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Setting the scene for carbon farming: best practices and challenges: Developing C farming schemes in a soil health perspective

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► To cite this version:

Claire Chenu. Setting the scene for carbon farming: best practices and challenges: Developing C farming schemes in a soil health perspective. Ecomondo, Nov 2023, Rimini, Italy. hal-04537926

HAL Id: hal-04537926

<https://hal.inrae.fr/hal-04537926>

Submitted on 8 Apr 2024

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Setting the scene for carbon farming: best practices and challenges:

Developping C farming schemes in a soil health perspective

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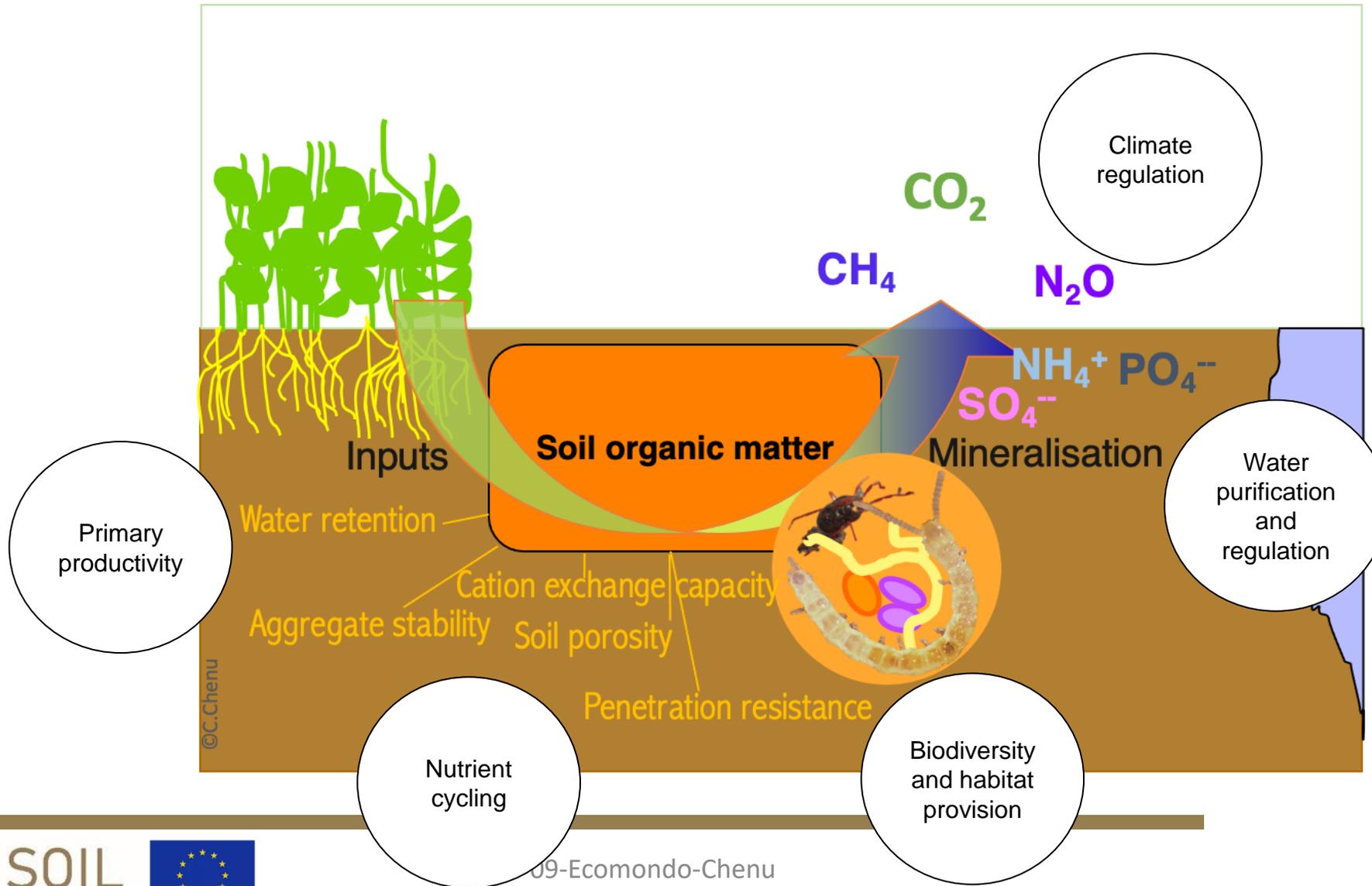
EJP SOIL
European Joint Programme

2023-11-09-Ecomondo-Chenu

EIP SOIL has received funding from the European Union's Horizon 2020 research and innovation programme; Grant agreement No 862695



Why ? Soil organic matter is key to soil quality and soil health



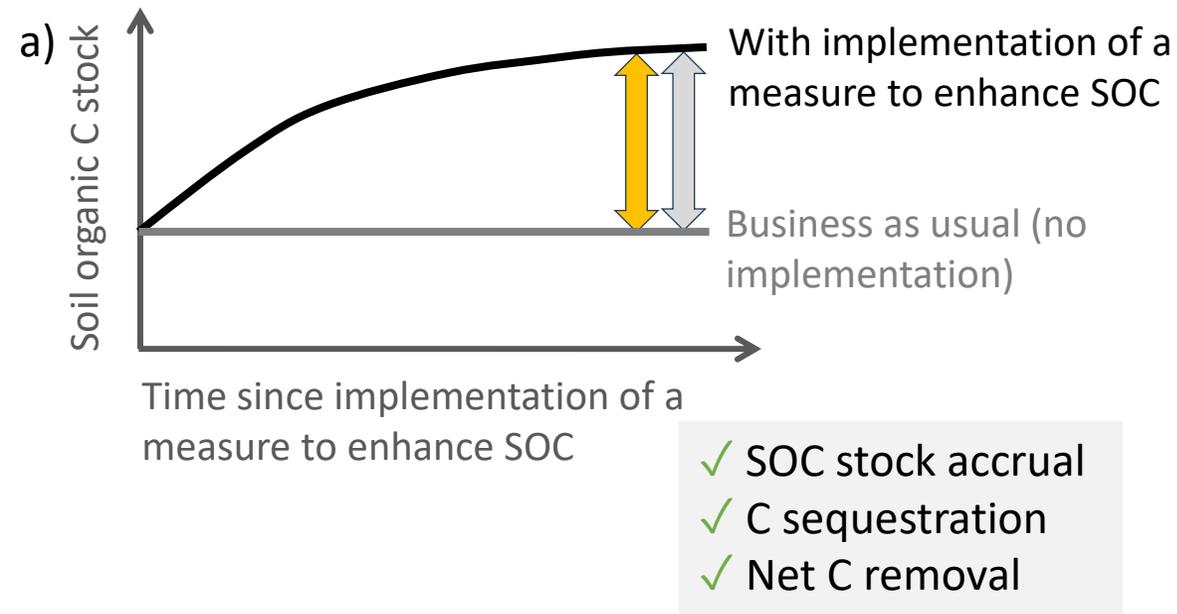
What does it mean? A wider perspective than soil C



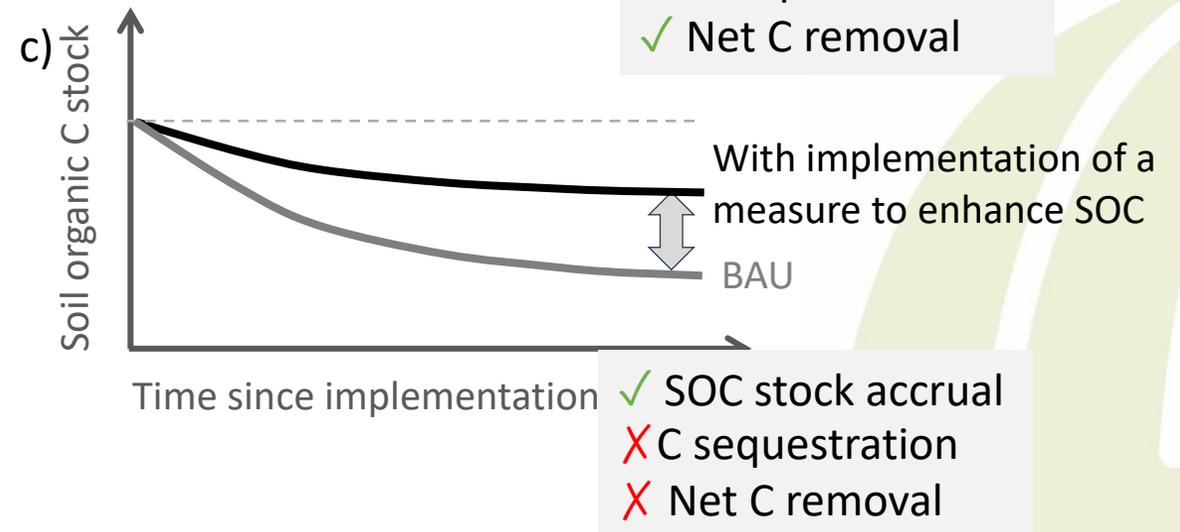
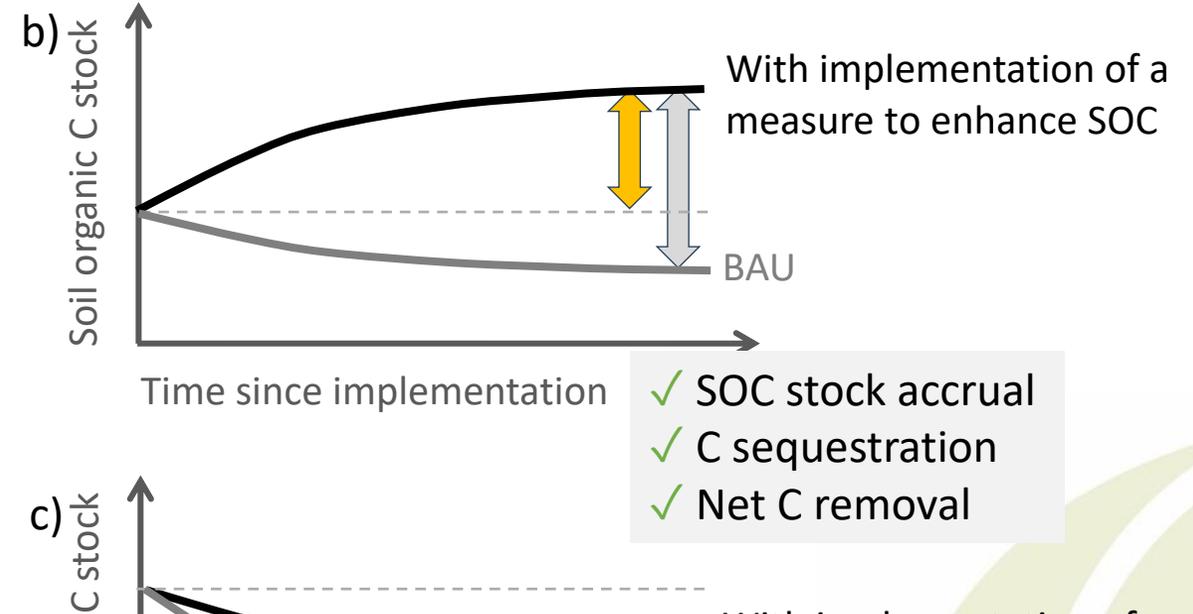
Accounting for synergies and trade-offs

Expected outcome?

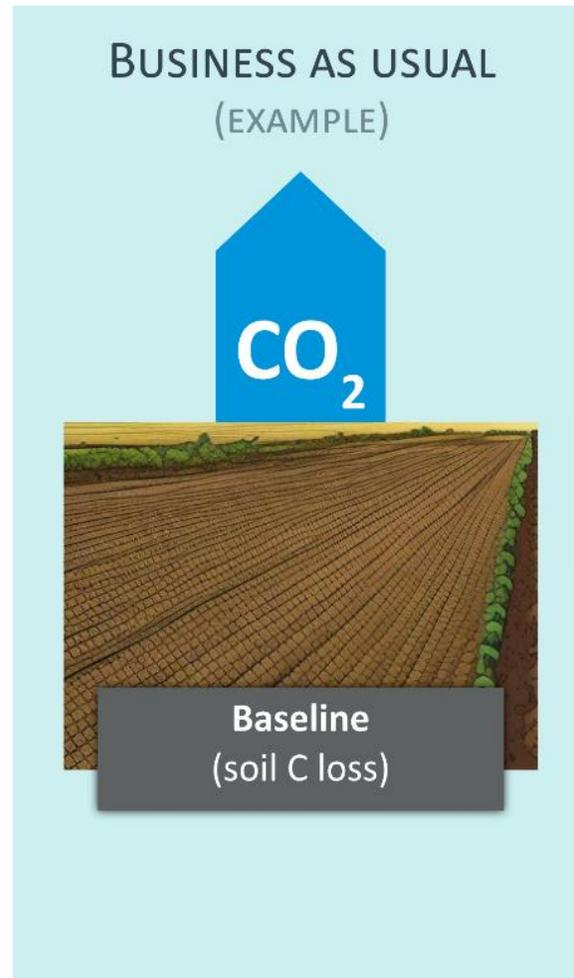
More Soil Organic Carbon for GHG mitigation & for soil health improvement



↕ SOC stock accrual ↕ C sequestration in soil



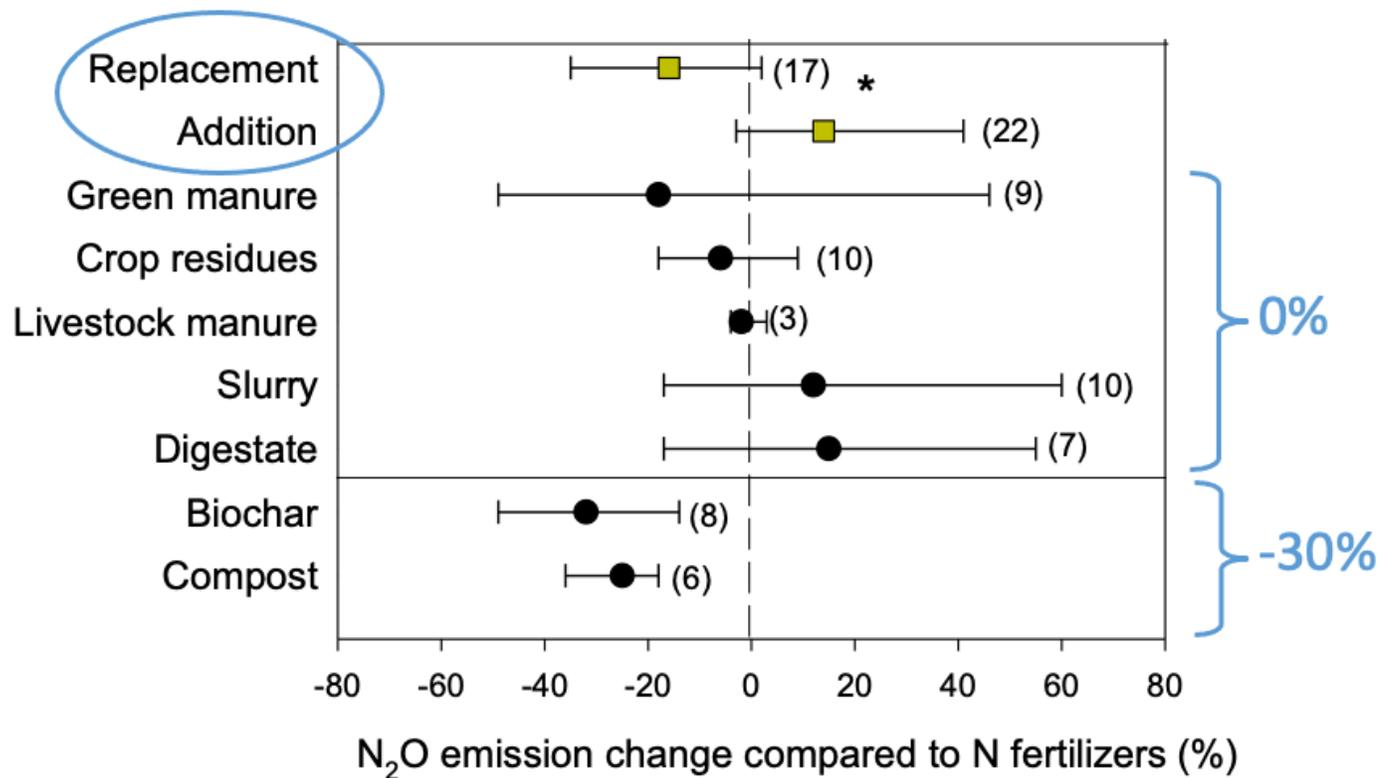
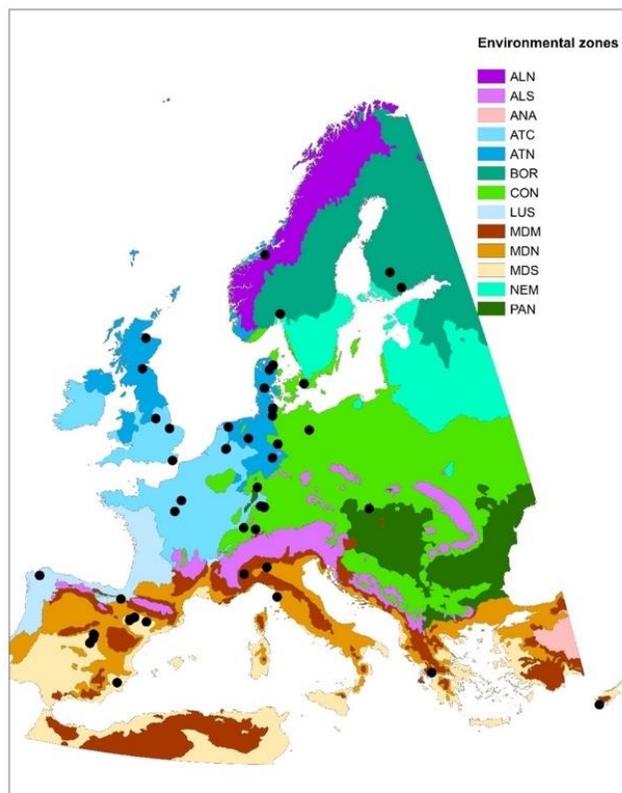
Expected outcome: C sequestration or only C loss mitigation?



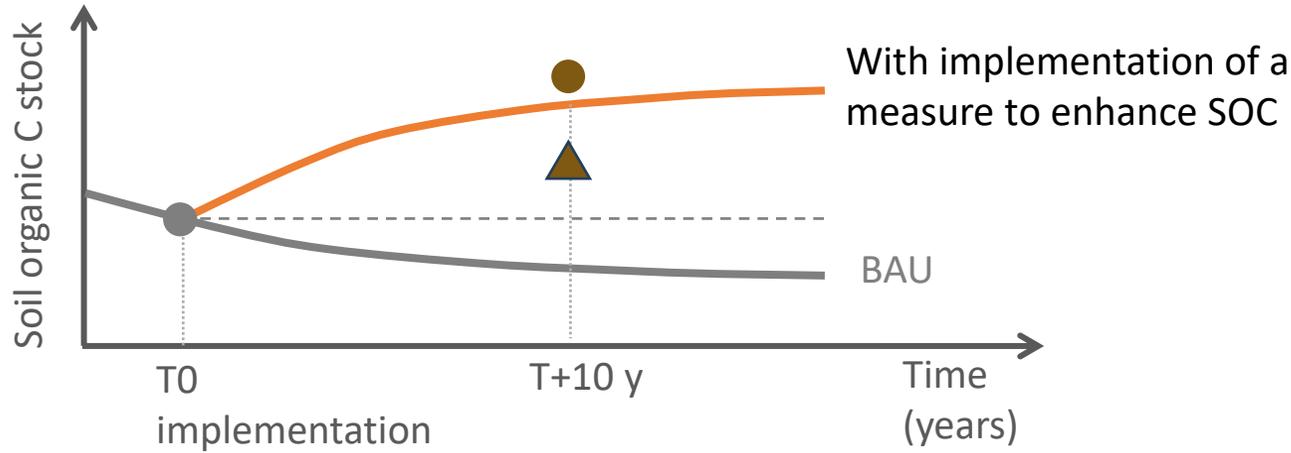
Trade-offs ?

N₂O emissions

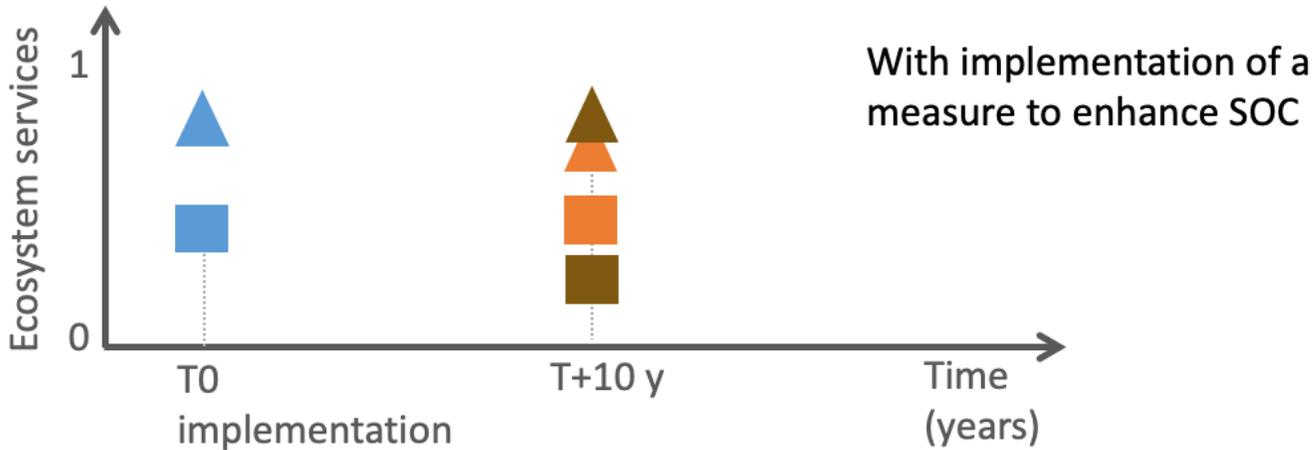
Organic amendments vs mineral fertilizers



Measuring, reporting and verifying



Modelling to predict
Measuring to verify



Conclusion: developing C farming in a soil health perspective?

Desirable, challenging, possible

The way forward : combining at best

Knowledge on the effect of (practices x pedoclimatic conditions) on SOC, GHG, ecosystem services

Modelling to predict SOC, GHG, ecosystem services

Measuring SOC, GHG, soil health indicators

