



# SoilCare

SOILCARE FOR PROFITABLE AND SUSTAINABLE  
CROP PRODUCTION IN EUROPE

Policy analysis:  
PROMOTING SICs  
ADOPTION IN  
DRAGANESTI VLASCA,  
ROMANIA

**SOIL  
HEALTH  
RELATED  
PROBLEMS  
ON SITE**



Soil  
compaction



Temporary  
water deficit



Soil  
erosion



## SOIL-IMPROVING CROPPING SYSTEMS FOR INCREASING SOIL HEALTH IN DRAGANESTI VLASCA, ROMANIA

Soil quality at the Draganesti Vlasca study site is affected by compaction, temporary water deficit and excess as well as erosion. The soils in the area are naturally susceptible to compaction and water excess and/or deficit due to their high clay content. The Soil-improving cropping system (SICS) tested at the study site and which is thought to address these soil threats includes reduced tillage measures which therefore represent important practices that might benefit soil health in the region if widely taken up.



## FACTORS AFFECTING THE UPTAKE OF SICS

Evidence gathered through interviews, desk research and stakeholder workshops shows that different contextual factors contribute to and undermine the uptake of SICS in general, and of the practices tested in the study site in particular. Some of the findings suggest that the uptake of SICSs is improving. On the other hand, barriers to the uptake of these practices remain.

The key factors shaping the success of policy instruments include:

### **Outdated legislation**

It is necessary to revise the Code of Good Agricultural Practices for water protection against nitrates pollution from agricultural sources to accurately reflect more the current situation.

### **Lack of dedicated soil policy**

While such a law is not required under EU legislation, it would be an opportunity to promote and incentivise sustainable soil management practices more consistently across the country.

### **Exploitation of policy synergies**

Several examples of synergies between different policies were identified. This should be highlighted as a good practice and an example of how legislation can be clear and help enable the adoption of SICS.

### **Availability of financial incentives**

CAP was identified as having the biggest impact on farmers' agricultural practices in the studied site area.

### **Educated and innovative young farmers**

It was noted that young farmers who are educated in the field of agriculture are more open to adopting new soil improving cropping systems than the older generation of farmers.

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The SoilCare project is funded by the European Union's  
Horizon 2020 research and innovation programme  
under grant agreement No. 677407.



# POLICY SHORTCOMINGS AND OPPORTUNITIES FOR FACILITATING THE UPTAKE OF SICS

The table below provides an overview of policies regulation, incentivising, and promoting the full range of SICS covered by the SoilCare project (blue dots) as well as the SICS tested at the study site (red dots): reduced tillage. The Code of Good Agricultural Practice established in compliance with the EU Nitrates Directive lists reduced tillage as good practice to be adopted by farmers. However, the Code is not mandatory to farmers outside of Nitrate Vulnerable Zones. In addition, reduced tillage practices are incentivised through the RDP. Crop rotation is promoted through water (and soil) protection policies such as the Action Plan for the Protection of Waters Against Pollution Caused by Nitrates, the CAP's greening measures, GAEC cross-compliance standards and the RDP. The RDP, specifically through its agri-environment and climate measures incentivises the use of nitrogen-fixing cover crops to reduce nutrients run-off and leaching, increase organic matter content and soil nutrients. Integrated nutrient management is not only incentivised through the CAP (GAEC 6), but there are also several water and environmental policies, including the Water Act, the Nitrates Action Plan, and the Groundwater Protection Plan, limiting or banning the use of fertilisers in certain areas.

Red circles = SICS uptake promoted through existing mandatory, economic, or voluntary policy instruments in Romania. Blue circles = SICS uptake promoted as part of the wider SoilCare project.

	CROP ROTATION	GREEN MANURES, COVER CROPS, CATCH CROPS	INTEGRATED NUTRIENT MANAGEMENT	EFFICIENT IRRIGATION	CONTROLLED DRAINAGE	REDUCED/NO TILLAGE	INTEGRATED PEST MANAGEMENT	SMART WEED CONTROL	SMART RESIDUE MANAGEMENT	CONTROLLED TRAFFICKING	INTEGRATED LANDSCAPE MANAGEMENT
CAP GAEC Cross-compliance standards	●	●									●
National program for Rural Development 2014-2020	●	●	●			●					●
Ordinance on organic products no. 34/2000 modified by Ordinance no. 29/2014	●		●			●	●				
Water Law no. 107/1996 modified and improved in 2017			●				●				●

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	CROP ROTATION	GREEN MANURES, COVER CROPS, CATCH CROPS	INTEGRATED NUTRIENT MANAGEMENT	EFFICIENT IRRIGATION	CONTROLLED DRAINAGE	REDUCED/NO TILLAGE	INTEGRATED PEST MANAGEMENT	SMART WEED CONTROL	SMART RESIDUE MANAGEMENT	CONTROLLED TRAFFICKING	INTEGRATED LANDSCAPE MANAGEMENT
Ordinance no. 990/1809/2015 related to approval of Code of Good Agricultural Practices for water protection against nitrates pollution from agricultural sources	●	●	●			●					●
National Plan for Groundwater Protection Against Pollution and Deterioration (2009)			●				●				●
Order for the approval of the Technical Norms regarding the protection of the environment and especially of the soils, when the sewage sludges are used in agriculture, with the subsequent modifications			●								
Ordinance no. 34/2012 for establishing the institutional framework for sustainable use of pesticides in Romania							●				
Decision no. 683/2013 for approving the National Action Plan on reducing the risks of using pesticides							●				
Ordinance no.12/2006 on establishing the maximum levels of pesticides							●				
Ordinance no. 1261/2007 on fertilisers			●								
Ordinance no. 756/1997 on Environmental Pollution Assessment			●				●				



Based on the results of this study, the following policy recommendations can be made:

## UPDATE EXISTING POLICY INSTRUMENTS



## MAINSTREAM EXISTING LEGISLATION

**Update existing policy instruments:** Some key policy instruments, such as the National Nitrates Action Plan, seem to be outdated. These need to be revised to reflect current needs, objectives and taking into account new insights on agricultural practices which should be promoted to meet policy objectives.

**Mainstreaming of soil objectives and good soil management practices in existing legislation:** Many benefits to soil health are achieved through other sectoral or environmental policies. While this is not considered a barrier to SICS adoption, there is a risk that key soil threats are not addressed if they do not fall under legislation for other sectors. The development of a dedicated soil policy should be considered. Such an intervention should be designed to accommodate farm diversity, featuring a robust monitoring and enforcement system.

## EDUCATION AND TRAINING



Younger farmers seem to be willing to take up new practices. It could be considered as to whether older generations can also be targeted to bring about change faster. Some of the practices benefitting soil will require farmers to learn about these techniques, their application to different conditions as well as their benefits in order to change their misconceptions about these methods. To this end, research findings should be made accessible and widely disseminated and educational activities should be encouraged. Knowledge should be disseminated via multiple channels, through the provision of guidance document but also farms visits and demonstration days.

