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Department of Agriculture,
Food and the Marine



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Institute of Innovation and Technology (EIT)

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GREEN HORIZONS WEBINAR SERIES

Digging into soil health

Policy and practice



17 JULY 2025

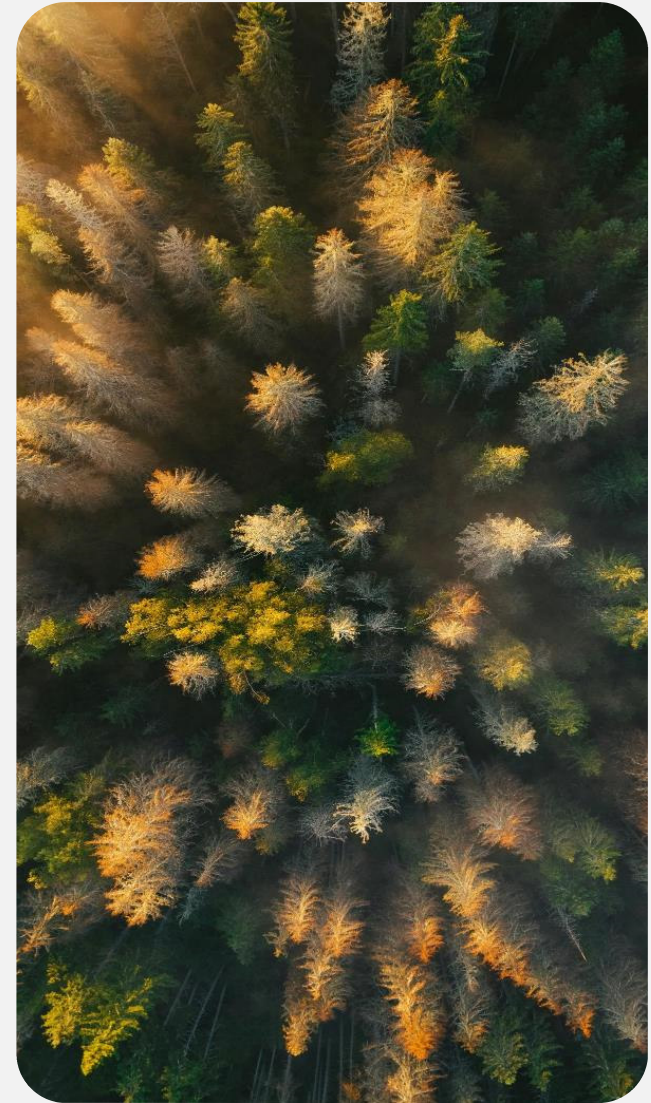
16:00-17:00 CEST | 15:00-16:00 GMT

WE ARE STARTING SOON



Housekeeping

- This session is being recorded.
- Recording and slides will be available on our website.
- Questions are welcome, we will address some as part of the panel discussion.
- Please share your feedback with us at the end!





Agenda

- Welcome
- Presentation on Soil Policy Drivers
- Presentation on Soil Health in Practice
- Invitation to our Green Horizons network
- Story from the field
- Q&A with the audience
- Feedback and close



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Today's speakers



Caroline Heinzl

Policy Officer,
European Environmental
Bureau



Gian Luca Bagnara

President, ASSOAVI
& AIFE
Member, Investment
Committee, IDEA AGRO



Saskia Visser

Lead for Resilient and
Climate Neutral Regions,
Climate KIC



Saskia Keesstra

Designer and Producer,
Land Use Transformation,
Climate KIC



Tessa Finch

Designer and Producer,
Strategic Foresight,
Climate KIC
(Moderator)



QUESTIONS TO THE AUDIENCE – PART 1

- MENTIMETER WILL RUN HERE





QUESTIONS TO THE AUDIENCE – PART 2

- MENTIMETER WILL RUN HERE

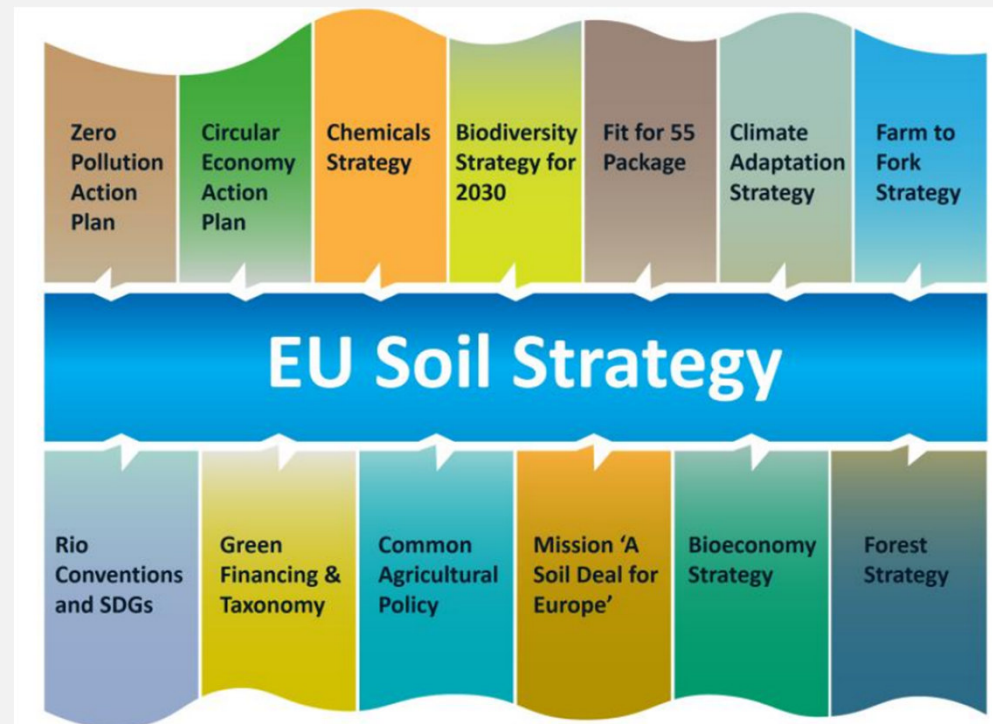




POLICY DRIVERS



Soil is the glue the binds the strategies of the European Green Deal





Soil Monitoring Law





Negotiations on the Soil Monitoring Law



- EU institutions reached an **agreement** in April
→ [Final text of the law](#)
- Challenging political climate lead to **extremely watered-down law**
- Widespread dis-/ and misinformation, particular regarding alleged obligations for farmers (which are not part of the law)
- Final adoption of the law in Autumn

ANNEX

2023/0232 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Soil Monitoring and Resilience (Soil Monitoring Law)

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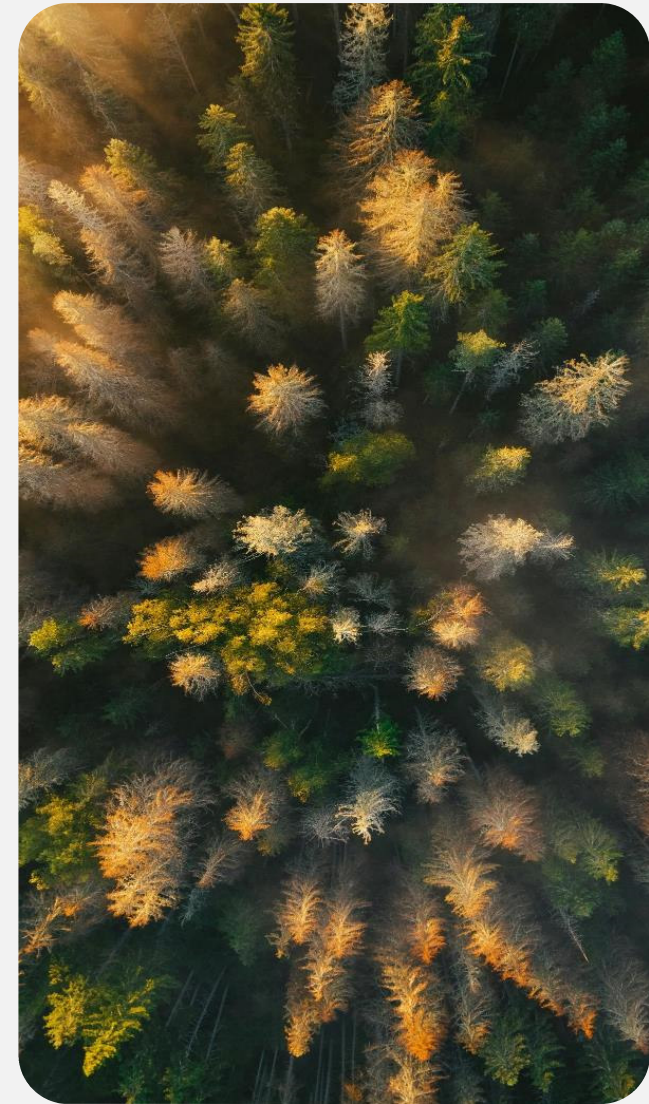
- (1) Soil is a vital, limited **resource, and considered** non-renewable and irreplaceable **at human time scale** that is crucial for the economy, the environment and the society.



What does the Soil Monitoring Law mean for farmers?

The law puts no obligations, no bureaucracy, management requirements or costs on farmers.

1. Improved monitoring and knowledge about the state of soils in Europe (including but not limited to agricultural soils)
2. Improved access to soil health data (whilst respecting legal data protection requirements)
3. Support to landowners and managers to improve soil health and resilience
4. Efforts to reduce soil sealing





Achieving healthy soils across the EU by 2050

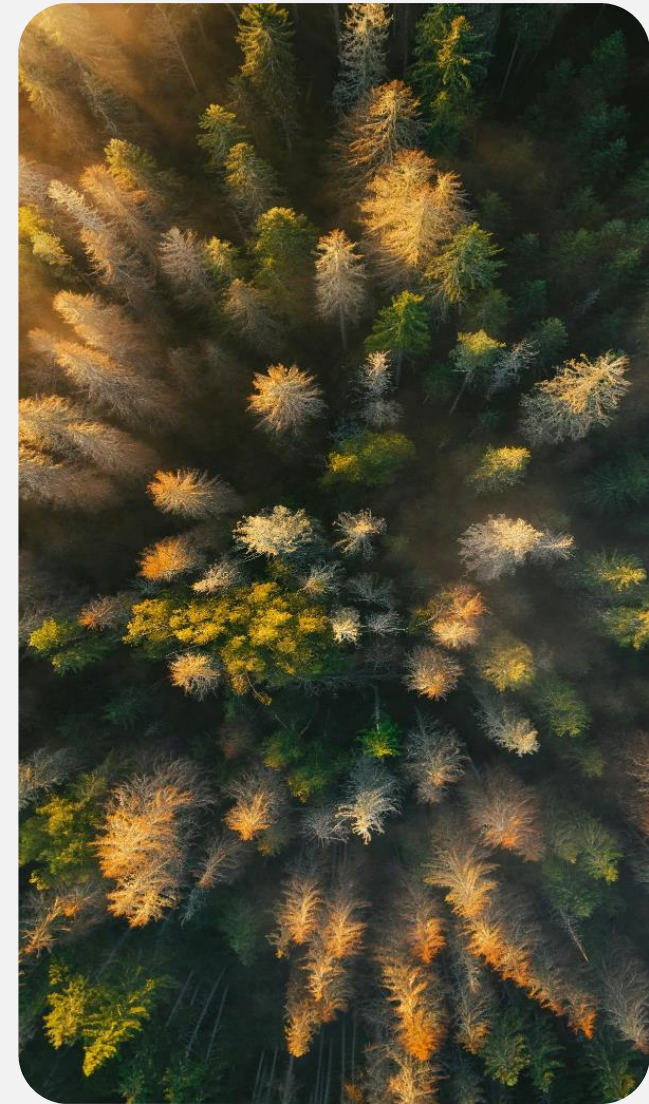
Infrastructure to support





Nature Restoration Law

- **Overall target:** Putting in place restoration measures with the aim to jointly cover at least 20% of land areas and at least 20% of sea areas by 2030, and all ecosystems in need of restoration by 2050.
- **Soil ecosystems relevant throughout the Directive**
- **Success hinges on thorough implementation and sufficient financial resources**





Common Agriculture Policy

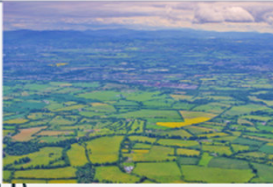
Strong support for Soil Health through

- 1) **Enhanced Conditionality (mandatory)**
 - Soil cover, Tillage managements, crop rotation, buffer strips along water
- 2) **Eco-schemes (voluntary , direct payment)**
 - Practices to go beyond compliance; reduced tillage, catch/cover crops, Aggro forestry, improved nutrient management
- 3) **Rural development (pillar 2)**
 - organic farming, Investments in conservation tillage machinery, advisory services, agri=natural measures
 - => Designed to build organic matter, reduce erosion, increase biological activity and enhance long-term fertility and resilience at farmlands
- 4) **Fertiliser & nutrient management tools**
 - Farm sustainability tools
- 5) **Country-level strategic planning**
 - Member states tailor the mix of measures based on soil conditions and local challenges



SOIL Health CAP support per country

Ireland



✓ Eco-Scheme (Pillar I)

- Soil sampling & liming to optimize pH
- Limiting chemical nitrogen use
- Planting break crops, multi-species swards
- Native tree/hedge planting, 'space for nature' buffer zones
- GPS-controlled spreading and extensive livestock production

✓ Conditionality

- Buffer strips near water, ban on burning, crop rotations
- Soil cover & tillage limits, permanence grasslands & non productive features

✓ ACRES (Pillar II Rural Dev.)

- Results based ecoscheme
- Supports landscape-level outcomes (Soil, water, biodiversity)

Greece



✓ CAP Strategic Plan Focus

Double organic farming
=> supports improved soil biology and reduced chemical dependency

Measures for forest & permanent plantation restoration,

=> protect soil on sloping lands

✓ Eco-Scheme (Pillar I)

Greece supports organic fertiliser uptake via eco-schemes helping reduce reliance on synthetic inputs

✓ Research

Support uptake of research findings: E.g. SOILCARE project in Crete vineyards and olive groves:

Vetch cover crops cut erosion by ~20%, increased earthworms, reduced weeds

No-till practices reduce erosion by ~22%, support soil biodiversity, although may need weed/pH management

Poland



✓ Eco-Scheme (Pillar I)

- Carbon farming: compensated for implementing climate-friendly practices that enhance carbon sequestration
- Rapid incorporation of manure into soil (within 12 hours)

✓ Conditionality & Greening

Set aside 4 % of arable land for non-productive zones (biodiversity features), restrictions to protect carbon-rich peatlands.

Strong fertiliser controls near water bodies

✓ Living Labs & Research

Grójec Living Lab (apple orchards) tests cover crops, organic mulches, microbial amendments to boost soil structure, pH balance, and organic carbon



What does this mean for farmers?

- Growing demand for soil-friendly practices
- More support & tools (data, funding, training)
- Increased accountability: Monitoring, audits, compliance
- Risk & Opportunity:
Adapt early to secure funding and market access

How to prepare?

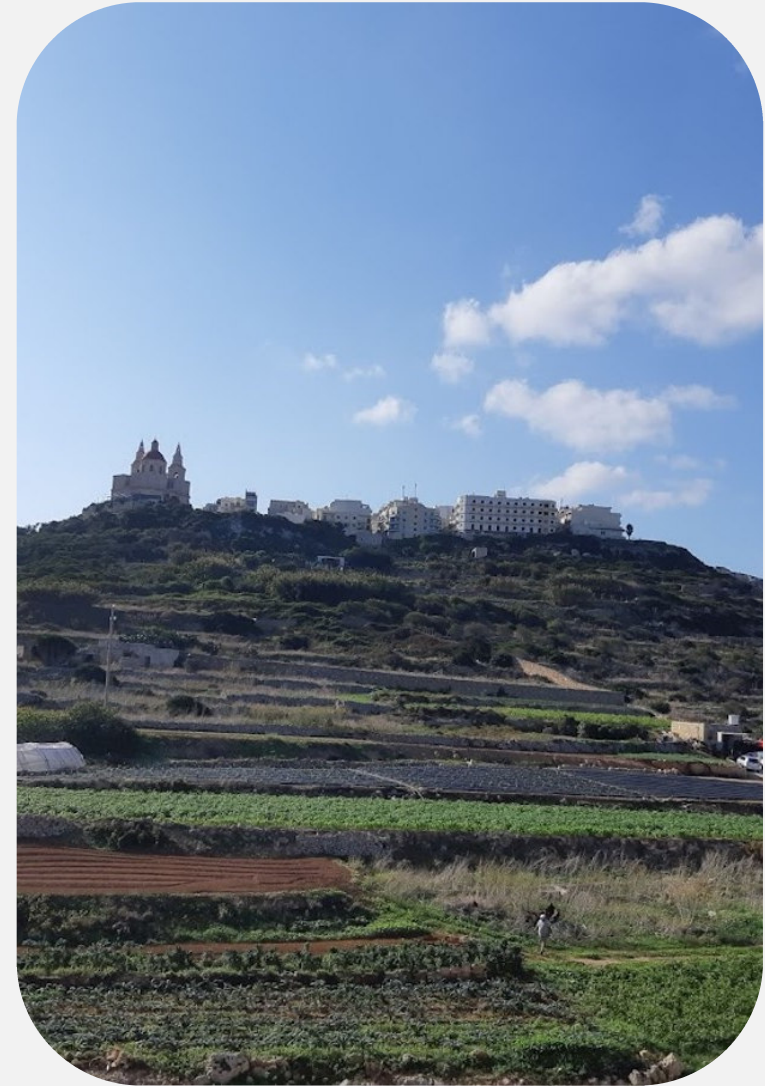
1. Know your soil: testing, mapping, monitoring
2. Engage in local soil health programs => Living Labs
3. Apply for eco-schemes and environmental funding
4. Follow updates on Soil Health Law/ CAP consultations





Let's work together

- Farming is part of the solution
- Soil health = farm health
- Connect with:
 - National agricultural advisors
 - Farmer networks & cooperatives
 - EU programs (e.g., LIFE, Soil Mission,)





PRACTICAL APPROACHES TO SOIL HEALTH

AGENDA



Working towards healthy soils

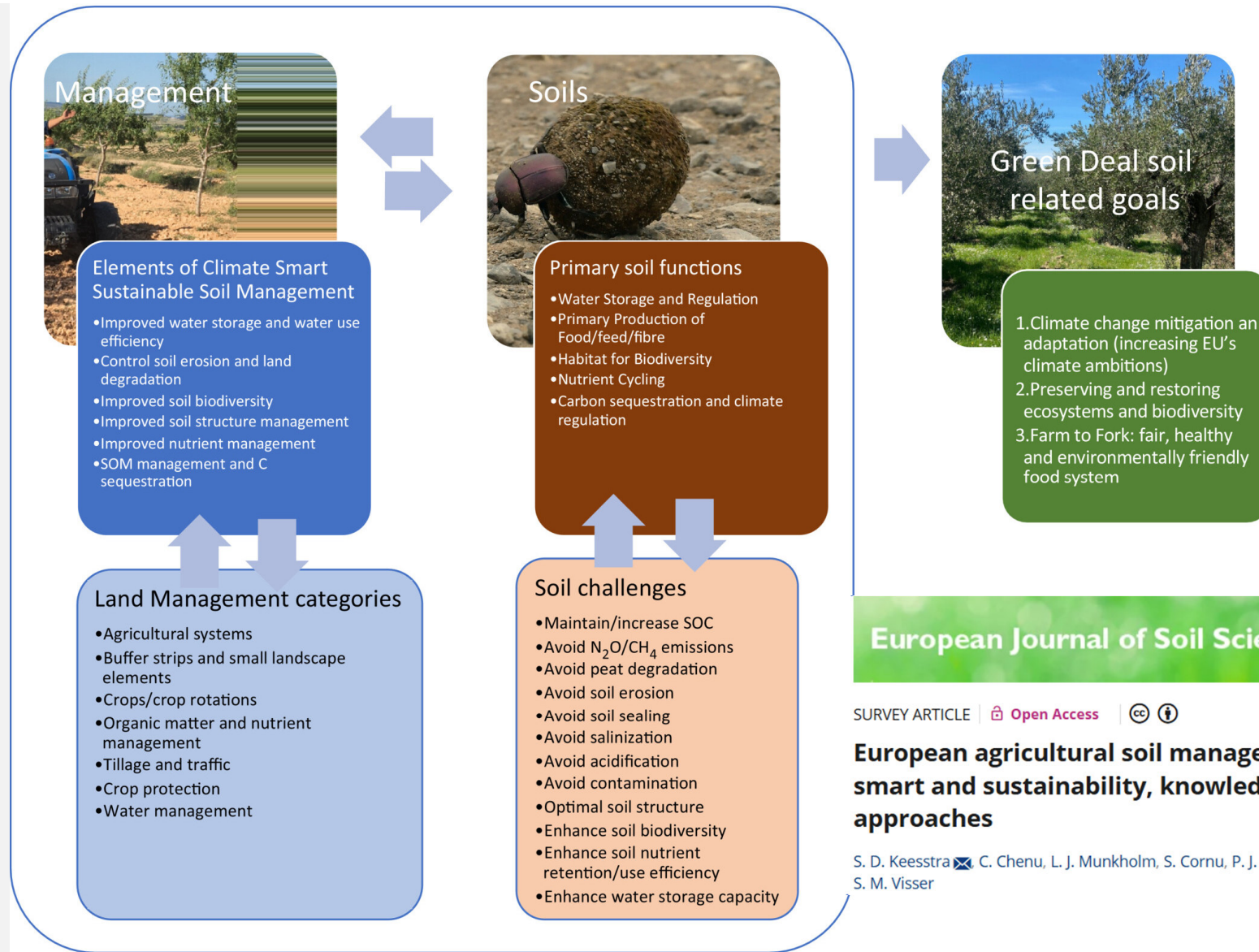
Definition:

“the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans”

Content:

- Links processes, management options and socio-economics and policies
- Options for sustainable soil management
- Example of mulching
- Invitation to Green Horizons Farmers network





European Journal of Soil Science



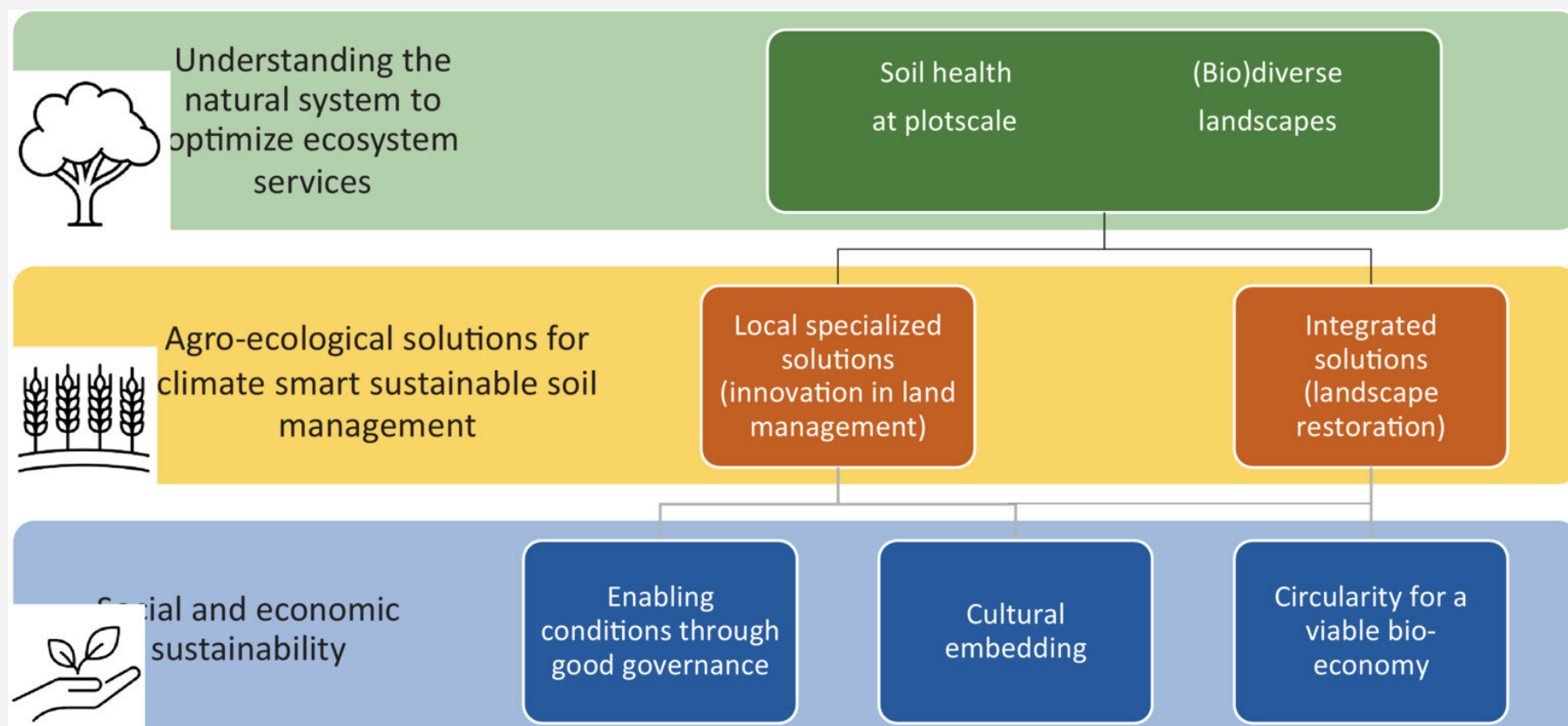
SURVEY ARTICLE | [Open Access](#) |

European agricultural soil management: Towards climate-smart and sustainability, knowledge needs and research approaches

S. D. Keesstra C. Chenu, L. J. Munkholm, S. Cornu, P. J. Kuikman, M. H. Thorsøe, A. Besse-Lototskaya, S. M. Visser

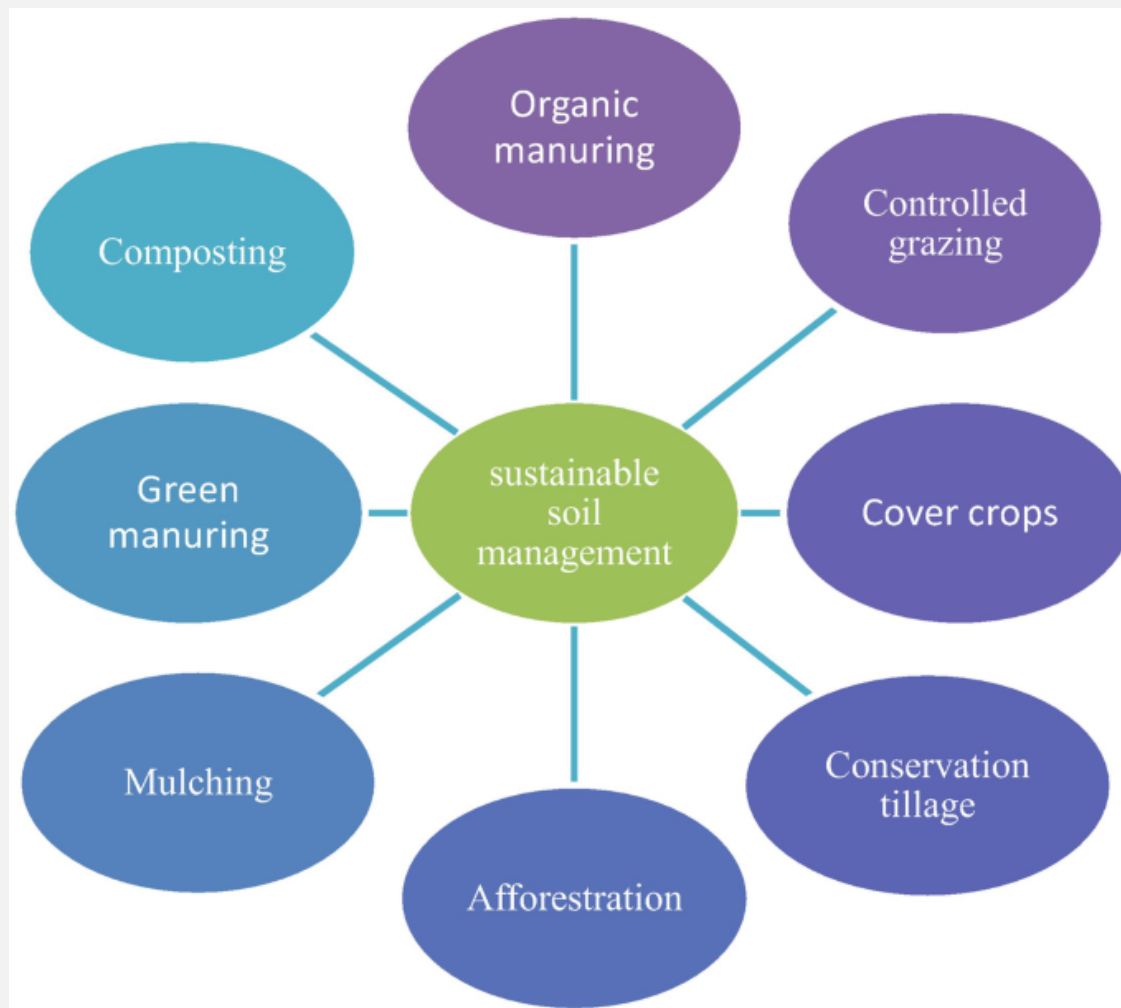


Sustainable soil management options: working with basic process understanding



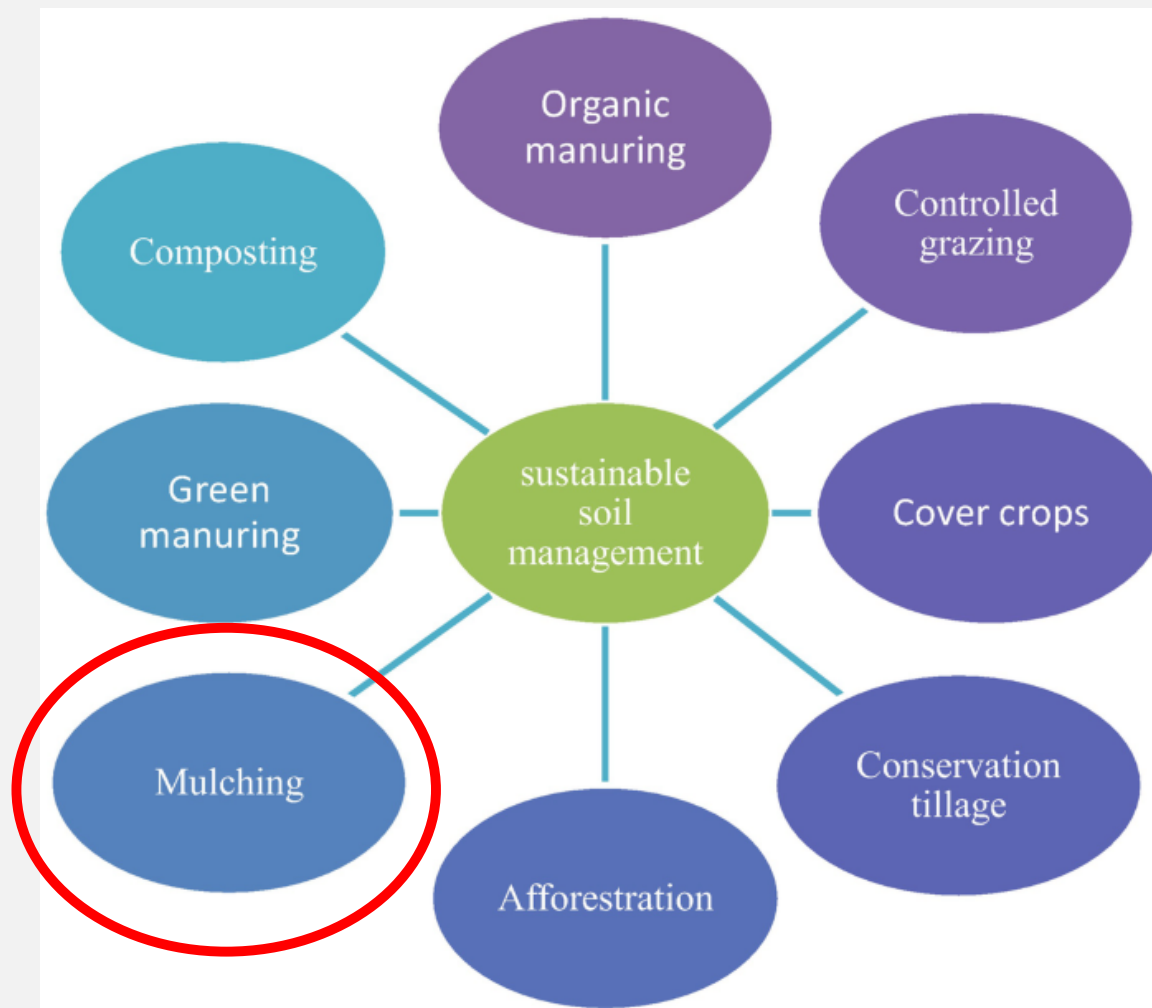


Sustainable soil management options



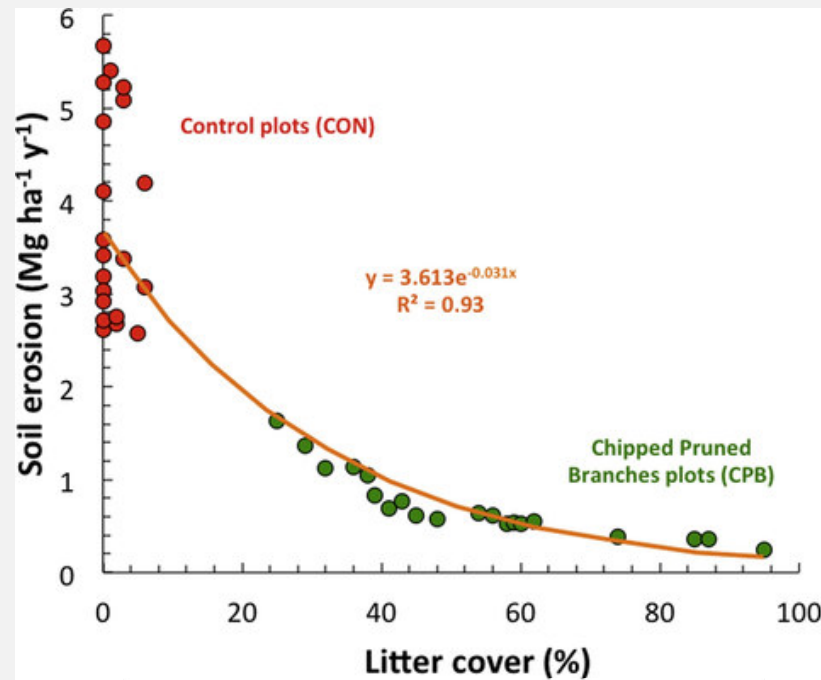


Sustainable soil management options





Example: Mulching

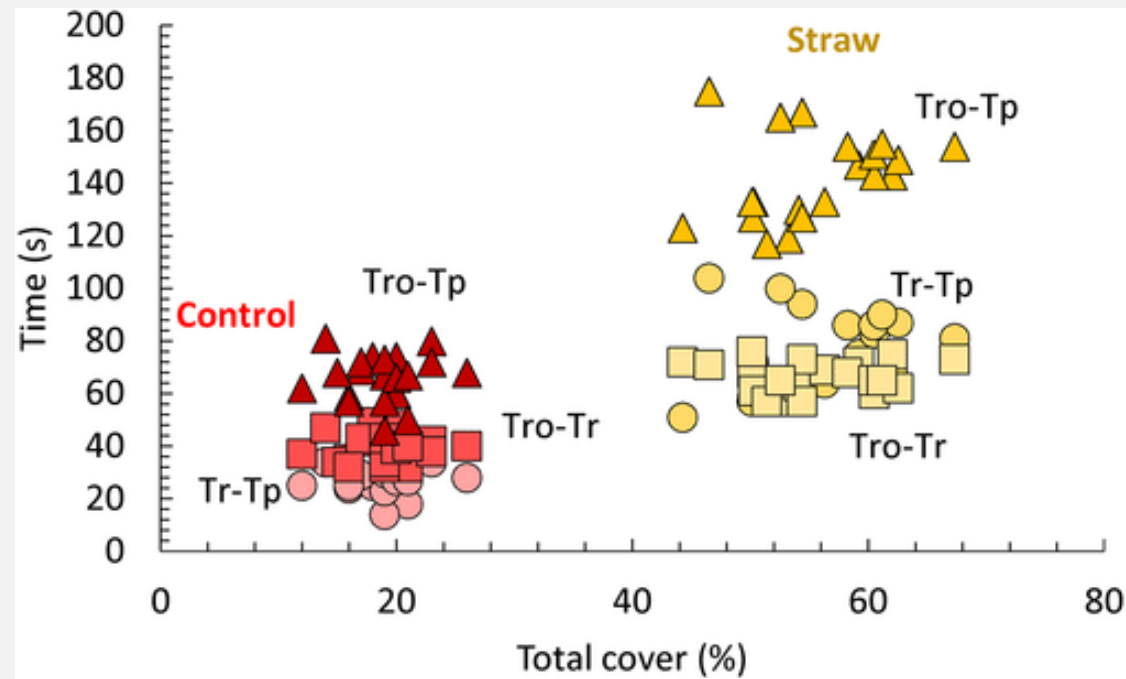


Land Use Policy
Volume 75, June 2018, Pages 734-745



Policies can help to apply successful strategies to control soil and water losses. The case of chipped pruned branches (CPB) in Mediterranean citrus plantations

Cerdà A.^a, , Rodrigo-Comino J.^{b,c}, Giménez-Morera A.^e, Novara A.^d, Pulido M.^f, Kapović-Solomun M.^g, Keesstra S.D.^{h,i}



Contents lists available at ScienceDirect

Catena

journal homepage: www.elsevier.com

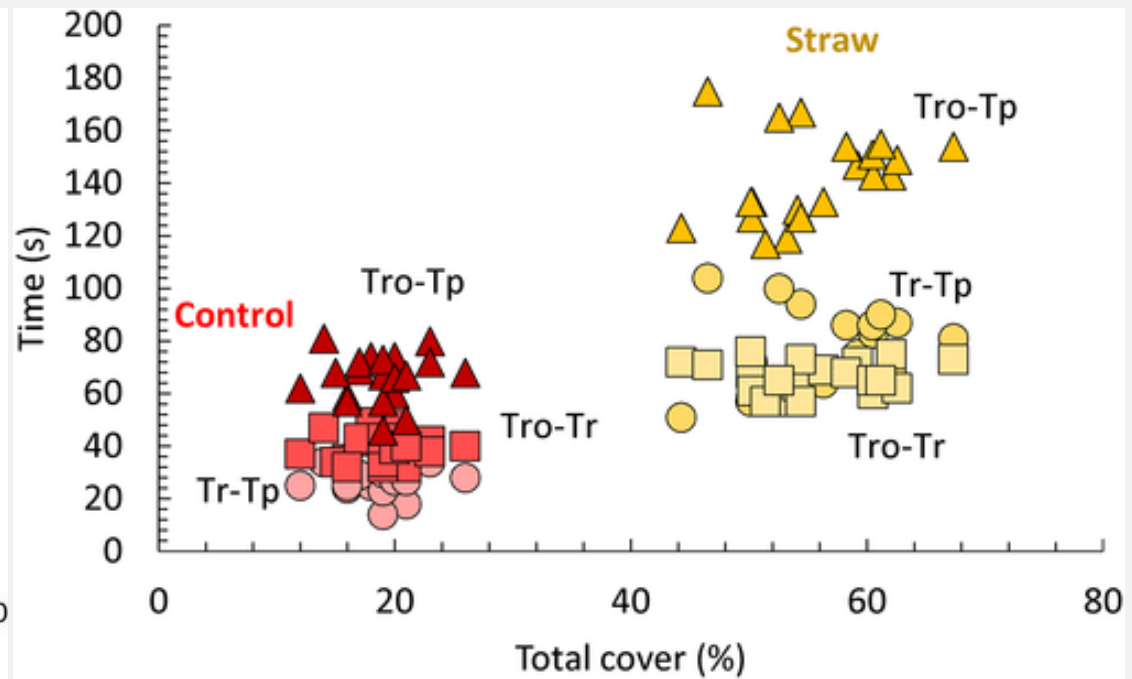
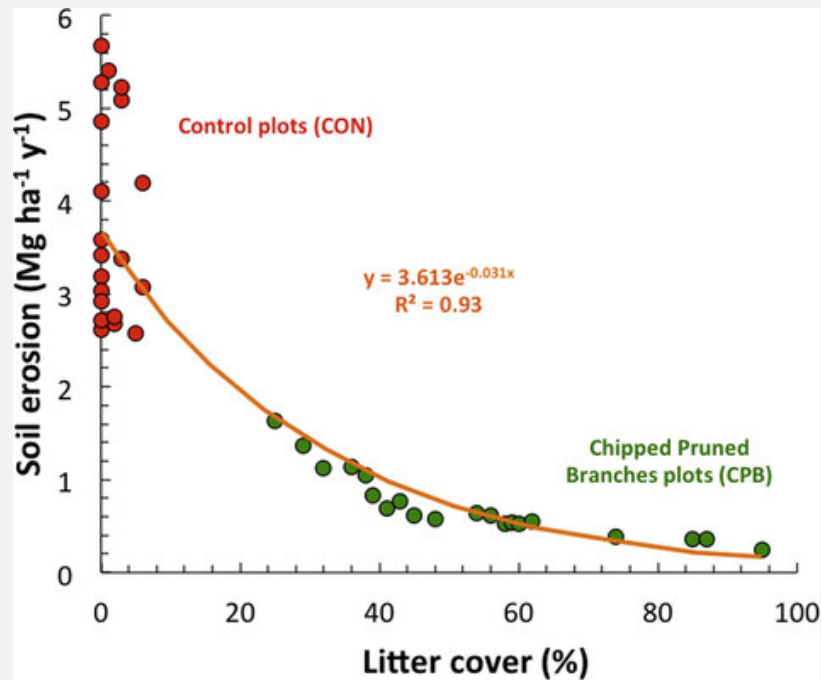


Straw mulch as a sustainable solution to decrease runoff and erosion in glyphosate-treated clementine plantations in Eastern Spain. An assessment using rainfall simulation experiments

S.D. Keesstra^{a,b}, J. Rodrigo-Comino^{c,d,*}, A. Novara^e, A. Giménez-Morera^f, M. Pulido^g, S. Di Prima^h, A. Cerdàⁱ



Example: Mulching



Source: Land Use Policy V75 2028, "Policies can help to apply successful strategies to control soil and water losses." Elsevier Journal. Cerda A, Rodrido et al.

Source: Elsevier, Catena "Straw mulch as a sustainable solution to decrease run off and erosion in glyphosphate-treated clementine plantations in Eastern Spain [...]" Authors: S.D Keesstra, Rodrigo-Comino et al.



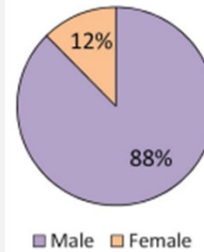
An economic, perception and biophysical approach to the use of oat straw as mulch in Mediterranean rainfed agriculture land

Artemi Cerdà^a ✉, Jesús Rodrigo-Comino^{b,c} ✉, Antonio Giménez-Morera^d ✉, Saskia D. Keesstra^{e,f} ✉

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<https://doi.org/10.1016/j.ecoleng.2017.08.028>



54-years old
is the mean
age of the
farmers

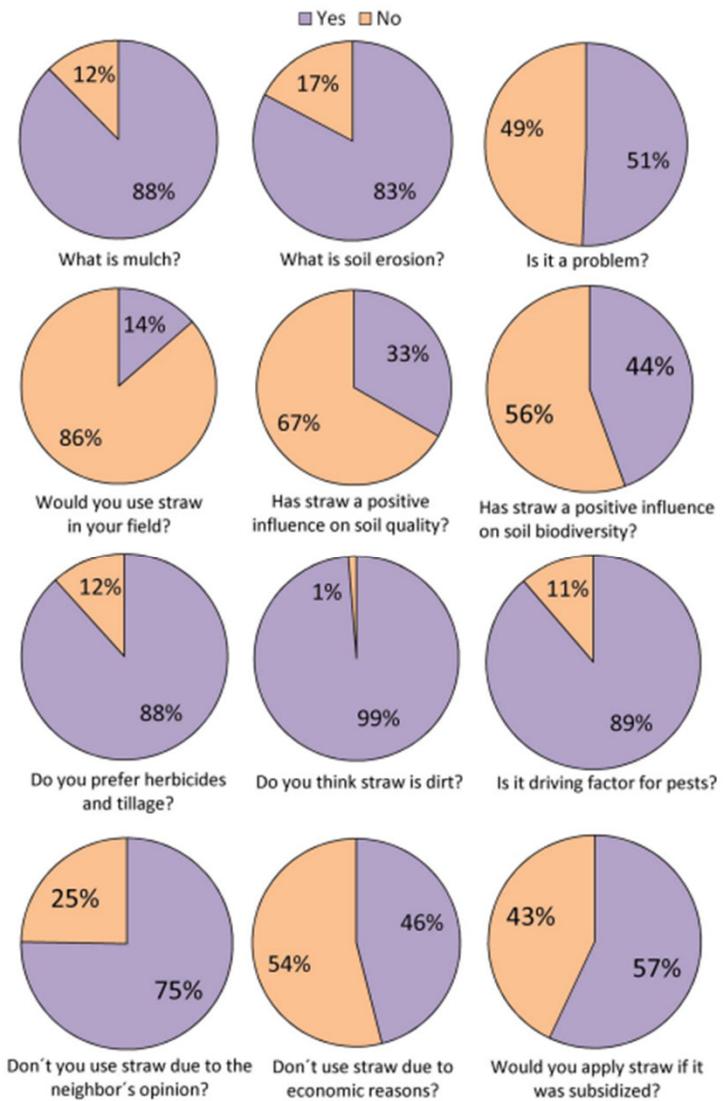


Fig. 5. Farmer's perception of soil erosion and the application of straw mulch.



AN INVITATION: The Green Horizons Farmer Network

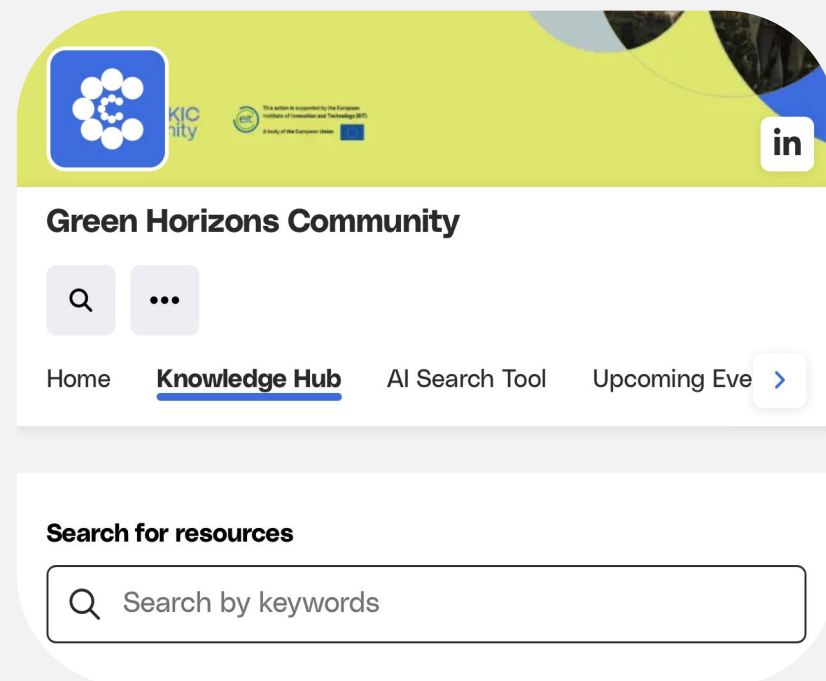
- European network
- For: Farmers with an innovative mindset
- To: Transition to sustainable and climate-smart agricultural practices
- By:
 - Access knowledge, tools and pilot results from climate-smart agriculture projects across Europe
 - Request specific tools/training/information
 - Help to mitigate barriers to adapting to climate change
 - Share your experiences, challenges and ideas directly on the platform.
 - Make voices and experiences heard to shape better agricultural policy.
 - Discover opportunities for collaboration, funding and participation in trials or innovation networks





Online platform: find information

1. Knowledge hub: database with useful links to existing toolboxes and solutions and innovations for climate adaptation and long-term sustainability
2. AI search engine for Q&A in different languages
3. Recorded webinars with option to select subtitles in preferred language
4. Capacity building modules on transition subtitled
5. Funding opportunity links for farmers at EU and national levels
6. upcoming policy changes affecting agriculture, such as CAP reforms and environmental regulations.
7. online forum within the network platform for farmers, advisors and experts





Face to Face: network of networks

Purpose:

- Assess challenges and opportunities
- Peer to peer learning
- Tailor made capacity building

Method:

- Physical workshops
- Farm visits
- Capacity needs also online





Farmers network ambassadors

- Online training for supporting local stakeholders (advisors, governance, cooperatives etc.) to help their local farmers with their challenges
- Online capacity needs can be supported by new elements on platform





Join our network

Visit www.climate-hive.org/page/Green-Horizons
or scan the QR code:





Farmer story from the field



Gian Luca Bagnara

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Thank you for joining!

CONTACTS

Tessa Finch

Capacity Building Lead

tessa.finch@climate-kic.org

STAY UP TO DATE

🌐 www.climate-kic.org

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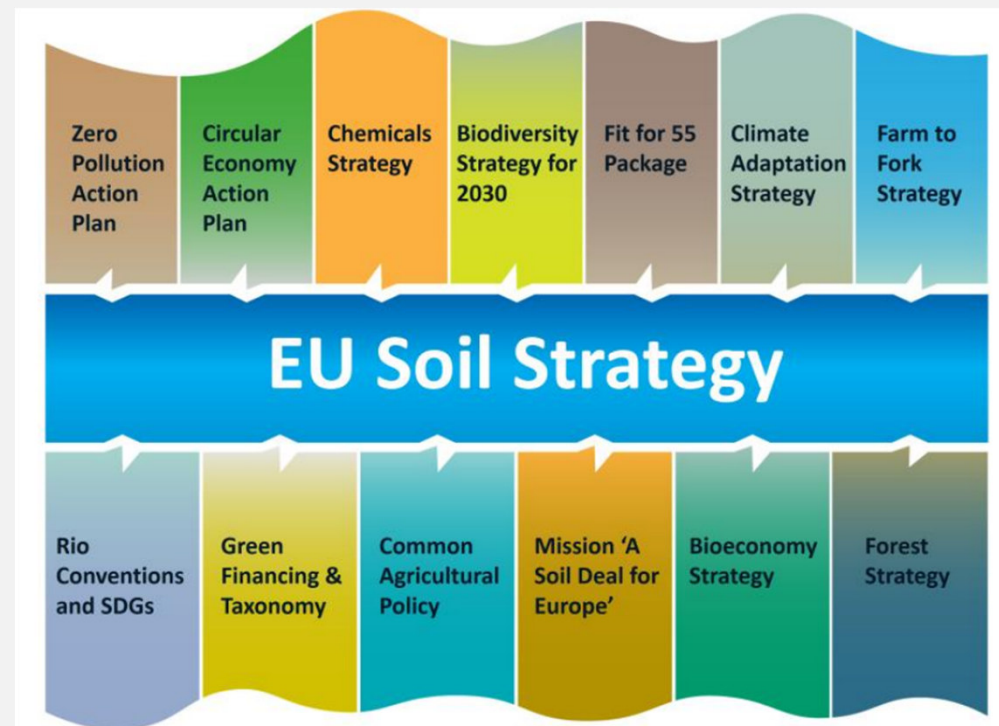
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