







#### **Kerstin Rosenow**

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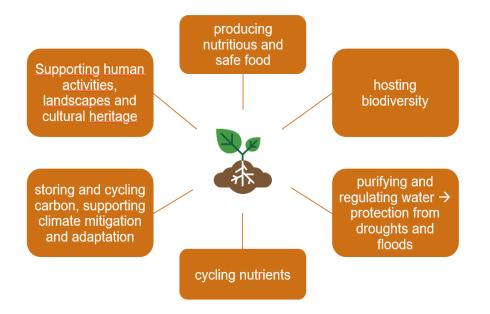
#EUmissions #HorizonEU #MissionSoil





#### The Mission Soil: a unique tool to restore and ensure soil health in EU and beyond

#### Soils support ecosystem services and provide vital functions

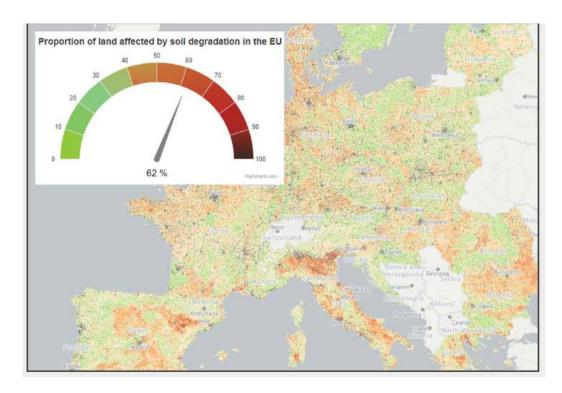


#### The Mission Soil

A novel transdisciplinary, cross-sectoral, real-life testing approach to soil management addressing all land uses: agriculture, forestry, urban, industrial.

#### Soils are threatened:

More than 60% of soils in Europe are considered to be unhealthy due to current management practices, pollution, urbanisation and the effects of climate change.







#### Policy context: A robust EU framework for soil health protection and restoration

#### Long-term Policy data and EU knowledge hub The first Soil Strategy + EU law on **Soil Monitoring** soil whose **EU Soil** ultimate Law + including **Observatory** objective Sustainable Carbon **EUSO** is to Cycles **Dashboard** achieve healthy soils by **EU Mission** 2050. 'A Soil Deal for Europe' Tool for implementation, engagement and leveraging resources

#### **Challenges**

- Knowledge-practice divide: Knowledge regarding sustainable soil management is not sufficiently applied in practice
- More knowledge and data needed to address soil health: biodiversity, contamination (pesticides, nutrients...), carbon farming, waste management.
- Lack of harmonization of soil monitoring in the EU.

#### The Mission Soil provides

- new knowledge for the design, implementation evaluation and review of the Soil Monitoring Law
- funding opportunities to develop innovative solutions for land managers participating in living labs
- awareness raising and knowledge spreading across society





#### Mission Goal: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030

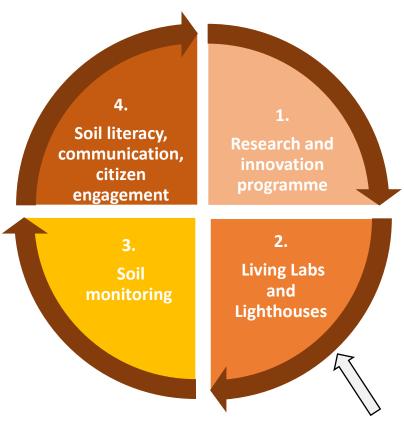
#### 8 Specific objectives:



Each specific objective is backed by **one or more quantified targets** and **measurable indicators** 

Objectives apply to all types of land uses (agriculture, forestry, urban, natural, industrial) and for a range of sectors (e.g. food and beverage, pharmaceutical; decontamination, fertilisers)

#### 4 Building blocks:

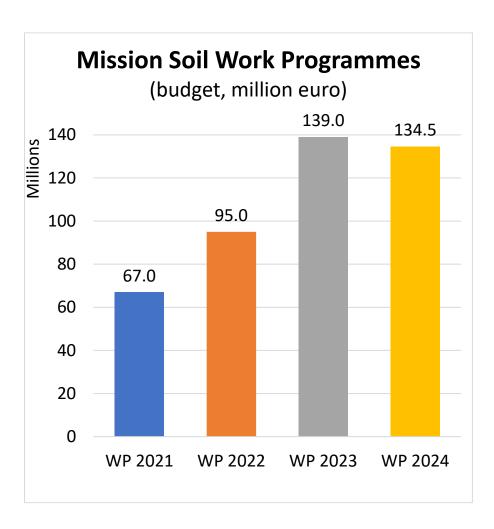


Main vehicle for addressing the diversity of conditions and generating locally adapted solutions

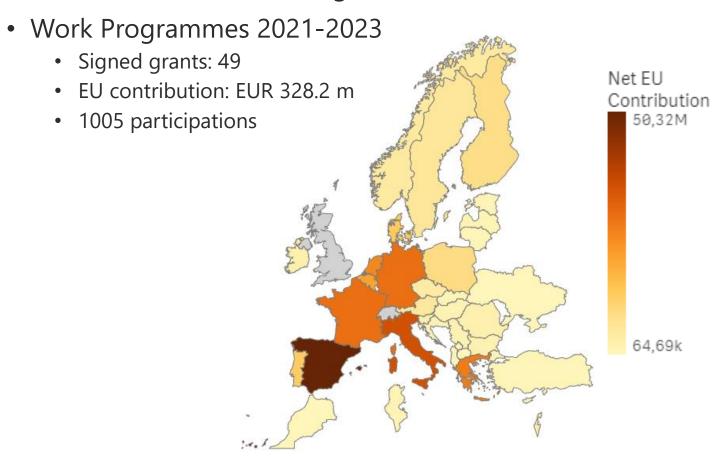


## EU MISSIONS SOIL DEAL FOR EUROPE

#### Mission implementation – State of play



• Total investment (WP budget): EUR 435.5 m





#### **EU MISSIONS SOIL DEAL FOR EUROP**

#### The Mission Soil projects (1/2)

Carbon farming:



Soil pollution and restoration:











Soil biodiversity:







Circular economy solutions: 

Bin2Bean DeliSoil











**Business models:** 







Soil health monitoring: Soil Health BENCHMARKS











Soil literacy and citizens' engagement:













Roadmaps for the Mission Soil:



<u>Discovering the subsoil</u>: DeepHorizon







#### The Mission Soil projects (2/2)

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





**Desertification:** 



SPADES



Soil-friendly practices in horticulture:





**Spatial Planning:** 







Living labs:

Soil-water:











Support to living labs:









#### Insights into initial results and outputs 1/4

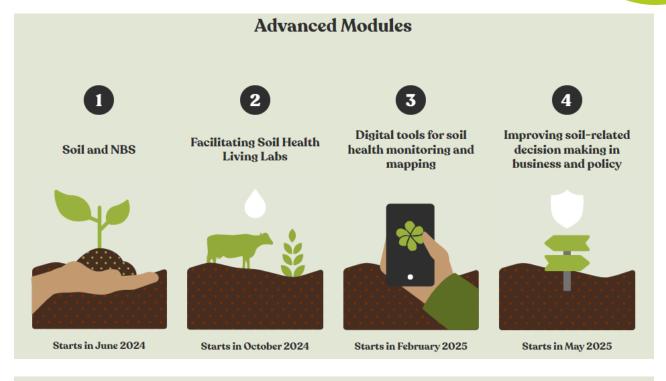




#### Soil Academy launched in June 2024

- 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













#### 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

#### **Registration Soil Stewards training**



#### 34 pilot projects dealing with participatory soil governance

Local and regional level pilots in 13 European countries and 3 non-EU

#### 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!

Pilot case studies (humus-project.eu)



#### **100 Living Labs and Lighthouses**

+ 1000 testing sites across Europe

#### Living labs are a core element of the mission

- Each LL is composed of a group of 10-20 sites
- Actors such as farmers, researchers, advisors, SMEs, citizens...
- Co-design, test, monitor and evaluate solutions to soil health challenges
- Real-life conditions, long-term set up
- All types of soils and land uses
- Projects usually last 4-5 years with 4-5 LLS (EUR 12 m)

#### First 25 living labs started in 2024

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

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









#### Mission's goal: 100 living labs by 2030

#### Phase 1 (2021-2023)

Work programme 2021:

**Preparatory actions** 





Work programme 2022:

**LL Support Structure** 



**iCOSHELLs** 

First 25 Mission Soil living labs in 2024











Phase 2 (2024-2026)

Work programme 2024...

#### **Expansion of LL:**

Launch of successive calls for expanding the network of LL

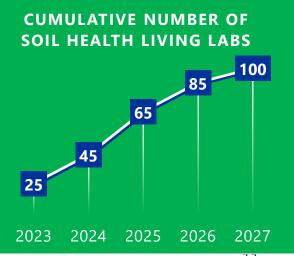
→ Emphasis on wide coverage of geographies, soil health challenges, Mission's objectives and land uses.

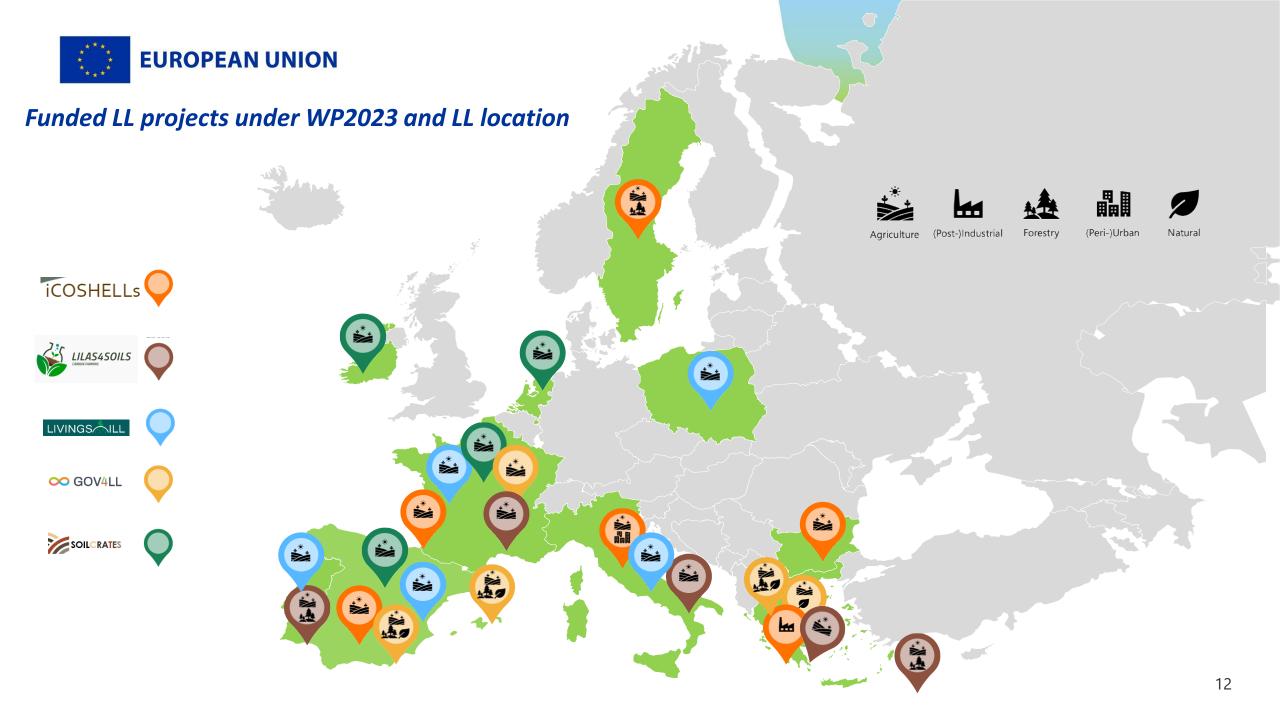
Phase 3 (2027 onwards)

#### **Scaling up of LL:**

Launch of last calls for setting LL

→ Measures to facilitate the mainstreaming, continuation and sustainability of the LL beyond the Mission timeframe









#### The first 5 LL projects of the Mission Soil

- iCOSHELLs: Innovative co-creation soil health living labs
- <u>LILAS4SOILS:</u> Fostering carbon farming practices through living labs in the mediterranean and southern EU for the healthy future of European soils
- <u>LIVINGSOILL</u>: Healthy soil to permanent crops living labs
- GOV4ALL: Governance and business models for living labs: rural regeneration hubs for tackling soil health challenges in the mediterranean region
- SOILCRATES: Soil innovation labs: co-regenerating and transforming European soils

- Geographical area: South EU
- ➤ Land use type: mainly agriculture with few LLs covering (semi)natural lands or forests
  - permanent crops (olive trees, vineyard)
  - arable lands
  - grasslands
- ➤ Target Mission Specific Objectives: soil literacy, structure & biodiversity, carbon stocks, erosion, pollution.





#### LLs proposals under WP2024

#### HORIZON-MISS-2024-SOIL-01-01 and HORIZON-MISS-2024-SOIL-01-02

- ➤ The HORIZON-MISS-2024-SOIL-01 call was closed on the 8th October 2024.
- The two living lab topics of WP24 received 53% of the total number of proposals submitted in response to this call (137 proposals).

Topic	Number of proposals submitted	Number of eligible proposals	Budget (and grants)
SOIL-01-01 (Bottom-up LLs)	60	53-54	EUR 36 million (3 grants)
SOIL-01-02 (Top-down LLs = urban)	12	11-12	EUR 12 million (1 grant)

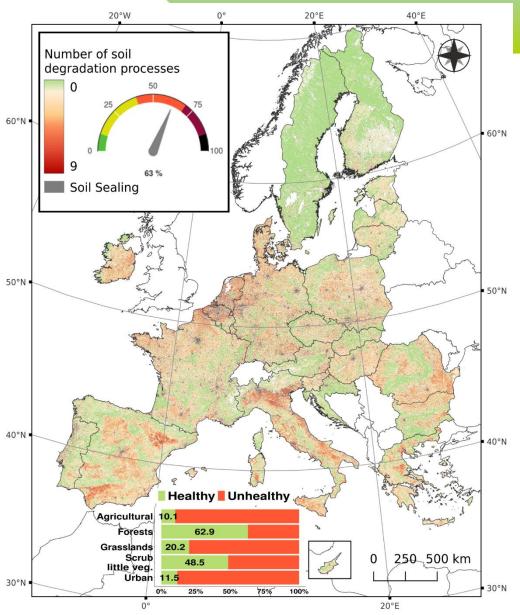




#### Supporting the Soil Monitoring Law

Example: EUSO Dashboard

- The main platform for gathering and disseminating soil health indicators at EU-level
- Provides a spatial visualisation and defines thresholds for unhealthiness
- 19 indicators are visualised in a comprehensive way
- The dashboard was launched in March 2023, and recently updated in June 2024
- Developed by the EU Joint Research Centre with the support of and in collaboration with the Mission Soil



#### Soil literacy, communication and citizen engagement

## **European Mission Soil Week 2024**

12 -14 Nov 2024, Brussels, BE

- Keynote speech
- Plenary sessions web streamed
- Breakout sessions
- Field visits
- Cluster meetings

#### **Mission Soil platform**

Visit the dedicated website to:

- Discover Mission Soil projects, materials for communication and outreach (newsletters, podcasts, videos..)
- Check who is acting for soil health
- Add your events related to soil

https://mission-soilplatform.ec.europa.eu/

 $\underline{https://www.europeanmissionsoilweek2024.eu/en}$ 

# EUROPEAN UNION EUROPEAN MISSION SOIL WEEK Leading the transition towards healthy soils Brussels, Belgium | 12-13 November 2024



#### **Mission Soil Manifesto**

Non-legally binding document to formalise stakeholder and citizen **participation** in and **support** to Mission activities and

become part of a community, gain visibility, access to Mission-led knowledge, involve in Mission activities

#### 3.100 signatories and growing...!





Today we launch the #MissionSoil Manifesto

All organisations and citizens that want to become part of a community of practice that cares for #soil health are invited to sign the manifesto

Sign here: ec.europa.eu/eusurvey/runne...







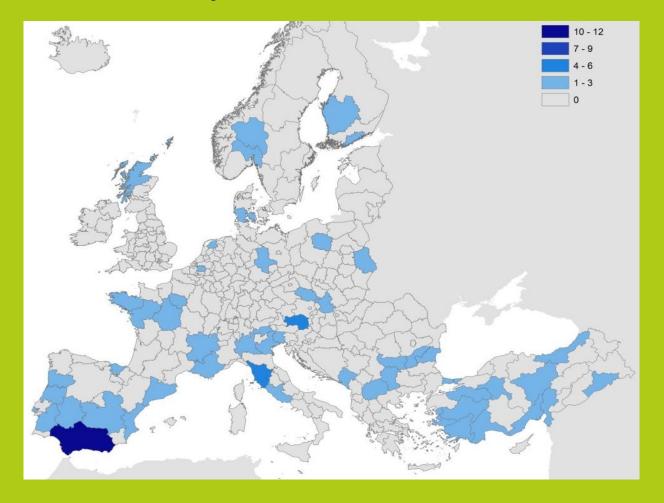
#### Map of Manifesto signatories



2.500 individuals and 600 legal entities based in EU and outside (private companies, NGOs, research insitutions etc.)



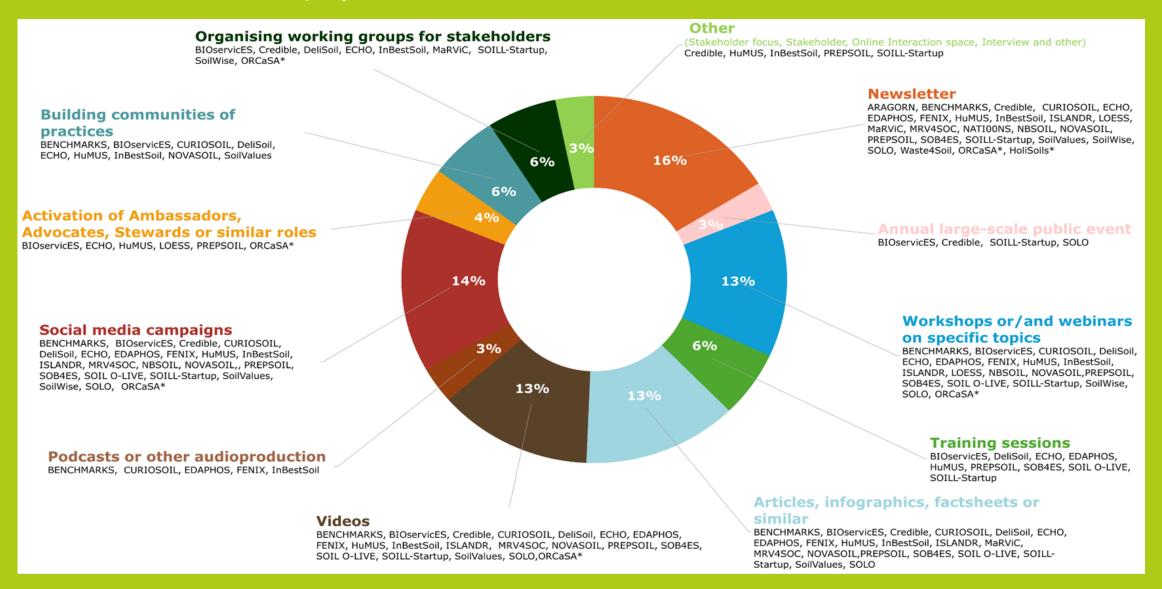
Including more than 70 regional and local authorities and municipalities from EU and outside







#### Overview of Mission Soil projects' communication activities





## EU MISSIONS SOIL DEAL FOR EUROPE

#### International dimension of the Mission Soil

- Soil degradation is a global issue. The Mission supports several EU policies and international commitments and SDGs.
- The Mission Soil has the potential to drive change towards sustainable land management practices in Europe and beyond.
- Participation in calls in general open to the world and any proposal can include international partners, albeit under a variety of conditions.





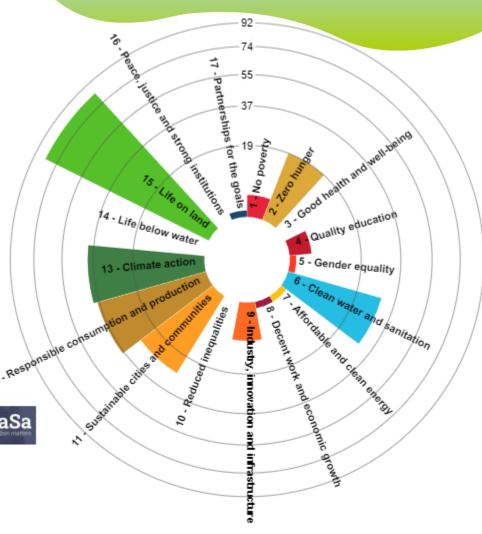












#### **Example of call with specific international scope**

Mission Soil Work Programme 2024 Topic: 'Assessment of Soil Health in Africa'





#### The Mission continues working on:

- Engagement: increased awareness and commitment in Member States and regions, beyond R&I circles >> National Soil hubs and mirror groups
  - <u>Living labs</u>: greater involvement of (unusual) stakeholders (farmers...), scale-up solutions, long-term sustainability.

#### ■ Impact:

- synergies and complementarities inside the Mission but also with other initiatives (partnerships) and programmes (LIFE, Interreg...),
- to make <u>results available</u> to end users and policy makers for <u>scaling up and greater impact</u>.
- Soil monitoring: integration of relevant soil data resulting from projects under the Mission, FPs, other programmes and collected by Member States.
- *Mobilise a much greater scale of investment* to support and accelerate the transition to healthy soils (investors, lenders, philanthropies...)





## Thank you!

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