



Soil Health Objectives & Particularities (Post)INDUSTRIAL Land Use



EU Mission 'A Soil Deal for Europe'

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. Between 60 and 70% of EU soils are unhealthy; one centimetre of soil can take hundreds of years to form but can be lost in just a single rainstorm or industrial incident.

European Commission

The European Commission launched the Mission 'A Soil Deal for Europe' - Horizon Europe programme - to create 100 Living Labs and Lighthouses in rural and urban areas to drive the transition to healthy soils by 2030.

The Mission will

- Create knowledge and solutions for soil health,
- Advance the development of a harmonised framework for soil monitoring in Europe,
- Increase people's awareness of the vital importance of soils,
- Support the EU's ambition to lead on global commitments, notably the Sustainable Development Goals (SDGs), and contribute to the **European Green Deal** targets.*

The 8 Mission Objectives

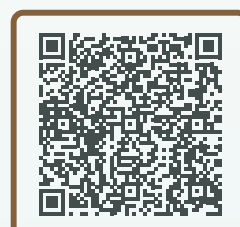
- 1 Reduce desertification
- 2 Conserve soil organic carbon stocks
- 3 Stop soil sealing & increase re-use of urban soils
- 4 Reduce soil pollution and enhance restoration
- 5 Prevent erosion
- 6 Improve soil structure to enhance soil biodiversity
- 7 Reduce the EU global footprint on soils
- 8 Improve soil literacy in society

The Soil Health Living Labs are...

User-centered, place-based and transdisciplinary research and innovation ecosystems, which involve land managers, scientists and other relevant partners in systemic research and codesign, testing, monitoring, and evaluation of solutions, in real-life settings, to improve their effectiveness for soil health and accelerate adoption.

(Post) Industrial (brownfields) and industrial lands usually face a combination of challenges related to multifunctionality of land use and variability of challenges, such as contamination, resource use, sealing of land, all of this under the pressures of climate change. Historical waste deposits and contaminated sites can pose risks to their surroundings such as densely populated areas, ecosystems and crop production on arable land. A transition to healthy soils, would facilitate the restoration of soil, water and air in the ecosystem and support the delivery of various ecosystem services. Addressing contamination problems on sites and their surroundings, transformation of (Post) Industrial and brownfield land to other land uses, needs engagement of diverse stakeholders and a co-creation process.

CHALLENGE



*For more information on the Soil Mission Implementation Plan



Check out for updates

Join the community

We will publish contents and materials and host training sessions to support the submission of high-quality application forms for the EU Mission Soils Open Calls.

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FACTSHEET

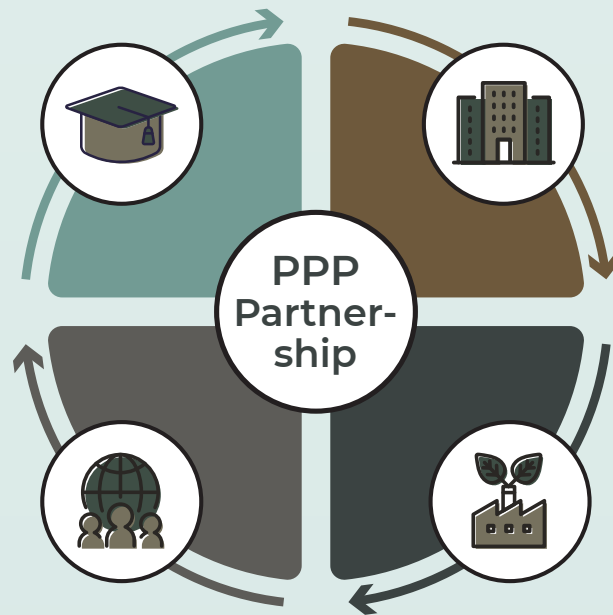
EU Soil Mission Living Labs and Lighthouses for Soil Health: (Post) Industrial Land Use



The Quadruple Helix

An essential characteristic of the Living Lab methodology is the **user-centric approach**, with the involvement of all relevant actors and end-users. While the specific actors will differ according to the Living Lab focus, objective, and context, all the actors can be classified according to the Quadruple Helix Model which is an extension of the typical Public Private Partnership.

The Quadruple Helix Model involves representatives from all members of society. These together form what we call **Public Private People Partnership (PPPP)** that enables real co-creation and impact.



Some examples of stakeholders of Living Labs in the (Post) Industrial land use may include:



Government & Public Sector

Local, regional authorities and national authorities, city, and regional administration, environmental protection offices, and spatial planners might benefit from LLs focused on the regeneration and reuse of brownfield land and optimised spatial planning in (Post)industrial areas, adding value and addressing health risk.



Industry

Industrial landowners, land developers, environmental consultants, SMEs, farmers.



Academia

Researchers, agricultural and soil advisors. Farmers and advisors might be interested in tackling diffuse contamination and transformation of agriculture in (Post)industrial regions to avoid contaminant transfer to food.



Citizens, Civil Society & Users

Citizen organizations, Environmental organizations, and citizens might be users of potential LLs on monitoring and cost-effective and sustainable remediation of emerging and diffuse pollutants on and around (Post)industrial systems.

Which added value can co-creation bring in this specific field?

Land use planning in (Post) Industrial areas / Brownfield land is extremely important for environmental and ecosystem quality and human health. Involving citizens, municipal administration, planners, land developers, researchers, and environmental officers in the LL co-creation processes might help to optimize the re-use of land in a way that involves soil information, soil ecosystem services, and risk management in the planning.

In many (Post) Industrial regions, a substantial part of the land is still used as arable land. Elevated soil contaminants might pose a risk of food contamination. Therefore, alternative agricultural production and soil management practices must be proposed to farmers. They can be effectively developed only in a co-creation process with farmers and advisors to address environmental and socio-economic barriers the transformation might face.



Look after your soil and prevent contamination.

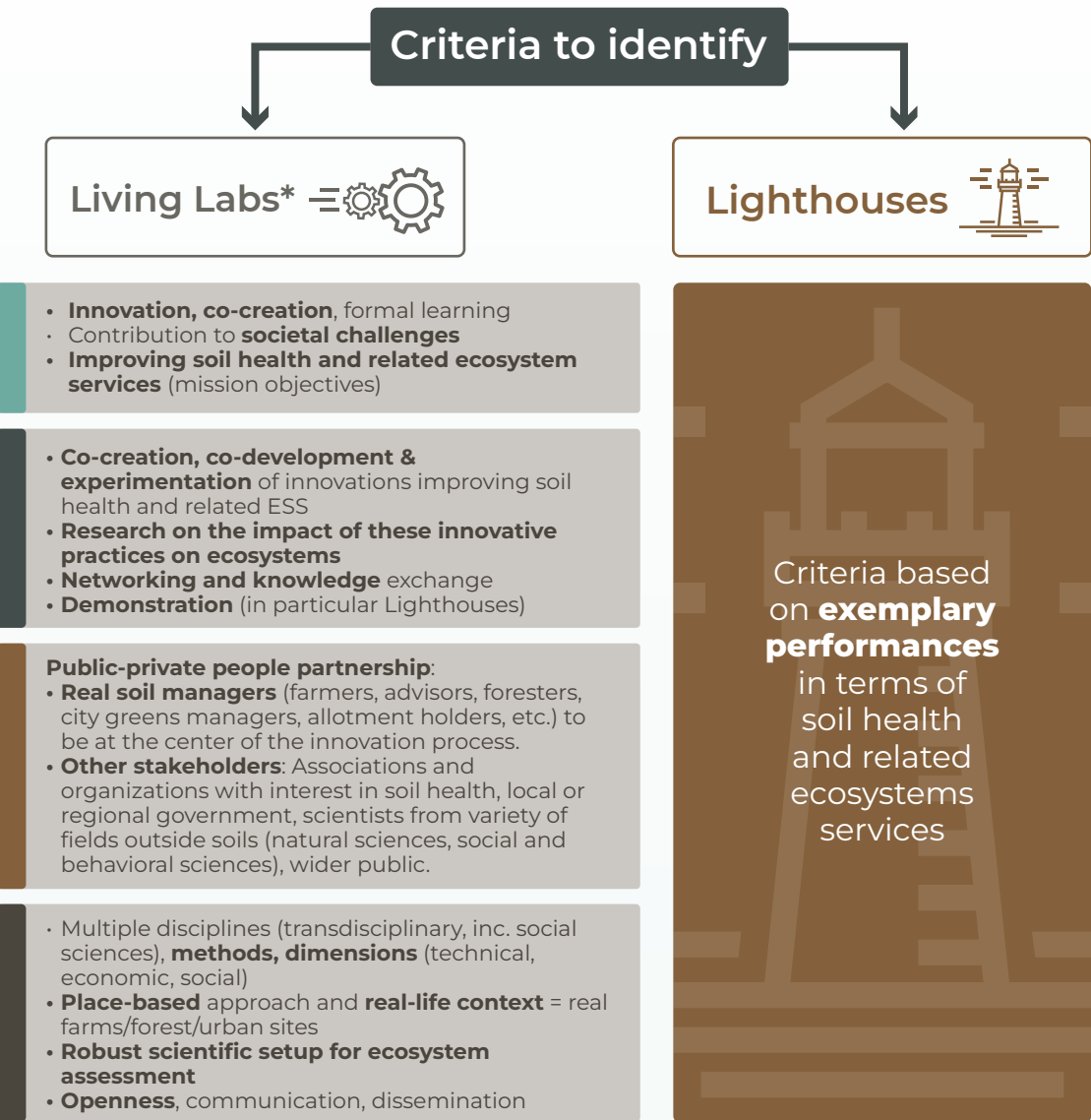
Pilar Bernal (Spain)

Expert from the EIP-AGRI Focus Group on protecting agricultural soils from contamination

Which type of activities can a (Post) Industrial Soil Health Living Lab perform in this field?

Soil health LL can test and discuss soil management limiting dispersion and transfer of contaminants to humans and the ecosystem, alternative crop production in the areas with elevated soil contaminants, land management, and planning to reduce negative effects on humans and the ecosystem, develop innovative cost-effective, and non-invasive (to soil) sustainable remediation techniques, develop sustainable and risk-based land management strategies involving soil health, and co-creation of monitoring of soil health and its effects on residents.

Criteria of LLs and LHs & How to Engage in Soil Mission



How to participate? Two Living Lab Open Calls

- Soil health (0108)**
HORIZON-MISS-2023-SOIL-01-08:
Co-creating solutions for soil health in Living Labs.
- Carbon farming (0109)**
HORIZON-MISS-2023-SOIL-01-09:
Carbon farming in living labs

- Deadline for applications: **20 September 2023** 17:00:00 Brussels time
- Single-stage submission via the Funding & Tenders Portal;
- Research and Innovation Actions: 100% funding for any actor
- 4-5 Living Labs** for each application **in at least three** different Member States and/or Associated Countries.
- More information available in the Factsheet "EU Soil Mission Living Labs and Lighthouses for Soil Health: Funding Opportunities"

*adapted from McPhee et al. (2021)