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**INAGRO & INTERREG NSR Carbon Farming | Belgium**



24-25 March 2021  
EIP-AGRI Workshop "Towards carbon neutral agriculture"



**Interreg**  
North Sea Region  
**Carbon Farming**  
European Regional Development Fund



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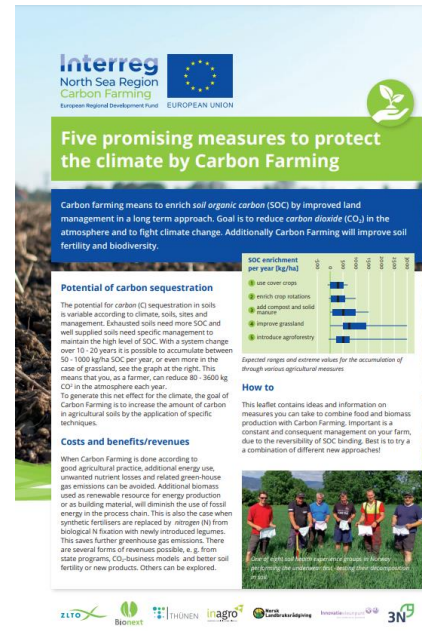
# Carbon Farming

## Implementation of measures to achieve carbon neutral agriculture


Franky Coopman – Inagro (Belgium)

# Challenges & barriers

- General (EU) list of accepted agricultural measures and corresponding C-sequestration numbers => promising top 5
- A lot of agricultural measures are not visible => communication: fact sheets, video, testimony ...
- NL/EN: <https://www.inagro.be/carbonfarming>
- EN: <https://northsearegion.eu/carbon-farming/>



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## Five promising measures to protect the climate by Carbon Farming

Carbon farming means to enrich soil organic carbon (SOC) by improved land management in a long term approach. Goal is to reduce carbon dioxide (CO<sub>2</sub>) in the atmosphere and to fight climate change. Additionally Carbon Farming will improve soil fertility and biodiversity.

**Potential of carbon sequestration**

The potential for carbon (C) sequestration in soils is variable according to climate, soils, sites and management. Exhausted soils need more SOC and well supplied soils need specific management to maintain the high level of SOC. With a system change over 10 - 20 years it is possible to accumulate between 50 - 1000 kg/ha SOC per year, or even more in the case of grassland, see the graph at the right. This means that you, as a farmer, can reduce 80 - 3500 kg CO<sub>2</sub> in the atmosphere each year.

To generate this net effect for the climate, the goal of Carbon Farming is to increase the amount of carbon in agricultural soils by the application of specific techniques.

**Costs and benefits/revenues**

When Carbon Farming is done according to good agricultural practice, additional energy use, unwanted nutrient losses and related greenhouse gas emissions can be avoided. Additional biomass used as renewable resource for energy production or as building material, will diminish the use of fossil energy in the process chain. This is also the case when synthetic fertilisers are replaced by nitrogen (N) from biological N fixation with newly introduced legumes. This saves further greenhouse gas emissions. There are several forms of revenues possible, e.g. from state programs, CO<sub>2</sub>-business models, and better soil fertility or new products. Others can be explored.

**SOC enrichment per year (kg/ha)**





Measure	Approximate SOC Enrichment (kg/ha)
use cover crops	~100
switch crop rotations	~150
add compost and solid manure	~200
improve grassland	~300
introduce agroforestry	~400

Expected ranges and extreme values for the accumulation of through various agricultural measures

**How to**

This leaflet contains ideas and information on measures you can take to combine food and biomass production with Carbon Farming: important is a constant and consequent management on your farm, due to the reversibility of SOC binding. Best is to try a combination of different new approaches!

Five of eight best practice farms in the North Sea Region are showcasing their Carbon Farming activities and experiences. Visit their demonstration plots.

ILTO 
 Bioest 
 INHUNEN 
 Inagro 
 ICR 
 InnoBioscience 
 3N 

# Challenges & barriers

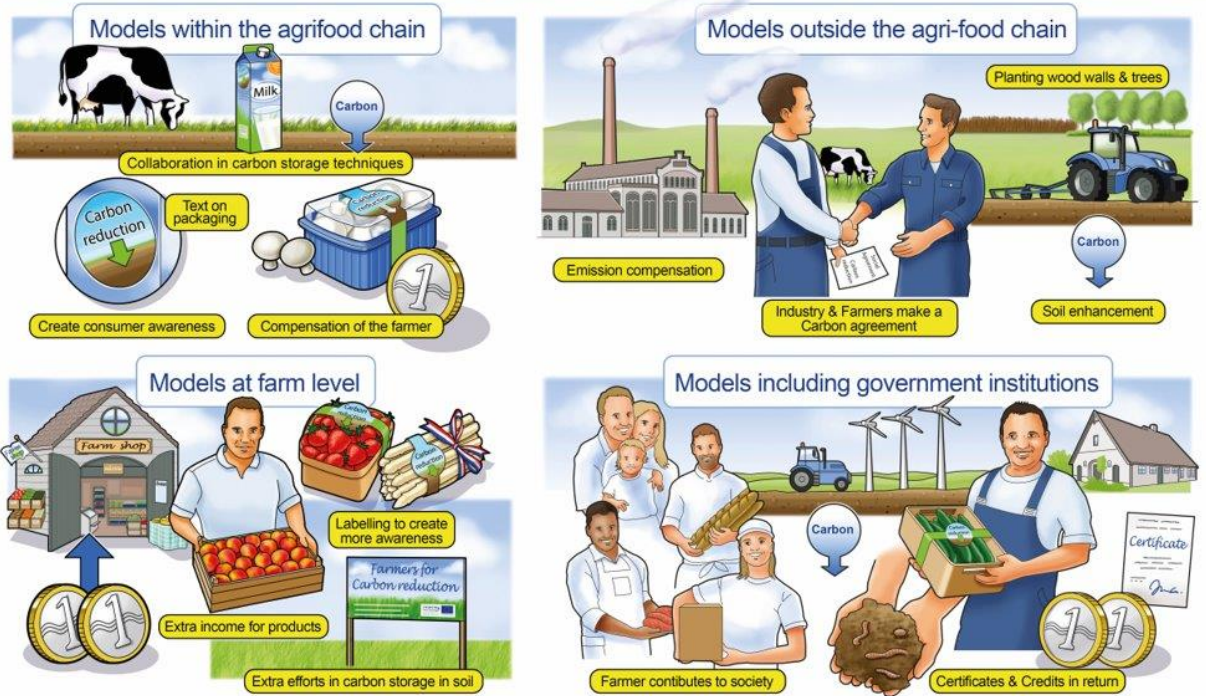
- A lot of farmers are already doing it correct  
=> system based on effort and not on result
- Avoid that a good agricultural approach becomes obligated => financial stimulans
- Get the first system into practice:  
case municipality Beernem
- <https://www.youtube.com/watch?v=dJjEsz5Jqb4>



# Options for collaboration

## Business models for Carbon Farming

Reduce or compensate for CO2 emissions by storing carbon in the soil by applying soil management techniques at farmer's level



# Drivers & incentives => adoption

- Creating support in the agricultural sector
- Stimulating legislation
- Recognition of the good farmers
- Identification of the pioneers
- Demonstration of the good techniques

# Needs for further implementation

- Contribute a role to farmers
- Not only trees are C stockage, but daily practices can also be relevant
- Have regional legislation that follows current practices

# Interreg

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Thank you



# EIP-AGRI workshop

## Towards carbon neutral agriculture

**Online 24-25 March 2021**

All information about the workshop available on

[www.eip-agri.eu](http://www.eip-agri.eu)

on the event webpage

<https://ec.europa.eu/eip/agriculture/en/event/eip-agri-workshop-%E2%80%98towards-carbon-neutral>



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