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National engagement event

24 May 2024

- The Mission explained
- Soil monitoring and resilience (Soil Monitoring Law)
- Soil Health Living Labs and Lighthouses
- Thematic focus of the 2024 Living Lab call
- Engagement session

Funded by
the European Union

Please be aware:

- We will share the **participant list** with names, institutions and e-mail addresses with participants only, for information and further networking.
- We will take **photos** during the event for communication and dissemination purposes of the NATI00NS project. If you find yourself in a picture you would like us to remove, please send an email to info@nati00ns.eu
- If you have given your **consent** during registration to receive updates from NATI00NS and/or to receive information from other initiatives related to the EU Soil Mission, you have the **right to withdraw your consent** - by email to info@nati00ns.eu
- This is a hybrid event with an online component. The Zoom Meeting will be recorded.

National engagement event

24 May 2024

- The Mission explained
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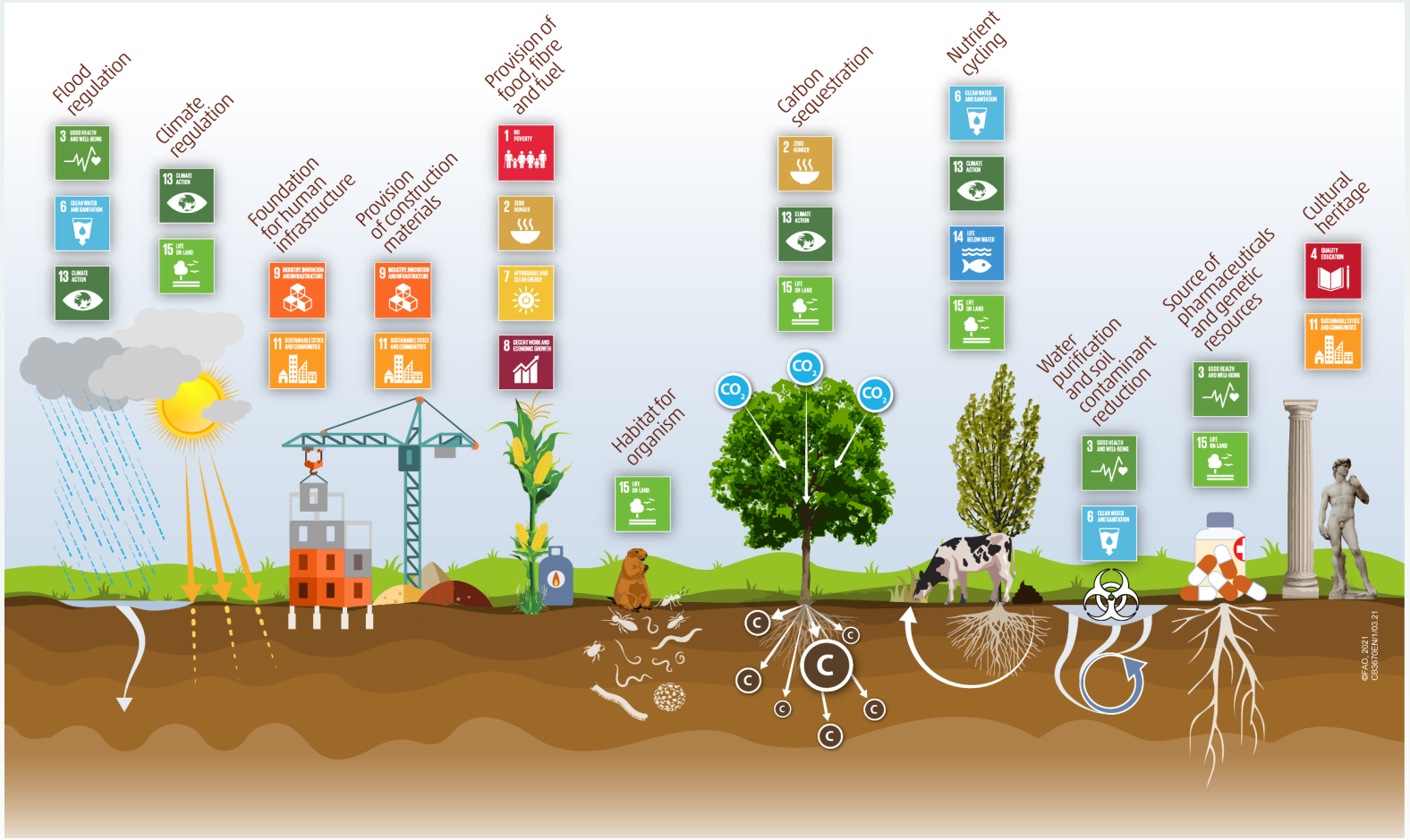
Funded by the European Union

The Mission explained

Funded by
the European Union

Healthy soils

- are essential for all life-sustaining processes on Earth
- have the continued capacity to support ecosystem services



Healthy soils, a prerequisite to achieve the SDGs. Source: fao.org

Unhealthy soils

- Soils degraded by human activities, including anthropogenic climate change;
- Often enhanced by a lack of understanding or education;
- Concerns about 2/3rd of European soils: agricultural, natural and rural;
- Ecosystem services are limited, and costs of degraded soils are enormous (> 50 billion € yr^{-1}).

Soil monitoring and resilience (Soil Monitoring Law) – Adopted by the EU Commission

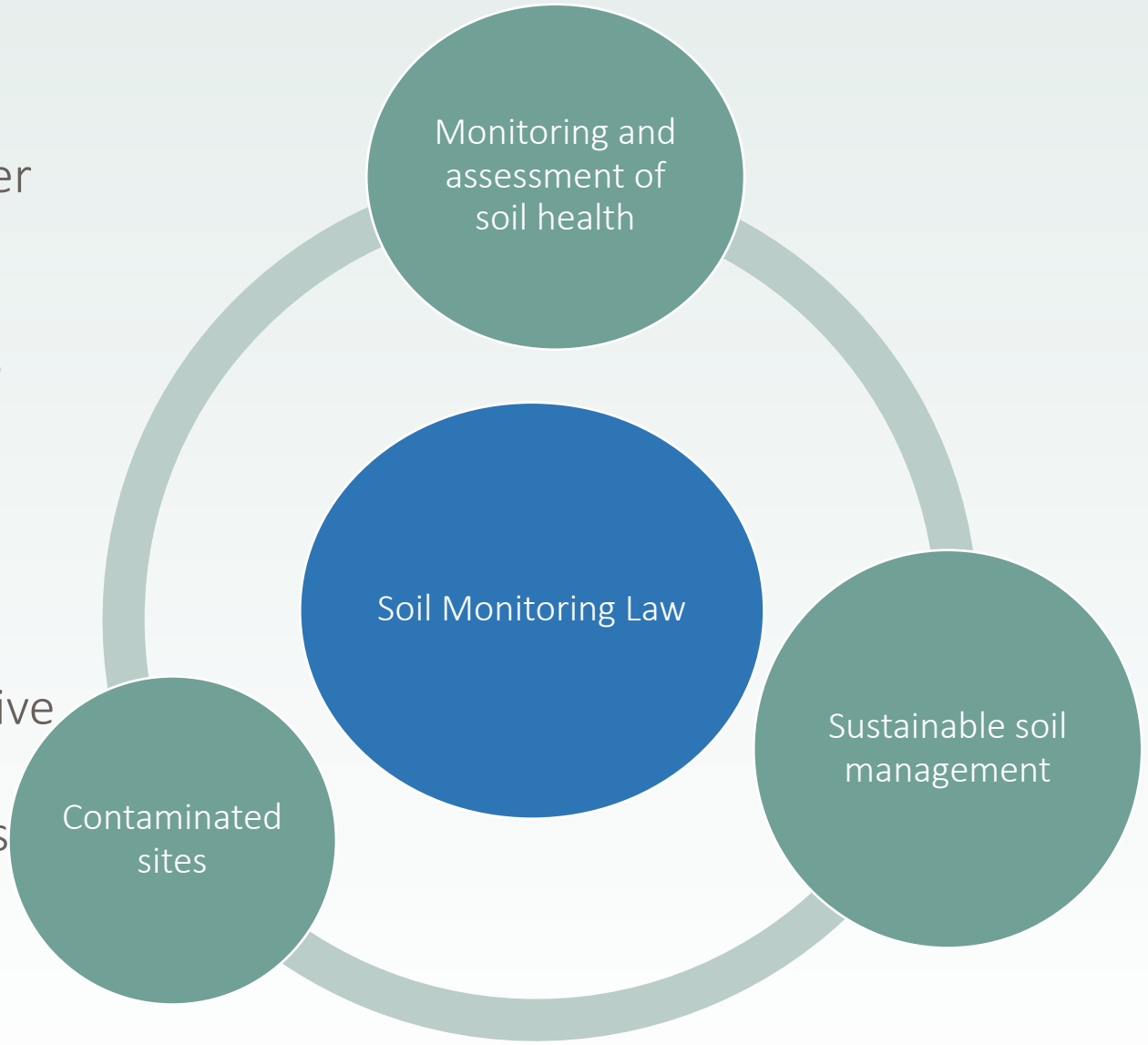
Proposed EU Soil Monitoring Law

- to ensure a level playing field among Member States and a high level of environmental and health protection
- to provide a legal framework to help achieve healthy soils by 2050

Status:

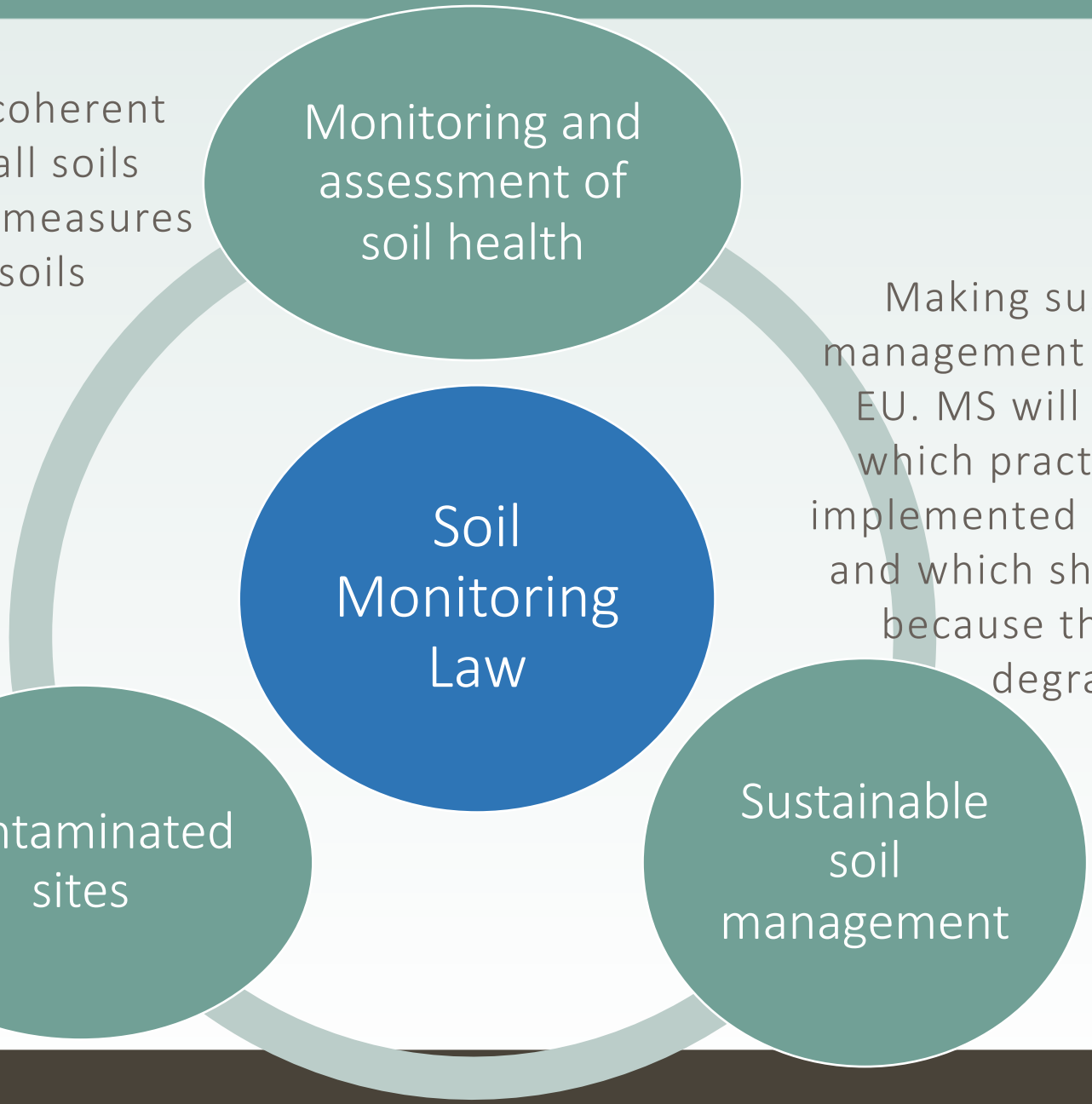
adopted by the EU Commission July 5th 2023

- amendments will be proposed by:
  - The ENVI committee adopted its legislative report on 11 March 2024
  - On 10 April 2024, Parliament adopted its first reading position on the basis of the ENVI report
  - Council of the European Union



Soil Monitoring Law – Proposed objectives

Putting in place a solid and coherent monitoring framework for all soils across the EU so MS can take measures to regenerate degraded soils



Making sustainable soil management the norm in the EU. MS will have to define which practices should be implemented by soil managers and which should be banned because they cause soil degradation.

Requesting MS to identify potentially contaminated sites, investigate these sites and address unacceptable risks for human health and the environment, thereby contributing to a toxic-free environment by 2050.

The soil mission’s main goal

- The main goal of the Mission 'A Soil Deal for Europe' is to establish 100 living labs (places for on-the-ground experiments) and lighthouses (sites for showcasing good practices) by 2030, to lead the transition towards healthy soils in rural and urban areas.

The Mission ‘A Soil Deal for Europe’

- 1 out of 5 EU Missions;
- The Mission to lead the transition towards healthy soils;
- A Mission at the heart of the EU Green Deal: the transition to overcome threats by climate change and environmental degradation.

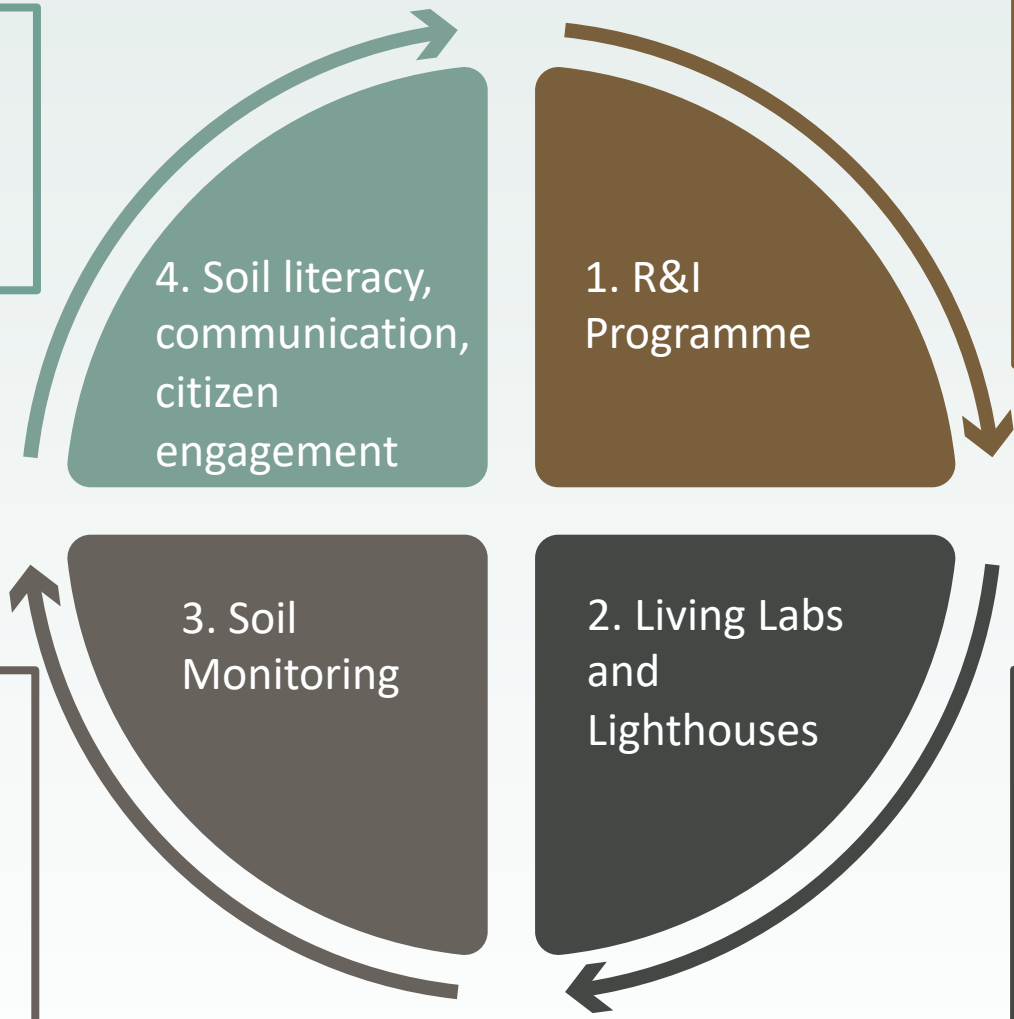
The benefits of the European Green Deal

The Soil Mission goals and implementation

- 100 Living Labs and Lighthouses across all land uses: agricultural, forestry, natural, industrial and urban sites;
- To give visibility to soils as a crucial, yet widely “unrecognized” societal asset and public good;
- To pioneer, showcase and accelerate the transition to healthy soils.
- Bottom-up approach: based on open science and interactive, participatory innovation with strong stakeholder and citizen engagement;
- Co-implementation of mission by researchers, land managers, regions, businesses, policy makers, citizens and international partners;
- To accelerate the co-creation and uptake of solutions.

The Mission's four building blocks

Communication, training and advice targeted to different target groups; specialised "soil advisors"



Knowledge, data, technologies and infrastructures to support practices and business models for soil health

Harmonization of **soil health monitoring and reporting** across Europe; contribution to European Soil Observatory

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

The Soil Mission objectives

1. Reduce desertification
2. Conserve and increase soil organic carbon stocks
3. Stop soil sealing and 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 Mission objectives in more detail

1. Reduce desertification
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The Soil Mission objectives in more detail

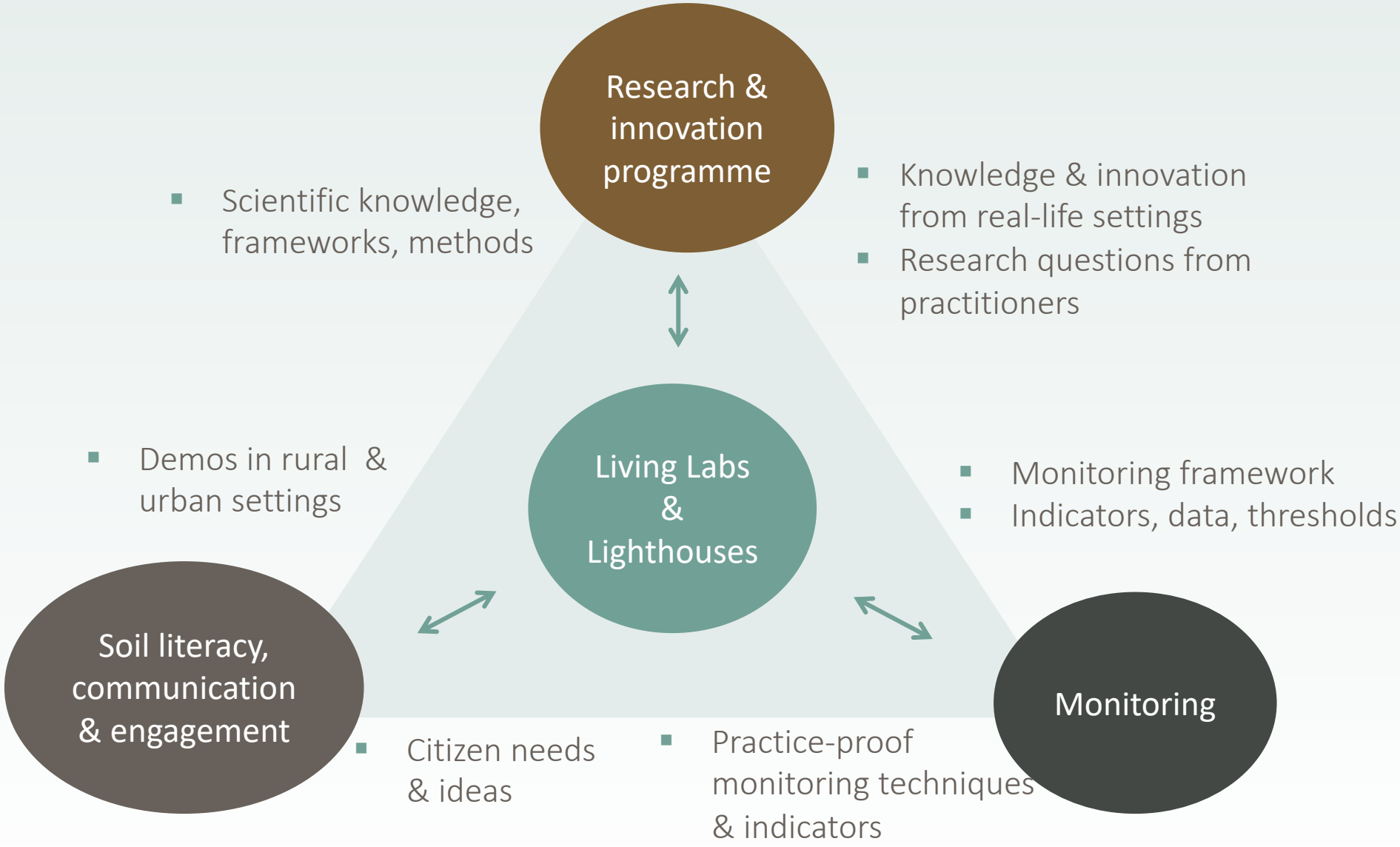
5. Prevent erosion

6. Improve soil structure to enhance soil biodiversity

7. Reduce the EU global footprint on soils

8. Improve soil literacy in society

The core element of the Mission: Living Labs and Lighthouses



Soil Health Living Labs and Lighthouses

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Soil Health Living Labs & Lighthouses: Definition

Soil Health Living Labs *

Collaborative initiatives to co-create knowledge and innovations

"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."

- **User-centred,** place-based and transdisciplinary
- **Multi-stakeholder**: Involve all relevant partners in co-design, testing, monitoring and evaluation of solutions,
- Use of **real-life** settings to accelerate adoption.
- Contain **several sites** (e.g. farms, forest exploitations, city parks) at **regional** or **sub-regional** level.

Soil Health Lighthouses

Individual sites of exemplary performance

"Places for demonstration of solutions, training and communication that are exemplary in their performance in terms of soil health improvement"

- They **showcase** good practices and upscale solutions.
- They are places for **demonstrations**, **training**, **networking** and **communication** towards future users, policy-makers or the broader society.
- Help adoption of sustainable practices by **inspiring land users** through practical tools.

* This LL definition is customised for soil health LL and is provided within the "**A Soil Deal for Europe – Implementation Plan**".
It aggregates elements of **ENoLL definition** with those of a WG of the G20 agricultural chief scientists on agroecological living labs.

Soil Health Living Labs & Lighthouses: Implementation Plan - Criteria

Living Labs*

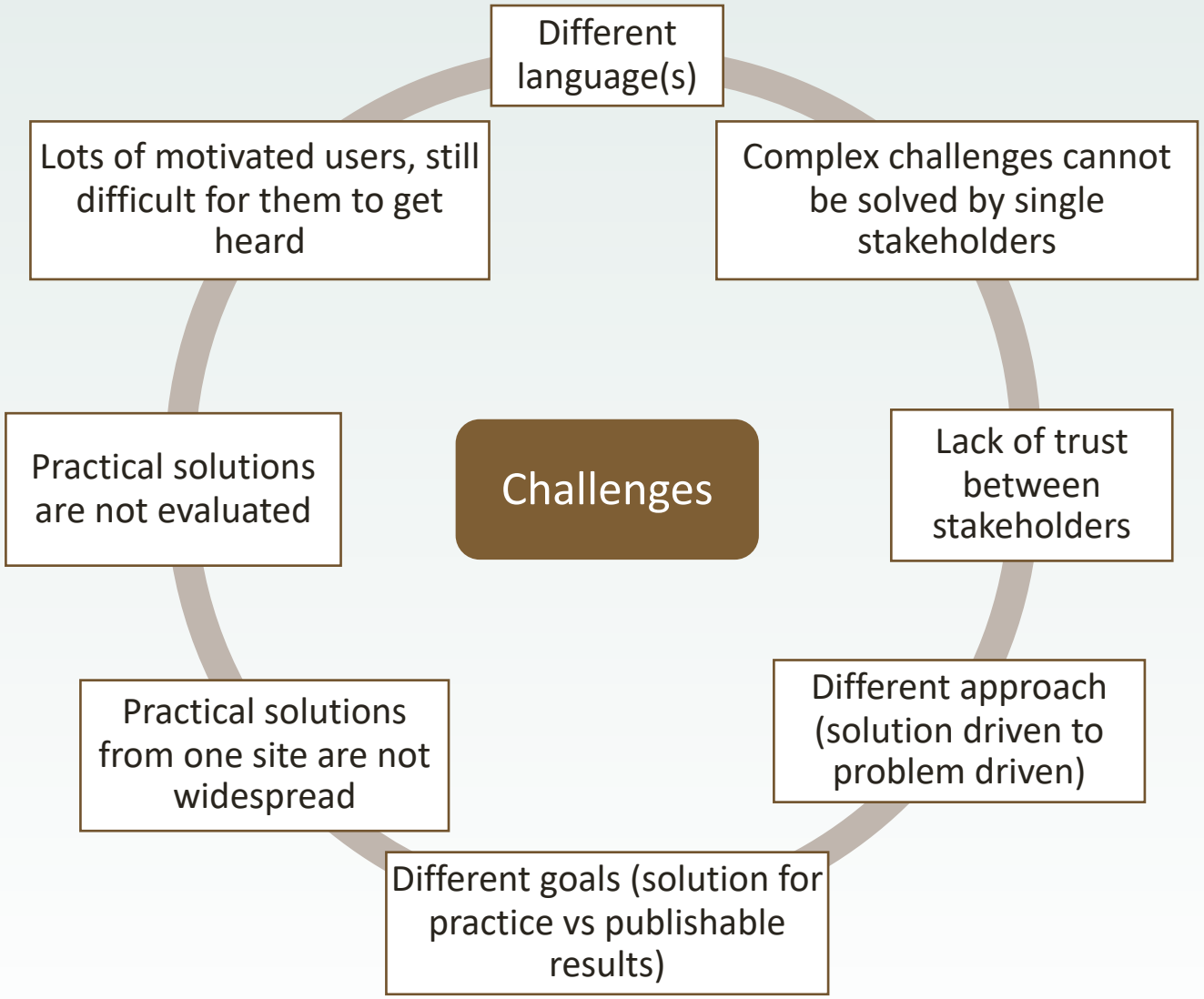
AIMS	• **Innovation**, **co-creation**, formal learning • Contribution to **societal challenges** • **Improving soil health and related ecosystem services** (=> mission objectives)
ACTIVITIES	• **Co-creation, co-development & experimentation** of innovations improving soil health and related ESS • **Research on impact of these innovative practices** on **ecosystems** • **Networking** and **knowledge exchange** • **Demonstration** (in particular lighthouses)
PARTICIPANTS	• **Public-private people partnership** • **Real users (soil managers connected with broad array of stakeholders & decision-makers)** • **Demonstration:** wider public, policy arena, EIP and relevant networks
CONTEXT	• Multiple **disciplines** (-> transdisciplinary, inc. social sciences), **methods, dimensions** (technical, economic, social) • **Place-based** approach and **real-life context** = real farms/forest/urban sites • **Robust scientific setup** for **ecosystem assessment** • **Openness,** communication, dissemination

Lighthouses

Criteria based on **exemplary performances** in terms of soil health and related ecosystems services

*adapted from McPhee et al. (2021)

Why implementing Living Labs?

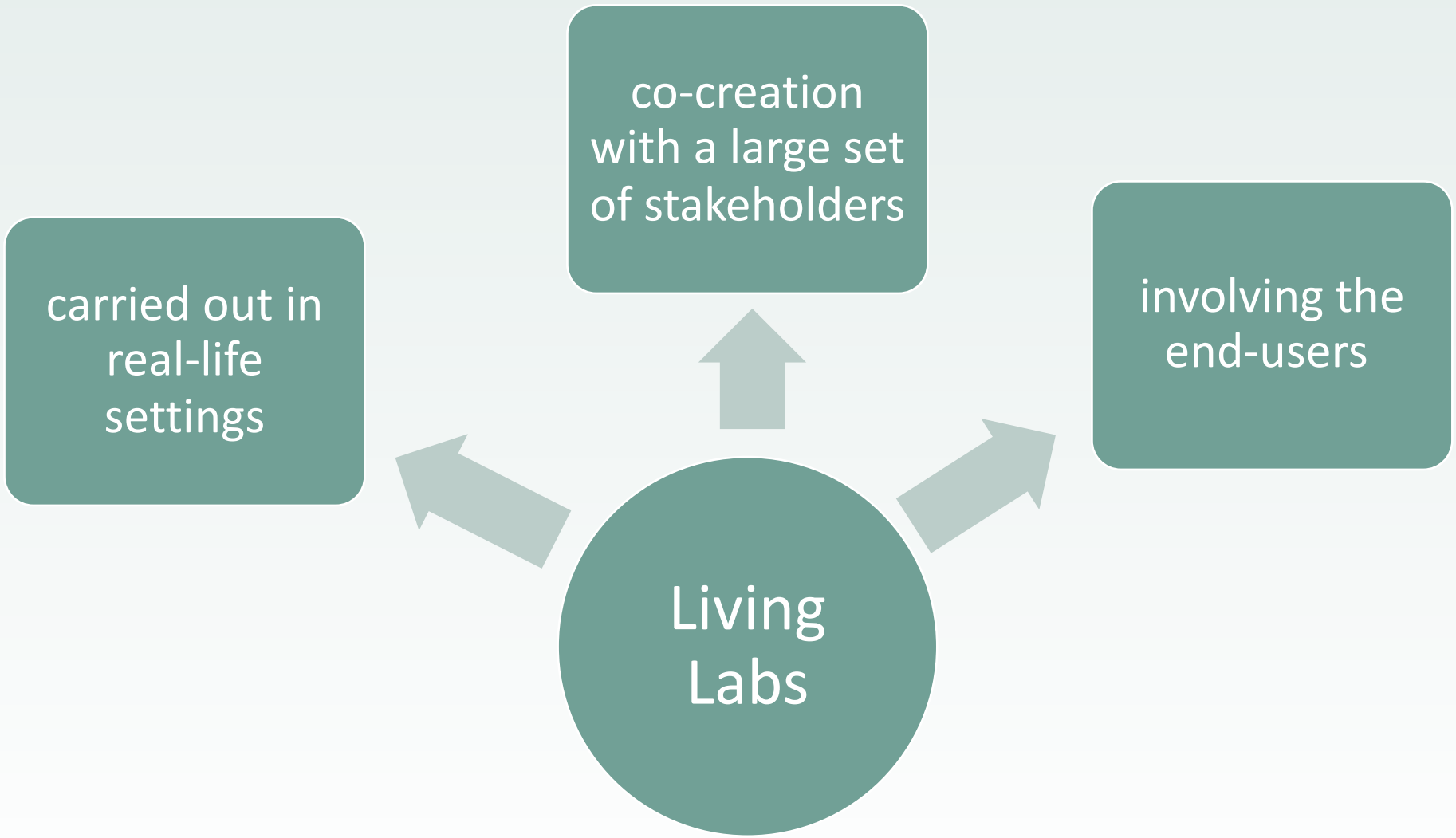


What to expect from the Living Labs?

Cooperating in a multi-stakeholder team makes you

- … become inspired by each other
- … learn to think out of the box
- … better understand each other
- … accept different perspectives from different stakeholders
- … aim for the same goals
- … work together instead of side by side
- … contribute to faster find faster, validated and more scalable solutions
- …

Components of the Living Labs



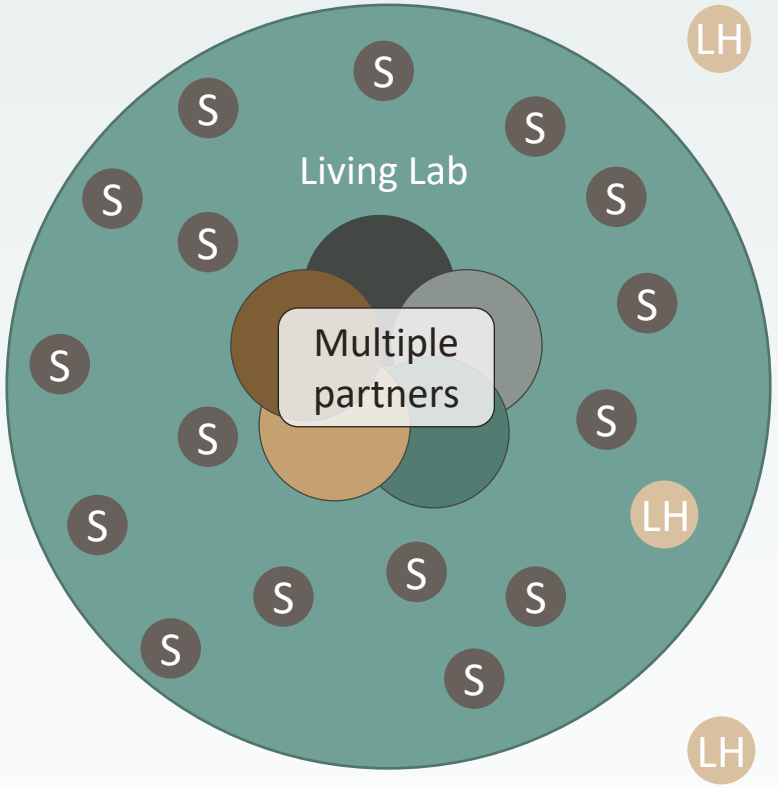
What to consider when setting up a Living Lab?

Places of co-creation, co-design, co-implementation and co-assessment

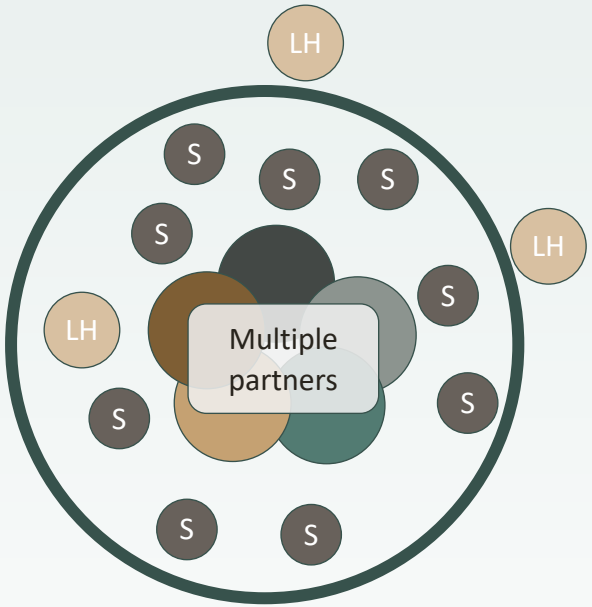
Participatory, interdisciplinary and transdisciplinary R&I approach

Business Models to ensure sustainability

Soil Health Living Labs & Lighthouses: Scale & Activities



	Scale	Activities	Performance in soil health improvement
Living Lab (LL)	Regional/ subregional landscape	Coordinate experimentations & partners	In progress at landscape scale
Living Lab experimentation site (S)	Local (one farm/forest, one urban site, etc)	Co-create knowledge and innovations	In progress on the site
Lighthouse (LH)	Local (one farm/forest, one urban site	Experiment and/or demonstrate	Demonstrates high performance



Regional level

Sub-regional level

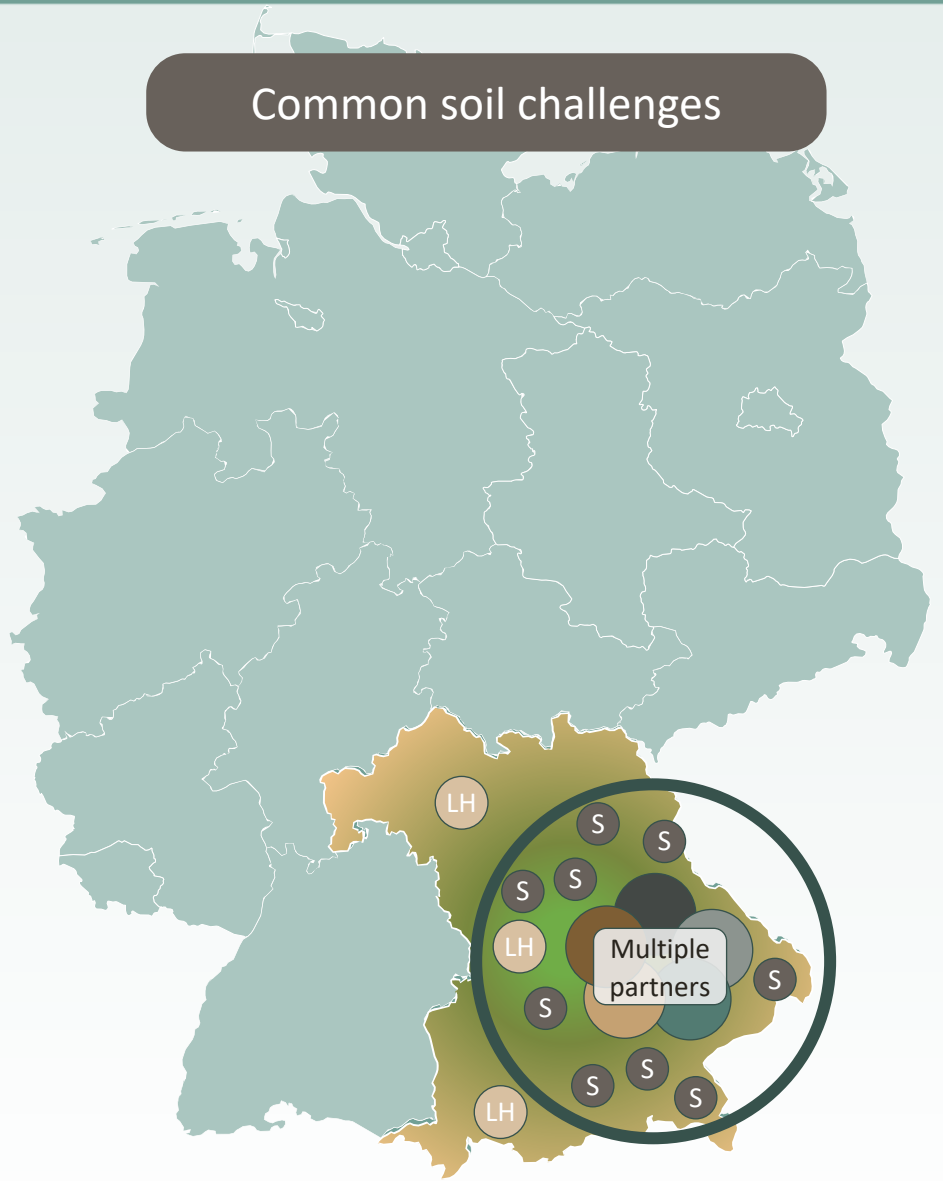
Local soil health needs
Local context
Common soil health goals

Within or across actual
administrative and geographical borders
at regional & national level

Scale: Regional/Sub-regional

Regional/Sub-regional borders

Common soil challenges



The image is a fabricated example of shared soil needs across sub-regions, for illustration only. Not intended to be exhaustive.

Scale: Cross-regional

Cross-regional borders

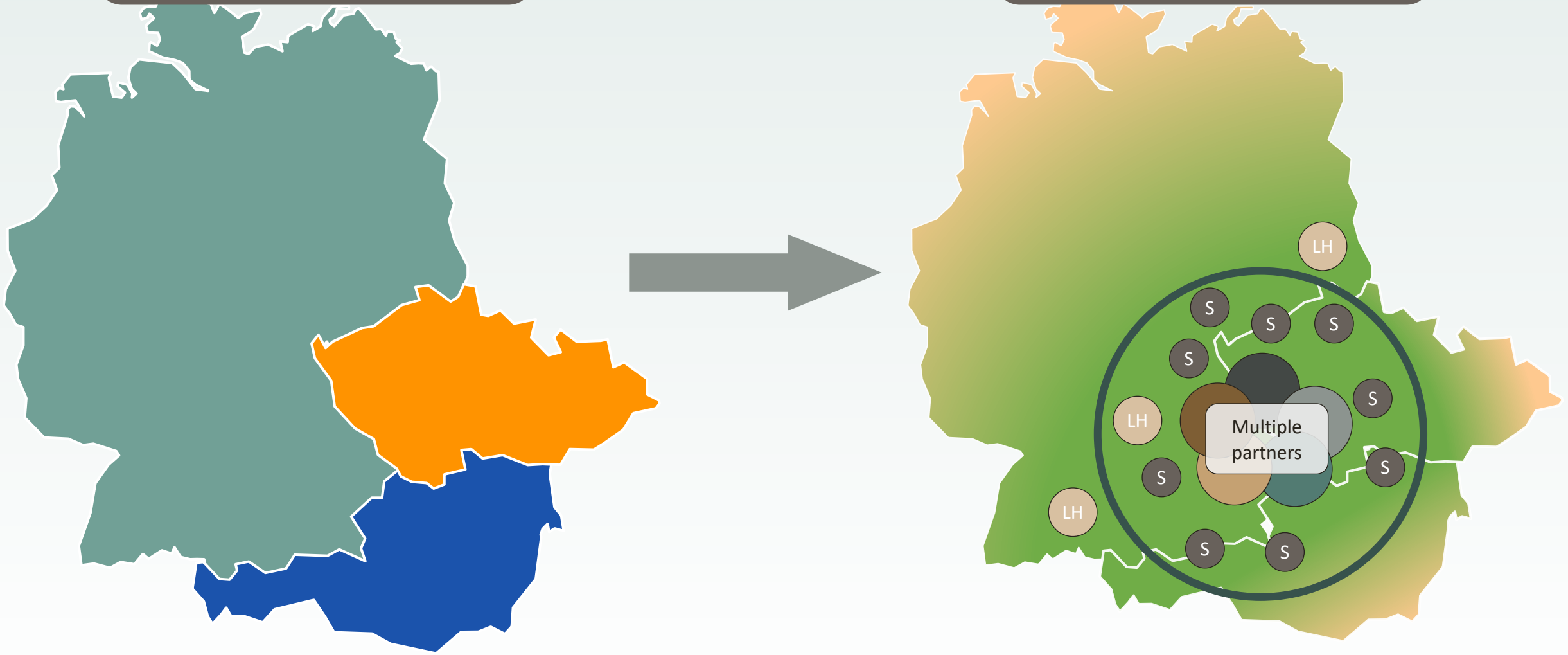
Common soil challenges

The image is a fabricated example of shared soil needs across regions, for illustration only. Not intended to be exhaustive.

Scale: cross-country

Administrative borders

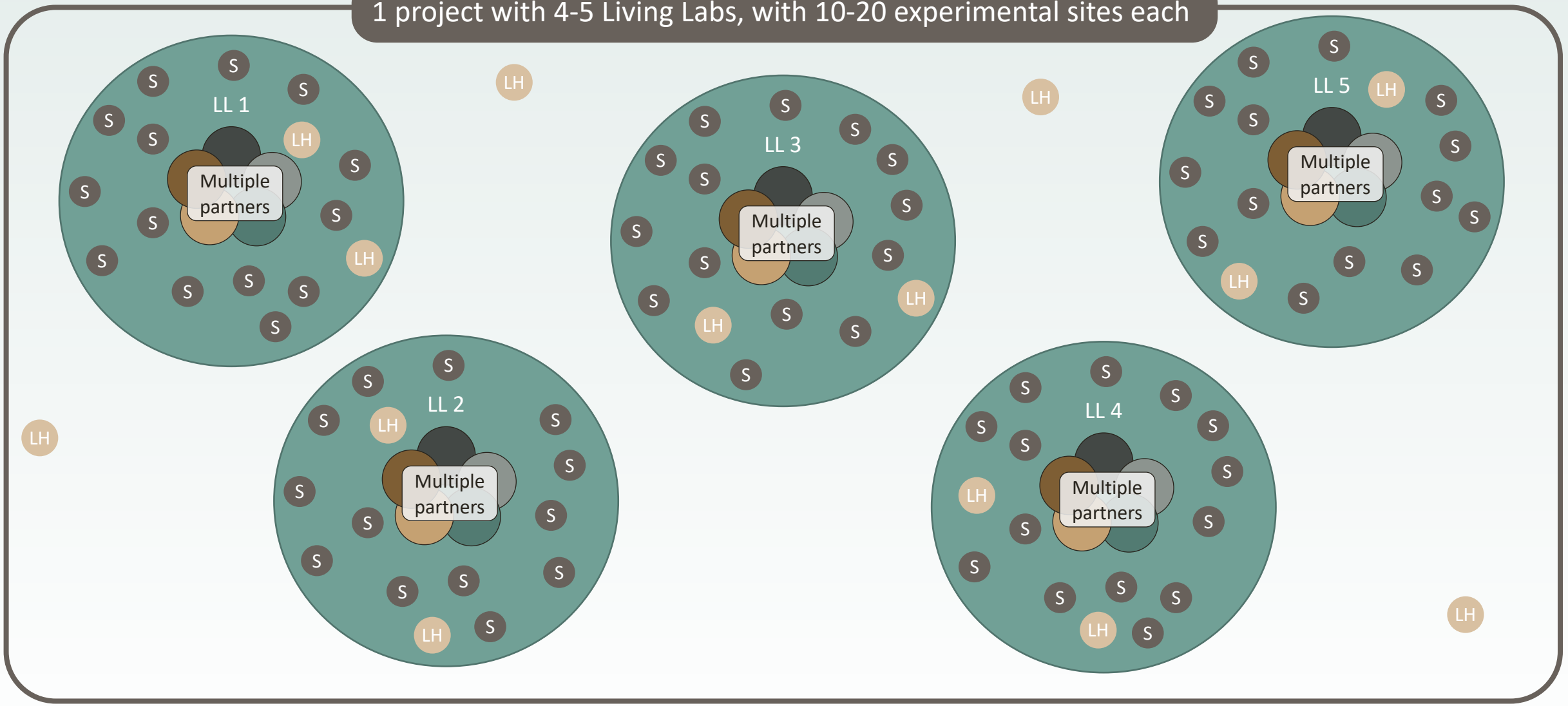
Common soil challenges



The image is a fabricated example of shared soil needs across countries, for illustration only. Not intended to be exhaustive.

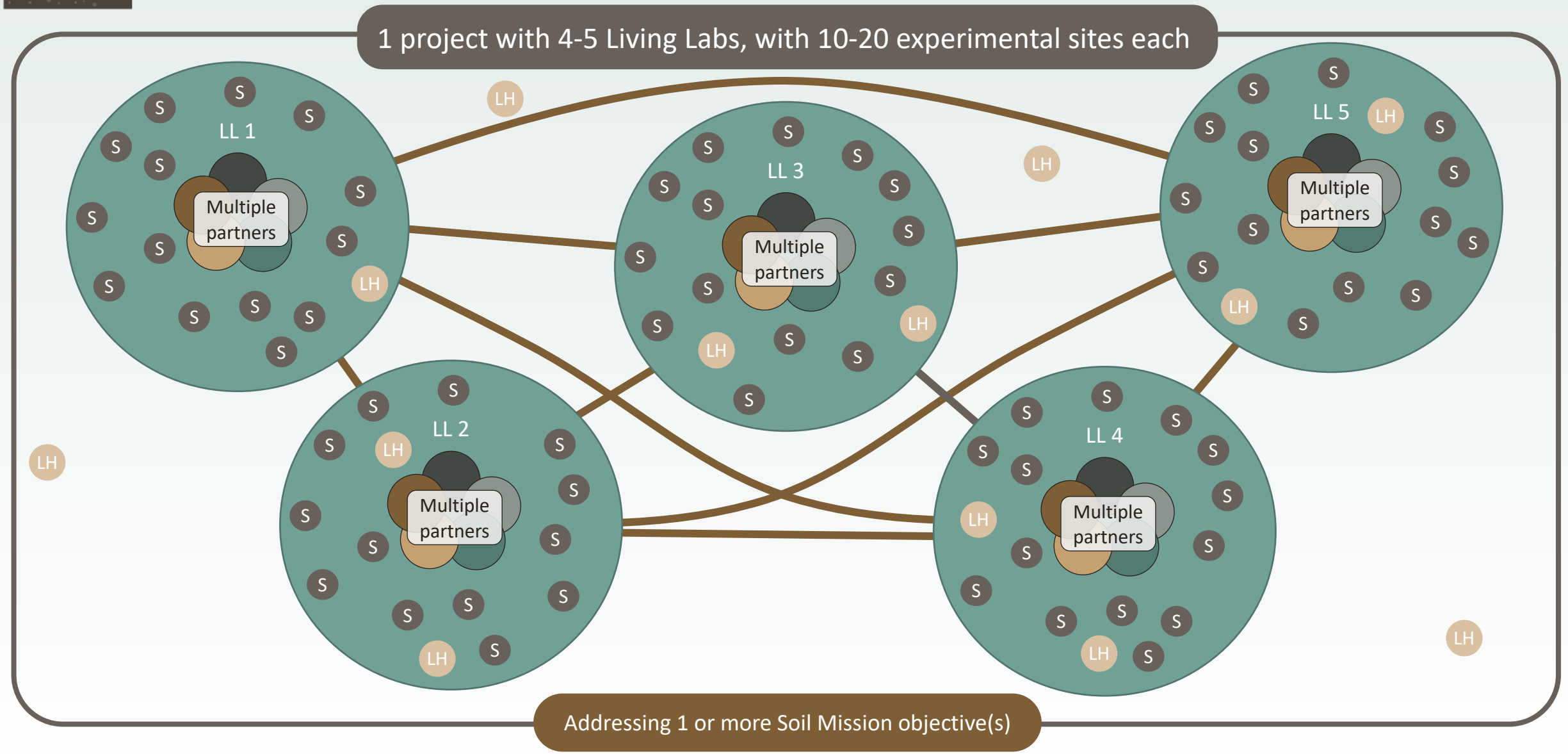
Soil Health Living Labs & Lighthouses

1 project with 4-5 Living Labs, with 10-20 experimental sites each



Living Lab (LL), Lighthouse (LH) and Living Lab experimental site (S)

Soil Health Living Labs & Lighthouses



Living Lab (LL), Lighthouse (LH) and Living Lab experimental site (S)

Common aspects within LLs in projects

Living Lab (LL)	Objectives	Land-use types	Application
LL1	**Objective A**	Land-use A	Local context 1
LL2	**Objective A**	Land-use B	Local context 2
LL3	**Objective A**	Land-use C	Local context 2
LL4	**Objective A**	Land-use A, Land-use B	Local context 3
LL5	**Objective A**	Land-use B, Land-use C	Local context 4

Living Labs focus on the **same Mission Objective, different land-use types**

Living Lab (LL)	Objectives	Land-use types	Application
LL1	**Objective A**	**Land-use A**	Local context 1
LL2	**Objective A**	**Land-use A**	Local context 2
LL3	**Objective A**	**Land-use A**	Local context 3
LL4	**Objective A**	**Land-use A**	Local context 4
LL5	**Objective A**	**Land-use A**	Local context 5

Living Labs focus on the **same Mission Objective and land-use type**, but with **different focus**

Living Lab (LL)	Objectives	Land-use types	Application
LL1	Objective A	**Land-use A**	Local context 1
LL2	Objective B	**Land-use A**	Local context 2
LL3	Objective C	**Land-use A**	Local context 1, 2
LL4	Objective A, Objective B	**Land-use A**	Local needs 2
LL5	Objective C	**Land-use A**	Local context 1

Living Labs focus on the **different Mission objectives**, but **same land-use types**

The tables are fabricated as example of a consortium, not intended to be exhaustive.

Our suggestions & recommendations

&

Clear and justified biogeographic regions

Make sure to justify the common aspects within LLs in projects and how the coordination across regions will be established.

Prevent cross-regional unjustified scope

Minimize outliers and, in case of a remote site, explain the management and the involvement in co-creation activities.

The image is a fabricated example of shared soil needs across countries, for illustration only. Not intended to be exhaustive.

Types of Living Labs

Living Labs per land-use type

Agricultural LLs

Forestry LLs

Urban LLs

Industrial LLs

Factsheets on EU Soil Mission Living Labs and Lighthouses for Soil Health

Nati00ns Factsheets. https://nati00ns.eu/factsheets

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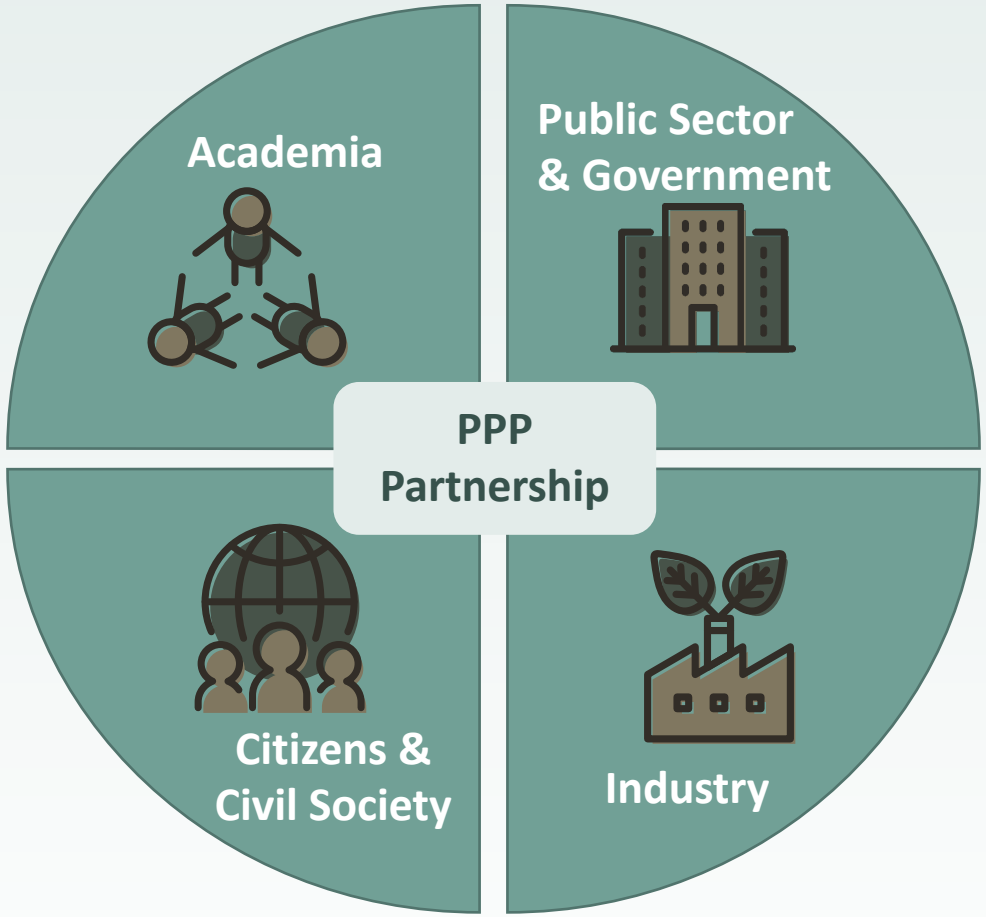
Participants in the Living Labs: Multi-actors approach



Carayannis, Elias & Campbell, David. (2009). 'Mode 3' and 'Quadruple Helix': Toward a 21st century fractal innovation ecosystem. International Journal of Technology Management - INT J TECHNOL MANAGE. 46. https://doi.org/10.1504/IJTM.2009.023374 .

*Carayannis, E.G., Barth, T.D. & Campbell, D.F. The **Quintuple Helix innovation model**: global warming as a challenge and driver for innovation. J Innov Entrep 1, 2 (2012). https://doi.org/10.1186/2192-5372-1-2*

Participants in the Living Labs: Quadruple Helix

Industry

Agricultural

- Farmers and landowners
- Cooperatives and supermarkets
- Agribusiness companies (e.g. agricultural engineers, food engineers, manufacturers of seeds and inorganic fertilizers, retailers) ranging from major European players to innovative startups, investors.

Urban

- Building/construction professionals: e.g. civil engineers, architects, real estate)
- GIS specialists
- Urban Planners (e.g. landscape, transport).

Forestry

- Landowners and forest managers
- Forest companies
- Forest owner associations
- Industries
- Land managers

Industrial

- Industrial landowners
- Land developers
- Environmental consultants
- SMEs

Larson, J. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Forestry Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969297
Morello, E., & de Franco, A. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Urban Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969333
Munkholm, L., & ten Damme, L. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Agricultural Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969257
Siebielec, G. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: (Post) Industrial Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969358

The is a fabricated example of potential participants within the different types of LLs. Not intended to be exhaustive.

Participants in the Living Labs: Quadruple Helix

Government & Public Sector

Agricultural

- Local, regional, and national (e.g. authorities, regulators, researchers)

Urban

- Public authorities and private agencies
- Public administrations (e.g. local, county-regional, national, communitarian)
- Health authorities (e.g. public health, epidemiologists)
- Environmental managers (e.g. disaster/risk and environmental managers)

Forestry

- Local, regional, and national authorities
- Regulators
- Governmental organizations
- Public authorities
- Agencies

Industrial

- Local, regional, national authorities
- City and regional administration
- Environmental protection offices
- Spatial planners

That 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.

Larson, J. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Forestry Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969297
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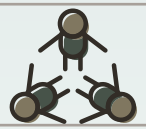
Participants in the Living Labs: Quadruple Helix



Academia

Agricultural

- Researchers from universities
- Governmental organizations
- Research institutes

Urban

- Universities
- Social sciences research institutions: e.g. anthropologists, economists, geographers, sociologists
- Physical sciences research institutions: e.g. agronomists, biologists, chemists, climatologists, geologists, epidemiologists, physicians.

Forestry

- Researchers in forest and soil sciences
- Social science researchers
- Universities
- Research institutions

Industrial

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

Larson, J. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Forestry Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969297
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The is a fabricated example of potential participants within the different types of LLs. Not intended to be exhaustive.

Participants in the Living Labs: Quadruple Helix

Citizens, Civil Society & Users

Agricultural

- NGOs (e.g. nature conservation and water protection organizations)
- Citizen groups
- Consumers
- Local, regional and national movements

Urban

- Inhabitants (e.g. residents, tenants)
- Civic groups (e.g. associations, cooperatives, NGOs)
- Loosely organized groups (e.g. artists, designers, retailers, and local businesses)
- Informal interest groups of the communities.
- Nature conservation groups

Forestry

- Urban and local citizens, community and citizens representatives, NGOs (e.g. nature conservation protection organizations).

Industrial

- Citizens
- Citizen organizations,
- Environmental organizations

Larson, J. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Forestry Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969297
Morello, E., & de Franco, A. (2023). FACTSHEET - EU Soil Mission Living Labs and Lighthouses for Soil Health: Urban Land Use. Zenodo. https://doi.org/10.5281/zenodo.7969333
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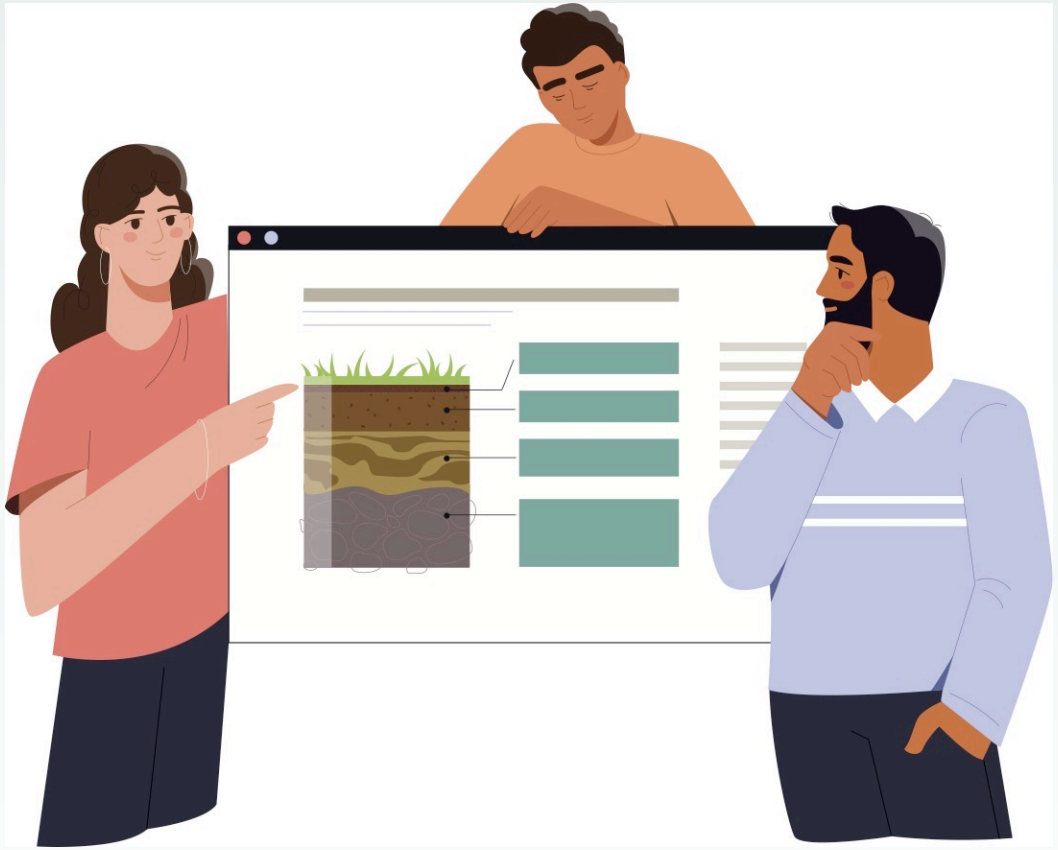
Examples about LLs in each of the land-use types



Best practices examples

- Agricultural LL: Discovery Center
- Forestry LL: FIRE-RES
- Industrial LL: Desira Living
- Urban LL: Torino City Lab

Map of Living Labs and Lighthouses

https://prepsoil.eu/living-labs-and-lighthouses/map

The Living Labs shown on the map do not necessarily fulfil the criteria for the selection and set-up of living labs in the context of the Soil Health Mission presented in the Mission Implementation Plan.

Thematic focus of the 2024 Living Lab call

Disclaimer

Information provided herewith are of the NATI00NS consortium.

The sole official source of reference shall remain the *Horizon Europe Work programme (2023-25)* - 12. Missions and Cross-cutting Activities, published by the European Commission on April 17th, 2024.

Funded by the European Union

Thematic focuses of the two 2024 Living Lab topics

Soil health (0101)

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

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2024-soil-01-01

Urban (0102)

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

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2024-soil-01-02

- Deadline for applications: 08 October 2024 17:00:00 Brussels time;
- Single-stage submission via the Funding & Tenders Portal;
- **4-5 Living Labs** for each application located **in at least three** different Member States and/or Associated Countries;
- Research and Innovation Actions: 100% funding for any actor.

Thematic focuses of the two 2024 Living Lab topics

Soil health (0101)

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

- 36 M€ funding
- Expect 3 applications funded

1. Reduce **desertification**
2. Conserve and increase soil organic carbon stocks
3. Stop **soil sealing** and 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

Urban (0102)

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

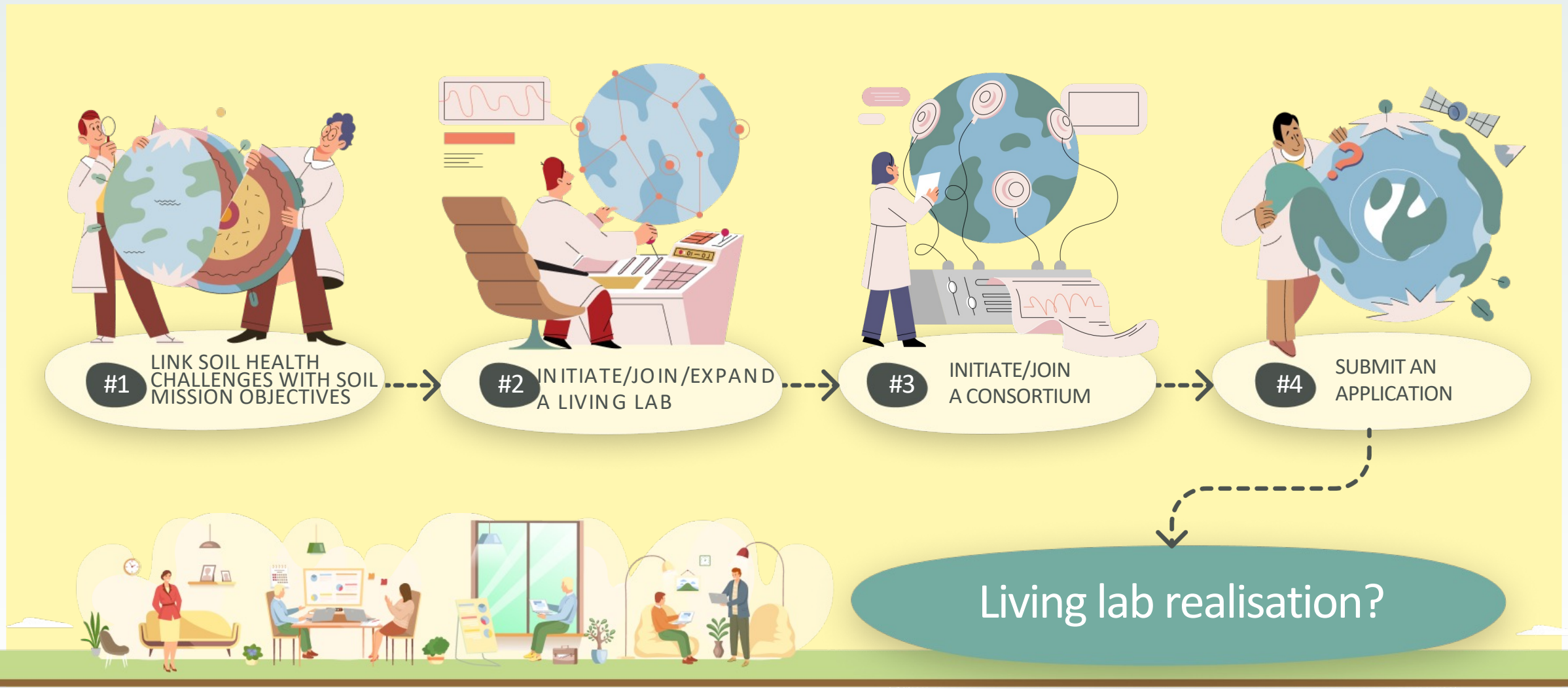
- 12 M€ funding
- Expect 1 application funded

Proposal template for applicants

- ✓ A new table is included for applicants to topics 2024-SOIL-01-01 and 2024-SOIL-01-02 to fill in.
- ✓ The table aims at gathering key aspects of the LL that will form part of the LL project.
- ✓ It will help applicants and evaluators to better describe how LL are organized.

Q1. In which country (countries) is the Living Lab (LL) located?
Q2. In which region(s) or sub-region(s) is the LL located?
Q3. What is the main land use in the LL?
Q4. Which Mission Soil specific objective(s) will be mainly addressed in the LL?
Q5. Which soil health challenge(s) will be tackled in the LL?
Q6. How many experimental sites will the LL have?
Q7. Will sites that demonstrate a high potential and can be converted to lighthouses (LHs) be identified in the same region of the LL?
Q8. Which project partner is in the lead of the LL?
Q9. Which type of actors are you planning to involve in the LL?
Q10. Are there already ongoing co-creation activities in some of the experimental sites of the LL?
Q11. Indicate the approximate budget that will be dedicated for the establishment and implementation of activities in the LL?
Q12. If you are planning to engage further actors or entities not already involved as partners, please indicate how many and of which type?
Q13. Are you planning to make use of Financial Support to Third Parties (FSTP)?

NATIOONS


#1
LINK SOIL HEALTH CHALLENGES WITH SOIL MISSION OBJECTIVES
#2
INITIATE/JOIN/EXPAND A LIVING LAB
#3
INITIATE/JOIN A CONSORTIUM
#4
SUBMIT AN APPLICATION
Living lab realisation?

NATI0ONS: Engagement & Support to applicant LLs

https://www.nati0ons.eu/

Engagement events	**Inform, engage & promote.** 43 countries (EU MS + AC), national language
Matchmaking – (inter)national	**Facilitate creation of local LL.** Online and along engagement events
Factsheets & E-learning	**Inform & train.** LL, open call, types of LL peculiarity
Helpdesk & FAQ	**Support.** Online, addressing all questions on LL creation
Webinars LL methodology	**Train.** How to set up, develop and enlarge a LL.
Coaching	**Support.** Available in local language, appointed mentors.
Thematic events & webinars	**Inform, train & engage.** Different themes for specific land uses.
Matchmaking – International & thematic	**Facilitate creation of partnerships of LLs.** Online and along thematic events

Individual Coaching Sessions

- For confidential, individual coaching sessions, please contact:

Tamara Schembri, tamara.b.schembri@gov.mt

Matchmaking Sessions

- Matchmaking tool for applicants in the creation of transnational consortia: https://nati00ns.eu/matchmaking-opportunities

Capacity-Building Webinars

- Choose the webinars and watch the recordings https://www.nati00ns.eu/events,

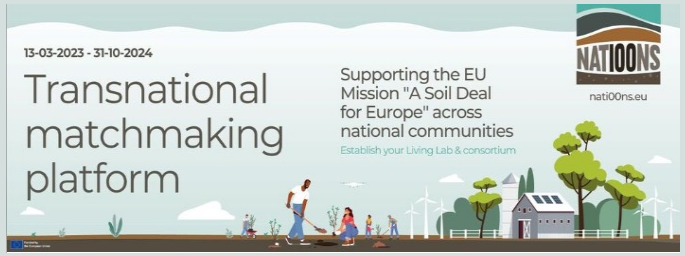
Thematic Events

- Choose Thematic events and watch the recordings https://www.nati00ns.eu/events,

Matchmaking

Matchmaking tool to facilitate the creation of transnational consortia: https://nati00ns.eu/matchmaking-opportunities

Matchmaking Event:
11 & 12 of June 2024



Capacity Building Webinars

Mission Soil funding opportunities for Soil Health Living Labs: **18 June 2024**

Forestry & (semi)natural lands focusing on the Balkans & neighboring countries: **20 June 2024**

Co-creation methodologies for urban and post-industrial LLs: **25 June 2024**

Other webinars coming!

NATI00NS

Join the Community

nati00ns.eu

@nati00ns

nati00ns

Contact Details

Mahdi Khomsi

funds@businessmed-umce.org

+21698747160

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SOIL DEAL FOR EUROPE

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

Muriel Mambrini
Mission Board Member
Mission 'A Soil Deal for Europe'

This presentation is delivered by a member of a Horizon Europe Mission Board, which is an informal group of experts set up by the European Commission. The contents of the presentation do not represent the official views of the European Commission nor do they constitute a commitment of any kind on its behalf

#EUmissions #HorizonEU #MissionSoil

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Why a mission on soil?

- Healthy soils are the **basis for nutritious and safe food.**
- Soils deliver **vital, interconnected ecosystem functions**
  - water purification and regulation (protection from droughts and floods)
  - hosting biodiversity
  - nutrient cycling
  - climate mitigation and adaptation
  - range of cultural services
- Soil is a **scarce, non-renewable resource**.
- **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.

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We need to act…..

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

Specific objectives

The Mission be implemented through four building blocks

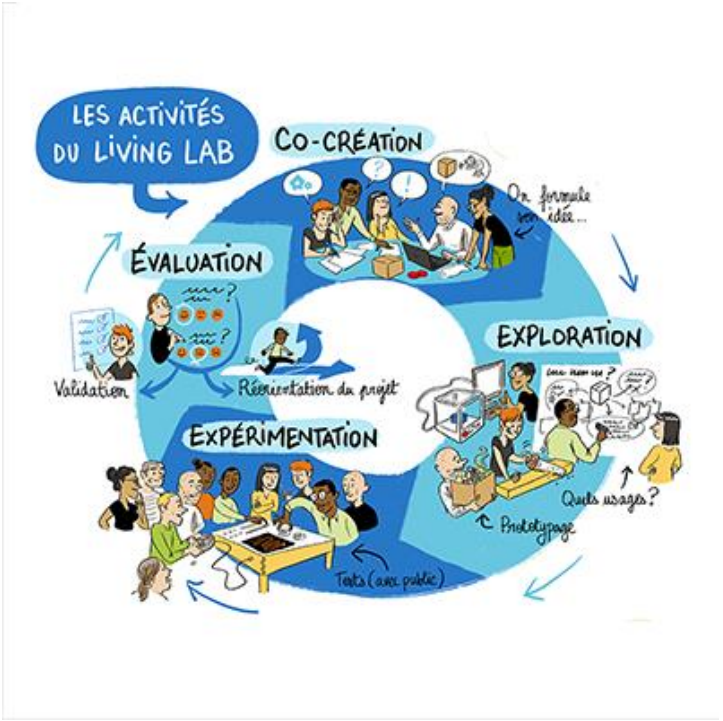
Living labs are…open innovation arrangements

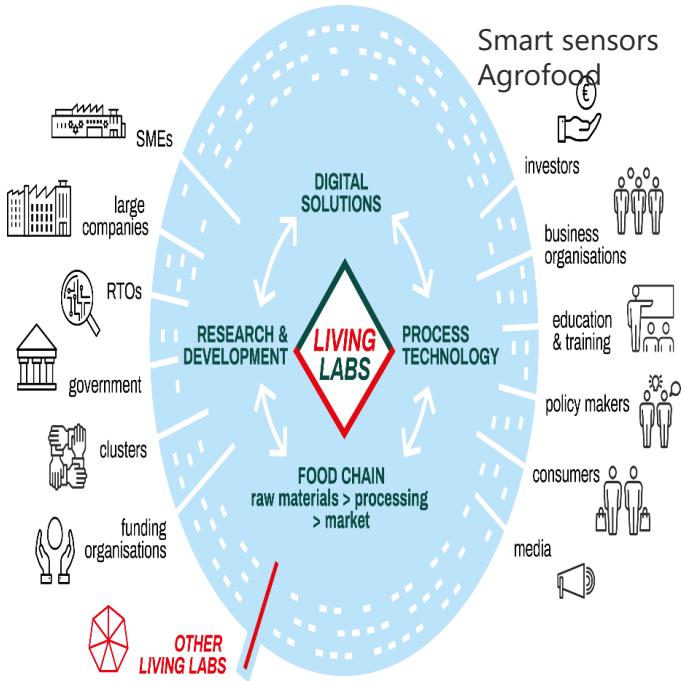
- Principles
  - Co-creation
  - With users
  - In reality
- Values
  - Knowledge
  - Business
  - Social

Creative relations at landscape level

User-centred innovation

Place-based





Multiple actors with complementary knowledge

Social and behavioural sciences

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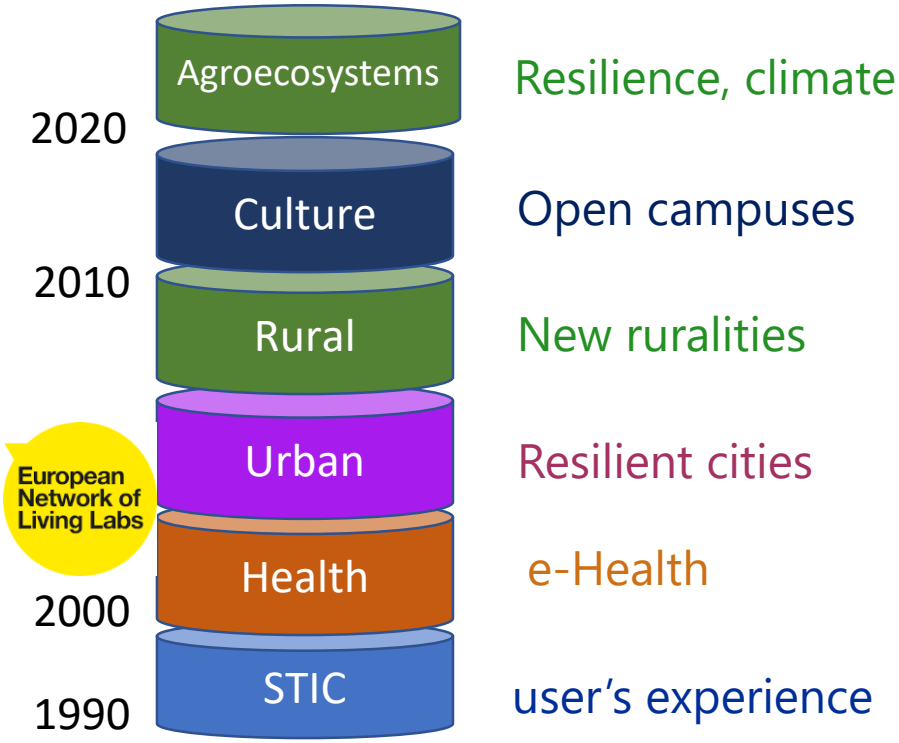
The unique features of living labs



Resilience, climate change

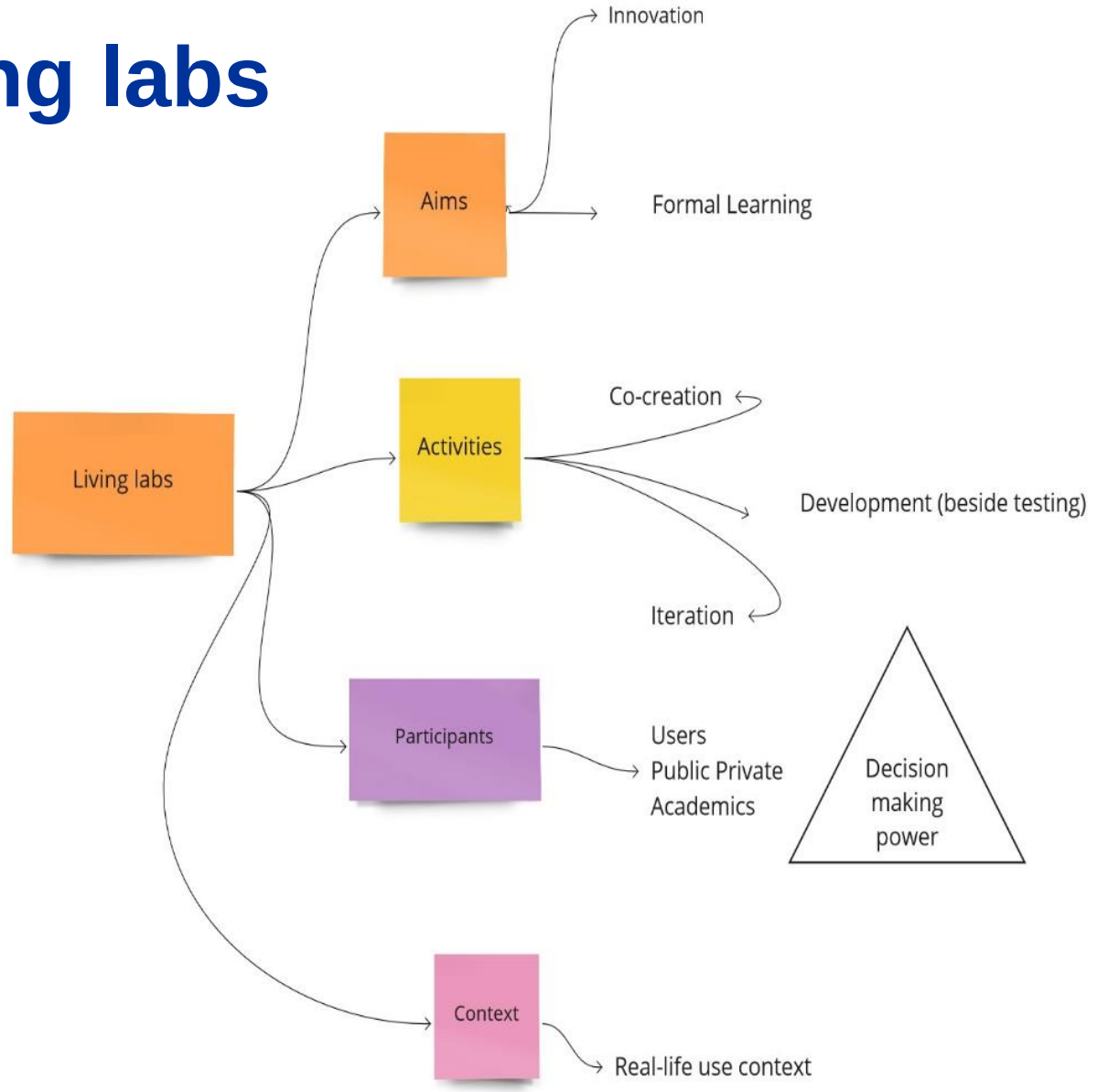
Open campuses

New ruralities

Resilient cities

e-Health

user's experience



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Living Lab, let's jump in realities

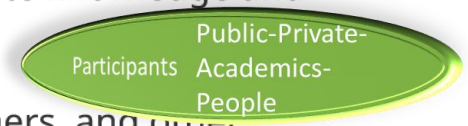
Living Laboratories Initiative

The Living Laboratories Initiative is a new approach to agricultural innovation in Canada, that brings together farmers, scientists, and other collaborators to co-develop and test innovative practices and technologies to address agri-environmental issues.

Core principles

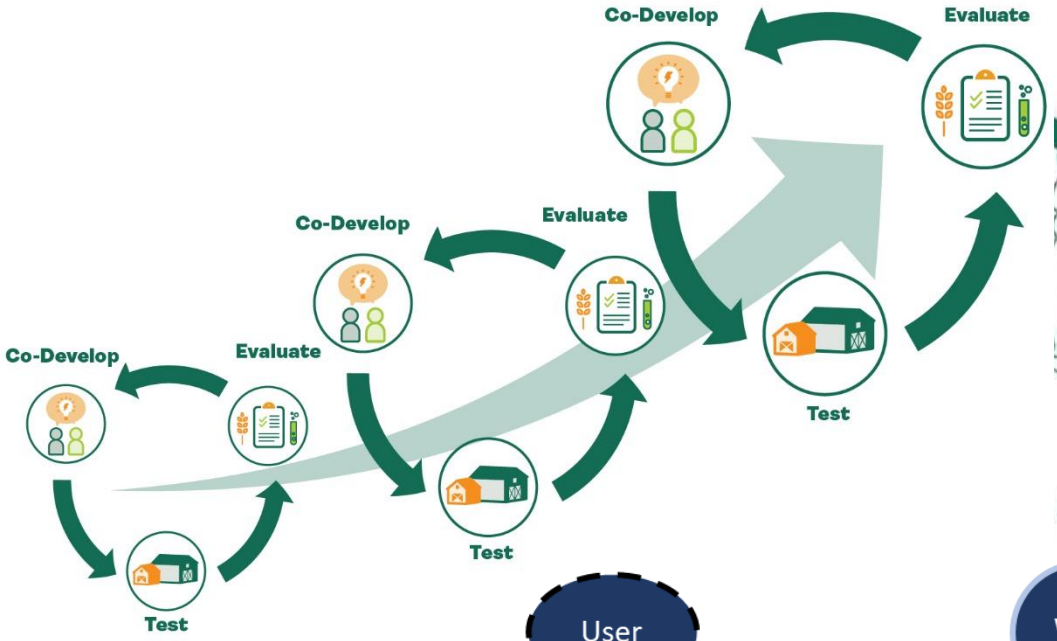
The initiative is based on three core principles:

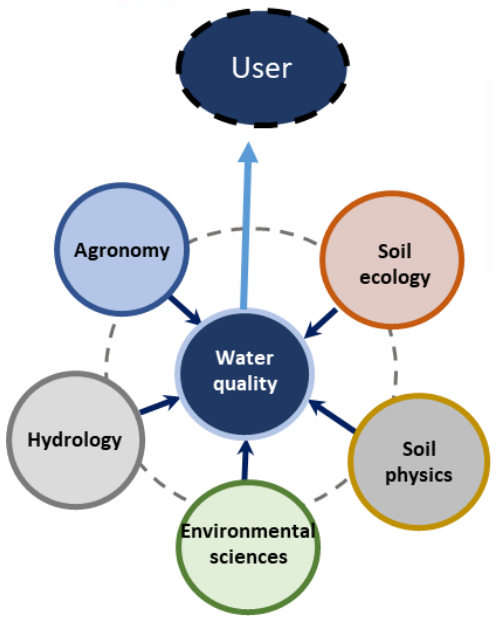
- **Focusing on farmers' needs:** As the people who ultimately use these innovations, farmers are key collaborators throughout the entire process. Farmers not only test the proposed innovations, they contribute knowledge and experience to their development and improvement at every step.

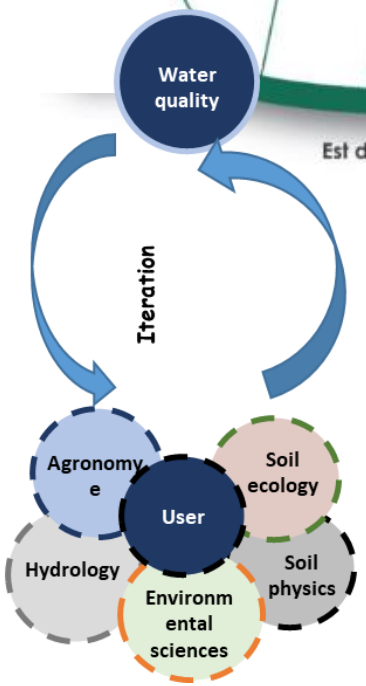


- **Broad and diverse partnerships:** Farmers, multidisciplinary teams of scientists and researchers, and other collaborators contribute their expertise and resources to develop innovative farming practices and technologies. These collaborators include First Nations, governmental institutions, industry representatives, non-profit organizations and producer groups.

- **Testing in the real-life context:** The practices and technologies are tested in the context and scale in which they will be adopted: on local farms under real agricultural production conditions.







SOIL HEALTH & WATER QUALITY
75 à 85 participants (32 labs, 15 partners)

On going innovations
- Crop rotations conserving organic matter
- Using drone thermal imagery to detect drought stress in crops
- Creation of new wetlands on farm
- Test fertilizers which decrease contaminants …

Representation of one of the researchers, M Chantigny

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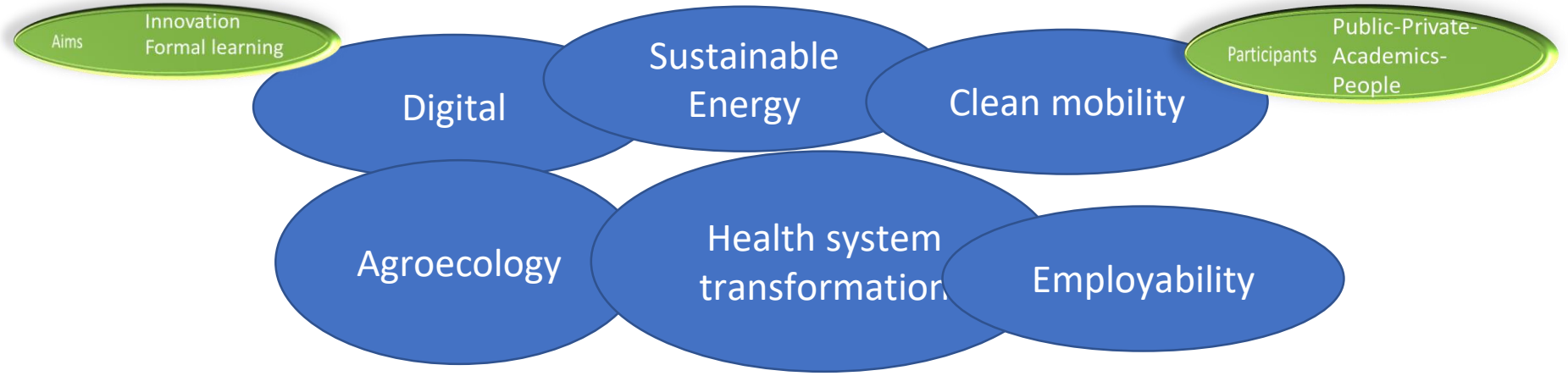
Living labs… Three principles and they emerge

OBJECTIVES: TRANSFORMATION territories, public-private-people for transitions



LE GRAND PLAN D'INVESTISSEMENT

APPEL A PROJETS

TERRITOIRES D'INNOVATION

CAHIER DES CHARGES

Premier ministre
Secrétariat général pour l'investissement

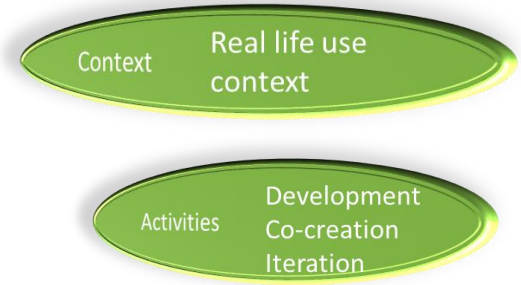
BANQUE des TERRITOIRES

EXPECTATIONS: DEMONSTRATION, experimentation in the Real, users engaged

High innovation level (techno-eco-socio)

On a pertinent geographical area « territory »

Short and long-term actions, iterations

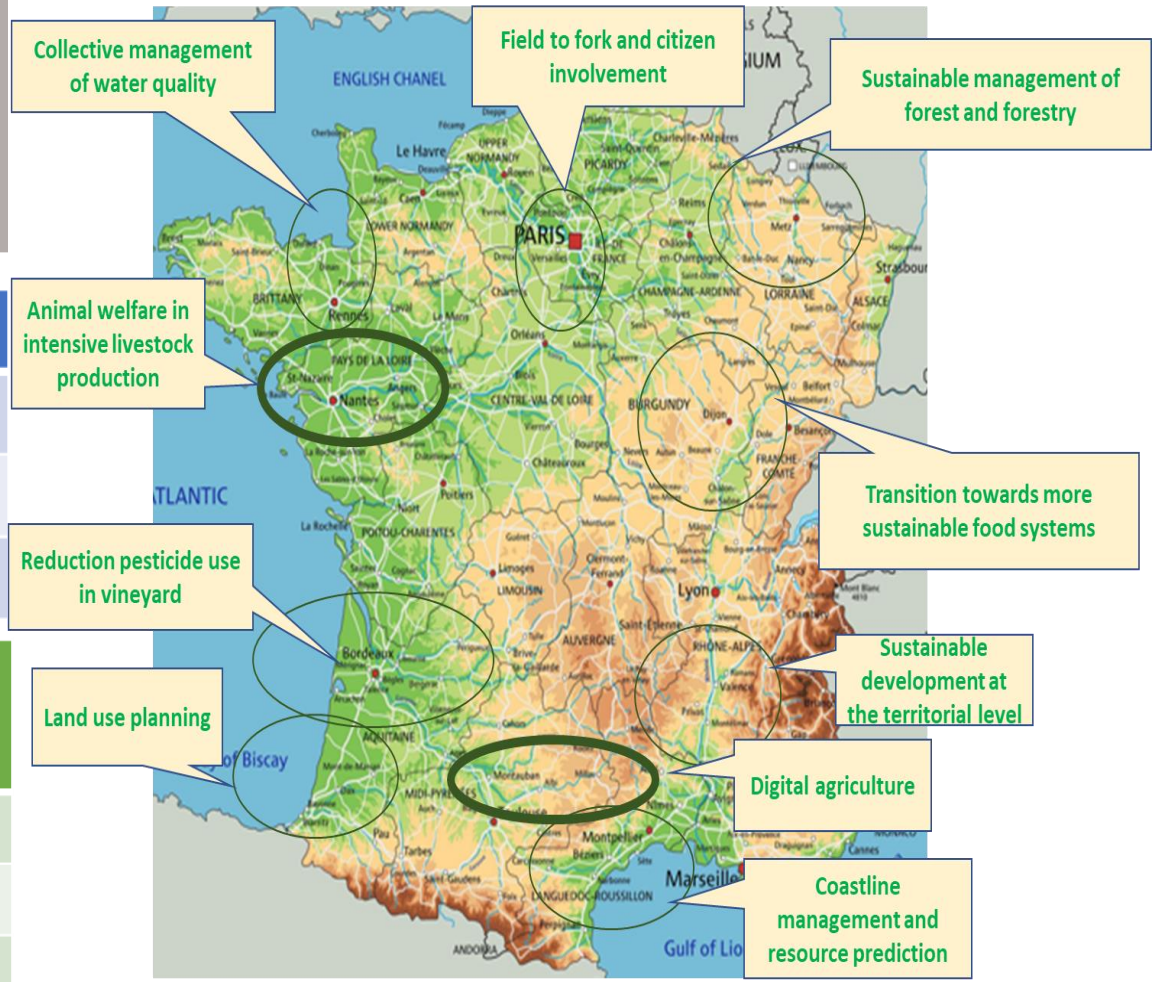


Transition tackled

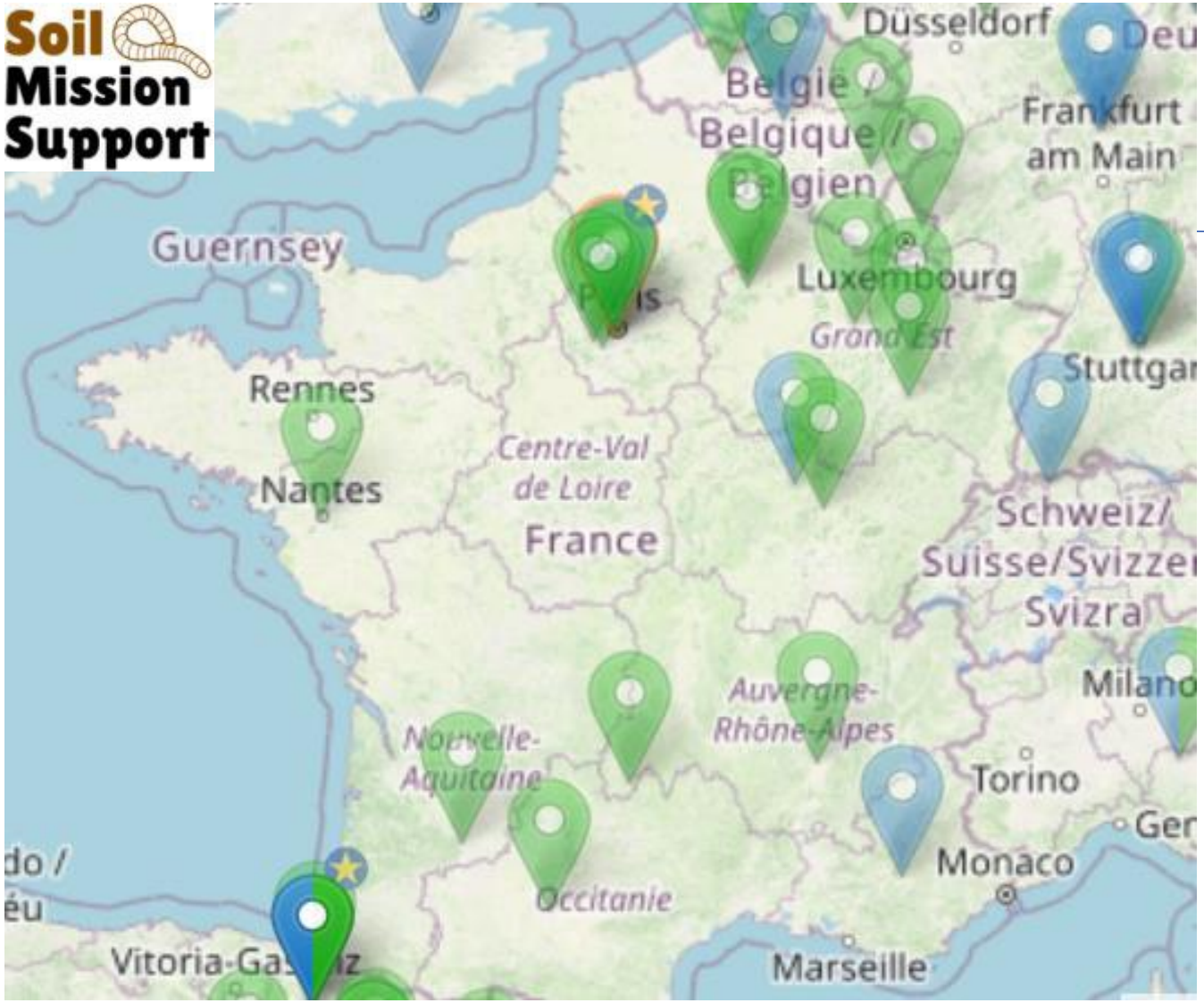
8	7	3	3	2	1
Agro ecology	Energy	Health	Mobilit	Digita	Skills

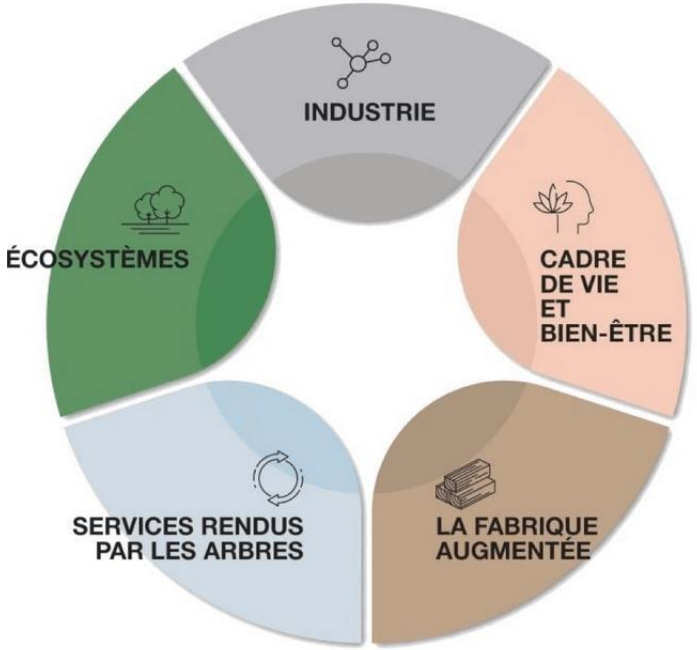
M€	Subvention	Investment	Prevision
Agroecology (10)	56,75	202,6	1156
Total projects (24)	151,75	528,4	3461
	38%	38%	33%

Number	Partners	Local adm.	People concerned
Agroecology	550	70	12 002 000
Total projects	1176	159	32 492 000
	47%		37%



Soil Mission Support





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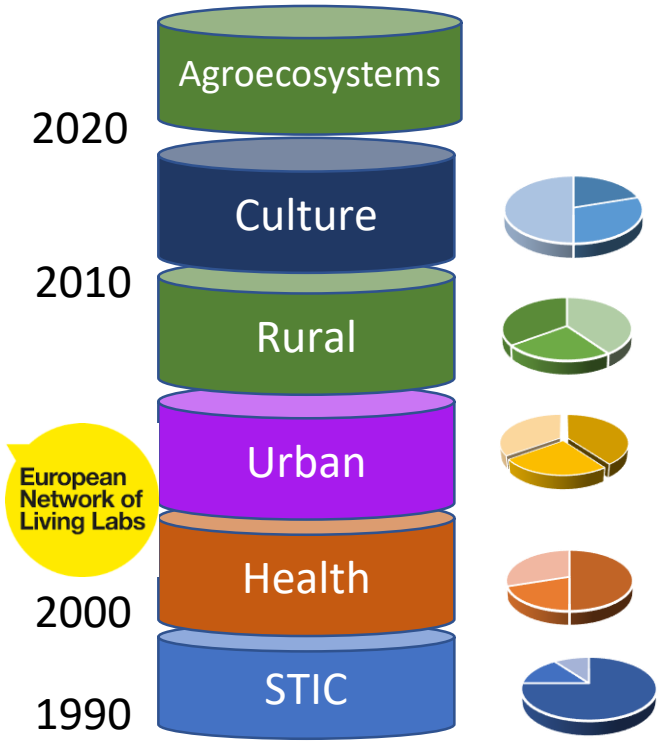
Living lab for…. History of impacts

- A long history

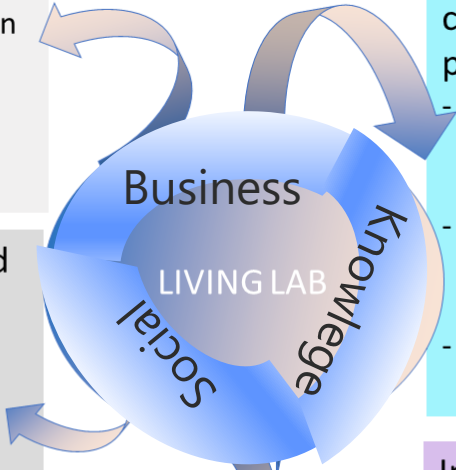


- A diversity of impacts

Behavioral transformation
- Knowledge exchange among stakeholders and co-production
- Tacit knowledge taken into account in the innovation process
- Entrepreneurship enclination

Co-production of products and services
- New markets
- Social innovation
- Technical interoperabilities
- Incubation of accurate public policies

Strenghtening of local policies
- For innovation
- For training (ini and vocational)
- For spacial planning



Empowerment through the learning effects of the co-conception and the experimental processes
- Academics: Interdisciplinarity; new research assumption; key factors of adoption
- Business: New market, new labour; risk evaluation; new partnership; OK for SMEs
- End-User: Capacitation; democratization of innovations

Innovation efficiency
- Minimization of the risk of failure
- Shortening of the experimental/trial cycles
- Increase of the outreach of the innovation (unforeseen use)
- Development of an innovation litteracy

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In short, the assets

✓Principles commons to scientists, policy makers, producers, stakeholders

✓New way of experimenting

✓New ways of raising research questions

✓New object for research

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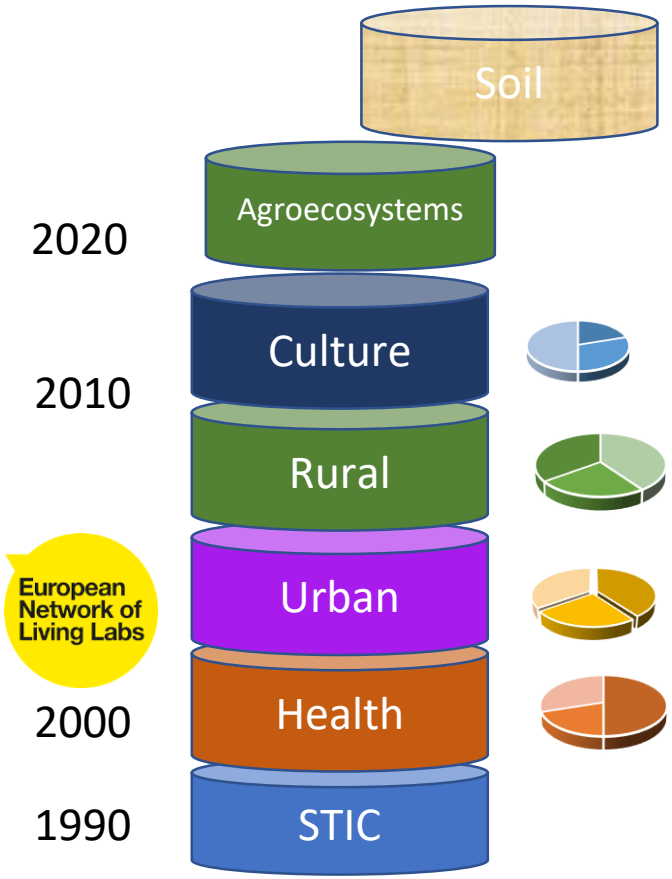
The future in motion



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The impulse expected by the Mission

Living labs & lighthouses: what do we expect?

- **Greater involvement of (unusual) stakeholders**: land managers, farmers, foresters, SMEs… (FSTP)
- **Balanced network** of LLs across Europe covering major pedo-climatic areas, land uses and mission's specific objectives
- **Provide evidence of which practices** translate sustainable soil management principles and regenerate soil to healthy conditions
- Help defining the **most cost-effective remediation techniques**
- Provision of relevant **soil data**
- **Lighthouses to provide practical tools** for advisors to best inform soil managers on how to move to SSM practices
- **Support policy making**, in particular, the Soil Monitoring Law implementation
- **Mobilisation of additional funding**: other EU programmes, Member States, private, philanthropy

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The assets of LL according to the Mission

Why living labs?

- To empower a **rapid green transition**
  - Living labs have the potential to accelerate and scale up uptake of solutions

- **No 'one-side-fits-all'**: diversity of pedo-climatic conditions, cropping/production systems, cultural-socio-economic contexts
  - Solutions need to be co-created, tested, adapted and showcased on the ground

- Sustainable farming management practices **fit well with living labs principles**:
  - Adapted to local ecosystems → « Real-life testing»
  - Closing the knowledge-practice divide
  - End-users centric: involving actors at territorial level to achieve large scale impact (multi-actor approach)
  - Social and behavioural dimensions
  - Systems approach

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A gradual development of 100 Living Labs across Europe and possibly beyond

Phase 1 (2021-2024)

Preparatory actions:

- **Mapping of LL and soil needs (CSA - PREPSOIL)**
- **Engagement sessions** and other activities for capacity building (CSA)
- **LL Support Structure** to cater for the needs of the emerging living labs. (FPA+SGA)

Creation of Living Labs:

Launch of 1st call for establishing a transnational cluster of LL

Phase 2 (2025-2026)

Expansion of LLs:

Launch of successive calls for expanding the network of LLs

→ Look at wide coverage of geographies (EU and AC), themes (Mission's objectives) and land uses (agricultural, forest, urban, industrial).

Phase 3 (2027 onwards)

Scaling up of LLs:

Launch of last calls for setting LLs,

→also measures to facilitate the mainstreaming, continuation and sustainability of the LLs beyond the Mission timeframe.

A network of living labs and lighthouses is gradually established through consecutive calls under Horizon Europe.

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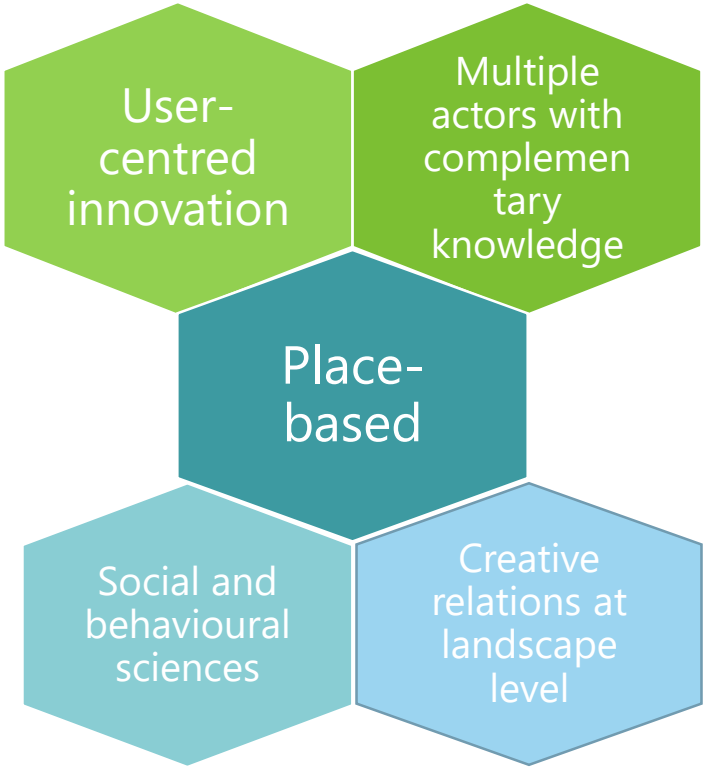
Living labs and lighthouses according to the Soil Mission

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 contains a **group of sites and partners** working together at **regional or sub-regional level**.
- Specific **criteria** for living labs have been developed under the mission to ensure common approach and comparability of data and experiences.



Lighthouses are individual sites of exemplary performance

- They are places for **showcasing good practices, training** and **communicating**.
- They help with the adoption of sustainable practices by **inspiring land users**

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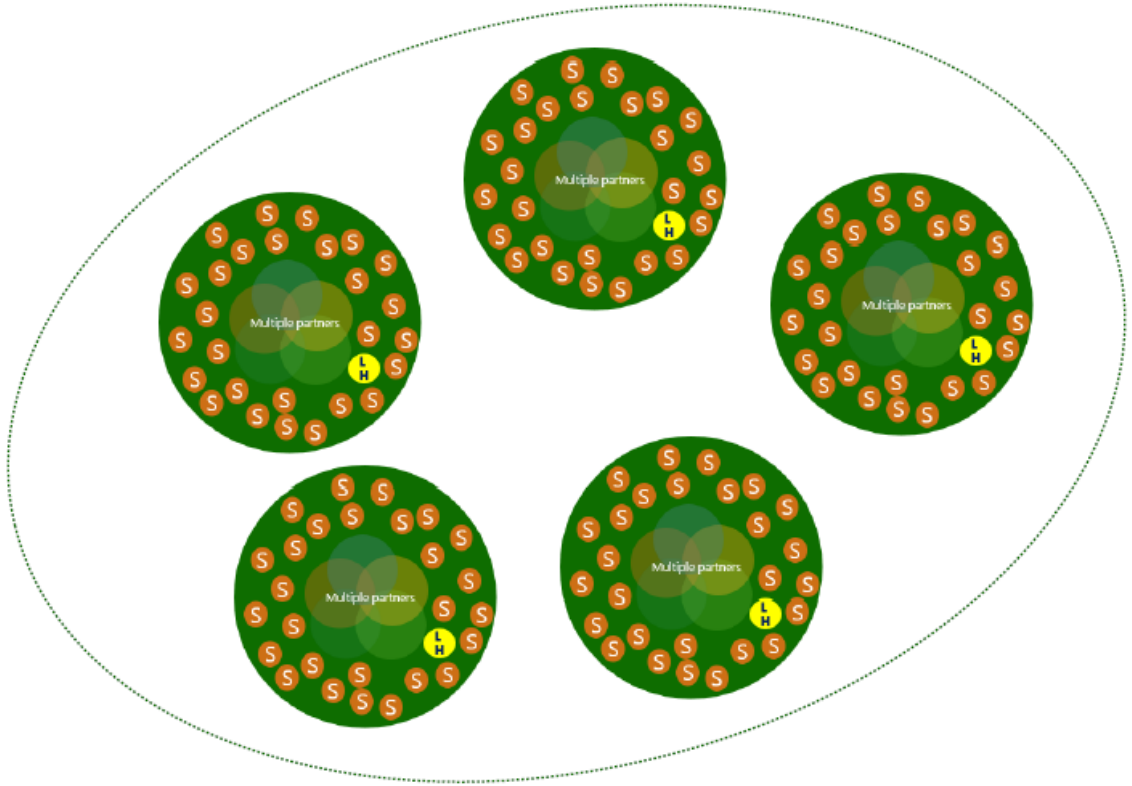
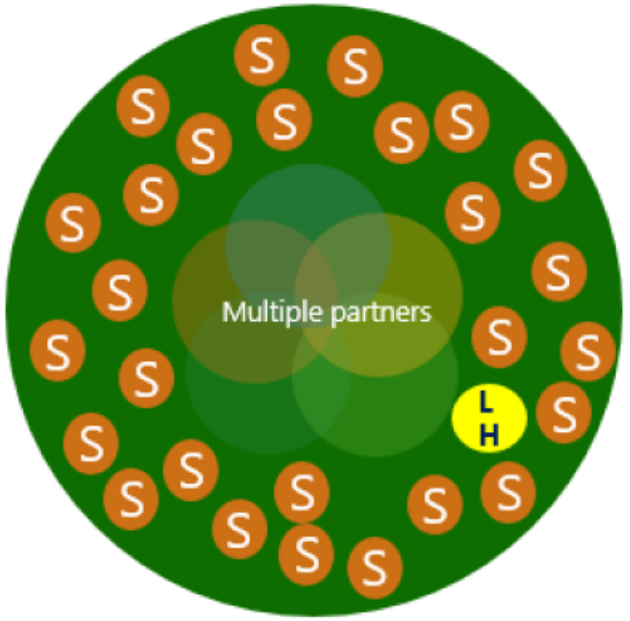
The specific criteria of LL according to the Soil Mission



Each LL cluster covers at least 3 ***Member States*** *and/or* ***Associated Countries***

Each living lab with 10-20 sites



LLs can be located in ***rural or urban areas****, covering one or several land types*

#MissionSoilWeek #MissionSoil #EUMissions

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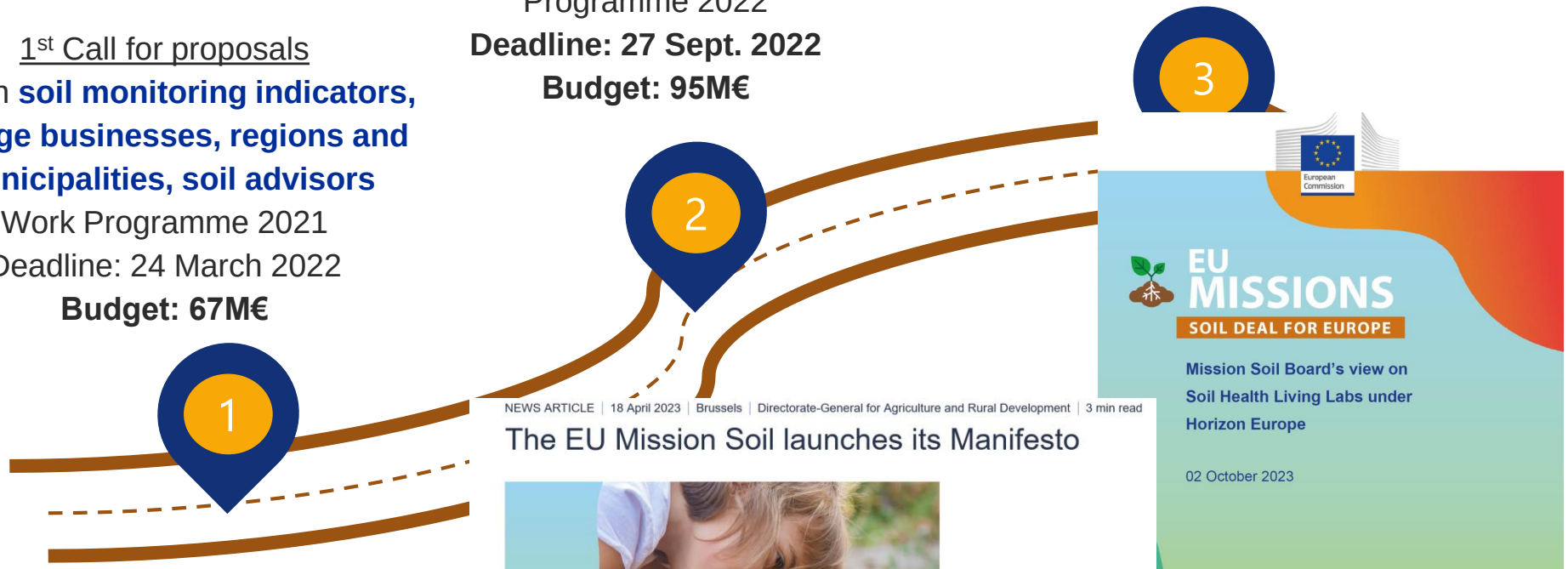
Previous steps

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€

Upcoming funding opportunities for **EU and international partners**
First call for Living labs
Work Programme 2023
To be published: **end 2022**



+ 250 outreach and engagement events sin

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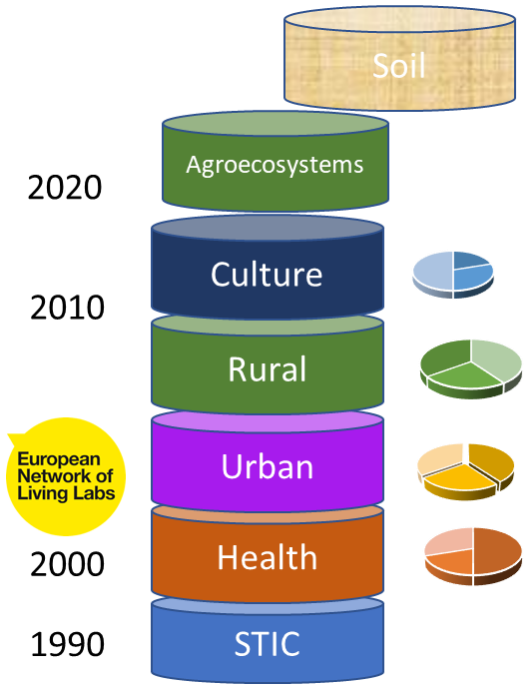

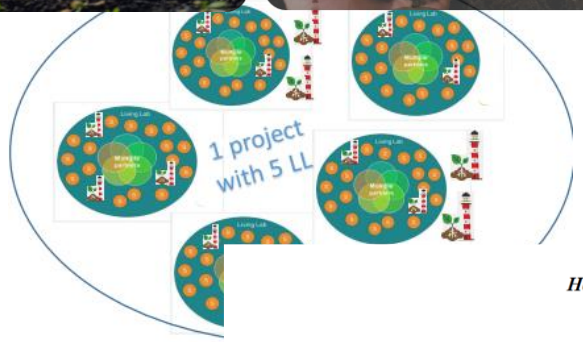

Horizon Europe - Work programme 2023-2024
General Annexes

D — Award criteria

Award criteria

If admissible and eligible, the proposals will be evaluated and ranked against the following **award criteria**[24], depending on the type of action:

	Excellence (The following aspects will	**Impact**	**Quality and efficiency of the implementation**

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The success factors identified by the Mission Board

- SF1: Building awareness and engagement of the society at various levels, improving soil literacy and connecting people with soils.
- SF2: Co-creating activities and exchanging practices with as many land users and related actors as possible to drive collective experimentation and co-ownership of solutions and results.
- SF3: Working under adequate policy frameworks, involving policymakers and other stakeholders (including private businesses or influential associations) as co-design actors; ensure a good science-policy-practice interaction.
- SF4: Taking in consideration how land use is related with social, cultural, and economic needs and local contexts while paying specific attention to existing structures and values to understand drivers and barriers regarding sustainable land use and soil management.
- SF5: Stimulate efforts to develop economic models fit to circular and solidary economies and the involvement of the actors from the wide value chain- in the co-creation process.
- SF6: Combining and networking activities at local, regional, national and global scales to ensure concerns regarding different land uses and up-scaling can be considered.

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Specific features of Living lab for soil health

AIM

LLs under the same project should contribute to at least one of the eight specific objectives of the Mission and work together on thematically related soil health challenges. LLs should seek to improve soil health without moving problems elsewhere or generating negative impacts in other spheres

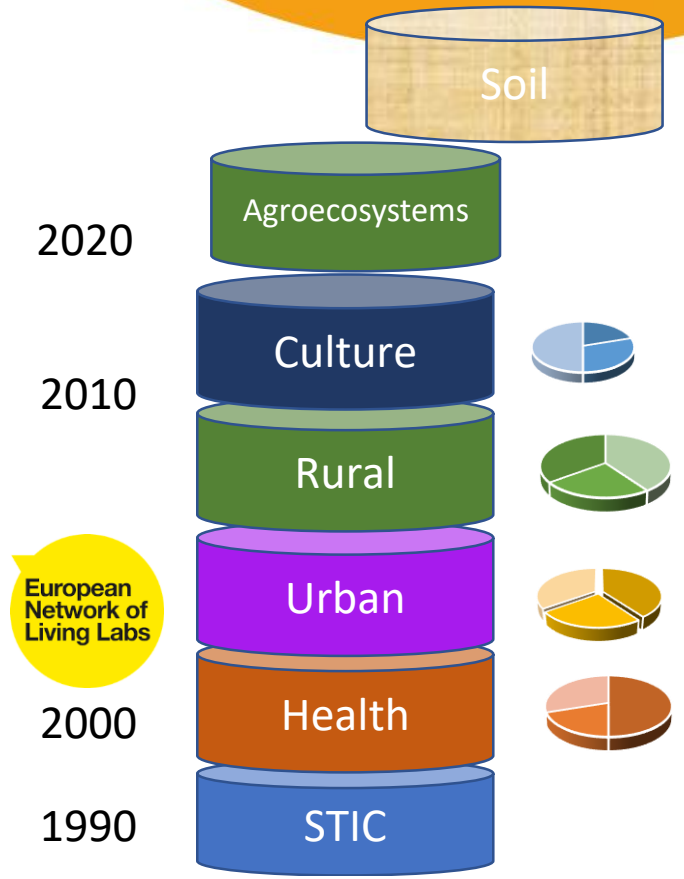
PARTICIPANTS

The participants should include land managers and land users, academics coming from different disciplines (including those not directly concerned by soil), industry representatives as well as a mixture of public and private body representatives in particular those involved in local policy making and governance. The involvement of citizens should also be foreseen

ACTIVITIES

On top of activities usually developed in LLs, special attention should be put on services to extend the social, economic and environmental outcomes and impacts and contribute to soil literacy

The future in motion



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Thank you!

For further information and questions please contact the Mission Secretariat:

EU-HORIZON-MISSION-SOIL@ec.europa.eu

#MissionSoil #EUmissions #HorizonEU

The EU's Soil Monitoring Law

A Maltese Perspective

Website: era.org.mt

The EU's Soil Monitoring Law

Objectives

1. Establish a coherent soil monitoring framework
2. Improve and maintain soil health to achieve healthy soils by 2050

SUPPLY | MITIGATE | ENSURE | REDUCE

The EU's Soil Monitoring Law

Framework and measures

1) Monitoring and assessment of soil health

- Sampling points determination
- Soil descriptors and criteria
- Assessment methodologies

The EU's Soil Monitoring Law

Framework and measures

2) Sustainable soil management

- Guiding principles
- Promote awareness
- Promote research

The EU's Soil Monitoring Law

Framework and measures

3) Management of contaminated sites

- Risk-based approach
- Stepwise approach
- Register

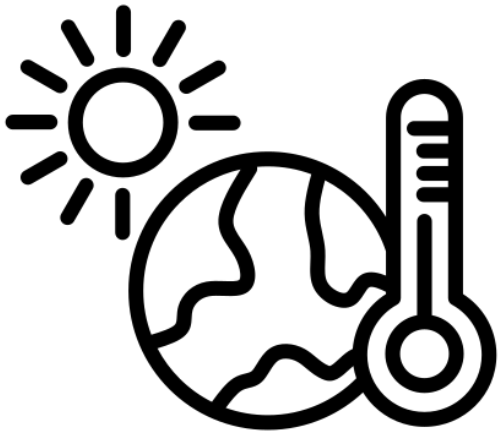
The Maltese Perspective

Challenges

Being an overpopulated, small, dry island…

The Maltese Perspective

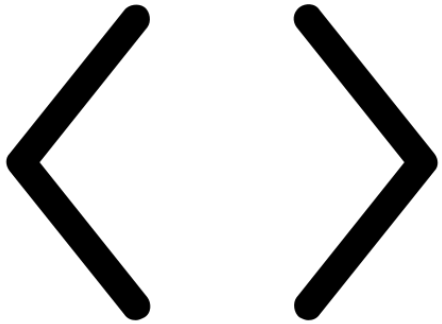
Challenges



Climate Change

The Maltese Perspective

Challenges



Data Gaps and lack of accredited facilities

The Maltese Perspective

Challenges

Cross sectoral cooperation

The Maltese Perspective

Positive outlook

Resilience

The Maltese Perspective

Positive outlook

Opened dialogue

ERA
Environment & Resources Authority

Thanks for your attention!

The Malta Council for Science & Technology

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#HorizonEU

Tips and Tricks for developing a living lab proposal

23.05.2024

Tamara Schembri

Introduction

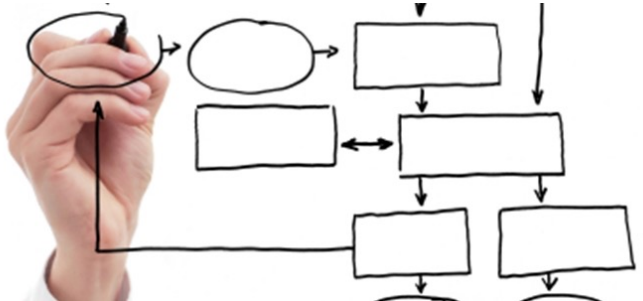
Consider where further actors and communities need to be mobilised, and which soil health challenges are particularly relevant in the regions where you want to set up living labs.

1. Clarity of objectives

- Articulate transparent objectives for the soil health living labs detailing the mission specific objectives, soil health challenges, and pedo-climatic conditions they aim to address.
- Have measurable and verifiable objectives and directly link them to soil health improvements.
- Existing data from the EUSO or other studies for the region(s) where the living labs are being proposed should be taken in account for setting the baseline and for benchmarking the progress towards improving soil health.

2. Methodology justification

- Reason behind selecting your soil health living labs.
- The cooperation processes between actors within and across the proposed living labs
- Describe methodologies for establishing soil health baselines, ensuring indicators are well-defined and relevant to assess soil health improvements and solutions viability.
- Demonstrate the incorporation of relevant research findings including soil health solutions
- Get inspired from business models from other projects, particularly from the Mission Soil portfolio

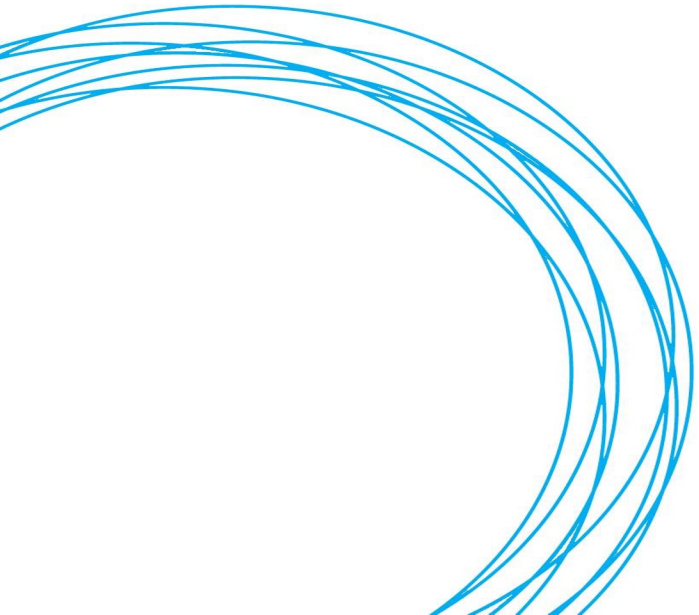


3. Embrace stakeholder engagement, interdisciplinarity and open science

- Demonstrate how the perspectives and needs of stakeholders, landowners, managers, and citizens will be involved in an inclusive way in all stages; from design to implementation of the soil health living labs and the sustainable soil management solutions.
- Explain how the collaboration of various disciplines will enhance the proposed work and how broad accessibility to project results and data will be ensured.

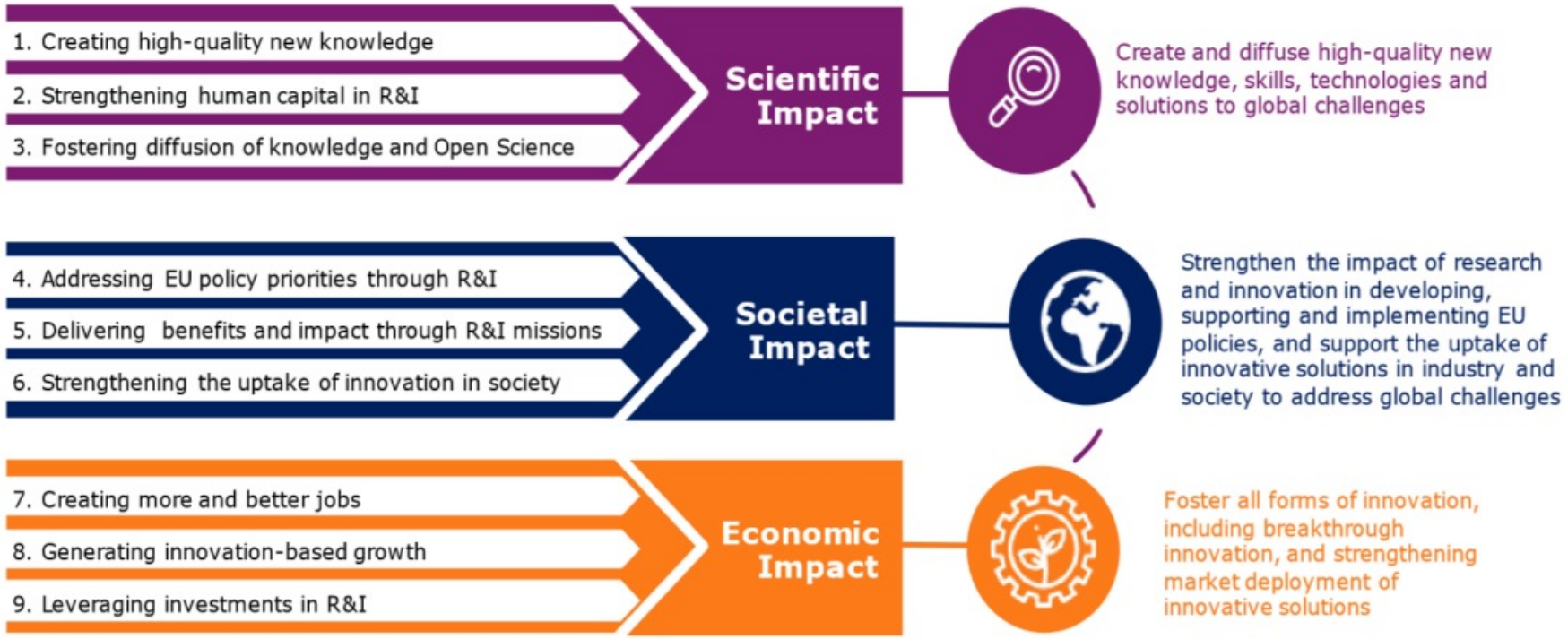
4. Plan for living lab sustainability

- Formulate strategies for the living labs' financial and organisational sustainability beyond the project timeline.
- Focus on securing funding and knowledge transfer to ensure the living labs' longevity



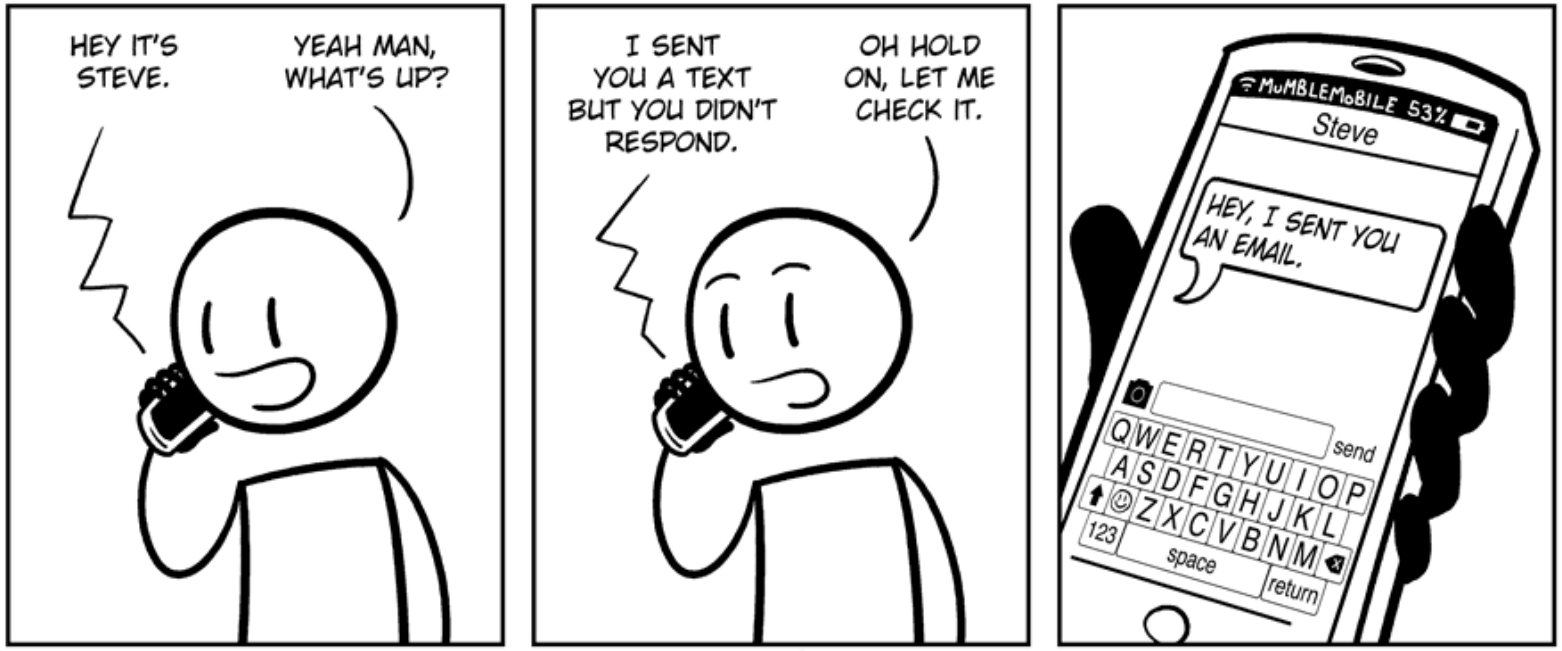
5. Clarify impact pathways and your project's contributions

- Clearly outline how the project's results will be used to contribute to the expected outcomes of the topic(s) and the Mission Soil impacts, and justify the scale and significance of your contributions



6. Tailor your dissemination and exploitation measures

- Ensure your measures facilitate the uptake of your results and cater to the needs of your different target audiences, including the actors in the living labs.
- Put strategies in place to influence policy and plan for long-term sustainability of your results.
- Emphasize a communication strategy that broadens support and understanding



7. Ensure quality work plans

- Clarify the integration between Work Packages and tasks
- Clarify how different and diverse activities within each living labs and its sites will happen and ensure resource allocation allows for the development of each living lab.
- Detail collaboration plans with SOILL intiative and other Mission Soil and soil health living labs projects
- Foresee enough budget for networking, clustering, meeting, and workshop attendance, reporting and organising joint communication and dissemination activities.
- If relevant, incorporate tasks to manage the Financial Support to Third Parties (FSTP) and engage further actors, while providing sufficient justification for the criteria and budget.

8. Define partner roles and leverage on expertise

- What are the contributions of each partner? Ensuring partners have a meaningful involvement and adequate resources to participate effectively.
- Ensure that each living lab has the necessary resources, skills, and expertise.
- Highlight expertise in participatory approaches and policy engagement.

Thank you, let’s make the Malta living lab happen!