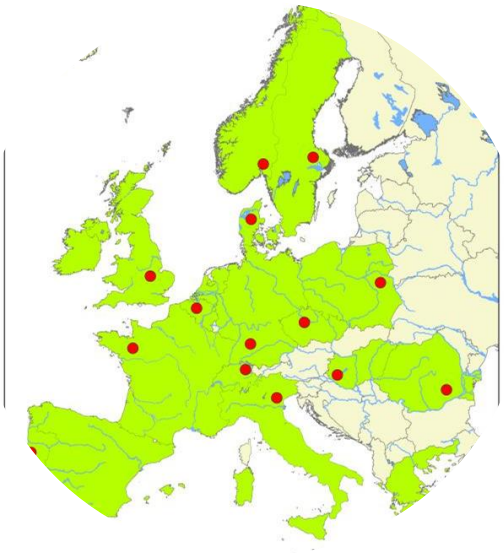
Overview of SoilCare Project
17 May, Palencia

Suzie Lukacova

Milieu, Brussels





SoilCare

Context

Concerns:



- Profitability of crop production
- Competitiveness of EU farmers
- Increasing cost of external inputs

- Environmental sustainability of agricultural systems
- Decreasing soil quality
- Climate change impact on agriculture and vice versa

What is SoilCare?

SoilCare
SOILCARE FOR PROFITABLE AND SUSTAINABLE CROP PRODUCTION IN EUROPE

- 5 year Horizon 2020 project
- 1 March 2016 – 28 February 2021
- Budget of over 7 and half million euro
- 28 partners from 18 countries
- Building on earlier work (e.g. SmartSOIL, RECARE) and collaborating with ongoing projects (e.g. LANDMARK, iSQAPER)

Problem

Soil Improving cropping systems exist

BUT

Low uptake by farmers





What are the reasons for it and what can be done?

Objective

1. Identify,
2. Test ,
3. Evaluate Soil-improving cropping systems (SICS) in 16 study sites across Europe





16 Study Sites

Study Site
1. Flanders, BE
2. Akershus, NO
3. Keszthely, HU
4. Frauenfeld, CH
5. Viborg, DK
6. Loddington, GB
7. Tachenhausen, DE
8. Draganesti Vlasca, RO
9. Legnaro, IT
10. Szaniawy, PL
11. Caldeirão, PT
12. Chania, Crete, GR
13. Orup, SE
14. Prague-Ruzyně, CZ
15. Almeria, ES
16. Brittany, FR





SoilCare

What are SICS?

- Includes: crop type, crop rotation, and the agronomic management techniques
- Criterion-improvement of soil quality
- 3 SICS per site tested





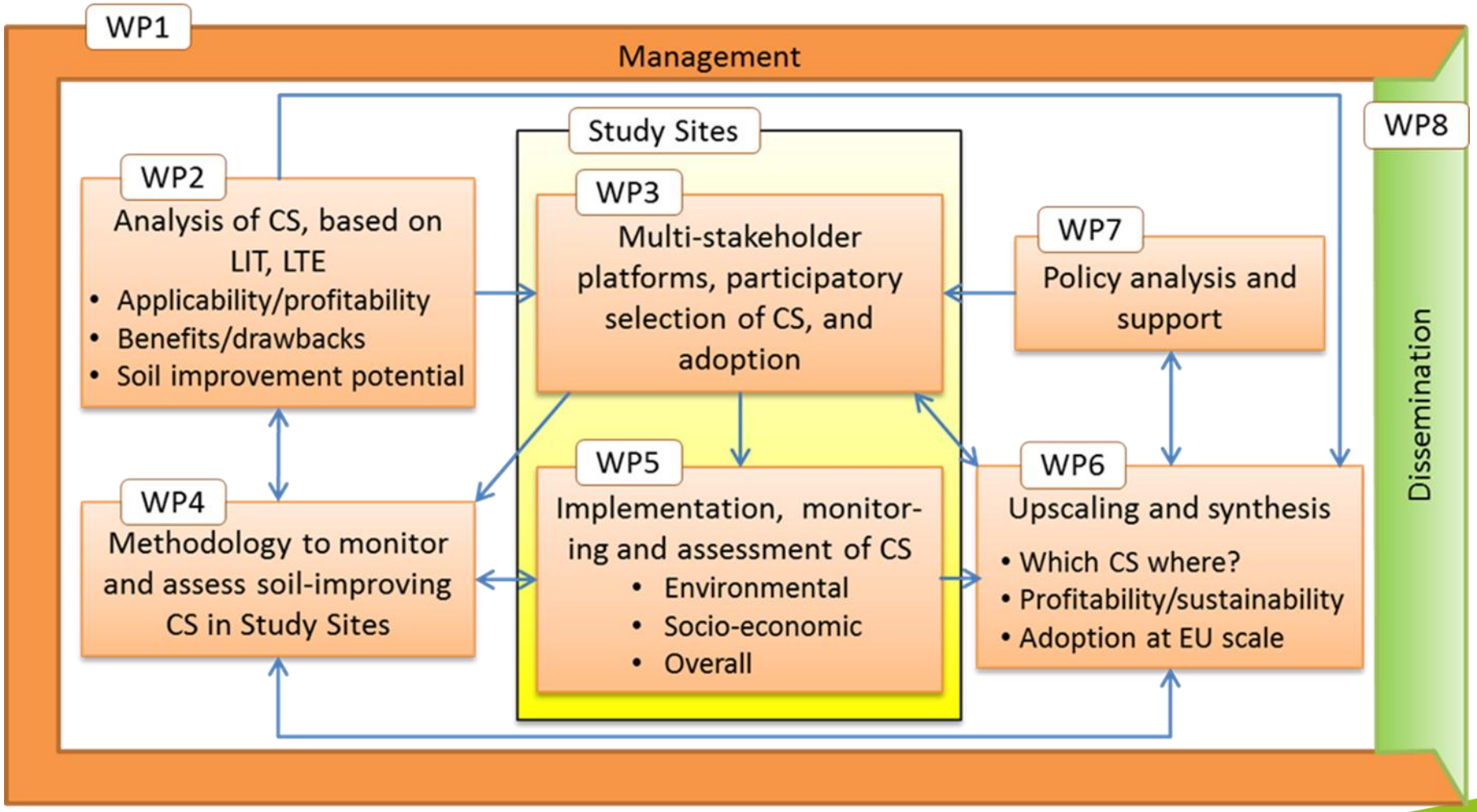
SoilCare

Components of SICS for soil quality, productivity and sustainability

Nr	Components of SICS
A	Crop rotations (1:≥3) + cover crops
A1	Cereals with oilseed crops
A2	Cereals with beans and peas
A3	Cereals with leys and/or legumes
A4	Cereals with root crops
A5	Cereals with vegetables
A6	Rotations with horticultural crops
A7	Mixed crop – animal systems
A8	Permanent cropping systems
B	Integrated nutrient management
C	Enhanced efficiency irrigation
D	Controlled drainage
E	Reduced tillage
F	Integrated pest management
G	Smart weed control
H	Smart residue mulching
J	Controlled trafficking
K	Integrated landscape management

Table 3. Components of SICS for soil quality, productivity and sustainability.

Set-up of SoilCare



SoilCare

WP7: Methodology, current progress and upcoming activities

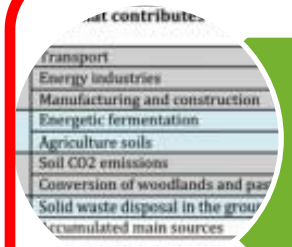
- Core question: **To what extent do policies contribute to the adoption of soil-improving agricultural practices?**



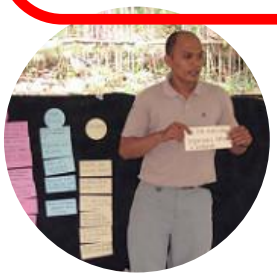


SoilCare

Objectives & tasks



1. To **review** current policies with relevance for soil quality, soil degradation, and adoption of cropping systems.



2. To **select** policy alternatives to enhance soil quality/prevent land degradation in agriculture at Europe, at national, sub-national and local scales.



To **promote** policies that can increase adoption of soil-improving cropping systems.

Soil explicit/implicit in aims, objectives, or instruments

44 policies identified:
Climate change policies: Adaptation Strategy, CCS Directive, Effort Sharing Decision, National Emissions Ceiling Directive, Renewable Energy Directive, Industrial Emissions Directive
Resources: Resource Efficiency Roadmap, Action plan for a Circular Economy, Fertiliser Regulation
Land Degradation & Protection: Soil Thematic Strategy, Soil Sealing Guidelines, LULUCF Decision
Agricultural Policy: CAP Direct payments & Market Measures, RDP, CMO Regulation, Horizontal regulation and Organic Regulation
Forestry: Forest Action Plan and Forest Strategy
Water & maritime policies: Action on Water Scarcity & Drought, WFD, Directive on Environmental Quality Standards, FD, GWD, MFSD, Nitrates Directive, Drinking Water Directive
Waste policies: Waste Framework Directive, Landfill Directive, Sewage Sludge Directive, Waste Management Extractive Industries Directive
Chemicals policies: Sustainable Use of Pesticides Directive
Biodiversity policies: Biodiversity Strategy, Habitats and Birds Directive
Supporting policies: EIA, SEA, Environmental Liability Directive
Funding instruments: CF, ERDF, ESF, H2020, Life+ Programme
Other: 7th EAP, CPR, INSPIRE Directive

Soil quality explicit/implicit in aims, objectives, or instruments.

27 policies identified:
Resources: Fertiliser Regulation
Land Degradation & Protection: Soil Thematic Strategy, Soil Sealing Guidelines, LULUCF Decision
Agricultural Policy: CAP Direct payments & Market Measures, RDP, CMO Regulation, Horizontal regulation and Organic Regulation
Water & maritime policies: Action on Water Scarcity & Drought, WFD, FD, GWD, MFSD, Nitrates Directive, Directive on Environmental Quality Standards, Drinking Water Directive
Waste policies: Sewage Sludge Directive
Chemicals policies: Sustainable Use of Pesticides Directive
Biodiversity policies: Biodiversity Strategy, Habitats and Birds Directive
Supporting policies: EIA, SEA
Funding instruments: ERDF, H2020, Life+ Programme
Other: 7th EAP

17 policies excluded:
Climate change policies: Adaptation Strategy, CCS Directive, Effort Sharing Decision, National Emissions Ceiling Directive, Renewable Energy Directive, Industrial Emissions Directive
Resources: Resource Efficiency Roadmap, Action plan for a Circular Economy
Forestry: Forest Action Plan and Forest Strategy
Waste policies: Waste Framework Directive, Landfill Directive, Waste Management Extractive Industries Directive
Supporting policies: Environmental Liability Directive
Funding instruments: CF, ESF
Other: CPR, INSPIRE Directive

Agricultural practices explicit/implicit in aims, objectives, or instruments.

20 policies identified:
Resources: Fertiliser Regulation
Land Degradation & Protection: Soil Thematic Strategy, LULUCF Decision
Agricultural Policy: CAP Direct payments & Market Measures, RDP, Horizontal regulation and Organic Regulation
Water & maritime policies: Action on Water Scarcity & Drought, WFD, FD, GWD, Nitrates Directive, GWD, MFSD, Nitrates Directive, Directive on Environmental Quality Standards, Drinking Water Directive
Waste policies: Sewage Sludge Directive
Chemicals policies: Sustainable Use of Pesticides Directive
Biodiversity policies: Habitats and Birds Directive
Funding instruments: H2020, Life+ Programme
Other: 7th EAP

24 policies excluded:
Climate change policies: Adaptation Strategy, CCS Directive, Effort Sharing Decision, National Emissions Ceiling Directive, Renewable Energy Directive, Industrial Emissions Directive
Resources: Resource Efficiency Roadmap, Action plan for a Circular Economy
Land Degradation & Protection: Soil Sealing Guidelines
Agricultural Policy: CMO Regulation
Forestry: Forest Action Plan and Forest Strategy
Water & maritime policies: MFSD
Waste policies: Waste Framework Directive, Landfill Directive, Waste Management Extractive Industries Directive
Biodiversity policies: Biodiversity Strategy
Supporting policies: EIA, SEA, Environmental Liability Directive,
Funding instruments: CF, ERDF, ES
Other: CPR, INSPIRE Directive

Addressed to **national and (sub)regional policy-makers and/or farmers.**

16 policies identified:
Resources: Fertiliser Regulation
Agricultural Policy: CAP Direct payments & Market Measures, RDP, Horizontal regulation and Organic Regulation
Water & maritime policies: WFD, FD, GWD, Nitrates Directive, Directive on Environmental Quality Standards, Drinking Water Directive
Waste policies: Sewage Sludge Directive
Chemicals policies: Sustainable Use of Pesticides Directive
Biodiversity policies: Habitats and Birds Directives

In-depth analysis

30 excluded:
Climate change policies: Adaptation Strategy, CCS Directive, Effort Sharing Decision, National Emissions Ceiling Directive, Renewable Energy Directive, Industrial Emissions Directive
Resources: Resource Efficiency Roadmap, Action plan for a Circular Economy
Land Degradation & Protection: : Soil Thematic Strategy, LULUCF Decision, Soil Sealing Guidelines
Agricultural Policy: CMO Regulation
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Funding instruments: CF, ERDF, ES, H2020, Life+ Programme
Other: 7th EAP, CPR, INSPIRE Directive

Context

SoilCare

Multi-actor approach

- Promising SICS selected through multi-stakeholders workshops at 16 locations
- Implemented cropping systems will be monitored with stakeholder involvement, and will be assessed jointly by scientists and farmers



SoilCare

Impacts of SoilCare

1. SICS have been identified across Study Sites,
2. Insight is obtained on how barriers to adopt these techniques can be minimized and overcome, and
3. opportunities for upscaling of adoption at European level are developed.



THANK YOU!
QUESTIONS?FEEDBACK?

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