



EUROPEAN UNION



EU MISSIONS

SOIL DEAL FOR EUROPE

100 living labs and lighthouses to lead the transition towards healthy soils by 2030

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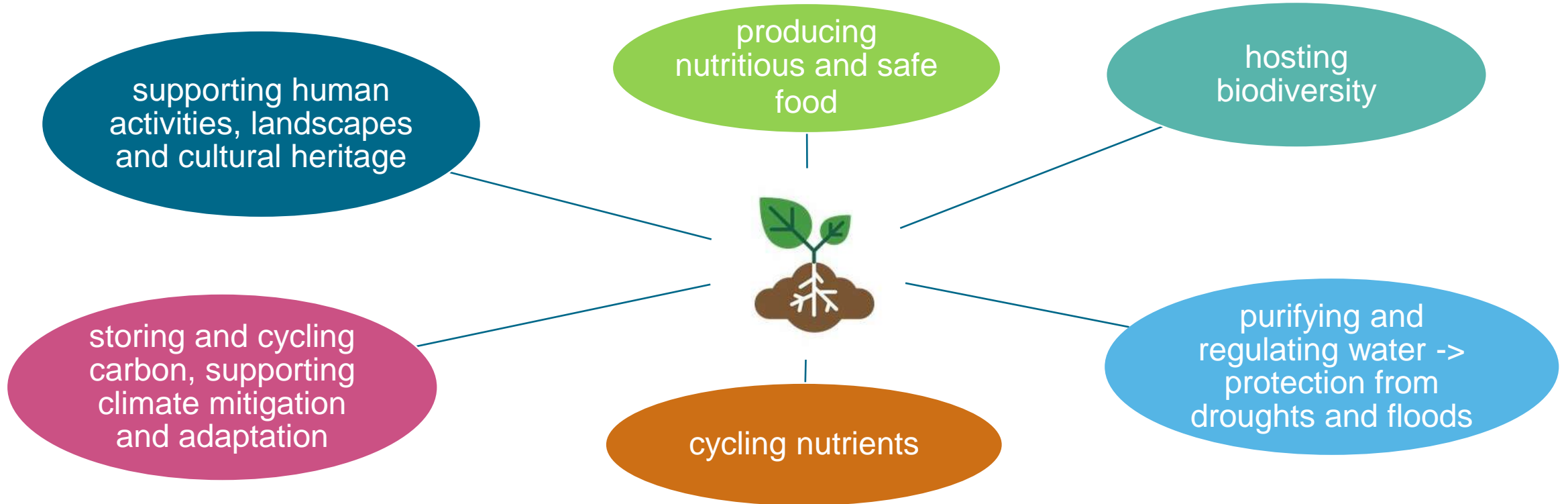
#EUmissions #HorizonEU #MissionSoil





Why a EU Mission on soil?

Soils support ecosystem services and provide vital functions:



- Soil is a finite resource, meaning its loss and degradation is not recoverable within a human timespan.
- Soils are threatened: **60-70% of soils in Europe are considered to be unhealthy** due to current management practices, pollution, urbanisation and the effects of climate change.



Examples of soil health issues in Europe

2.8 million potential **contaminated sites** (only 24% inventoried) posing major health risks

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

Cropland soils **losing carbon** at a rate of **0.5%** per year; **50%** of peatlands drained and losing carbon – this is contributing to the climate crisis

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 in 2017

The costs associated with soil degradation in the EU exceed **50 billion €** per year





A supportive framework for soil protection in the EU

Policy framework:
“All soils are
healthy by 2050”



Soil monitoring
and data reservoir



Programme for research and innovation,
citizen engagement and outreach





The Mission supports the Green Deal

By 2030

- 25% of land under organic farming
- Reduce the overall use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50%
- Reduce fertilizer use by at least 20%
- Reduce nutrient losses by at least 50%
- Reduce by 30% microplastics released into the environment
- Reduce net greenhouse gas (GHG) emissions by at least 55% compared to 1990 levels.

By 2035

- the EU should aim to reach climate neutrality in the land use, forestry & agriculture sectors

By 2050

- all EU soil ecosystems are in healthy condition
- Europe is the first climate neutral continent

Mission part of:

- Farm to Fork Strategy
- EU Biodiversity Strategy for 2030
- Climate Adaptation Strategy
- Forest Strategy
- Zero Pollution Action Plan for air, water and soil
- Organic Action Plan
- Long term vision for rural areas
- EU Soil Strategy for 2030
- Communication on sustainable carbon cycles



Strategies specify actions to be implemented under the Mission



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

Specific objectives

1. Reduce desertification

5. Prevent erosion

2. Conserve soil organic carbon stocks

6. Improve soil structure to enhance soil biodiversity

3. Stop soil sealing and increase re-use of urban soils

7. Reduce the EU global footprint on soils

4. Reduce soil pollution and enhance restoration

8. Improve soil literacy in society

➤ Objectives apply to **all types of land use and all territories** and are relevant for a **range of sectors**.

Agriculture, forestry



Urban and spatial planning; housing, transport territorial development

Industries: food and beverage, pharmaceutical; decontamination, fertilisers, climate neutral products and services



Earth observation and digital industries



Education, training

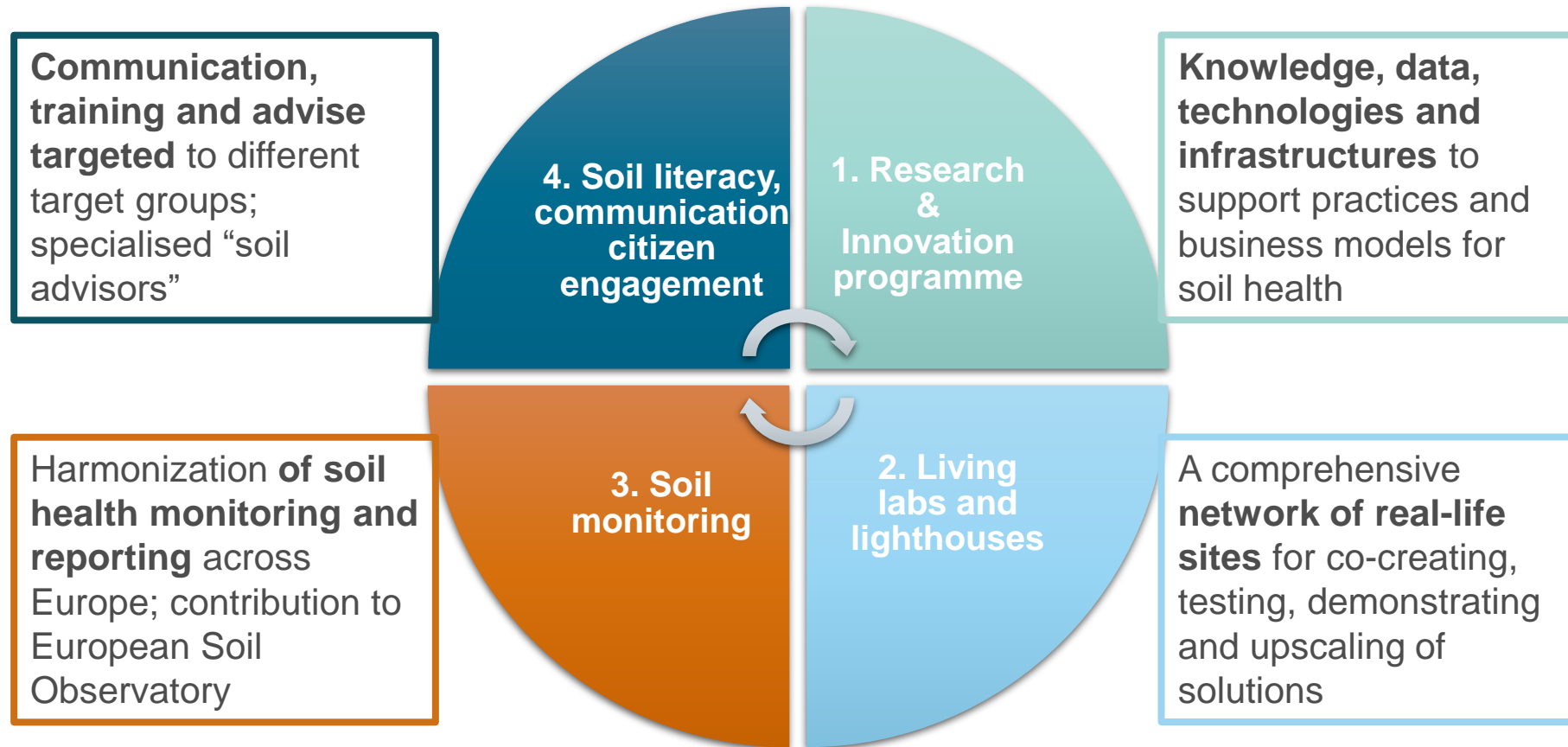
Nature and climate protection





How will the Mission be implemented?

Activities under the **four building blocks** to address **soil health** and the **drivers of soil health**



Co-implementation of mission by: researchers, land managers, regions, businesses, policy makers, citizens and international partners



Living Labs and Lighthouses

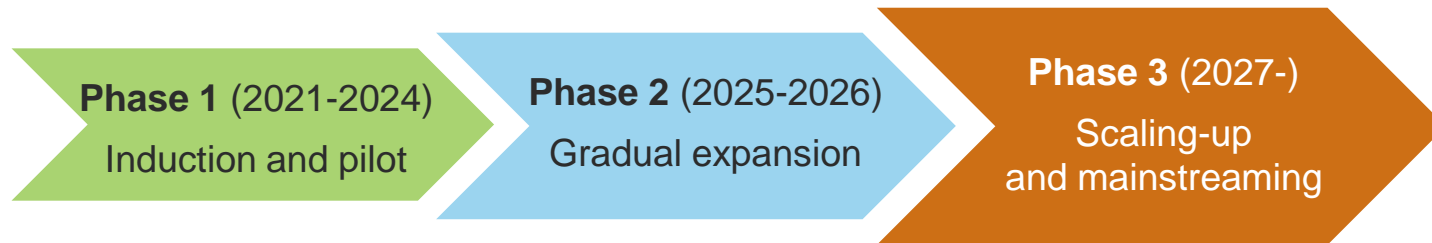
Living labs are a core element of the mission

- They are real-life sites in rural or urban areas in which people from various sectors and backgrounds experiment and test solutions in a co-creative manner.
- Each living lab is composed of a group of sites (e.g. farms, forest stands, urban green areas) working together at regional or sub-regional level.

Lighthouses are sites of exemplary performance with regards to a certain practice

- They are individual sites, such as a single farm, to showcase good practices.
- They are places for demonstrations, training and communication.

Network of 100 Living labs and lighthouses to be built up gradually.



Living labs and lighthouses are key to accelerate the adoption of sustainable practices by users and co-developed methods adapted to the local conditions.

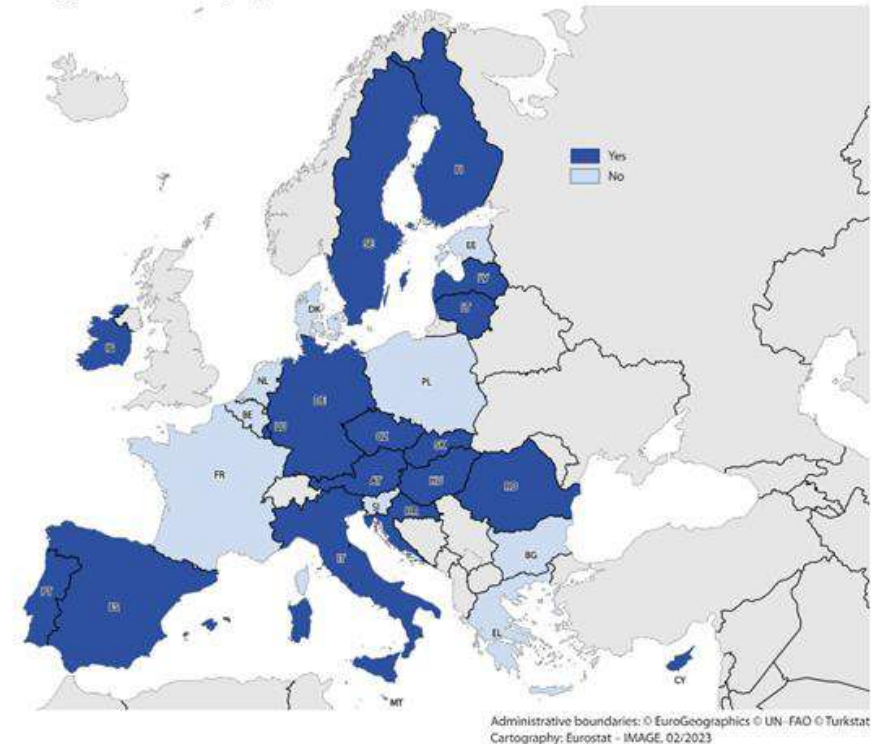


The Mission in Member States (1)

Synergies between Soil Mission and new CAP

- 18 out of 28 CAP Strategic Plans (SPs) make explicit links to the Soil Deal Mission.
SE: CAP to support EIP Operational Groups to test and demonstrate solutions developed under the Soil Mission
SK: the CAP will support soil monitoring, upskilling of advisors and dissemination of solutions developed under the Soil Mission
- All MS identify soil management measures.
- CAP plans foresee to fund about 6500 EIP OGs; about 1000 OGs are expected to target soils
- CAP network and EIP AGRI services run campaigns and carry out actions in support of the Mission.

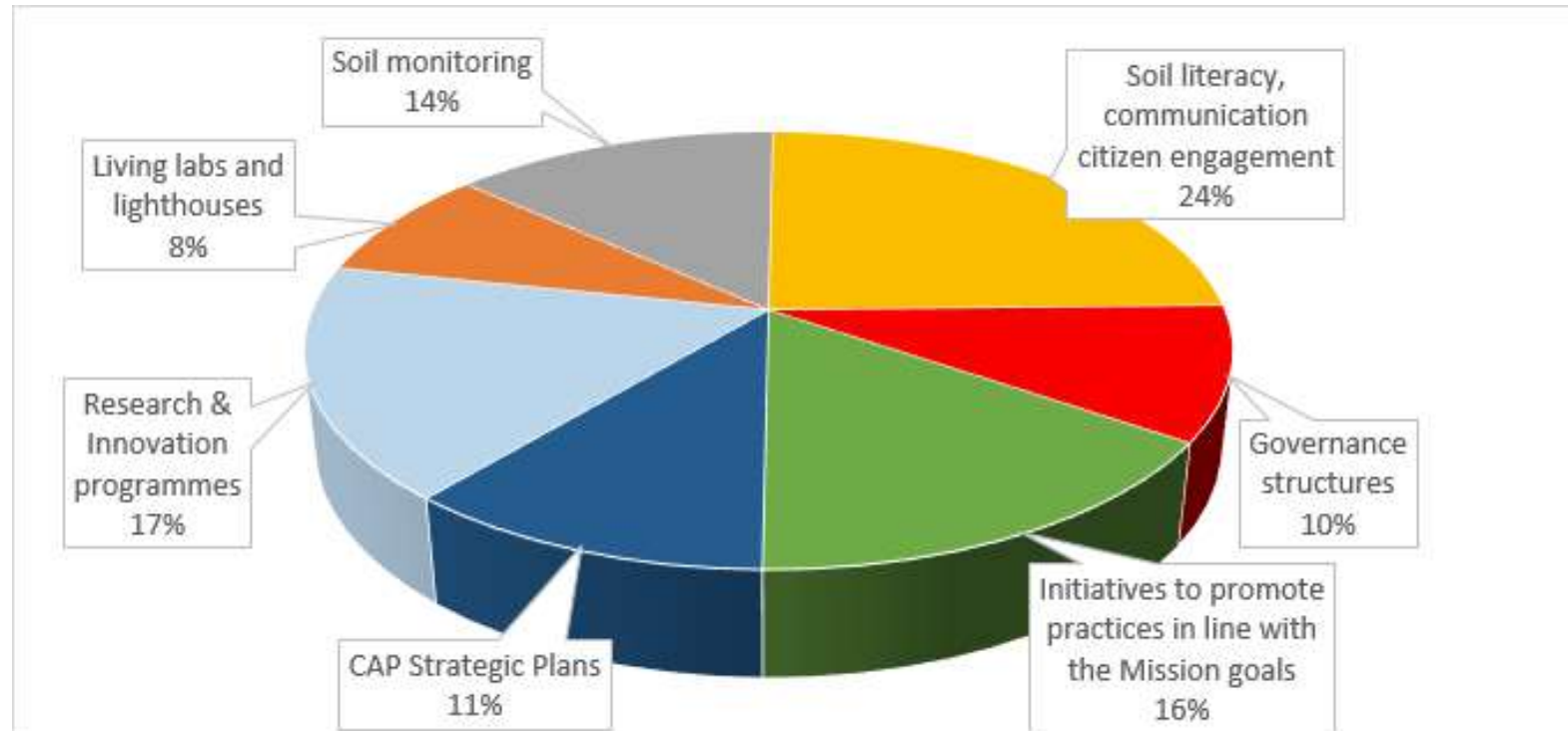
EU Mission: 'A Soil Deal for Europe' in the CAP Strategic Plans
Strategic Plans linking up with the Mission





The Mission in Member States (2)

22 Member States (AT, CY, CZ, DE, DK, EE, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PT, RO, SE, SK) and NO, have reported **190 initiatives with direct link to the Mission** .



Share of the different categories of initiatives triggered by the Mission at national level (% of the total number of reported initiatives)



Mission Manager and Mission Secretariat



Kerstin Rosenow
Head of Mission Secretariat
Head of Unit Research and Innovation, AGRI



Magda Kopczynska
Mission Manager
Deputy Director General, AGRI



Peter Wehrheim
Deputy Mission Manager
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Arianna Pasa



Marialuisa dal Poz



Giuseppe Pellegrino



Giulia Meloni



Paola Eulalio



Fiorella Puopolo



Luis Sanchez Alvarez



Carmen Fontanella



The emerging landscape of Mission projects

WP 2021

Topics on e.g.

soil monitoring and soil health indicators, businesses models for soil health, link between soil health and food quality and safety, engagement of municipalities and regions

Budget: 67 M€



WP 2022

Topics on e.g.

remediation strategies for contaminated sites, soil biodiversity, use of biowaste for soil improvement, carbon farming, soil literacy

Budget: 95 M€



WP 2023

Topics on e.g.

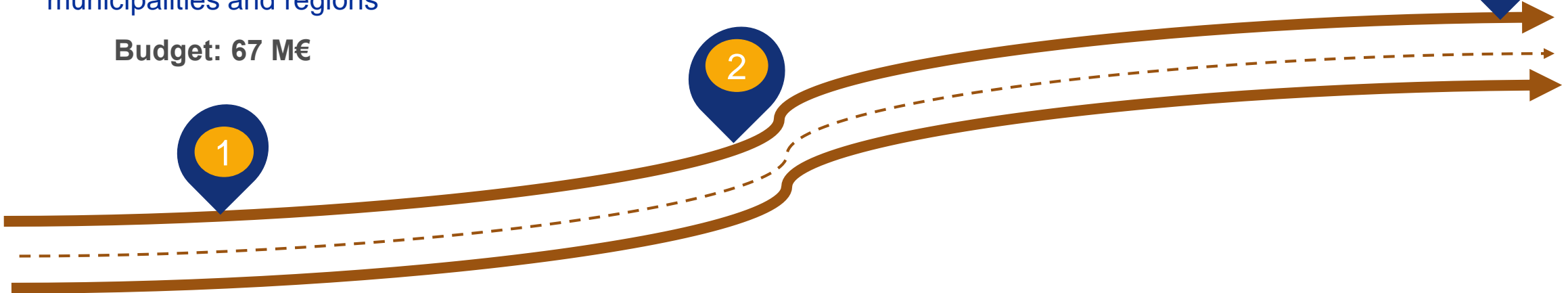
Living Labs, spatial planning, soil and cultural and creative industries

Opening of call: 17 January '23

Deadline for applications:

20 September 2023

Budget: 139 M€



Work Programme 2023 topics of Mission Soil

	Topics
2023-SOIL-01-01	Discovering the subsoil
2023-SOIL-01-02	Soil pollution processes – modelling and inclusion in advanced digital decision-support tools
2023-SOIL-01-03	Onsite digital technologies to monitor nutrients and chemical or biological stressors in soil and plants with relevance for food safety and nutrition
2023-SOIL-01-04	Innovations to prevent and combat desertification
2023-SOIL-01-05	Soil-friendly practices in horticulture, incl. alternative growing media
2023-SOIL-01-06	Soils in spatial planning
2023-SOIL-01-07	Back to earth: bringing communities and citizens closer to soil
2023-SOIL-01-08	Co-creating solutions for soil health in Living Labs
2023-SOIL-01-09	Carbon farming in living labs
2023-CLIMA-OCEAN-SOIL	Integrated approach to increasing landscape water retention capacity at regional scale
2023-OCEAN-SOIL	Approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin



The new Soil Mission Board



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Sign the Mission Soil Manifesto

- The Mission Soil Manifesto aims to bring regional and local policy-makers, stakeholders and citizens together into a vibrant community that cares for soil health.
- Signatories of the document will recognise the need for action for soil health and will be able to engage in activities for improving soil health.
- The voluntary document can be signed by representatives of municipalities, regions, private or public companies and organisations, NGOs and philanthropic organisations, schools and education institutions, as well as by research institutions. Individuals can also sign the Manifesto and become “Friends of the Mission Soil”.
- By signing the Mission Soil Manifesto, organisations and individuals can demonstrate their commitment to soil health protection and restoration and help to build momentum towards a more sustainable future. By becoming a soil advocate, anyone can make sure that no soil is being left alone.

https://agriculture.ec.europa.eu/news/eu-mission-soil-launches-its-manifesto-2023-04-18_en#:~:text=The%20Mission%20Soil%20Manifesto%20aims,we%20must%20strive%20for%20more



Updates: Outreach, Mission going global



250+ co-creation and engagement events since September 2019



Social media campaigns (#MissionSoil on-going)



Articles, press releases, newsletters, 4 videos, 2 factsheets



2 Podcast episodes



Publications: soil health Results Pack / Report on communication and citizen engagement initiatives



Interactive games for kids and adults, incl. composting training



Survey sent to **7000+** contacts across Europe and 2500+ contributions received



Exchanges with **global partners and initiatives**: US, Canada, Australia, Japan, Latin America, Africa, C4SH, 4%1000, Global Soil Partnership



Mission Soil is Mission Critical- wonderful to see this momentous shift in our approach to planetary wellbeing. #SaveSoil. Let's make it happen. -Sg @ca4sh_global @EUAgri @EU_ENV @cpsavesoil #COP27Egypt

EU Agriculture @EUAgri · Nov 10
Mission Soil will be presented at #COP27 as part of EU efforts to increase climate resilience #EUatCOP27

Recent events

- **COP27-UN Climate Change Conference**, in Sharm el-Sheik, Nov. 2022
- **Japan Moonshot event**, Nov. 2022 and **EU-Japan STI event**, Jan 2023
- **World Soil Day event**, 5 Dec. 2022
 - FAO Opening ceremony
 - Release of a [new video](#) on carbon farming
 - Publication of a [report on communication and citizen engagement](#) related to Soil Mission
 - Social media & promotion of national events
- **Green Week Berlin**, Jan 2023
- **Committee of the Regions**, Feb. 2023



Soil Mission updates: what next in 2023

- 18 April '23 **Launch of Soil Mission Manifesto with ERRIN**
- May '23 **First edition of quarterly newsletter**
- 31 May - 1 June '23 **EU Agricultural Research and Innovation Conference**
- June '23 **Mission Website operational**
- TBC Nov. '23 **Mission Fair**





Useful links

- Mission A Soil Deal for Europe webpage - <http://ec.europa.eu/mission-soil>
- Mission A Soil Deal for Europe Implementation Plan https://ec.europa.eu/info/files/eu-mission-soil-deal-europe-implementation-plan_en
- Mission A Soil Deal for Europe factsheet <https://op.europa.eu/en/publication-detail/-/publication/90779d7a-227c-11ec-bd8e-01aa75ed71a1/language-en/format-PDF/source-232536601>
- EU Missions https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/missions-horizon-europe_en
- Video EU Mission “A Soil Deal for Europe” <https://youtube/3hPIZqwwhhM>
- *Behind the Scenes* podcast episode *A blossoming career as a soil keeper* <https://play.acast.com/s/behind-the-scenes-conversations-with-researchers-and-innovat/s02e05-a-blossoming-career-as-a-soil-keeper>
- On a mission to save our soils - the EU's plan to rebuild the land (Futuris episode, euronews) <https://www.euronews.com/2020/09/21/on-a-mission-to-save-our-soils-the-eu-s-plan-to-rebuild-the-land>
- Cordis results pack on soil health: <https://op.europa.eu/en/publication-detail/-/publication/5e8c13a6-9817-11eb-b85c-01aa75ed71a1>
- Funding and tenders portal: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-12-missions_horizon-2023-2024_en.pdf





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Thank you!

For further information and questions please contact the mission secretariat:

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