

39th TRADITIONAL CONFERENCE OF THE PUBLIC AGRICULTURAL ADVISORY SERVICE (PAAS)

Conference of the Public Agricultural Advisory Service (PAAS) and the European Innovation Partnership (EIP) event



The EU Mission 'A Soil Deal for Europe': the role of advisory services

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**Bled,
18th – 19th
November 2024**



**REPUBLIC OF SLOVENIA
MINISTRY OF AGRICULTURE,
FORESTRY AND FOOD**



The European Agricultural Fund for Rural Development: Europe investing in rural areas



What are EU Missions?

- EU Missions are part of the **EU's funding programme for research and innovation** until 2027 (Horizon Europe, EUR 95.5 billion).
- Novel approach to achieving **concrete and tangible societal outcomes**.
 - Although **rooted in R&I**, they transcend basic and applied research to take a **broad approach** to innovation.
 - **Mobilise** public and private actors and resources to create real and lasting impact.
 - **Engage with citizens** to boost societal uptake of new solutions and approaches.

Adaptation to
Climate Change



Cancer



Climate-neutral
and Smart Cities



Restore our Ocean
and Waters



Soil Deal
for Europe





Why an EU Mission on soil health?

- Soils are **threatened**: 62% of soils in Europe are considered to be unhealthy due to current management practices, pollution, urbanisation and the effects of climate change.
- Soils support **ecosystem services** and provide vital functions:
 - producing nutritious and safe **food**
 - hosting **biodiversity**
 - purifying and regulating **water**, thus providing protection from droughts and floods
 - cycling **nutrients**
 - storing and cycling carbon, supporting **climate mitigation and adaptation**
 - supporting **human activities**, landscapes and cultural heritage
- Soil is a **finite resource**, meaning its loss and degradation is not recoverable within a human timespan.

2.8 million potentially **contaminated sites**

Cropland soils **losing carbon**; 50% of peatlands drained and losing carbon

65-75% of agricultural soils with nutrient inputs at levels risking **eutrophication of soils and water**

24% of land with **unsustainable water erosion rates**

25% of land at high or very high risk to **desertification** in Southern, Central and Eastern Europe

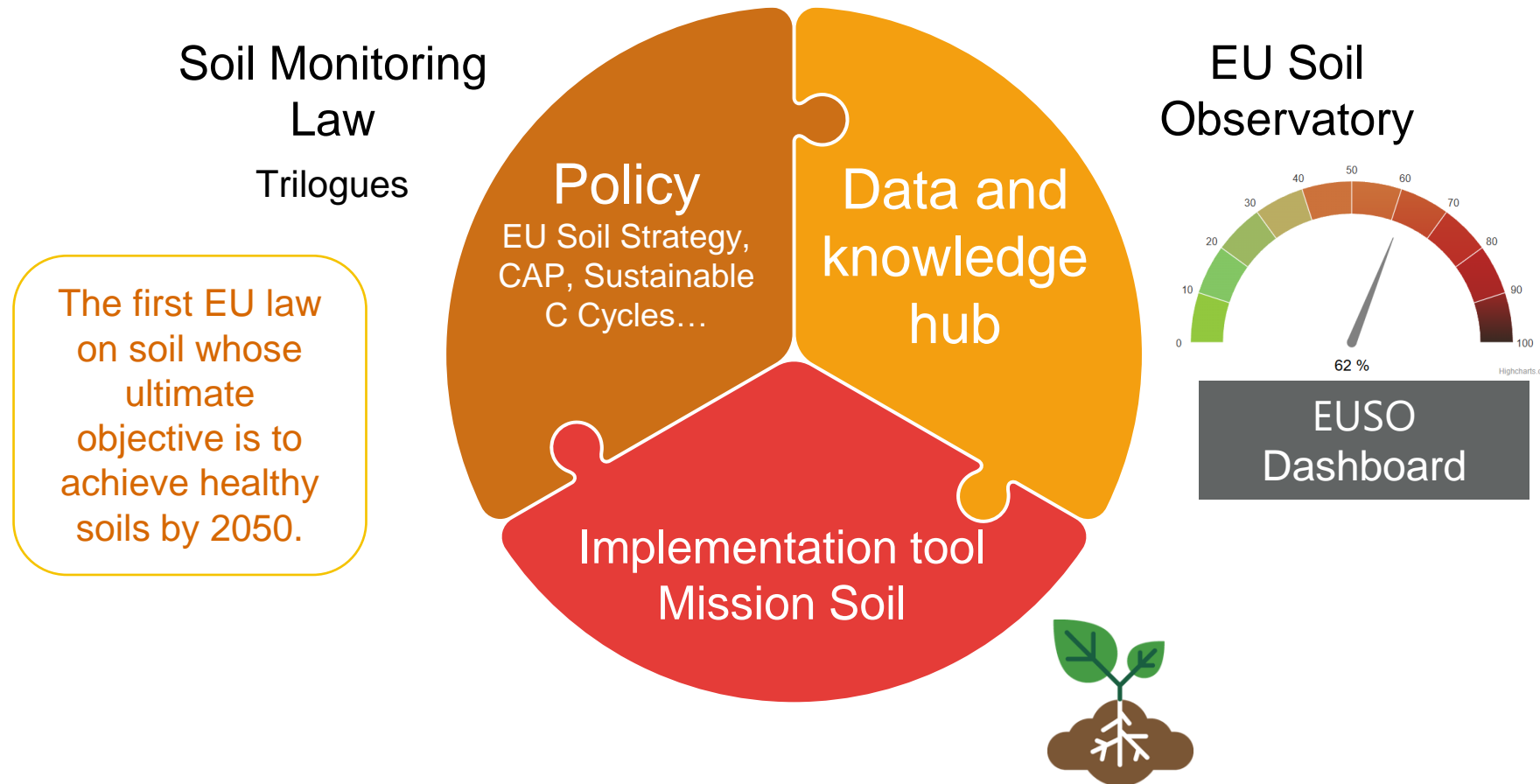


Soil health: specific challenges

- Knowledge regarding sustainable soil management is not sufficiently applied in practice (**knowledge – practice divide**).
 - **No ‘one-size-fits-all’ for soils:** highly diverse local, pedo-climatic, socio-cultural-economic conditions across the EU.
- Need to **accelerate and scale up uptake of solutions!!**
- More knowledge and data needed to address soil health: **biodiversity, contamination** (pesticides, nutrients...), **carbon farming**, circular solutions.
- **Soil monitoring is not harmonised** or undertaken in a systematic way.



The Mission is part of a robust EU framework for soil health protection and restoration





The Mission's goals

- Establish **100 living labs and lighthouses** to lead the transition towards healthy soils by 2030
- +8 specific objectives
- All types of land uses





What are the living labs?



- **Living labs** are **real-life sites** in rural or urban areas in which **actors** from various sectors and backgrounds **experiment and test solutions in a co-creative manner**.

- Composed of a group of (10-20) site.
- Actors such as farmers, researchers, advisors, SMEs, citizens...
- All types of soils and land uses.



- **Lighthouses** are individual sites, such as a single farm, of exemplary performance to **showcase good practices**.

- Places for demonstrations, training and communication.
- Practical tools for advisors to best inform soil managers.
- Increase the awareness of the importance of soil.



Why living labs?

- To empower a rapid green transition **closing the knowledge-practice divide**.
- Living labs are **end-users centric**, involving (unusual) R&I participants (farmers, foresters, citizens, SMEs...): multi-actor approach.
- Solutions **adapted to local, pedo-climatic, socio-cultural-economic** conditions across Europe (systemic approach).
- To provide **practical tools for advisors** to best inform soil managers on how to move to soil sustainable management practices.
- To provide of **relevant soil data**.
- To support **polycymaking** timely, particularly the Soil Monitoring Law.



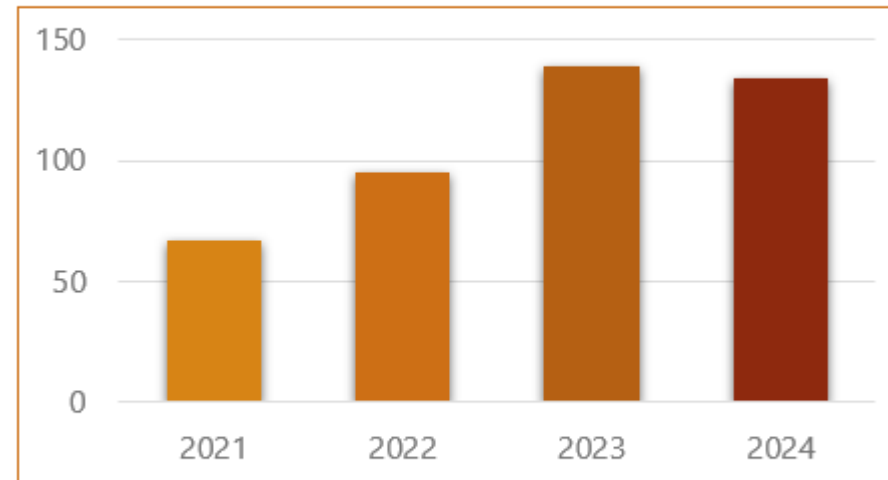
How does the Mission work?

Building blocks:



- Annual **Work Programmes (WP)** (calls for project applications)

Work Programmes budget 2021-2024
Total **435.5 M€**



67 M€

95 M€

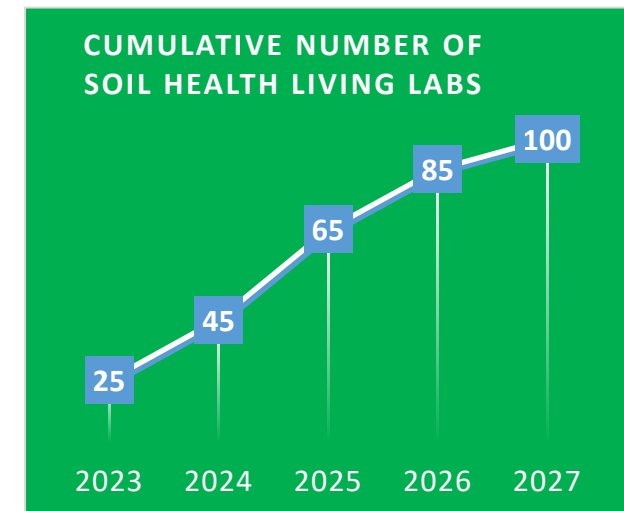
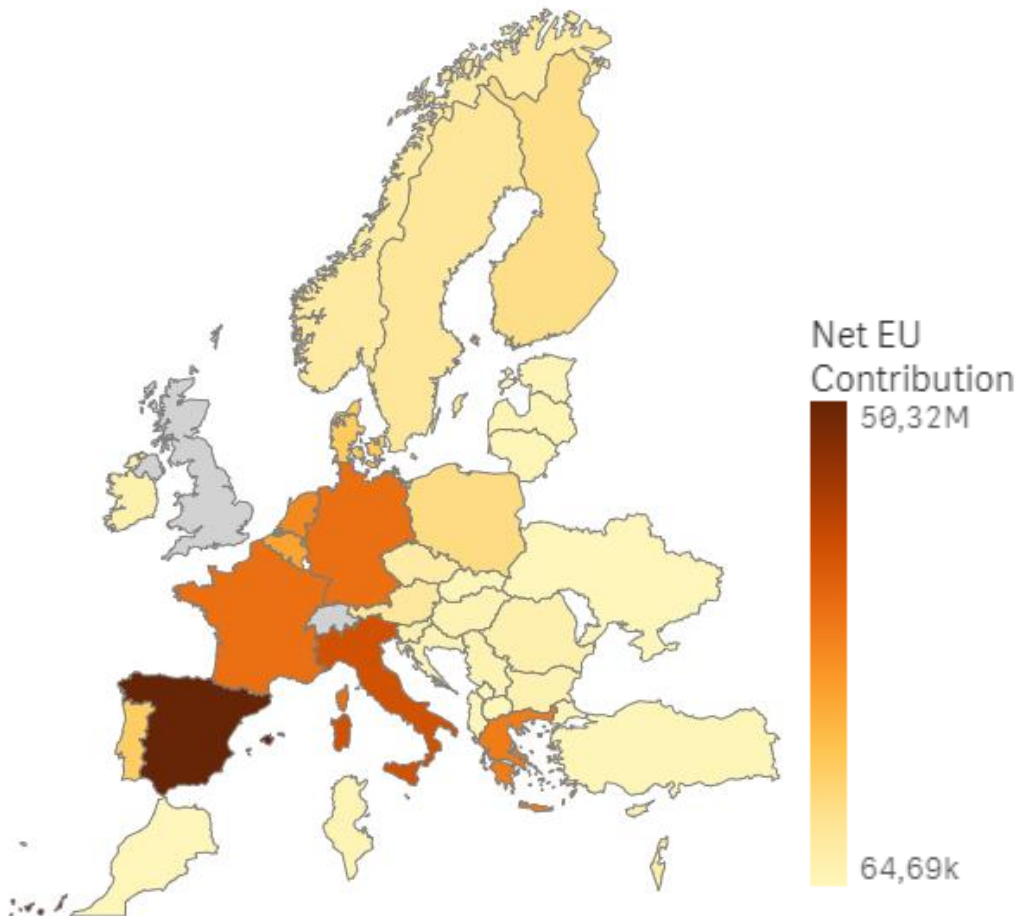
139 M€

134 M€



State of play: Slovenian participation

- Signed grants: 49
- EU contribution: EUR 328.2 m
- 707 participants
- 25 first living labs
- Slovenia
 - Signed grants: 7
 - EU contribution: EUR 2.75 m
 - 8 participants





Mission projects: Slovenian participation

Carbon farming:



Soil pollution and restoration:



PHISHES



SOILPROM

Soil biodiversity:



Circular economy solutions:



Business models:



Soil health monitoring:



Soil literacy and citizens' engagement:



Roadmaps for the Mission Soil:



Discovering the subsoil: DeepHorizon





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Mission projects: Slovenian participation

Digital technologies to monitor nutrients and stressors in soil and plants for food safety and nutrition :



Desertification:



Soil-friendly practices in horticulture :



Spatial Planning:



SPADES
spatial planning and design with soil

Soil-water:



Living labs:



Support to living labs:

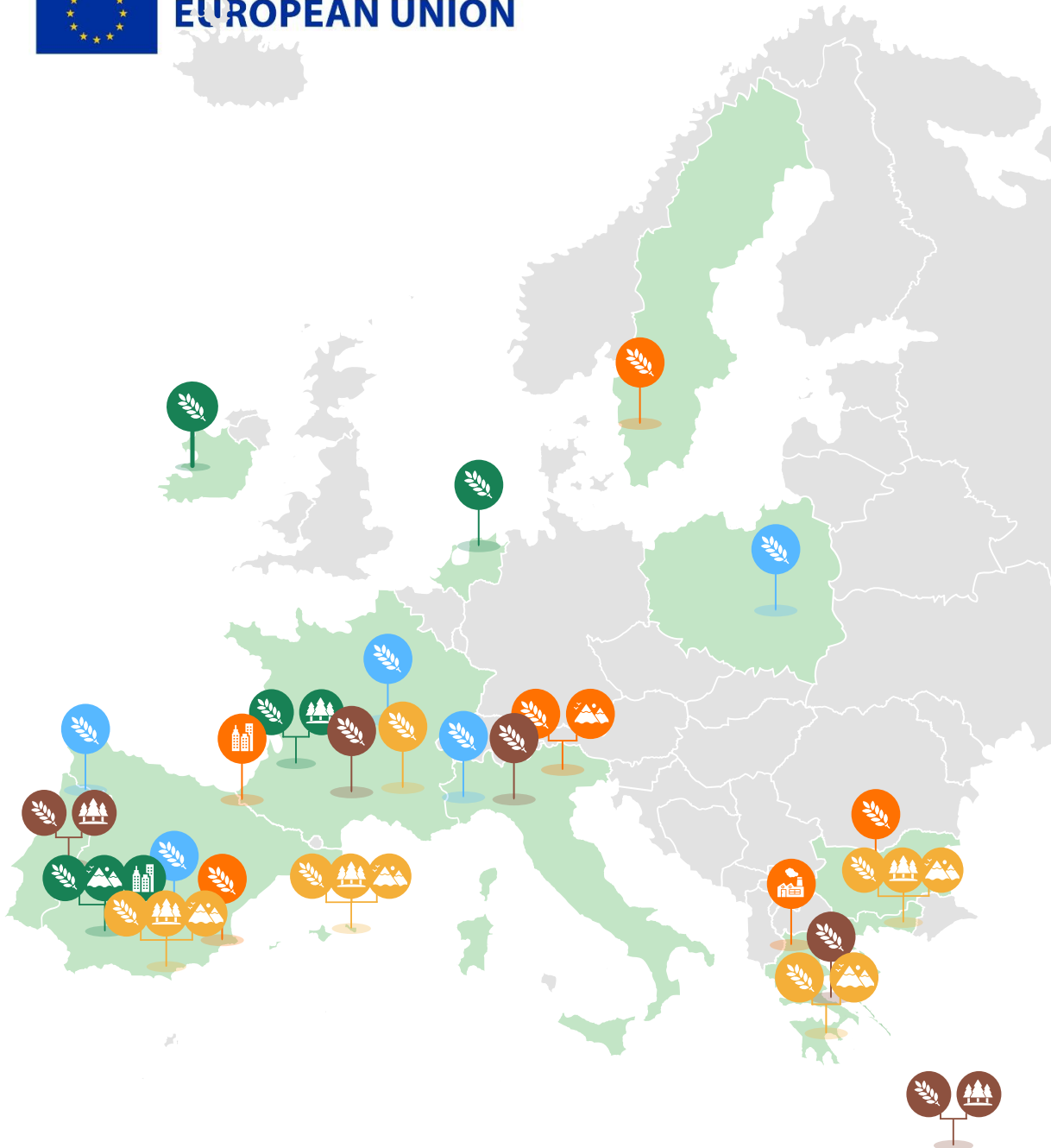









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The first 25 Mission Soil living labs (2024)

-  Agriculture
-  Forestry
-  Natural
-  (Peri) - Urban
-  (Post) - Industrial

-  GOV4ALL
-  SOILCRATES
-  iCOSHELLs
-  LivingSoiLL
-  LILAS4SOILS

Desertification and erosion in the Mediterranean region
Biodiversity
Pollution and biodiversity
Permanent crops
Carbon farming



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Tools for advisors



NBSOIL

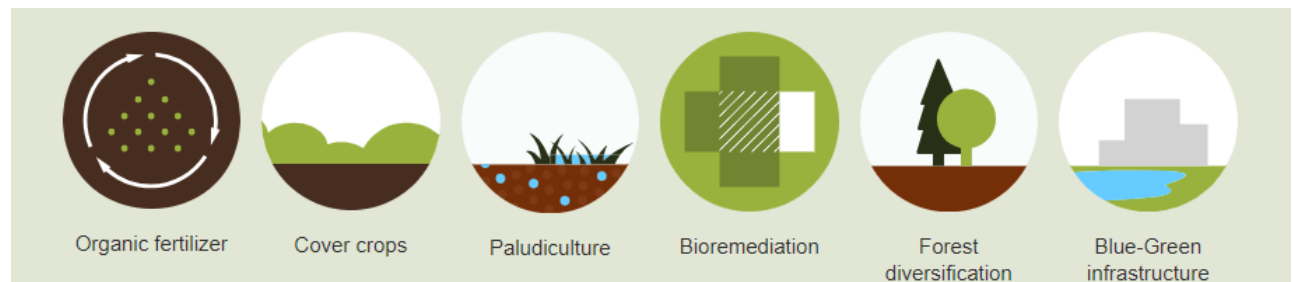
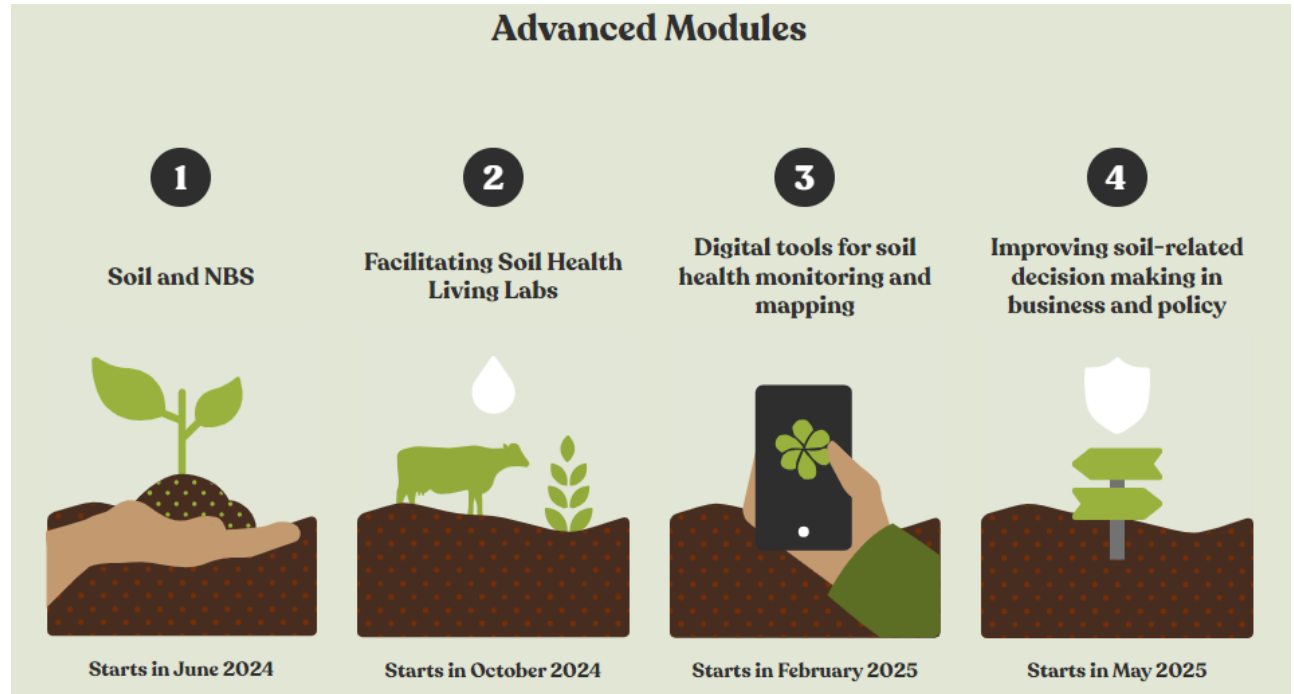
Nature-based Solutions
for Soil Management

Soil Academy launched in June
2024

- **Target: soil or agricultural advisors (incl. aspiring)**
- Online modules, live sessions and practical workshops and demonstration events
- 3 Learning levels (60h – 240h)
- 7 languages

[Soil Academy Registration | NBSOIL](#)

Advanced Modules





Tools for advisors



- 34 pilot projects dealing with **participatory soil governance** at the local and regional level -> develop Territorial Management Agreements

- [Pilot case studies](#)

Podravje Region (Slovenia)



Focus: Soil & regenerative agriculture, Land use: Urban

Good practice: Participatory rehabilitation and revitalization of soil (plans for rehabilitation and revitalisation of abandoned and devalued lands owned by municipalities)

Workshop dates: May 2024

Partner organisation: Regionalna razvojna agencija za Podravje – Maribor (RRA)

[Learn more!](#)

Soil Stewards training launched in July 2024

- Target: **civil servants at regional and municipal level** that can facilitate dialogues on soil health
- Four modules focusing on soil health assessments, participatory soil governance and regional policy frameworks and fundraising



Slovenian partner:
Regionalna razvojna agencija za Podravje - Maribor



[Registration Soil Stewards training](#)



Tools for advisors



Slovenian partner:
INSTITUT JOŽEF STEFAN

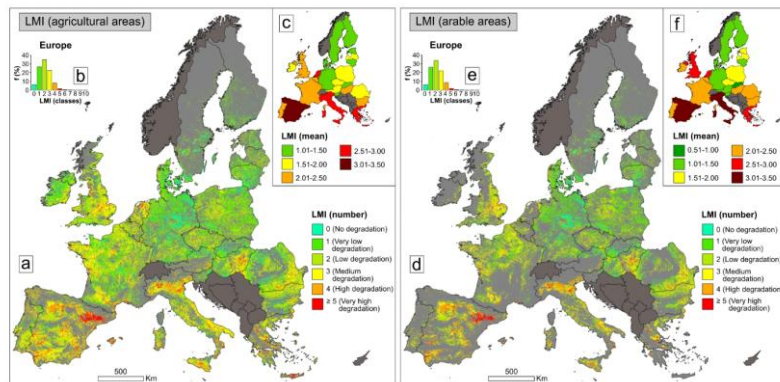


Knowledge on soil health indicators and monitoring

- new indicator for measuring soil organic carbon taking in account the diversity of soils across Europe - “observed/typical SOC” ratio
- novel methods
- glossary
- open source soil spectroscopy models using LUCAS data

Fig. 2: Spatial pattern of land multi-degradation in Europe.

From: A unifying modelling of multiple land degradation pathways in Europe



inventory of management practices

meta-data analysis:
management effects on soil biota (preliminary results)

[Scientific Articles - Benchmarks](#)



The Common Agricultural Policy and the Mission Soil

- More than **EUR 40 billion to improve soil quality**.
- **Increased area** targeted by voluntary measures to improve soil quality (47% of EU farmland, up from 15% in 2021).
- **R&I** recognized as a tool to achieve **modernization**.
- **CAP strategic plans** are crucial: 18 out of 28 CSPs link up with the Mission
- **New 1,000 operational groups expected to target soils** and replicate solutions developed by Mission projects.
- **Agricultural advisory services can get support from the Mission** (living labs and lighthouses).
- Innovations tested under the mission are **up-scaled** through investments.





Do you want to be involved? Sign the Mission Manifesto!

- What is the **Mission Soil Manifesto**?
 - A **non-legally binding** document to formalize **participation** in and **support** to Mission activities
 - Become part of a community, gain visibility, access to Mission-led knowledge, involvement in Mission activities beyond Horizon Europe calls
- Who can sign? **Individuals and organizations**



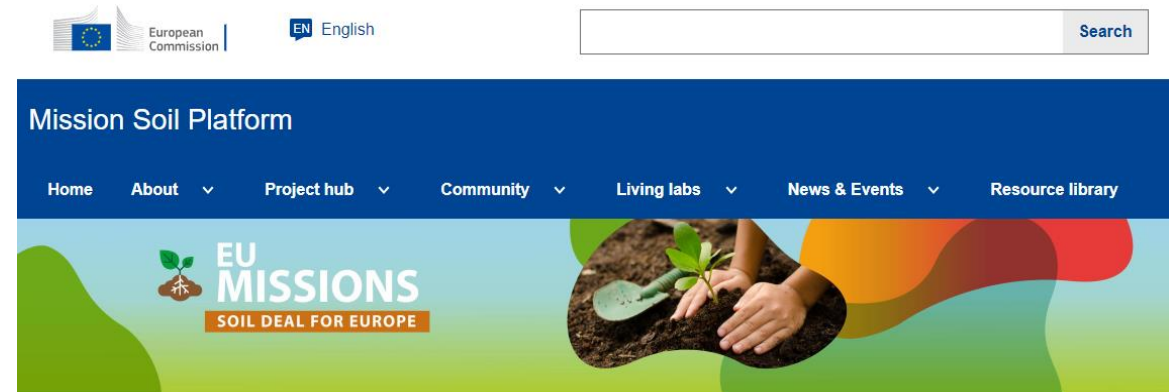
**+3,100
signatories
incl. +550
organizations**



Would you like to know more about the Mission?

- Visit the Mission Soil Platform
 - About
 - Project hub
 - Funded project and funding opportunities
 - Community
 - Mission Soil Manifesto
 - Living labs
 - News & Events
 - Newsletter
- And much more!

<https://mission-soil-platform.ec.europa.eu/>



Why are soils important?

Soils are essential for all life-sustaining processes on our planet. If soils are healthy and managed sustainably, they provide essential environmental, economic, and social benefits for society.

[Learn more about soils](#)





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Thank you!

