Carbon Removals within value chains: A Strategic Lever?

MAY 12TH 2025

Share your opinion !

Share your opinion !

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Responsable
Développement Durable

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Share your opinion !

alliance AGRICULTURE RÉGÉNÉRATRICE

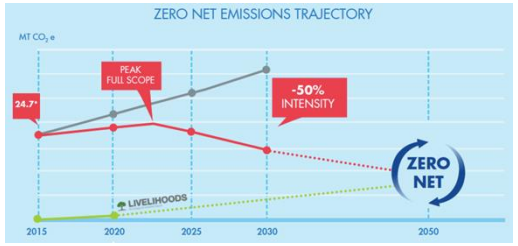
AGRI-FOOD COMPANIES' JOURNEY SO FAR…

COMMITTMENTS

COP21 · CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

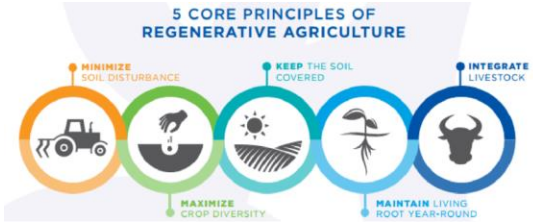
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CLIMATE TRAJECTORY



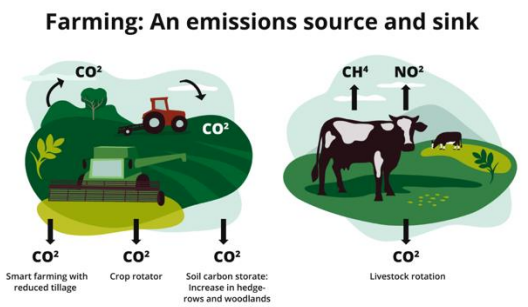
Levers to reach targets ?

REGENERATIVE AG, THE SOLUTION ?



Enough to close the gap to reach carbon neutrality ?

CARBON REMOVALS ?



Enough to close the gap to reach carbon neutrality ?

MAIN FRAMEWORK, STANDARD AND REGULATION RELATED TO CARBON REMOVAL

GHG Protocol (GHGp) 2001

World's most widely used GHG accounting standards: 97% of disclosing S&P 500 companies reported to CDP using GHG Protocol

- **Standards, methodologies and calculation tools** to calculate companies GHG emissions
- **2022**: **new guidance specific for agri-food** : The ***Land Sector and Removals Guidance*** is the methodological guide dedicated to carbon accounting for the land sector and agriculture. It provides guidance on : **how to account emissions and removals from land-use, land-use change and land management?**

Science Based Targets Initiative 2015

The **most recognized standard** offering **methodologies and validation** of the consistency of stakeholder targets
11 000 companies in the SBTi process

- Standards, methodologies and calculation tools **defining minimum criteria to set decarbonisation targets**
- Provides a service that **validates that these targets are compliant with their standards**
- **2022 :** SBTi released its **Forest, Land and Agriculture (FLAG)** guidance with minor updates published on December 15, 2023.

Carbon Removals Certification Framework 2024

The regulatory framework is stable and adopted but not yet operational as methodologies, the registry and operational measures are still being developed.

- This European regulation establishes **rigorous standards** for the certification of activities and technologies **leading to removals** (technological and biogenic). The aim is **to harmonize the rules for MRV** (Monitoring, Reporting and Verification) at the European level that will lead to certificates and contribute to the targets for European sinks in 2050.

GHG PROTOCOL

TYPE OF REMOVALS DEFINED BY THE GHG PROTOCOL

In order to account properly carbon removals, companies shall characterize if they are biogenic or technological and in which storage processes

1. There are two general types of sinks that remove CO2 from the atmosphere

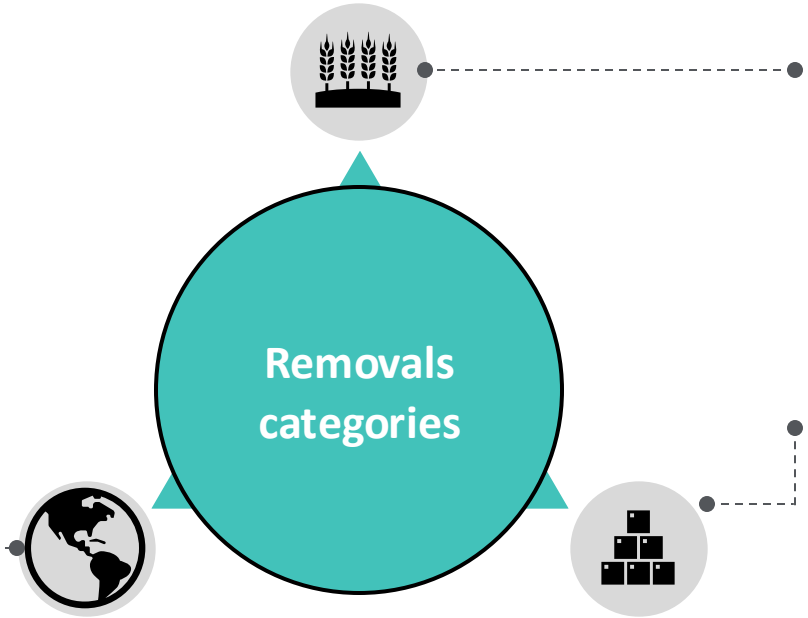
Biogenic

Carbon derived from living organisms or biological processes but not fossilized materials or from fossil sources.

Technological

Carbon derived from technological CO_2 removal processes

2. There are three general types of storage processes: land-based, product and geologic storage



Land Management Net Removals

Net increases of storage in land carbon pools

Orchard plantation

Net Removals with product storage

Net increases of storage in product carbon pools sold by the reporting company

Harvested wood products (e.g wooden beam for the building sector)

Net removals with geologic storage

Net increases of storage in geologic carbon pools

Direct Air Carbone capture and storage *(e.g Climework in Island)*

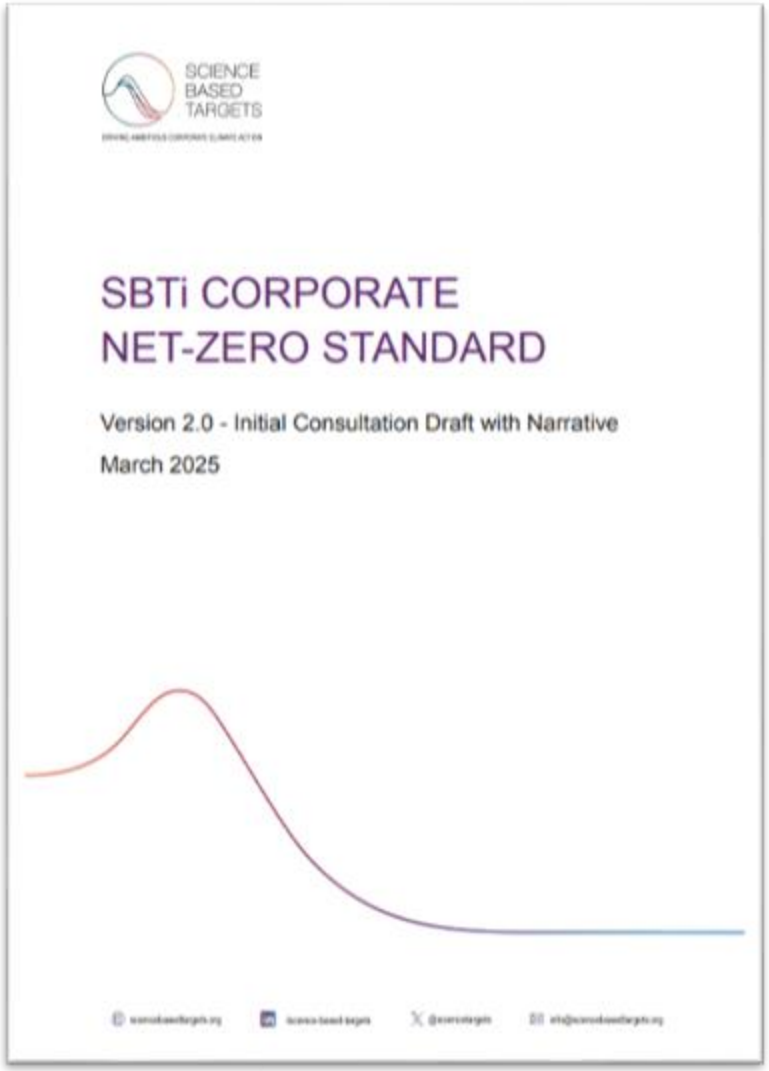
5 REQUIREMENTS NEEDED FOR A COMPANY TO ACCOUNT FOR REMOVALS

GHG Protocol requirements

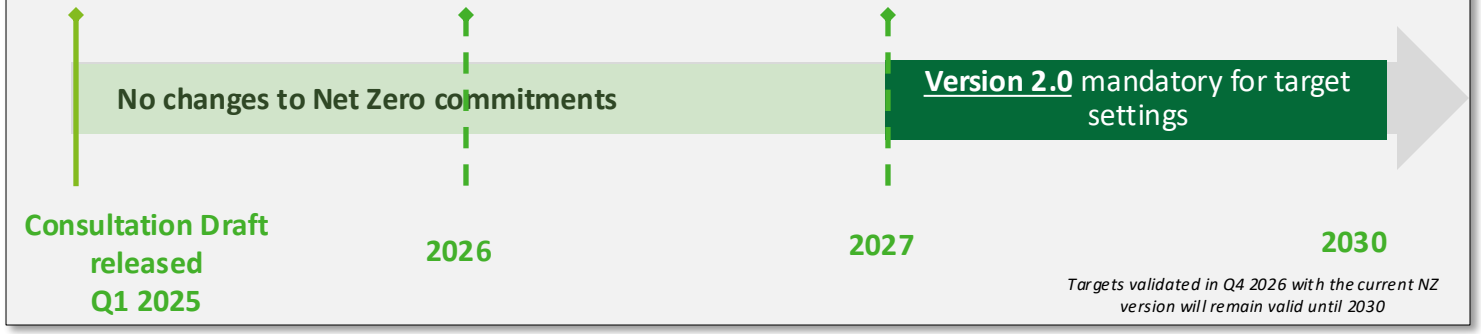
1. Ongoing storage monitoring	Carbon pool(s) where carbon removals occur *(e.g., soil, trees etc.)* **must be monitored on a regular basis (**at least every 5 years), through modalities specified in a monitoring plan.
2. Traceability	There must be **physical traceability at the farm/plot level** or **at the first known processing / collecting point** for commodities purchased by the company.
3. Primary data	Removals must be estimated **using primary data** (*e.g., field measurements, land management practices specific to a production area*).
4. Uncertainty	**Uncertainty ranges must be estimated** for removals to ensure that removals are statistically significant or **methodological choices justified as conservative**
5. Reversals accounting	If removals are re-emitted (*e.g. a farmer returns a meadow to pasture after a few years of implementing practices that increase stock in the soil*), **reversals should be accounted for**, and **mechanisms** should be in place to mitigate these risks.

SBTi

Key takeaways from SBTi consultation regarding the update of its Net Zero standard



Moving from the current standard to the new standard



Main changes reflecting SBTi new vision

- Separate targets for Scope 1 & 2
- Recognition of carbon credits purchased
- Disclosure of a transition plan
- Anticipation of the neutralization of residual emissions
- Use of low-carbon commodity certificates, including agricultural products
- Absolute long-term scope 3 targets under consultation
- ...

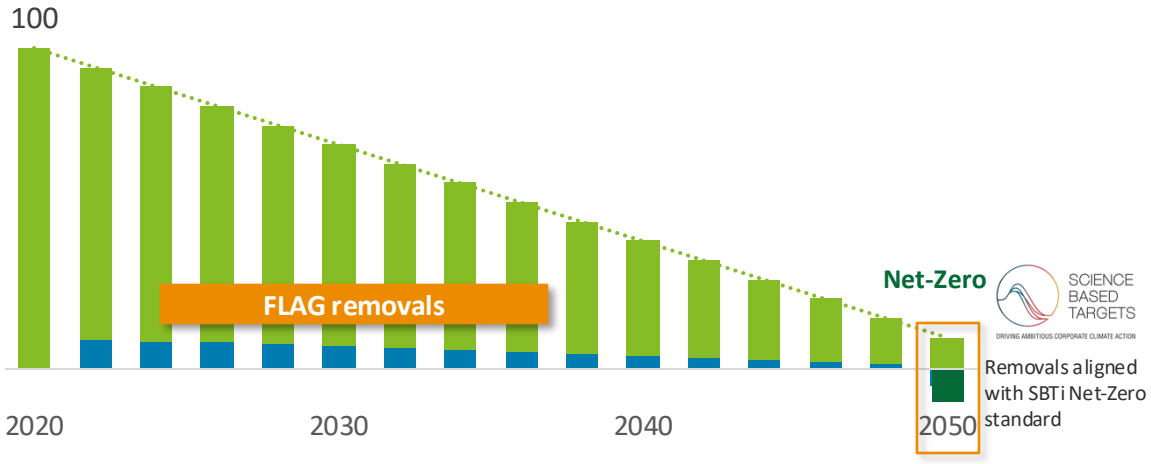
SBTi has radically revised the standard in recognition of the difficulties companies face in achieving their objectives

Necessity to understand what is at stake and how it will impact Companies' Net Zero Climate targets

PREVIOUS SBTi GUIDANCE ON REMOVALS

Removals could be used 1) by FLAG companies through soil sequestration 2) by all companies to neutralize their residual emissions by 2050

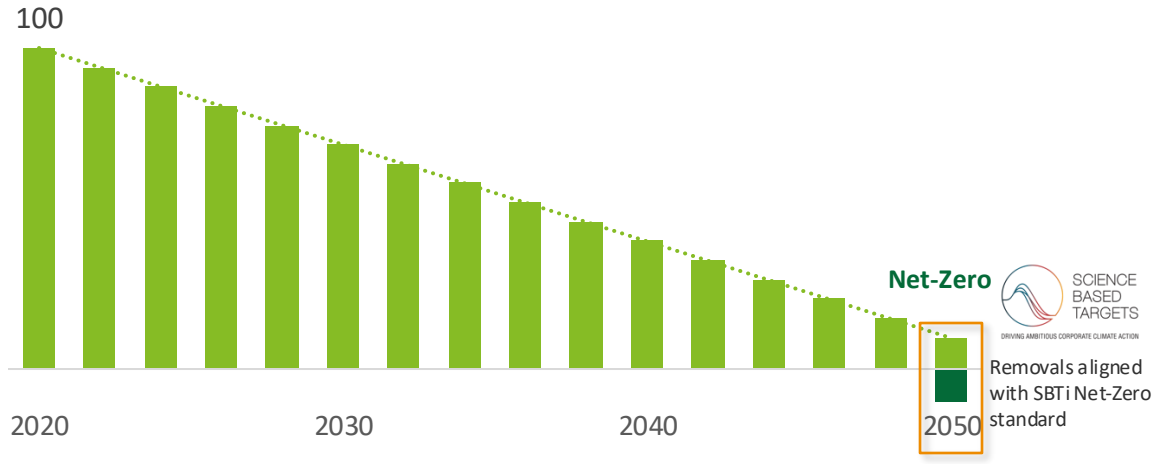
Illustrative FLAG roadmap to Net-Zero ($MtCO_2e$)



Contribution to the FLAG climate strategy:

- **Removals** can **count toward FLAG pathways alongside emissions reductions**
- Removal activities are only **inclusive of on-farm/in-forest supply** chain actions that sit **within company value chains.**

Illustrative roadmap to Net-Zero ($MtCO_2e$)



Neutralisation of residual emissions:

- **Residual emissions need to neutralized** (i.e. removed from the atmosphere) **at the latest by 2050**
- **Removals used to neutralize residual emissions** can be **sourced from various type of projects** (ex: nature-base solutions, technological, …) and **within or outside the value chain**

GHG emissions | FLAG removals | Removals of residual emissions

NEW SBTi GUIDANCE ON REMOVALS

Neutralizing residual emissions could start earlier than 2050 through interim residual targets, and removals could be used to fill the gap of underperformance emissions reductions and “missed target”

No changes on SBTi FLAG communicated yet

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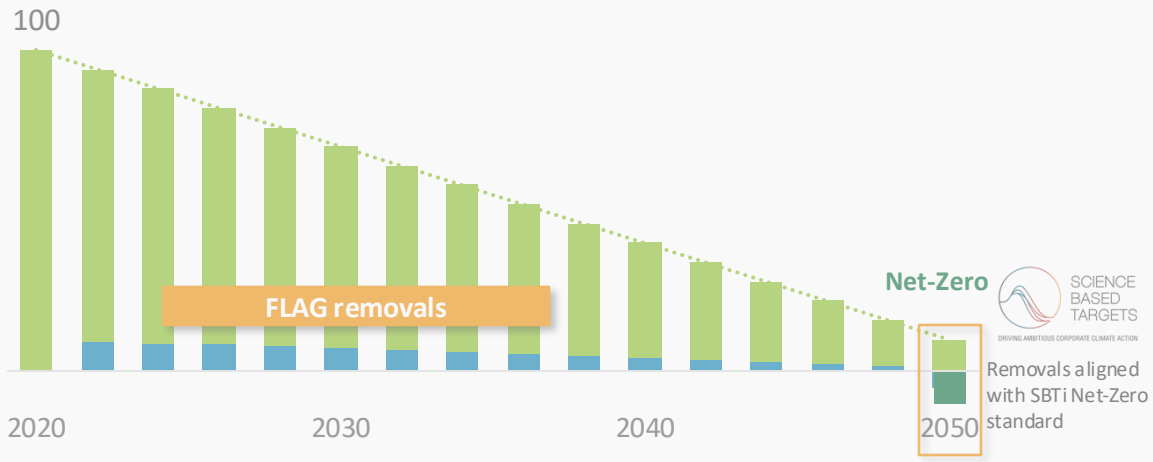

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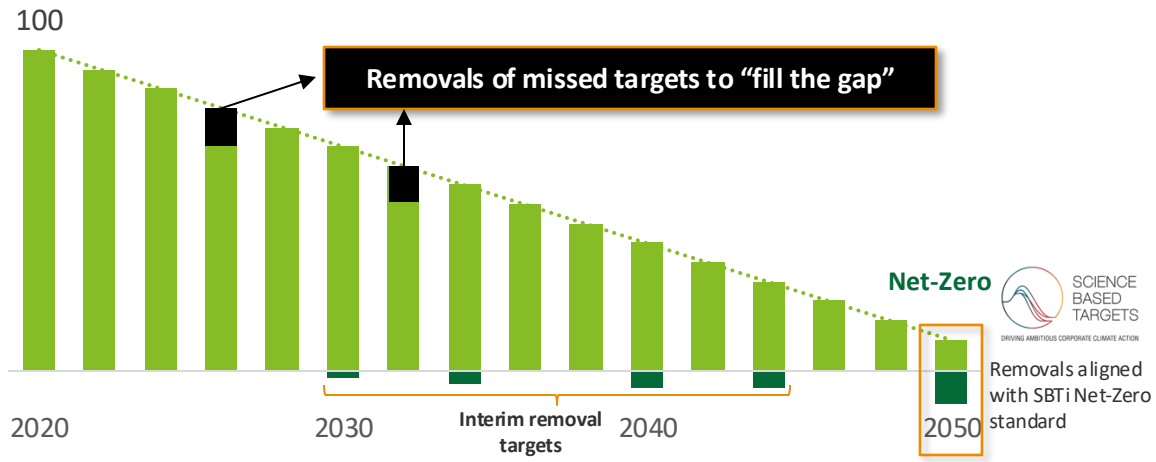


Neutralisation of residual emissions:

NEW **Companies can address underperformance for the previous cycle through the permanent removal of carbon from the atmosphere**

NEW **Companies need to set interim residual targets emissions**

GHG emissions | FLAG removals | Removals of residual emissions

KEY TAKEAWAYS

Removals become central in corporate climate strategies

Removals can currently count toward FLAG pathways alongside emissions reduction, this might evolve following the new SBTi NZCS guidance.

Companies could address the underperformance of the previous cycle by permanently removing carbon from the atmosphere.

Neutralisation of residual emissions is strengthened as SBTi propose that companies set interim residual emissions targets as early as 2030, compared to 2050 in the previous version

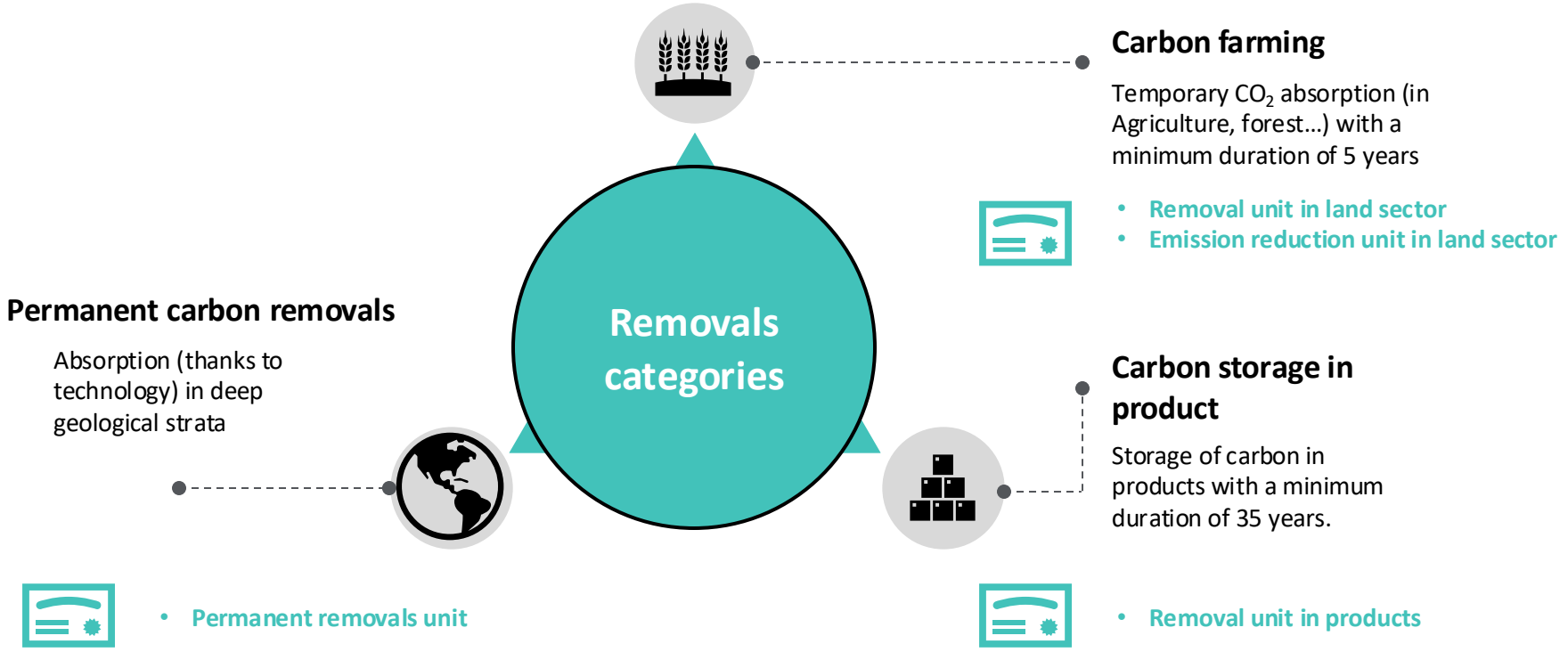
CARBON REMOVAL CERTIFICATION FRAMEWORK

TYPE OF REMOVALS AS DEFINED BY THE CRCF

To better identify and account for removals, the guidelines identify different types of carbon removals.

Under the CRCF , three types of carbon removals are described that will lead to four types of certificate.

The CRCF describes three different categories of removals…



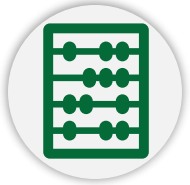
QUALITY CRITERIA UNDER THE CRCF (IN DEVELOPMENT)

The European Commission, assisted by a group of experts, **is now working on the development of methodologies for the certification** of several carbon removal activities. These methodologies **must meet several quality criteria** related to quantification, additionality, long-term storage, and sustainability.

QU.A.L.ITY CRITERIA

QUANTIFICATION

***Carbon removal activities are measured accurately**. For carbon farming, standardized scenarios are being defined based on pedo-climatic characteristics, social and technological circumstances in the EU*



ADDITIONALITY

***Carbon removal activities go beyond standard market practices and legal requirements.** If standardized scenarios as defined per the EU is used, then additionality is met.*

LONG-TERM STORAGE

***Permanent (technological) and temporary storage (Carbon farming) are differentiated**. Carbon farming units will be valid for a minimum of 5 years and will need to have monitoring audit to be valid over this period*

SUSTAINABILITY

***Carbon removal activities should respect the Do No Significant Harm (DNSH) principle and support other sustainability objectives.** Especially for carbon farming units that will need to contribute to enhancing biodiversity and soil health*

EXAMPLE OF METHODOLOGIES IN DEVELOPMENT FOR AGRICULTURE AND FORESTRY

(Expected to be operational in 2026)

- ✓ Draft methodology for mineral soils and agroforestry
- ✓ Draft methodology for peatland rewetting
- ✓ Draft methodology for tree planting on unused and severely degraded land

4 REQUIREMENTS NEEDED TO EMIT REMOVALS CERTIFICATE UNDER THE CRCF

CRCF requirements in discussion for “Mineral Soil and Agroforestry”

The CRCF has adopted 4 principles that will drive the development of specific methodologies for technological removals, carbon farming removals and products removals. We propose here **to focus on known elements of the methodology “Mineral Soil and Agroforestry”** where **carbon removals for meadows are expected to be included**.

	Eligible activities	Baseline	Quantification approach	Additionality	Co-benefits
Elements in discussion for the draft methodology “Mineral Soil and Agroforestry” (in development)	• **All agricultural practices that** increase carbon removals (no pre-defined list) • **All agroforestry practices that increase carbon removals** in above- and belowground biomass No predefined list of practices, eligibility will be based on sustainability criteria and quantification approach.	The European Union chooses to prioritize standardized and highly representative reference scenarios that reflect comparable practices and processes. The Joint Research Center (JRC) is currently working on standardized scenario at the EU level. Elements discussed include : • Baseline will be provided and will not need to be computed • Baseline will be regional (regional still need to be defined) • Early movers will be partially compensated (5 years ago)	Two quantification approaches are being considered for removals on mineral soils : **1) Re-measure approach** : Soil sampling at Y0 and at Y+5 **2) Model approach** • Soil sampling to calibrate for tier 3 model (e.g Daycent) • Re-sampling in 20% of sampling location for model verification at Y+5	The regulation states that if a standardized reference scenario is used, additionality is presumed. The CRCF framework will leave the possibility to use **a specific scenario**, but additionality tests will be required. (not specifically discussed yet for the draft methodology “ Mineral soil and agroforestry”)	Mandatory co-benefits are being discussed. One of these mandatory co-benefits **could be based on indicators from Nature Restoration Regulation** such as : • Improvement of stock of organic carbon in cropland mineral soils • Share of agricultural land with high-diversity landscape features Other co-benefits areas considered are : • **Climate Change adaptation** • **Sustainable use and protection of water and marine resources** (e.g Limitations on use of irrigation in water stressed areas) • **Pollution prevention and control** (e.g Limitation on use of plant protection products) • **Protection and restoration of biodiversity and ecosystems** (e.g No negative effects on Natura 2000 sites)

WHAT IS AT STAKE FOR AGRIFOOD COMPANIES ?

COMPANIES NEED TO MOVE FORWARD DESPITE AN EVER-CHANGING CARBON CREDIT MARKET

GHG Protocol (GHGp) 2001

- ***Waiting for final version by end 2025***

Science Based Targets Initiative 2015

- ***Consultation survey for Version 2 of Corporate Net Zero Std***

Carbon Removals Certification Framework 2024

- ***Waiting for more operational details (2026)***

Call to action

Despite this **ever-changing environment**, companies cannot afford to remain in a standby posture.

Companies need to **keep moving forward** if they are not to fall far behind in their commitments:

- Risk of maintaining outdated claims;
- Impact of rising spot prices on budget;
- Need to source high-quality credits;
- Long carbon project development times.

Nestlé

Share your opinion !

BÉATRICE MARIE-LE-GALL

alliance AGRICULTURE RÉGÉNÉRATRICE

Nestlé Good food, Good life

#5 Webinare: Alliance for Regenerative agriculture

Nestlé's Net Zero Roadma

Net zero by 2050

20%
emissions reduction by 2025

50%
emissions reduction by 2030

Net zero
emissions by 2050 at the latest

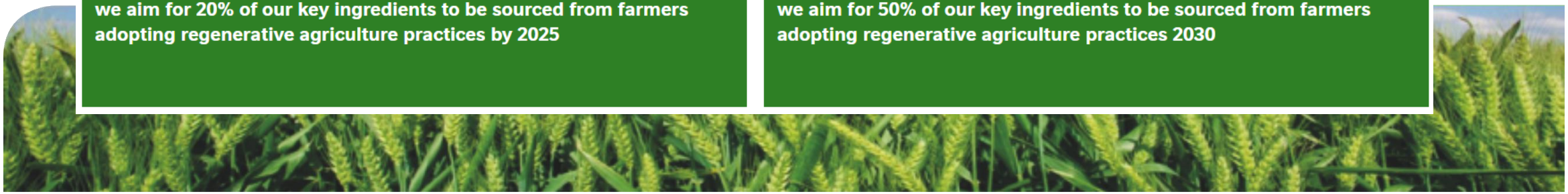
Nestlé’s Net Zero Roadmap
Sourcing our ingredients sustainably : 21,3% already achieved in 2024

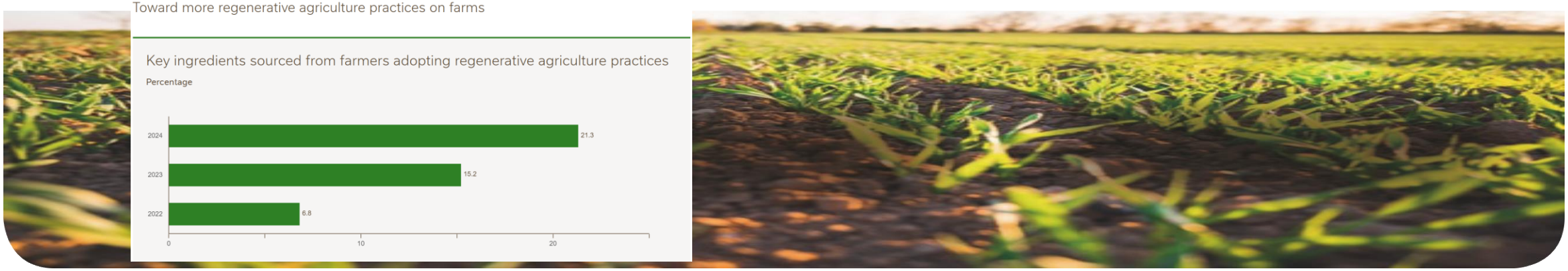
20%

we aim for 20% of our key ingredients to be sourced from farmers adopting regenerative agriculture practices by 2025

50%

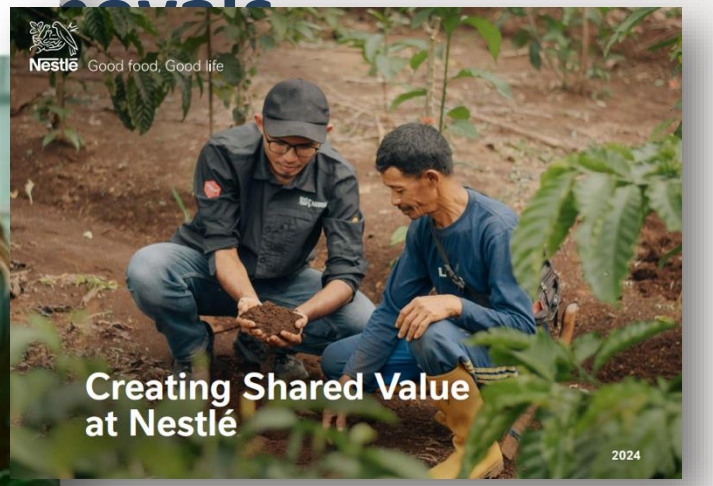
we aim for 50% of our key ingredients to be sourced from farmers adopting regenerative agriculture practices 2030

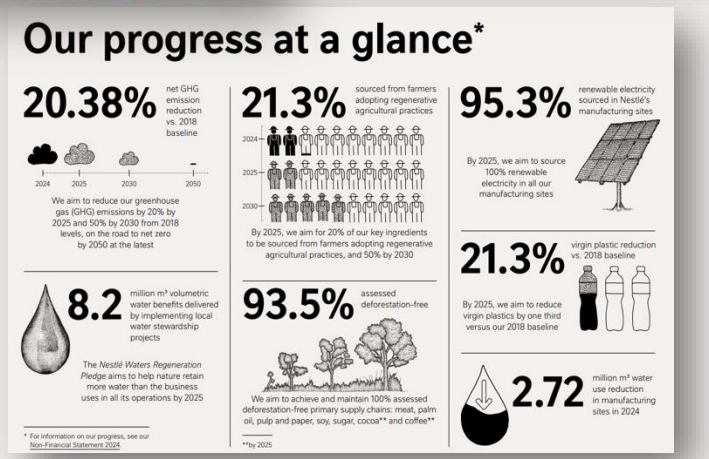


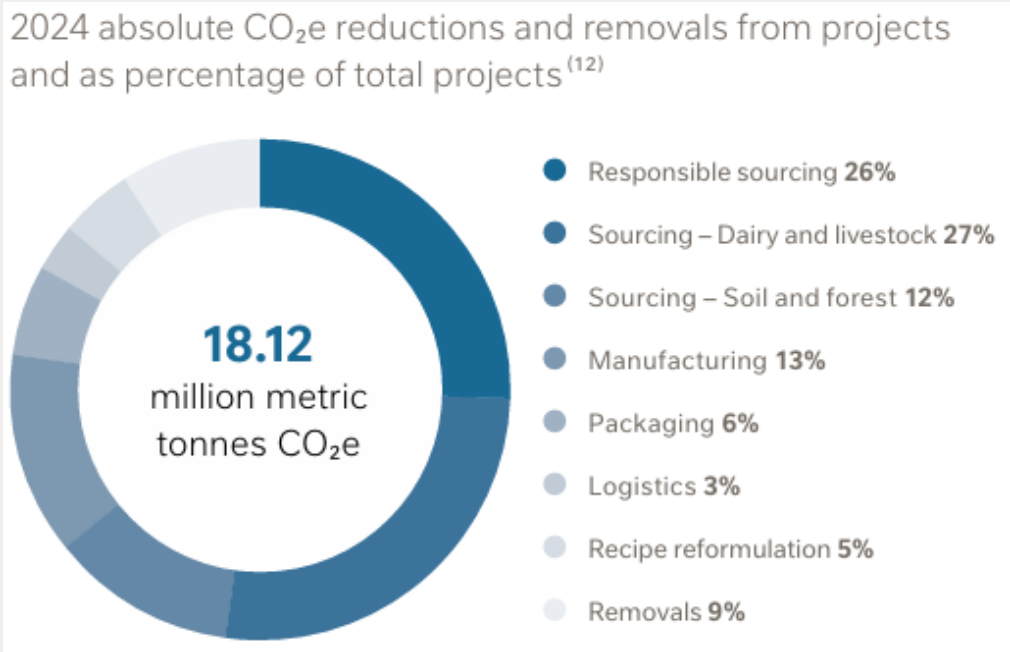


Creating Shared Value at Nestlé & Non Financial Statement 2024

H…ovals





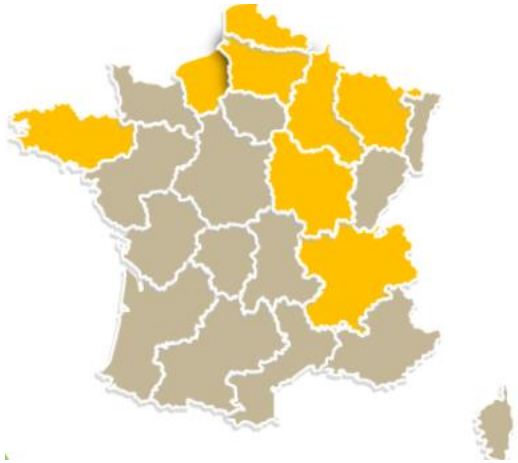


Nestlé France carbon footprint

~95% our GHG emissions from Scope 3

64%

Regenerative Agriculture in France: results so far



- FR pilot for Nestlé in Europe since 2018
- Local agriculture impact in FR

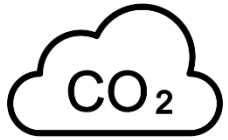
Practices	Nestlé Actions	Farm Maturity Levels
COVER Soils	SUPPORT	LEVEL 3 Advanced RegAg
DIVERSIFY Crop Rotation	MEASURE	LEVEL 2 Practice RegAg
REDUCE Soil Tillage	INCENTIVIZE	LEVEL 1 Engaged Farmer

SOLS VIVANTS

Earthworm

- 5-year contracts
- 10+ suppliers
- 380 farmers engaged for 120 000 T Raw Materials
- 200 000 trees planted in our supply chain

A Systemic Change Starting with Soils

- CARBON 

- WATER 
- BIODIVERSITY 
- FARMER INCOME 

How to store carbon in soils & measure removals?

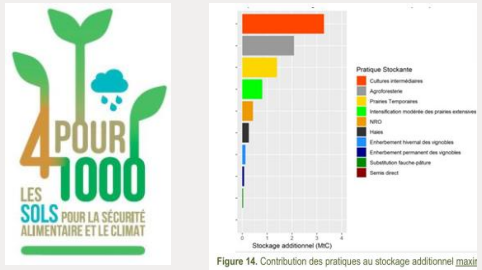


Figure 14. Contribution des pratiques au stockage additionnel maxir

KEY EXPECTED BENEFITS OF REGENERATIVE AGRICULTURE APPROACHES

Regenerative agriculture interventions can deliver multiple benefits.

Impact: ● Minor ●● Moderate ●●● Major	Soil	Water	Biodiversity	GHG mitigation
Minimum tillage	ʃʃʃ	●●	●●	●●●
Cover crops, mulching & crop residues cover	ʃʃʃ	●●	●	●●●
Diversified crop rotation	ʃʃʃ	–	●●●	●●
Intercropping	ʃʃʃ	●	●●	●
Integrated pasture management & grazing strategies	ʃʃʃ	●●	●	●●●
Agroforestry & silvo-pastoral systems	ʃʃʃ	●	●●●	●●●
Hedgerows & green buffers	ʃʃʃ	●	●●●	●●●
Water management	ʃ	●●●	–	●
Organic fertilizers	ʃʃʃ	●●●	●●	●●●

* Excerpt from The Nestlé Agriculture Framework.

- Measure baseline Y0
- Simulate trend in between

SIMEOS AMG

- Measure progress Y5

Key Levers to succeed in accelerating and transforming

Investment

Cover significant cost with measurement support, incentives

Access to co-funding

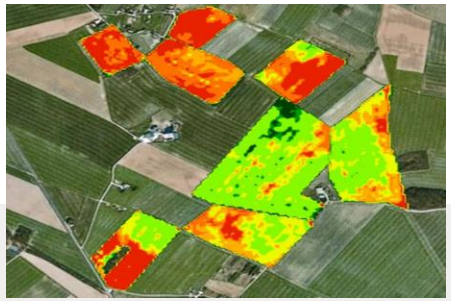
Long term engagement

Collaborative projects

Harmonise approaches for farmers

Value the full crop rotation

Share fixed costs



Measurement

Optimize Data collection

Develop new means

Valorization

Develop comprehensive story-telling

Engage our clients & consumers

Agroforestry case : Uniting Trees, Crops, and Animals for Sustainable Land Use

Nestlé France

Agroforesterie
ASSOCIATION FRANÇAISE

Earthworm

RÉSEAU HAIES France

Agroforestry, a key lever for a sustainable agriculture in France

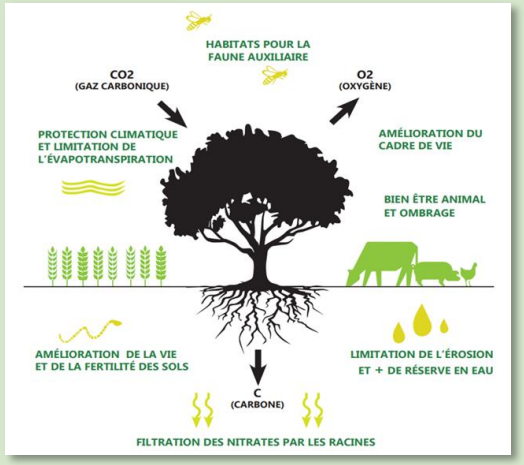
Clear benefits !

Farmers

Agronomical and Environnemental & Economical benefits

Animal Well Being

Landscape impact



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Carbon benefits

Biodiversity claim

Communication

Territories

Self explanatory impact for consumers

Communities interest

Political interest

Public funds

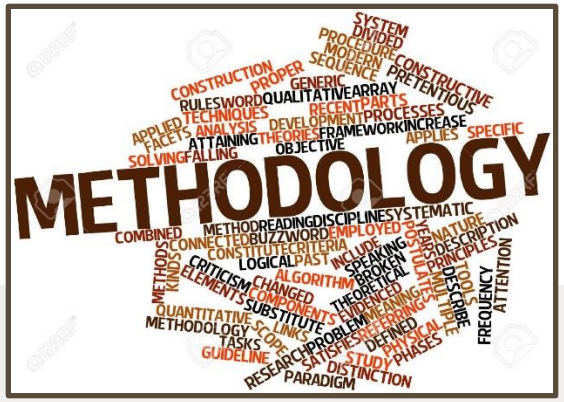
PACTE EN FAVEUR DE LA HAIE

+50 000 km de haies d'ici 2030

Le plan « haies », piloté par le ministère de l'Agriculture et de la Souveraineté alimentaire, vise à restaurer la biodiversité dans les milieux agricoles tout en valorisant les produits des haies.

*Une ambition politique énoncée par le **Pacte en faveur de la Haie** en septembre 2023 pour accélérer sur la connaissance, la préservation, la restauration et la valorisation des haies en France*

Besides benefits, Removals impact and challenges



Robust Methodologies

LABEL BAS CARBONE

La méthode Haies

La méthode Grandes Cultures

Benefits Sharing Allocation

GREENHOUSE GAS PROTOCOL

ARVALIS

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Operational Challenges

Land owner

Perenniality over time

Local specificities

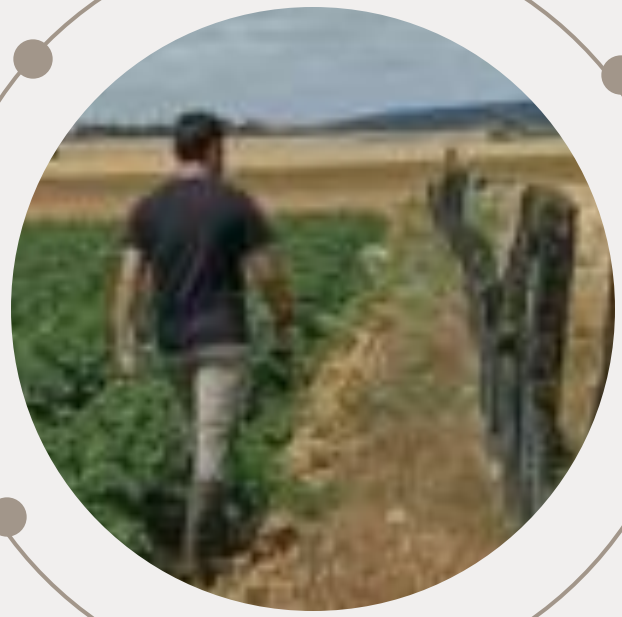
Time-consuming measurement

Long term engagement

Agroforestry developments, more than just carbon !

PLANTATIONS

Sponsorship of the French Agroforestry School



OUR TERRITORIAL APPROCHES

OUR RESEARCH & Expérimentations

FARMERS AT THE HEART OF OUR PROJECTS

Good food, Good life

Q&A

YOUR QUESTIONS

MARIE-LAURE EYCHENNE

Responsable
Développement Durable

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THANK YOU!

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