

PERIN Portugal in Europe
Research and Innovation Network

Candidaturas ao concurso da Missão Solo: calendário 2023 e condições



Maria João Fernandes (ANI)
Coimbra, 12 maio 2023



EUROPEAN UNION



EU MISSIONS

SOIL DEAL FOR EUROPE

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



#EUmissions #HorizonEU #MissionSoil

We need to act now

Our soils are threatened due to current management practices, pollution, urbanization, effects of climate change, etc.



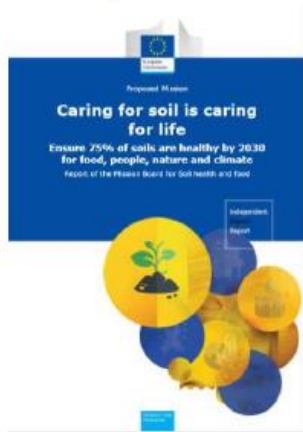
At the EU level, the Mission supports a number of **Green Deal** strategies **as well as the SDGs**

- Farm to Fork strategy
- EU Biodiversity Strategy for 2030
- Climate Adaptation Strategy
- Zero Pollution Action Plan
- Sustainable Carbon Cycles
- Forest Strategy
- Long-term Vision for Rural Areas
- Organic Action Plan
- Soil strategy



Mission roll-out

Mission Board's report
Sept. 2020



Implementation Plan
Sept. 2021



1st Call for proposals
e.g. on **soil monitoring indicators, engage businesses, regions and municipalities, soil advisors**

Work Programme 2021
Deadline: 24 March 2022
Budget: 67M€

2nd Call for proposals e.g. on **decontamination and spatial planning, carbon farming, soil education, citizen science**

Work Programme 2022
Deadline: 27 Sept. 2022
Budget: 95M€

3rd Call for proposals for **EU and international partners**
First call for Living labs

Work Programme 2023
Budget: 126 M€
Open: 17 January 2023
Deadline: 20 September 2023



Started in October 2022: **Soil Mission Board 2022-2025**

LL - A gradual development of the network

Phase 1 (2021-2024)

Preparatory actions in WP21:

Mapping LL and soil needs & knowledge sharing.

Engagement sessions & other capacity building.

LL Support Structure in WP22

FPA for a structure to cater for the needs of the emerging living labs.

Creation of Living Labs in WP23:

Launch of 1st call for establishing transnational clusters of soil health LL.

Phase 2 (2025-2026)

Expansion of LL:

Launch of successive calls for expanding the network of LL

→ wide coverage of:

- Geographies
- Themes (Mission's objectives)
- Land uses (agricultural, forest, urban, industrial).

Phase 3 (2027 onwards)

Scaling up of LL:

Launch of last calls for setting LL.

(measures to facilitate sustainability of the LL beyond the Mission timeframe)

Mission Soil Calls for proposals 2023



Opening date: **17 January 2023**

Closing date: **20 September 2023**

Apply in the Funding and Tenders Portal in the official EU website:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon>

KEY FIGURES OF THE SOIL MISSION CALL

Research and Innovation and other actions to support the implementation of mission “A Soil Deal for Europe”

- ✓ **Call ID:** HORIZON-MISS-2023-SOIL-01
- ✓ **Total indicative budget:** 126 M€
- ✓ **Opening:** 17/01/2023
- ✓ **Deadline:** 20/09/2023
- ✓ **Type of actions:** 5 RIA; 3 IA; 1 CSA
- ✓ Single-stage call





The mission's implementation plan

- A blueprint for the roll-out of the mission, in particular in the first three years 2021-2024.
- Builds on recommendations from the Mission Board and provides details on:
 - **the policy context;**
 - **the intervention logic, phases and timeline of activities;**
 - **R&I priorities incl. innovation “hotspots”:** carbon farming, soil pollution and restoration, soil biodiversity, circular economy solutions;
 - **cross-cutting dimensions:** digital, business, territorial, global;
 - **expected outputs, outcomes and monitoring;**
 - **resources and synergies** with other programmes;
 - **supporting structures.**
- A living document, to be continuously updated.



A Soil Deal for Europe – 100 living labs and lighthouses to lead the transition towards healthy soils by 2030.

Soil health is defined as "the continued capacity of soils to support ecosystem services" and is assessed through a set of proposed, measurable indicators.



MISSIONS WORK PROGRAMME 2023

The document for your success

Published in the F&T portal [here](#)

(Reference Documents > Work programme & call documents)



Purpose of the mission, relevant policies & **expected wider impact**

Overview of project types, deadlines, budgets, number of projects/call

Topic description including "specific conditions", "Expected outcome" & "Scope"

Each word counts!!

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



HORIZON-MISS-2023-SOIL-01-08

CO-CREATING SOLUTIONS FOR SOIL HEALTH IN LIVING LABS



POLICY CONTEXT

- **European Green Deal and several strategies**, such as those related to soil, food and nutrition security, climate, biodiversity, environment and rural areas:
 - Soil strategy
 - Farm to Fork strategy
 - EU Biodiversity Strategy for 2030
 - Climate Adaptation Strategy
 - Zero Pollution Action Plan
 - Long-term Vision for Rural Areas
 - Forest Strategy
 - Organic Action Plan
- **Soil Deal Mission goal** of setting up 100 living labs to lead the transition to healthy soils by 2030.
- **Soil Deal Mission objectives**, except number 2
- **SDG**



EXPECTED OUTCOMES

- **Fully operational Living labs (LL)** are established, where **co-creation and testing of solutions** for soil health in rural and urban areas takes place;
- Increased capacities for **participatory, interdisciplinary and transdisciplinary** R&I approaches; allowing for effective cooperation between science, practice and policy;
- Practice oriented **knowledge and tools** are **more easily available** to land managers and **contribute to an enhanced uptake of solutions** for soil health and related ecosystem services;
- **Strengthened collaborations** and increased consideration of effective solutions for soil health;
- **Policy makers** are more **aware** of local needs regarding soil health and can use this knowledge to design more effective policies.



HORIZON-MISS-2023-SOIL-01-08



SCOPE

- Set up **four to five LL** to work together under **one project, sharing related soil health challenges**;
- Establish a detailed **work plan** with the activities to be undertaken ensuring the **co-design, co-development, and co-implementation of solutions**;
- Demonstrate how they do research, considering the relevant **drivers and pressures** as well as the **scaling up** and the **transferability of solutions**;
- **Establish** for each LL **a baseline** for the selected soil health challenge(s), in order to allow **for an accurate assessment and monitoring** of progress towards the objectives of the LL and the objectives of the project overall;
- **Monitor** and carry out an **assessment** of the **effects** of the innovative solutions **on soil health and related ecosystem services**. This should include a **demonstration of the viability** of the proposed solutions;
- Propose **strategies to ensure long-term sustainability** and continuity of the living labs beyond the Horizon Europe (e.g. possible business models);
- **Document** in an easy and accessible way the **developed solutions** in order to facilitate their uptake and transfer to relevant actors.



KEEP IN MIND

- **Multi-actor approach**;
- Beneficiaries may provide **financial support to third parties** (max. EUR 200 K);
- Capitalize from **ongoing 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**.



HORIZON-MISS-2023-SOIL-01-09

CARBON FARMING IN LIVING LABS



POLICY CONTEXT

- **European Green Deal** ambitious and targets,
- Commission's Communication on **Sustainable Carbon Cycle**, and upcoming regulatory proposal on the **certification of carbon removals**;
- **Soil Deal Mission goal** of setting up 100 living labs to lead the transition to healthy soils by 2030.
- **Soil Deal Mission objective 2**, “**Conserve and increase soil organic carbon stocks**”.
- **SDG # 13** on climate action



EXPECTED OUTCOMES

- **Increased carbon sequestration and protection of carbon in soils, living biomass and dead organic matter**
- Increased capacities for **participatory, interdisciplinary and transdisciplinary R&I** approaches
- Practice-oriented **knowledge and tools** are **more easily available** to land managers and contribute to an enhanced uptake of carbon farming.
- **Strengthened collaborations** and **increased consideration of effective solutions for carbon farming** in regions where the selected LL are operating.
- **Policy makers** are more **aware** of local needs regarding soil health and can use this knowledge to design more effective policies.



HORIZON-MISS-2023-SOIL-01-09



SCOPE

- Set up **four to five LL** to work together **on carbon farming**, covering one or several land use types. Proposals should **describe the rationale for cooperation** across the various LL.
- Establish a detailed **work plan** with the activities to be undertaken ensuring the **co-design, co-development, and co-implementation of solutions**.
- Carry out **participatory and transdisciplinary** research in LL, considering relevant **drivers and pressures** as well as the **scaling up** and the **transferability of solutions to carbon farming challenges**;
- Establish for each LL a **baseline for carbon farming** to monitor the progress towards the objective of the LL and of the project overall. **Make use of relevant accounting methodologies for quantification of carbon removals**.
- Monitor and carry out an **assessment of the innovative practices for carbon farming**, considering the effects of ongoing climate change on carbon sequestration potential and dynamics.
- Propose **strategies to ensure long-term sustainability** and continuity of the living labs beyond the Horizon Europe (e.g. possible business models).



KEEP IN MIND

- **Multi-actor approach**;
- Beneficiaries may provide **financial support to third parties** (max. EUR 200 K);
- Capitalize from **ongoing 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**.

SGA - Specific Grant Agreement for a Living Lab Support Structure



CONTEXT

- The selected consortium is invited to submit a **proposal** for a SGA, within the context of the FPA.
- The SGA should **provide further details to put in practice the action plan** presented under the FPA.
- The expected outcomes of the SGA should be **in line with the expected outcomes of the FPA**.

SOILL - Support Structure for Soil Living Labs



Important to keep in mind

- There will be successive SGAs. This 1st SGA will cover 3 years
- One single proposal should be submitted
- Closely collaborate with relevant projects and structures (MIP, JRC/EUSO, PREPSOIL, NATIONS, TRAMI)
- Support all emerging living labs, regardless of their geographical and thematic coverage

MULTI-ACTOR APPROACH

Multi-actor projects are projects ensuring the genuine involvement of a targeted array of actors, which serves the objectives of the topic.

Depending on the objective of the proposal, the type of actors include: **i)** researchers, **ii)** farmers / farmers' groups and associations, **iii)** foresters / foresters' groups and associations, **iv)** aquaculture producers, **v)** fishers / fishers' groups and associations, **vi)** advisors, **vii)** food and bioeconomy businesses, **viii)** other businesses, **ix)** consumer associations, **x)** local communities, **xi)** citizens, **xii)** civil society organisations including NGOs, and **xiii)** government representatives.

They are essentially the (end-) **users of the project results** but the genuine and sufficient involvement of these actors should take place **all over the whole course of the project**.

- **Eligibility criteria**
- It affects the consortium structure & the way it is presented in the proposal
- Definition on pp 108-110 Work Programme



FINANCIAL SUPPORT TO THIRD PARTIES

<i>Legal and financial set-up of the Grant Agreements</i>	<p>The rules are described in General Annex G. The following exceptions apply:</p> <p>Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants (further to calls or, if duly justified, without a call for proposals). The maximum amount to be granted to each third party is EUR 200 000, to allow for the active participation of appropriate stakeholders, including farmers, businesses or civil society in living labs and achieve the objectives of the actions described under the scope.</p>
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For more information:

[HE General Annexes](#) & [AGA – Annotated Grant Agreement](#), Articles 6.2.D.1 and 9.4.

For inspiration: [Competitive calls and calls for third parties](#) | F&T portal

HOW TO APPLY?



Submission platform
[Funding & Tenders portal](#)

05



SUBMIT

Build a consortium
Collaborate, collaborate!
[Before applying](#)

03



[NATI00NS matchmaking tool](#)

04

Write the proposal !

Application form (Part A)
Project proposal – Technical description (Part B)
Proposal Templates → [Reference documents](#)



02

Look for a project call
Read the work programmes!

WP & call documents → [Reference documents](#)



01

Ambitious & innovative idea. Concept.
Understand stakeholders needs

HORIZONTE EUROPA - Programa de Trabalhos 2023: Missão Solo (pp.106)

Call - Research and Innovation and other actions to support the implementation of mission A Soil Deal for Europe

Referência tópico	Título	Tipo de projeto	M€ por projeto	Orçamento disponível (M€)	Deadline
HORIZON-MISS-2023-SOIL-01-01	Discovering the subsoil	RIA	6	12	20/09/2023
HORIZON-MISS-2023-SOIL-01-02	Soil pollution processes – modelling and inclusion in advanced digital decision-support tools	RIA	7	14	
HORIZON-MISS-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	6	12	
HORIZON-MISS-2023-SOIL-01-04	Innovations to prevent and combat desertification	IA	7	14	
HORIZON-MISS-2023-SOIL-01-05	Soil-friendly practices in horticulture, including alternative growing media	IA	6.5	13	
HORIZON-MISS-2023-SOIL-01-06	Soils in spatial planning	RIA	7	7	
HORIZON-MISS-2023-SOIL-01-07	Back to earth: bringing communities and citizens closer to soil	CSA	6	6	
HORIZON-MISS-2023-SOIL-01-08	Co-creating solutions for soil health in Living Labs	RIA	12	36	
HORIZON-MISS-2023-SOIL-01-09	Carbon farming in living labs	RIA	12	12	

https://pq-ue.ani.pt/brochuras/h-europa/alimentacao--bioeconomia--recursos-naturais--agricultura-e-ambiente/missoes_oceano-e-aguassolos_topicos-investigacao-2023.pdf



MISSÕES DO
HORIZONTE
EUROPA

PAVILHÃO CIÊNCIA
VIVA, LISBOA

**EVENTO MISSÕES
OCEANO E SOLOS**

22 MAIO 2023, 14:00 - 17:30



Mais informações serão disponibilizadas brevemente

https://pq-ue.ani.pt/eventos-perin/19361_22-mai-2023_save-the-date-evento-conjunto-missoes-oceano--aguas--solo-call-2023





European
Commission

<https://research-innovation-community.ec.europa.eu/events/1nVczf9ihgPdOg3zyoLyuC/programme>

Home Events Community How it works

REWATCH

EU Missions info days

The event aims to inform potential applicants about the new topics included in the EU Missions work programme 2023

 17 January 2023 - 18 January 2023

 08:00 (GMT+00:00)



A Soil Deal for Europe Mission

 18 January 2023

 13:00 - 15:15 (GMT+00:00)

Add to favourites 

Watch replay 

Overview Programme





EU MISSIONS

SOIL DEAL FOR EUROPE



March 2022

The Mission 'A Soil Deal for Europe': 100 living labs and lighthouses to lead the transition towards healthy soils

THE MISSION 'A SOIL DEAL FOR EUROPE' EXPLAINED

Missions are a novelty of the EU research and innovation programme, Horizon Europe. They are a new way of bringing concrete solutions to some of our greatest challenges. Restoring and maintaining soil health is one of these major societal challenges.

Life on Earth depends on healthy soils. Soils are not only the foundation of our food systems. They also provide clean water and habitats for biodiversity while contributing to climate resilience.

Although we take soils for granted, they are a scarce, threatened resource. It is estimated that between 60 and 70% of EU soils are unhealthy. Indeed, one centimeter of soil can take hundreds of years to form, but can be lost in just a single rainstorm or industrial incident.

The Mission '[A Soil Deal for Europe](#)'¹ will support the transition towards healthy soils by 2030 by putting in place an effective **network of**

100 living labs and lighthouses in rural and urban areas. In addition to **creating knowledge and solutions for soil health**, the Mission will advance the development of a harmonised framework for **soil monitoring** in Europe and **increase people's awareness** on the vital importance of soils.

The Mission is firmly embedded in the wider EU policy frameworks: it will contribute to Europe's ambition to become the first climate-neutral continent by 2050 and is an integral part of a number of Green Deal strategies². Together with the EU Soil Strategy and the recently launched European Soil Observatory (EUSO), the Mission will carry out comprehensive actions for sustainable soil management and soil restoration across a range of land uses (e.g. agriculture, forestry, urban areas, natural/semi-natural areas). The Mission will be implemented in synergy with the Common Agricultural Policy (CAP) to increase the uptake and the effectiveness of soil related measures funded under the CAP.

¹ <https://europa.eu/ky9wVF>

² The Farm to Fork strategy, the EU Biodiversity Strategy, the Climate Adaptation Strategy, the Zero Pollution Action Plan for air, water and soil, the new EU Forest Strategy, the Long-term Vision for Rural Areas, the Organic Action Plan, the Commission's recommendations for CAP strategic plans, the Circular Economy Action Plan, the EU Nature Restoration targets.

WHAT ARE LIVING LABS AND LIGHTHOUSES?

Living labs and lighthouses are key to accelerating the adoption of sustainable practices by users and to developing solutions adapted to local conditions.

Living labs

Soil living labs to be set up under the Mission 'A Soil Deal for Europe' are defined as **user-centred, place-based and transdisciplinary research and innovation ecosystems**. They are understood as collaborative initiatives between multiple partners to co-create, test, monitor and evaluate solutions to a common problem. A living lab consists of about 10 – 20 individual sites. These can be farms, forest stands, urban or industrial settings, as the Mission is targeting all types of soils.

Living labs characteristics

- active involvement of the (end-) users in living lab activities so that they can have a clear impact in the innovation process;
- co-creation, co-design and co-development of solutions;
- testing and experimentation in real-life conditions;
- participation of a multiplicity of stakeholders (e.g. including the involvement of land managers, technology providers, service providers, relevant institutional actors, professional or residential end users);
- use of multiple methods and tools originating from a range of disciplines and domains.

The set of criteria developed for living labs under the Mission has been published in the [Mission's implementation plan](#).³

Lighthouses

For the purpose of the Mission, lighthouses are defined as **key places for demonstration of solutions, training and communication that are exemplary in their performance in terms of soil health improvement**. They are individual, local sites (one farm, one forest exploitation, one industrial site, one urban city green area, etc.) that can be included in a living lab area or be located outside a living lab area. Ultimately, all experimentation sites within living labs seek to reach the performance of lighthouses and become demonstrators.

Living labs are collaborative initiatives to co-create knowledge and innovations while lighthouses are places for demonstration of solutions and of exemplary achievements.

<https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/af34d940-a4d8-11ec-83e1-01aa75ed71a1>



Soluções concretas para os nossos maiores desafios

DESAFIOS

- **60 %-70 % dos solos da UE** são considerados «pouco saudáveis».
- Cerca de **70 % das terras agrícolas** da UE apresentam **níveis excessivos de nutrientes**, o que tem efeitos negativos na qualidade da água e na biodiversidade.
- Cerca de **25 % das terras** da Europa Meridional, Central e Oriental apresentam um risco elevado ou muito elevado de **desertificação**.
- A degradação dos solos da UE custa mais de **50 mil milhões de EUR** por ano.

OPORTUNIDADES

- Criar parcerias eficazes para a **proteção e a recuperação dos solos**,
- Contribuir para a agricultura e a silvicultura sustentáveis, a criação de sistemas alimentares saudáveis e seguros, a resiliência às alterações climáticas, a biodiversidade e outras **ambições do Pacto Ecológico**,
- Apoiar a ambição da UE de assumir um papel de liderança no que respeita à consecução dos **Objetivos de Desenvolvimento Sustentável**.

OBJETIVO

Criar 100 laboratórios vivos e estruturas de referência para liderar a transição para solos saudáveis

AÇÕES

- O programa Horizonte Europa disponibilizará **320 milhões de EUR** em capital de arranque durante o período de 2021-2023 para contribuir para o êxito desta missão.
- Lançar a primeira vaga de **laboratórios vivos em toda a Europa**.
- Criar um **consórcio internacional de investigação** sobre o sequestro de carbono no solo e uma **plataforma de coordenação** para supervisionar a rede de 100 laboratórios vivos e estruturas de referência.
- Lançar uma **campanha sobre a saúde dos solos** através da Parceria Europeia de Inovação para a Produtividade e a Sustentabilidade Agrícolas (PEI-AGRI), com especial incidência nos setores agrícola e florestal.

Luxemburgo: Serviço das Publicações da União Europeia, 2021.

© União Europeia, 2021

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<https://cordis.europa.eu/article/id/429351-soil-health-reaping-the-benefits-of-healthy-soils-for-food-people-nature-and-the-climate/pt>





EU MISSIONS

SOIL DEAL FOR EUROPE

MISSION SOIL MANIFESTO



- **Objective:** non-legally binding document for stakeholders to express support for the Mission and gain visibility as soil ambassadors
- **Target:** regional and local public authorities, private sector organisations, individuals
- **When:** Launch event **18 April with European Regions Research and Innovation Network**




Pontos de Contacto Nacional Mission Soil Deal for Europe



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FCT Fundação
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