In a nutshell:

3 pillars

4 transformative cases
Many solutions under development, often by the farmers themselves

- Cover crop selection
- Machinery design
- Compost and biochar production
MRV and certification

• **Progress** with remote sensing tools: 2 complementary approaches developed:
  • SAFYE-CO2 (INRAe, Cesbio), based on annual carbon balance
  • AgriCircle: based on Sentinel data and machine learning
• **Critical**: certification approach, need a common framework
Deployment, scaling: many obstacles!

- Carbon farming solutions are not profit-positive for the farmers
- Costs are often > 50€/T of CO2eq sequestrated and order of magnitude of C sequestration is 1T/ha
- Few value chain actors ready to pay that amount: there is a need to combine reward mechanisms (public + private)
- Combination difficult (additionality, double counting issues, lack of coordination)
- Market payments: consumers value carbon neutral products but carbon neutrality needs to be approached at farm level
- Fairness issue: how to reward the first movers?