

<i>Procedure</i>	The procedure is described in General Annex F.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G.

Proposals are invited against the following topic(s):

**HORIZON-MISS-2024-SOIL-01-01: Co-creating solutions for soil health in Living Labs**

<b>Specific conditions</b>	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 36.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply:  Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this Mission.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply:  Beneficiaries may provide financial support to third parties (FSTP). 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 involvement of stakeholders, including farmers, businesses or civil society, in the living labs to deliver on the actions described under the scope.

**Expected Outcome:** Activities under this topic respond directly to the goal of the Mission ‘[A Soil Deal for Europe](#)’ of setting up 100 living labs and lighthouses to lead the transition to healthy soils by 2030. They support the specific objectives of the Mission ‘A Soil Deal for Europe’ dealing with urgent soil health challenges (see in particular specific objectives 1 to 6 and 8 in the [Mission implementation plan](#)). Activities should thereby contribute to meeting the European Green Deal ambitions and targets, such as those related to food and nutrition security, climate, biodiversity, environment and rural areas <sup>482</sup>.

<sup>482</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/long-term-vision-rural-areas\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/long-term-vision-rural-areas_en)

Project results are expected to contribute to all of the following outcomes:

- Increased capacities for participatory, interdisciplinary and transdisciplinary R&I across EU Member States and Horizon Europe Associated Countries, allowing for effective cooperation and collaboration among research, practice and policy to co-create and test solutions for soil health.
- Enhancement of soil health in rural or urban areas where living labs are deployed, based on an established monitoring framework.
- Practice-oriented knowledge and tools are more easily available to land managers and contribute to an enhanced consideration and uptake of effective solutions for soil health and related ecosystem services across territories and sectors, in regions where the selected living labs are operating.
- Policy makers in the EU and Associated Countries are more aware of local needs and differences with regard to soil health and can use this knowledge to design more effective policies.

Scope: While more research is needed to restore and maintain healthy soils in the EU and Associated Countries, an important barrier still encountered to accelerate the transition towards a climate-neutral and “green” European Union is the gap between science and practice, between knowledge and implementation. The Mission ‘A Soil Deal for Europe’ proposes a novel approach to research and innovation in the area of soil health, including the implementation of living labs. Living labs have the potential to empower a green transition towards healthy soils by developing solutions in a co-creative manner and involving actors in real life settings at territorial level to achieve large-scale impact.

Nowadays, there exist various definitions and conceptualizations of living labs. However, three components are recognizable within the now well-established living labs research concept, which include (a) co-creation with a large set of stakeholders, (b) carried out in real-life settings and (c) involving the end-users<sup>483</sup>. For the purpose of the Mission ‘A Soil Deal for Europe’, soil health living labs are defined as “user-centred, place-based and transdisciplinary research and innovation ecosystems, which involve land managers, scientists and other relevant partners in systemic research and co-design, testing, monitoring and evaluation of solutions, in real-life settings, to improve their effectiveness for soil health and accelerate adoption”.

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<sup>483</sup> International Agroecosystem Living Laboratories Working Group. Agroecosystem Living Laboratories: Executive Report. G20 - Meeting of Agricultural Chief Scientists (G20-MACS). 2019. Available online:[https://www.macs-g20.org/fileadmin/macs/Annual\\_Meetings/2019\\_Japan/ALL\\_Executive\\_Report.pdf](https://www.macs-g20.org/fileadmin/macs/Annual_Meetings/2019_Japan/ALL_Executive_Report.pdf) (accessed on 30 June 2022)

Living labs are thus collaborations between multiple actors that operate and undertake experiments on several sites at regional or sub-regional level <sup>484</sup>. Individual sites could be, e.g., farms, forest stands, urban green or industrial areas, enterprises and other locations, where the work is carried out and monitored under real-life conditions.

Lighthouses, in contrast, are defined as “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 either can be part of a living lab or be situated outside a living lab.

According to the Mission Implementation Plan, living labs involve actors from different backgrounds, disciplines and/or sectors and are composed of 10 to 20 experimental sites. However, depending on the specific context (e.g., the land use(s), the soil health challenge(s) addressed), applicants can propose living labs with fewer experimental sites. By working together on themes of common interest, the various actors involved in a living lab will be able to replicate actions and solutions, compare results, exchange good practices, validate methodologies and benefit from cross-fertilisation within a local/regional setting. While normally projects run for four years, the duration of soil health living labs may vary and be longer depending on the focus of the work and the soil health challenge(s) addressed.

More specifically, each of the funded projects should:

- Support the setup of four to five living labs (or more, as applicable to the land use(s) and purpose of the project) to work together on one or more soil health challenge(s), addressing the same or several land use types. The living labs should be located in at least three different Member States and/or Associated Countries. Proposals should describe the rationale for cooperation across the various living labs and explain how the work undertaken will contribute to one or more of the Mission’s specific objectives <sup>485</sup>. Proposals should present a realistic combination of a limited selection of variables (e.g., number of soil health challenges addressed, pedo-climatic conditions, land uses, Mission objectives addressed). Living labs exclusively focused on urban areas <sup>486</sup> are excluded from this topic as a dedicated topic is opened in this work programme.
- Establish, based on the projects’ goals and objectives, a detailed work plan with the activities to be undertaken in the living labs in an interdisciplinary way, ensuring the co-design, co-development, and co-implementation of locally adapted solutions for the selected soil health challenge(s). Seek practical solutions to the identified problems related to the selected soil health challenge(s), taking into account the relevant drivers

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<sup>484</sup> For the purpose of the topic the regional/sub regional level will not be defined in administrative terms (e.g., NUTS 2 or 3). Instead, applicants should describe the local context and the area in which the work of the living lab will be carried out.

<sup>485</sup> Reduce land degradation relating to desertification; conserve and increase organic carbon stocks; no net soil sealing and increase the reuse of urban soils; reduce soil pollution and enhance restoration; prevent erosion; improve soil structure to enhance habitat quality for soil biota and crops; increase soil literacy in society

<sup>486</sup> EU-[OECD](#) definition of a functional urban area

and pressures. Proposed solutions should be adapted to the different environmental, socio-economic and cultural contexts in which the living labs are operating. Moreover, activities should address challenges to the scaling up and the transferability of solutions. Living labs working in the area of agriculture are expected to promote sustainable practices, applied across a range of farming systems and benefit both conventional and organic farming. Living labs working on forestry, peat and natural areas are expected to address sustainable management for healthy soils in conjunction with productive biomass and other ecosystem services.

- Establish for each living lab a baseline for the selected soil health challenge(s), in order to allow for an accurate assessment of the conditions and changes of soils in the different sites over time and for monitoring of progress towards the objectives of the respective living labs and the project overall. As appropriate, make use of the set of soil health indicators presented in the [Soil Mission Implementation Plan](#) and the descriptors of the proposal for a [Directive on Soil Monitoring and Resilience](#).
- Monitor and carry out an assessment of the effects of the developed innovative practices or introduced solutions on soil health and related ecosystem services. This should include a demonstration of the viability (e.g., technical, economic) of the proposed solutions and quantification of the impact of the tested practices and/or solutions on relevant soil health indicators.
- Identify sites that demonstrate high performance in terms of their actions and results on soil health improvement and that may be converted into lighthouses.
- Propose strategies (e.g., financial, organisational) to ensure long-term sustainability and continuity, impact and ambition of the established living labs beyond the Horizon Europe funding, including the identification of possible business models and actions involving local authorities, business communities, SMEs, investors, entrepreneurs including co-funding schemes.

In line with the nature of living labs, proposals must implement the multi-actor approach. The list of actors will vary depending on features specific to each living lab and can involve different types of actors such as researchers, landowners or land managers, industry (e.g., SMEs), public administrations, representatives of civil society (e.g., consumers, environmental NGOs). Care should be taken to describe the capabilities and roles of the different partners involved, depending on their area of expertise. For example, while some partners may lead the conceptual work and coordinate the work within and across living labs, others may focus on carrying-out experiments, providing advice, testing and validating innovative solutions, or be involved in outreach activities.

To encourage and facilitate the involvement of different types of actors in the living labs, applicants are reminded of the different types of participation possible under Horizon Europe. This includes not only beneficiaries (or their affiliated entities) but also associated partners,

third parties giving in-kind contributions, subcontractors and recipients of financial support to third parties<sup>487</sup>.

Financial support to third parties (FSTP) to facilitate active involvement of actors in one or more of the living labs can be provided through calls or, if duly justified, without a call for proposals. Applicants are advised to consult the standard conditions set out in Annex B of the General Annexes including those that apply to FSTP.

Applicants are reminded they can benefit from the services of [NATI00NS](#), the project dedicated to support potential applicants to the living labs topics.

In order to increase impact and sustainability, applicants are encouraged to explore and test new (or combination with existing) funding schemes and financial instruments, either public or private (including, for example and for agricultural land, Common Agricultural Policy eco-schemes), involving, where relevant, the finance providers such as public authorities or financial institutions and investors.

Projects should cooperate and benefit from the services of SOILL<sup>488</sup>, the dedicated ‘Living Lab Support Structure’ established to provide tailor made advice to participants of living labs and lighthouses in their day-to-day operations, as well as enforce the monitoring of their activities in a systematic way, reporting on the main outcomes and experiences<sup>489</sup>. Proposals should include dedicated tasks and appropriate resources to collaborate with SOILL as well as with other projects relevant to the chosen soil health challenge(s), funded either under the Mission ‘A Soil Deal for Europe’ or under other parts and pillars of Horizon Europe or other EU programmes, as appropriate. For the latter these would include networking, attendance to meetings and organisation of joint activities (e.g., workshops, establishing best practices, joint communication or citizen engagement activities). The details of the joint activities would be further defined during the grant agreement preparation phase and the life of the project.

Additionally, funded projects should collaborate with [BENCHMARKS](#) and [AI4SoilHealth](#), which are key projects looking at sampling, monitoring, validation and further development of indicators and proxy measurements for soil health, as well as using AI technology to accelerate the collection and use of soil health information.

Cooperation with relevant networks active at local level, such as EU CAP Network operational groups for agricultural soils, is encouraged in order to promote the involvement of key local stakeholders in living labs activities or in the dissemination of solutions. The projects should also build on other existing activities and ensure cooperation with relevant projects and partnerships, such as EIT Knowledge and Innovation Communities (EIT KICs), the ‘European partnership on accelerating farming systems transition: Agroecology living labs

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<sup>487</sup> To explore the full range of options including what type of costs and activities are eligible to be funded under Horizon Europe, applicants should refer to the AGA – Annotated Model Grant Agreement [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf)

<sup>488</sup> [Funding & tenders \(europa.eu\)](#)

<sup>489</sup> Topic HORIZON-MISS-2022-SOIL-01-08: Framework Partnership Agreement (FPA) for a Living Lab network support structure under [wp-12-missions\\_horizon-2021-2022\\_en.pdf \(europa.eu\)](#)

and research infrastructures’ or the ‘Partnership for Sustainable Food Systems (SFS) for people, planet and climate’, which will also support living labs.

Proposals should demonstrate a route towards open access, longevity, sustainability and interoperability of knowledge and outputs through close collaboration with the European Union Soil Observatory (EUSO) and the project [SoilWISE](#). In particular, proposals should ensure that relevant data, maps and information can potentially be available publicly through the EUSO.

**HORIZON-MISS-2024-SOIL-01-02: Living Labs in urban areas for healthy soils**

<b>Specific conditions</b>	
<i>Expected EU contribution per project</i>	The Commission estimates that an EU contribution of around EUR 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR 12.00 million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Eligibility conditions</i>	The conditions are described in General Annex B. The following exceptions apply:  Proposals must apply the multi-actor approach. See definition of the multi-actor approach in the introduction to this Mission.
<i>Legal and financial set-up of the Grant Agreements</i>	The rules are described in General Annex G. The following exceptions apply:  Beneficiaries may provide financial support to third parties (FSTP). 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 involvement of stakeholders, including farmers, businesses or civil society, in the living labs to deliver on the actions described under the scope.

Expected Outcome: Activities under this topic respond directly to the goal of the Mission ‘[A Soil Deal for Europe](#)’ of setting up 100 living labs and lighthouses by 2027 to lead the transition to healthy soils by 2030. It supports the Soil Mission specific objectives, in particular the following ones: 3 “No net soil sealing and increase the reuse of urban soils”, 4 “Reduce soil pollution and enhance restoration”, 5 “Prevent erosion”, and specific objective 8 “Increase soil literacy in society across Member States”.

Project results are expected to contribute to all of the following outcomes: