



EUROPEAN UNION



EU MISSIONS

SOIL DEAL FOR EUROPE

Webinar: Participating in European Mission “A Soil Deal for Europe” (2023)
Mission Infoday, Istanbul, 10 May 2023

Luis Sánchez

Unit AGRI.F2 Research and Innovation
DG Agriculture and rural development
European Commission

#EUmissions #HorizonEU #MissionSoil





Horizon Europe R&I Missions

Linking EU's research and innovation to major societal needs;
with strong visibility and impact

A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

Horizon Europe defines **5 missions areas**:

Adaptation to
Climate Change



Cancer



Climate-neutral
and Smart Cities



Restore our
Ocean and Waters



Soil Deal
for Europe



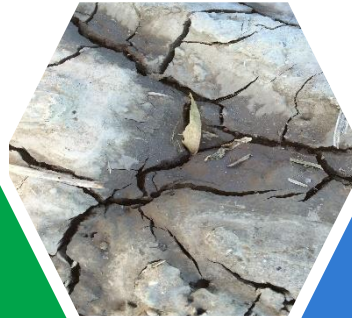


We need to act now!

Soils need our attention!



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



2.8 million potentially **contaminated sites** posing major health risks

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



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

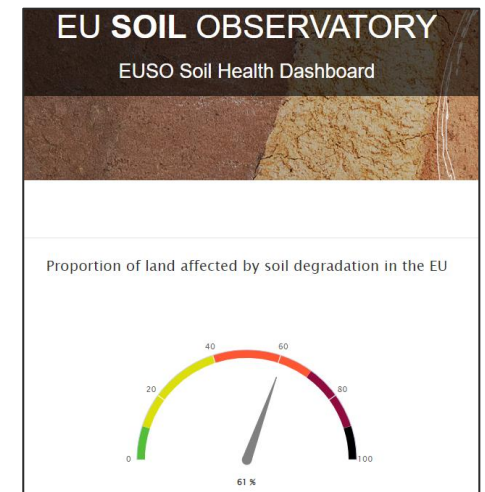


The effects of climate change put further pressure on soils and accelerate land degradation!



The soil mission's starting point

- Healthy soils are the **basis for nutritious and safe food and other vital, interconnected ecosystem services.**
- **Over 60% of soils in Europe considered unhealthy** due to current management practices, pollution, urbanisation and effects of climate change.
- Knowledge regarding sustainable soil management is not sufficiently applied in practices: Need to focus on innovation pathways to address the **knowledge – practice divide.**
- Soil related knowledge, monitoring and policies focus to a large extent on **agricultural soils.** More knowledge and data needed to address soil health in **other land uses. Contamination and waste management are probably the biggest unknowns.**
- In the EU, **soil monitoring is not harmonised** or undertaken in a systematic way. Currently, only 6 or 7 Member States have active soil monitoring programmes.
- **Political and “business” attention increasingly turning to soils** - need to operationalise the concept of “healthy soils”.





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

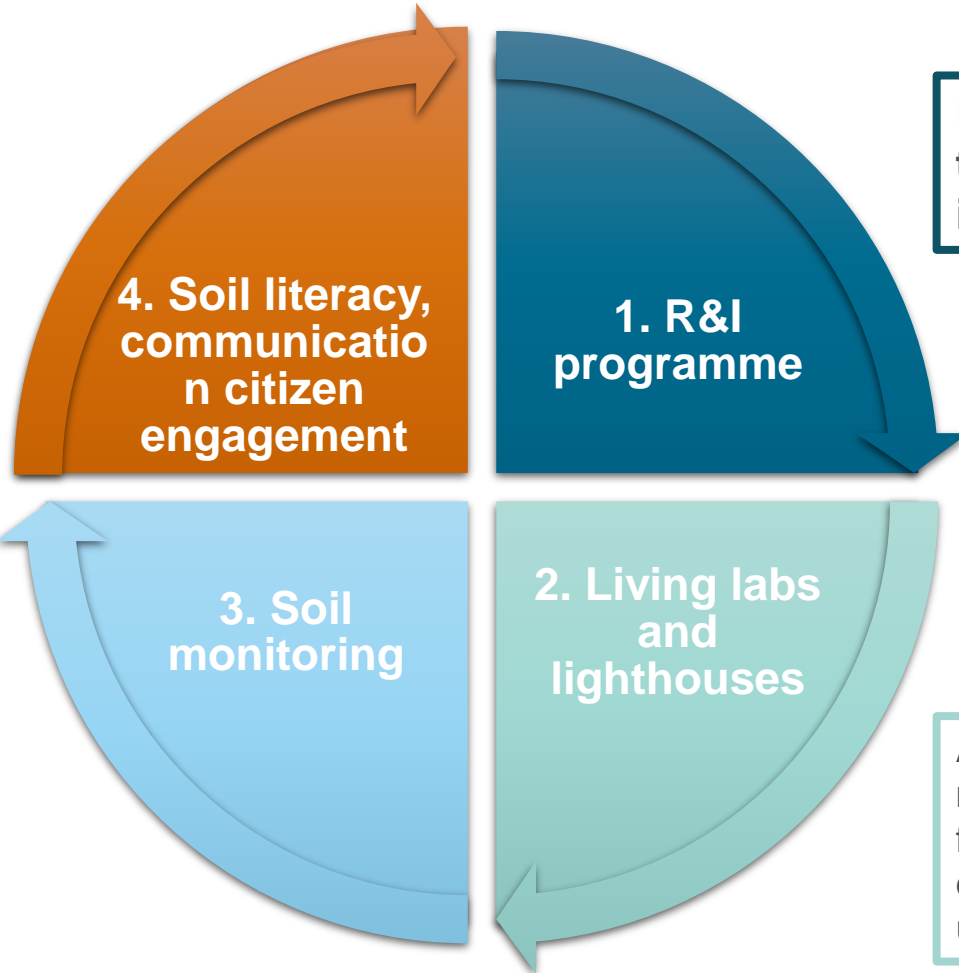
Nature and climate protection





Mission implemented through four building blocks

Communication, training and advise



Knowledge, data, technologies and infrastructures

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

Improving and harmonizing soil health monitoring across Europe;

A comprehensive network of real-life sites for co-creating, testing, demonstrating and upscaling of solutions





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.

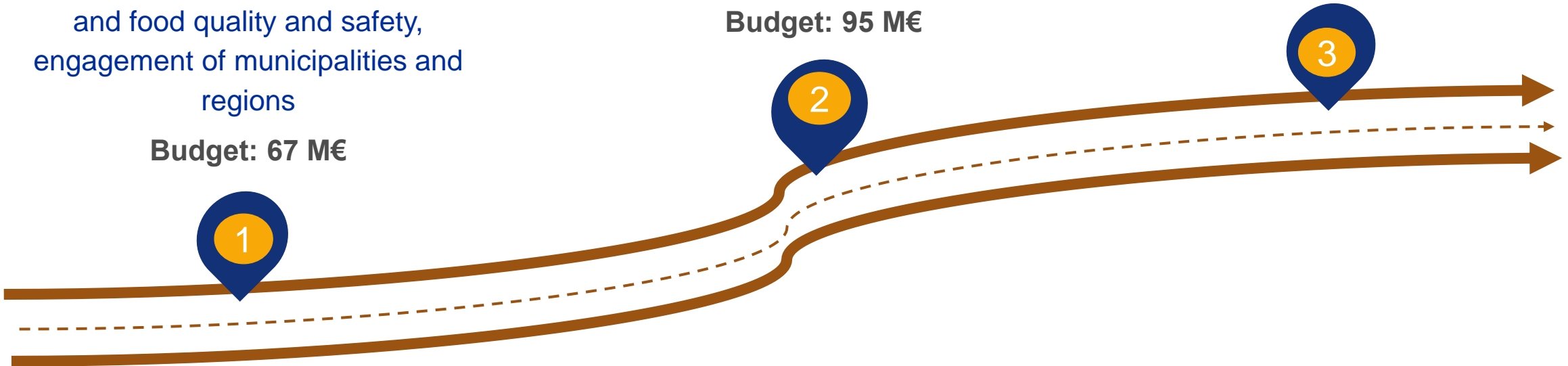
Living Labs, spatial planning, soil and cultural and creative industries

Opening of call: 17 January '23

Deadline for applications:

20 September 2023

Budget: 139 M€





Overview of Work Programme 2023 topics

	Topics	ToA; budget
2023-SOIL-01-01	Discovering the subsoil	RIA; 12 m€ (2)
2023-SOIL-01-02	Soil pollution processes – modelling and inclusion in advanced digital decision-support tools	RIA; 14 m€ (2)
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	IA; 12 m€ (2)
2023-SOIL-01-04	Innovations to prevent and combat desertification	IA; 14 m€ (2)
2023-SOIL-01-05	Soil-friendly practices in horticulture , including alternative growing media	IA; 13 m€ (2)
2023-SOIL-01-06	Soils in spatial planning	RIA; 7 m€ (1)
2023-SOIL-01-07	Back to earth: bringing communities and citizens closer to soil	CSA; 6 m€ (1)
2023-SOIL-01-08	Co-creating solutions for soil health in Living Labs	RIA; 36 m€ (3)
2023-SOIL-01-09	Carbon farming in living labs	RIA; 12 m€ (1)
<i>Other Actions</i>	<i>SGA: Specific Grant Agreement for a Living Lab Support Structure</i>	SGA; 3.2 m€ (1)



Joint topics

	Topic	Instrument	Budget	No of projects	Budget per project
O/C/S	Mission Climate adaptation, Mission Ocean & waters and Mission Soil Deal for Europe – Joint demonstration of an integrated approach to increasing landscape water retention capacity at regional scale	IA	15	1	15
O/S	Mission Ocean and Waters and Mission A Soil Deal for Europe – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin	IA	16	2	8

- **17 Jan 2023 : Opening WP 2023 calls**
- **20 Sep 2023 : Application deadline**



Living Labs and Lighthouses

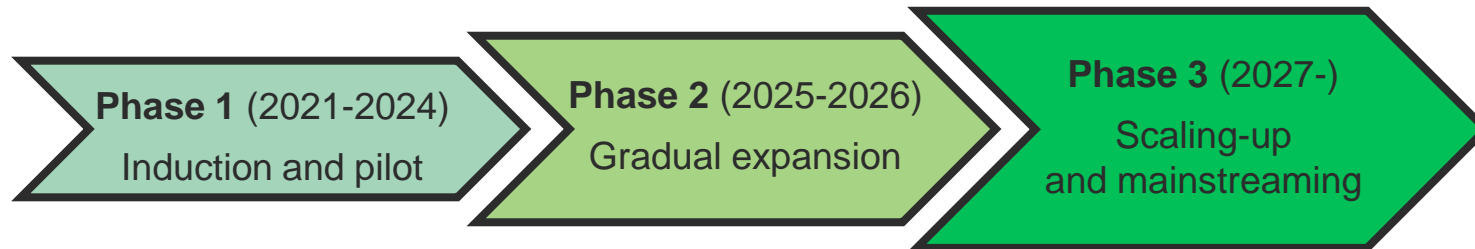
Living labs are a core element of the mission

- 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.



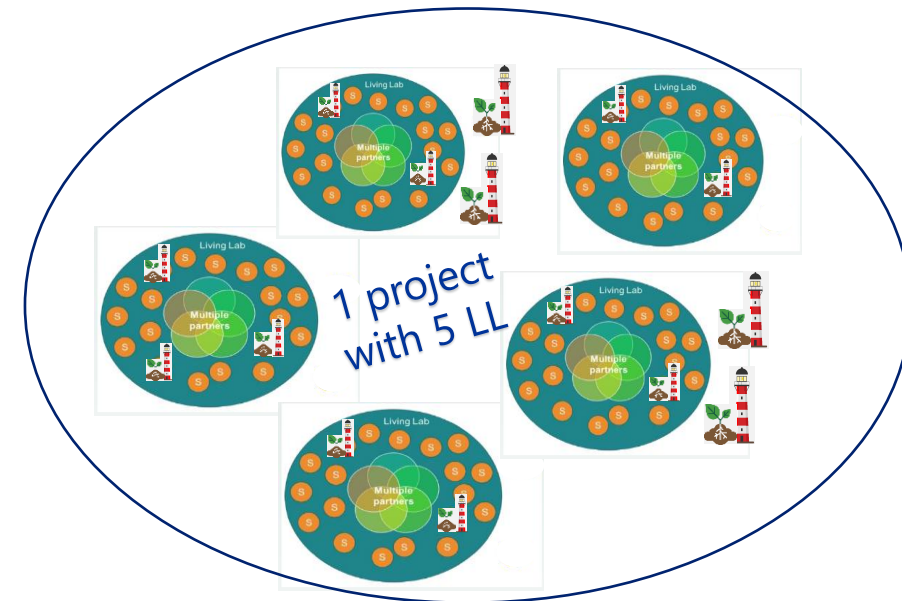
Soil health LL & LH – The network

✓ **Work Programme 2023** launched the 1st calls for a gradual establishment of the transnational network of LL.

WP 2023 calls (Application deadline: 20 Sep 2023)	Budget (M €)	No of Projects
Co-creating solutions for soil health in Living Labs	36	3
Carbon farming in living labs (CF LL)	12	1

✓ **Each LL cluster** (i.e. each project) **grouping at least 4-5 LL**, will :

- Cover **at least 3 MS and/or AC**.
- Work together on **thematically related soil health challenges**.
- Address at least 1 out of the 8 **Mission’s objectives** (and only objective 2 in case of the CF LL).





Soil Health Living Labs and Lighthouses – The Concept

- ✓ **LL can be located in rural or urban areas, covering one or several land types** (ag., forests, natural, industrial areas)
- ✓ Each LL consists of a **group of sites and partners working** as a functional setting at **regional or sub-regional level (placed-based)**
- ✓ **The number of sites** will depend on the specific context of the LL (10-20* or less). Applicants to propose a sufficient number to allow for replication of actions; exchange of good practices, validation of methodologies, cross-fertilization among various partners, etc
- ✓ Specific **criteria** for LL have been developed under the mission (*section D of implementation plan**) to ensure common approach and comparability of data and experiences. This criteria is further being refined by [PREPSOIL](#).



KEEP IN MIND

- **Multi-actor** approach
- Beneficiaries may provide financial **support to third parties** (max. to each third party is EUR 200 000)
- Capitalize from projects such as **PREPSOIL, NATI00NS, NBSSOIL** and the future Support Structure under the SGA
- Interact with networks active at local level, such as **EIP-AGRI OG**
- Close collaboration with **EUSO**
- Agricultural activities should benefit both conventional and organic farming

* [Implementation Plans for the EU Missions \(europa.eu\)](#)



Support and synergies

1. The Project [Nati00ns](#) is holding **engagement sessions** (in a “roadshow” format) in all Member States and Associated Countries to promote the calls for Living Labs as well as inform and inspire potential applicants. Check when this happens in your country!



2. The project [PREPSOIL](#) provides tools and spaces for interaction, knowledge-sharing and co-learning. It is identifying “**soil needs**” in 21 contrasting regions

Regional authorities can use this knowledge

- for programming of funds (Agricultural/Regional)
- to raise awareness about local/regional soil health challenges
- to promote the set up of Living Labs addressing specific soil health challenges



3. Project [NBSoil](#) provides technical support for the training of **specialised soil advisors**



HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01-01

Joint call – Joint demonstration of an integrated approach to increasing water retention capacity at regional scale



EXPECTED OUTCOMES

- ✓ Increased resilience to climate change impacts on soils, waters, habitats and biodiversity
- ✓ Increased landscape/soil water retention capacity
- ✓ Enhanced mobilization of relevant actors (e.g.: local/regional authorities, planning bodies, farmers, foresters, land owners, economic operators, citizens)
- ✓ Enhanced implementation of EU legislation/: policies: EGD, Adaptation Strategy, Biodiversity Strategy, Water Framework and Groundwater Directives, Soil Strategy

HORIZON-MISS-2023-CLIMA-OCEAN-SOIL-01-01



SCOPE

- Full-scale **demonstration** of socio-ecological approaches and NBSs to increase the landscape and soil **water retention capacity**, resilience to climate change, surface and ground water quality, soil health and biodiversity protection/conservation
- Demonstration activities at the level of socio-ecological **territorial units** covering different living/non-living systems (soil, waters, vegetation/biota, human communities)
- Planning, implementation and management of effective **measures** with the **involvement** of relevant authorities, stakeholder and local communities



KEEP IN MIND

- Additional **eligibility** conditions:
 - Demo activities in min. 3 MS/ACs
 - Multi-actor approach
 - Use of Copernicus/Galileo/EGNOS
- Third-party cascaded grants (max EUR 100,000) to 5 **Associated regions**
- **Dissemination** of best practices to end-users as well as action plan for replication/scalability
- FAIR approach to **data** to be made available via EMODNet

INDICATIVE BUDGET

Total: EUR 15 million
(one project)

HORIZON-MISS-2023-OCEAN-SOIL-01-01

Joint call– Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin



EXPECTED OUTCOMES

- ✓ Uptake of innovative and reproducible approaches to prevent/minimize/remediate soil and water pollution from excess nutrients
- ✓ Reduced use of fertilisers
- ✓ Reduced inland and ocean eutrophication
- ✓ Empowered citizens to take action
- ✓ Support the implementation of the Marine Strategy, Water Framework and Maritime Spatial Planning Directives

HORIZON-MISS-2023-OCEAN-SOIL-01-01



SCOPE

- Demonstration activities addressing the **landscape-river-catchment-sea** system, including coastal ecosystems in the **Mediterranean** sea basin
- Focus on:
 - Upstream prevention and reduction of **nutrient losses** from soil (reduction and substitution of traditional fertilisers; improved retention capacities, use efficiency, and integrated landscape and soil management)
 - **Prevention/reduction** of entry of nutrients in rivers, catchment areas and estuary/sea (green filters, wastewater treatment)
- Demonstration activities at the level of **territorial units** (rural areas, urban communities, region, river basin, estuary) and considering local conditions
- Involvement of **users** (land owners, soil/water managers, river manager authorities)



KEEP IN MIND

- Additional **eligibility** conditions:
 - Demo activities in min. 3 MS/ACs in the Med
 - Use of Copernicus/Galileo/EGNOS
- Third-party cascaded grants (max EUR 100,000) to 5 **Associated regions**
- **Dissemination** and training/communication activities to potential users
- FAIR approach to **data** to be made available via EMODNet
- Cooperation with **JRC** European Soil Observatory

INDICATIVE BUDGET

Total: EUR 15 million

Per project contribution: EUR 8 million



The Mission Soil Manifesto

Objective: non-legally binding document to formalize stakeholder and citizen participation in and support to Mission activities

➔ **Protecting soils is a societal undertaking**

Who can sign it?

Regional and local public authorities, private and public organisations, NGOs, philanthropic organisations, schools, universities, research institutes, associations, individuals

Why to sign it?

become part of a community, gain visibility, access to Mission-led knowledge involvement in Mission activities beyond Horizon Europe calls



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...



Sign the Manifesto europa.eu/!Wv3h4p

#HorizonEU #EUMissions





Join the Mission – Mission Soil Manifesto

A Manifesto in **5 points** to:

- remind the importance of soils for people and the planet
- acknowledge the status of soils
- recognise the urgency to act
- support the Mission and its objectives
- take action as policy makers, organisations or individuals

Everyone can contribute to protect and restore our soils

Sign it!





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





EUROPEAN UNION

EU **MISSIONS**
SOIL DEAL FOR EUROPE



Thank you!

For further information and questions please contact the mission secretariat:

AGRI-SOIL-MISSION-BOARD@ec.europa.eu

#MissionSoil #EUmissions #HorizonEU

© European Union, 2021

Reuse is authorised provided the source is acknowledged and the original meaning or message of the document are not distorted. The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated. Icons © Flaticon – all rights reserved.