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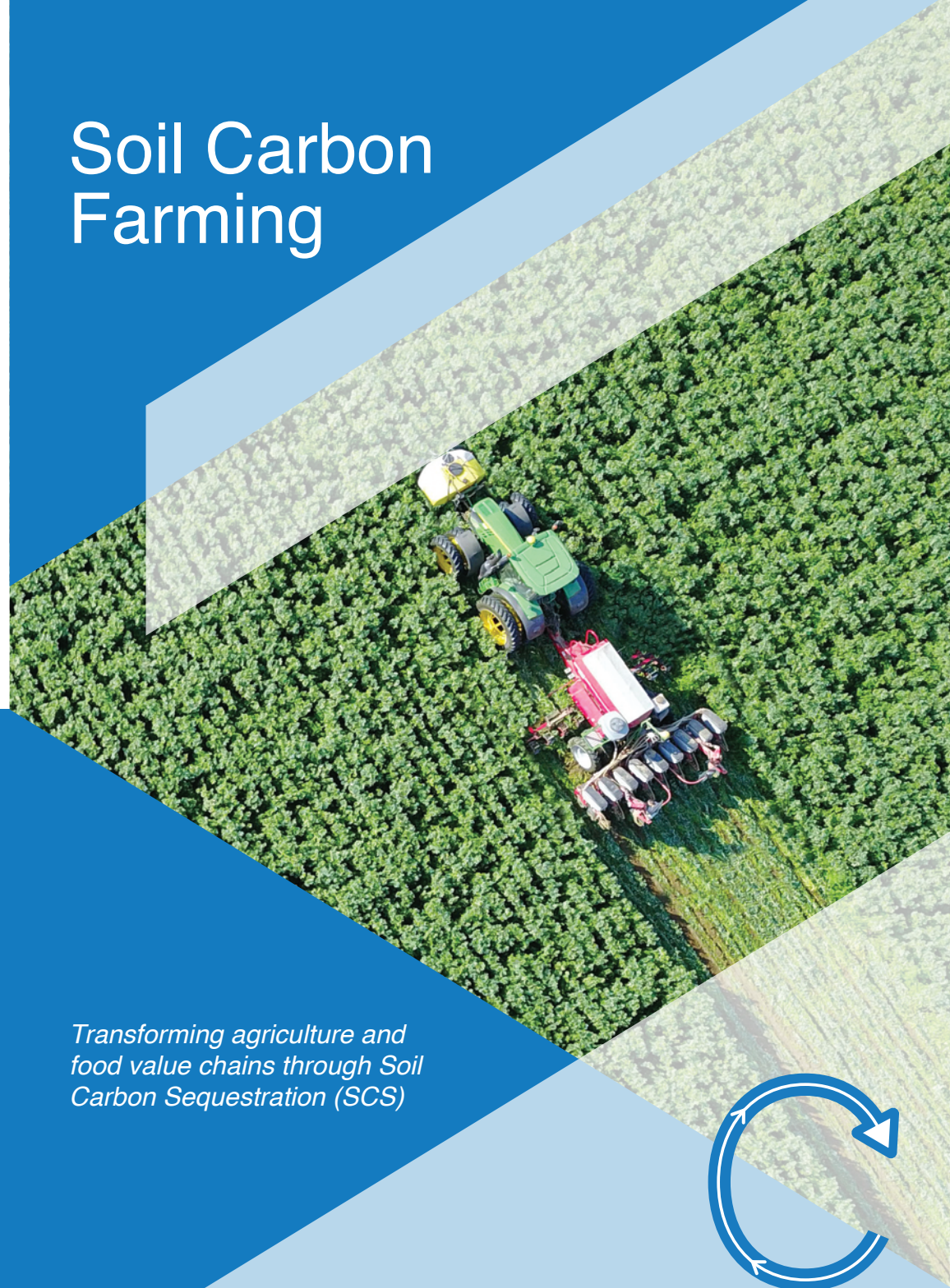
PARTNERS



LUND  
UNIVERSITY



# Soil Carbon Farming



The European Carbon Farming project drives adaptation of farming practices<sup>1</sup> with hands-on knowledge and new technologies to help mitigate climate change and lower emissions from the food value chains.

It will contribute to the European Green Deal and particularly to the Farm to Fork strategy and to the future Common Agriculture Policy.

Therefore project partners work closely with relevant DG's in order to coordinate with other European initiatives and facilitate potential synergies.

*Transforming agriculture and food value chains through Soil Carbon Sequestration (SCS)*

<sup>1</sup> Carbon Farming: Experimenting Soil Carbon Sequestration Deployment in Farming Systems, funded by EIT Climate-KIC

# PROBLEM SOLVING APPROACH

The European agricultural sector represents around **10%** of the total GHG emissions.

With Soil Carbon Sequestration, farmers and food industries can play a large role to mitigate climate change in the EU.

Agricultural soils have huge potential to help address emissions reduction through Soil Carbon Sequestration (SCS).

At present, however, there is no hands-on understanding for climate-smart management of agricultural land understood by relevant stakeholders nor a technology to measure soil carbon levels accurately.

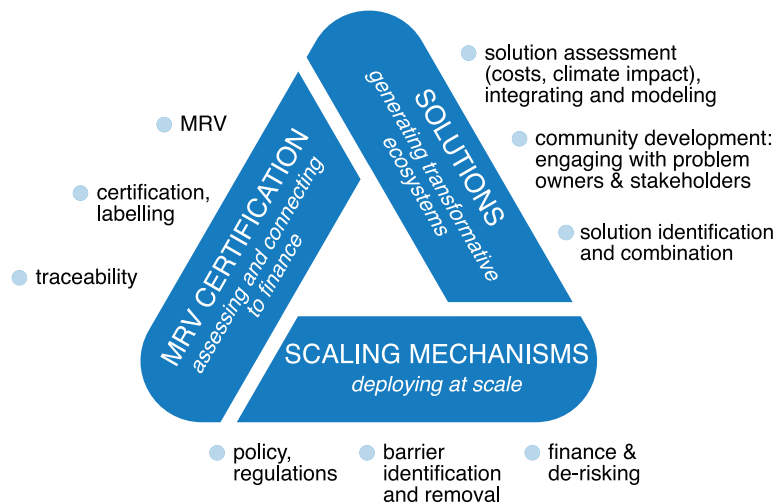
**Carbon Farming** is a term that refers to a variety of agricultural methods aimed at sequestering atmospheric carbon into soils.

SCS has gained international exposure with the *4 per 1000* initiative launched by France at the 21st Conference of the Parties in Paris.

The Carbon Farming Project aims at scaling up and consolidating transformative cases by defining transition requirements at the farm and landscape levels.

Based on two initial cases, we consider three dimensions:

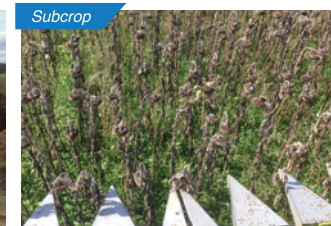
- the solutions
- the Monitoring Reporting Verification (MRV) certification
- the scaling mechanisms.



# CASES

## 1

**AgroCO2ncept**, a bottom up approach driven by farmers that includes most known practices such as crop rotation, cover crops, sub-crops, crop mixes, minimum tillage, compostation and charcoal.



## 2

**Natais**, Naturellement Popcorn case, a top down approach where new farming practices are defined and rolled out amongst more than 260 farmers producing popcorn with novel machinery, a new extension service and a fully integrated food supply chain up to the consumer.



The project also works with an innovative MRV method to measure soil carbon accurately enough for the first time. This novel method includes Sentinel-1 and Sentinel-2 as well as a novel method to sample soil and to consecutively estimate the year on year changes.

Starting with the lessons learned from AgroCO2ncept and Natais, the ambition is to create a network of demonstrative cases throughout Europe to facilitate synergies and scale out learnings rapidly to make Carbon Farming a reality.