of the VCM remains small, with a market value of about US$1 billion. Small fluctuations in market performance obscure the fact that the market remains a long way off from long-term projections of total market value, with some estimates as high as US$1.1 trillion annually by 2050.



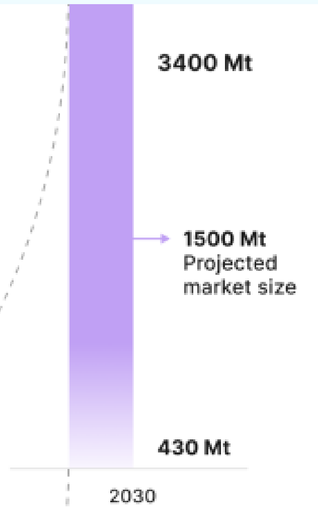
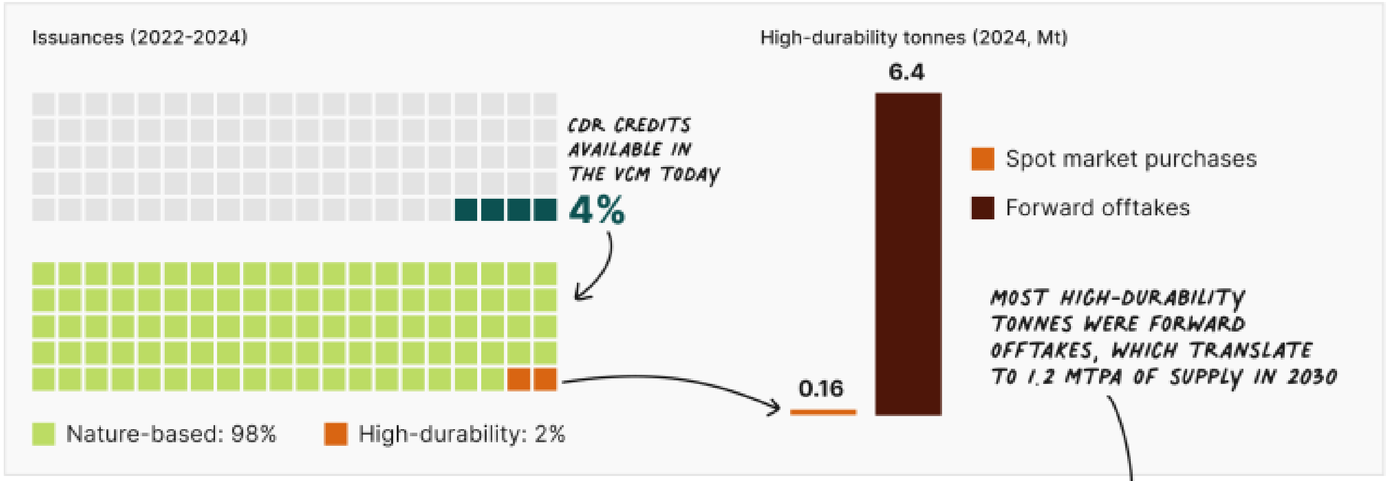


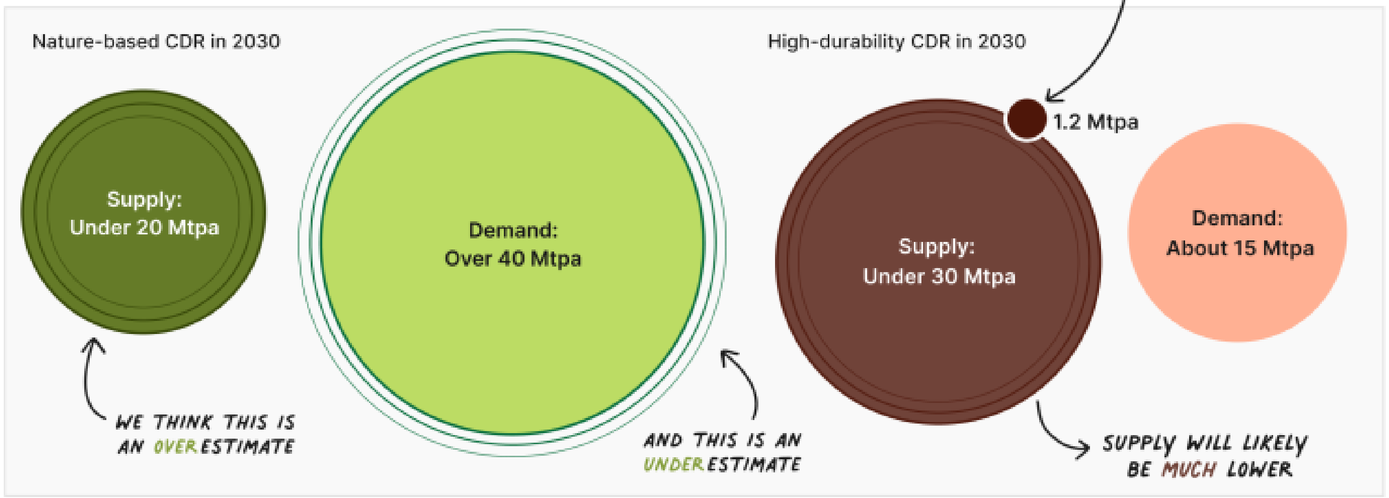
Figure 1: Carbon credit retirements by credit category from 2020–2024 across the five largest registries. Demand estimates aggregated from across six bottom-up market forecasts between 2021 and 2024, with the central estimate (1500 Mt) representing average estimated carbon credit demand in 2030 across all scenarios. Note: Mt = million tonnes, RE = renewable energy. Source: Carbon Direct.

The CDR market at a glance

THE MARKET TODAY



THE MARKET IN 2030



High-durability CDR

Many first-of-a-kind projects are prepared to break ground, but need bankable offtake agreements to secure finance. Many of these projects will fail without these agreements in place.

Nature-based CDR

Investment into nature-based CDR is increasing, but remains short of what is needed to satisfy demand. More investment is required to meet expected demand in 2030.

Both need to accelerate quickly for markets to contribute meaningfully to 2030 CDR goals.

Note: CDR = carbon dioxide removal, Mt = million tonnes, Mtpa = million tonnes per annum, VCM = voluntary carbon market. Source: Carbon Direct.

Thank you!

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