

nati00ns.eu

# National engagement event

9. May 2023

- The Mission explained
- Soil Health Living Labs and Lighthouses
- Thematic focus of the 2023 Living Lab calls
- Engagement session









## 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 NATIOONS project. If you find yourself in a picture you would like us to remove, please send an email to <u>info@natiOOns.eu</u>



If you have given your **consent** during registration to receive updates from NATIOONS 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@natiOOns.eu



This is a hybrid event with an online component. The **Zoom Meeting will be recorded**.



# Soil Health Living Labs and Lighthouses











# 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

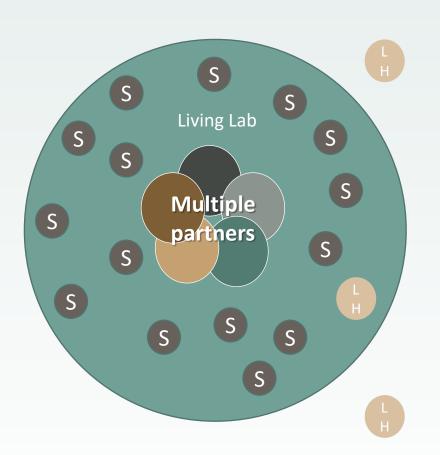
"Places for demonstration of solutions, training and communication that are exemplary in their performance in terms of soil health improvement"

- 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.

<sup>\*</sup> 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.







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



#### Participants in the Living Labs: Quadruple Helix

#### Academia

Schools, colleges, universities, research institutes and innovation labs of all types, whether in the public, private or civil sectors

Academia
Government
PPPP

# Government & Public sector

Central, regional & local governments, intergovernmental organizations, government entities like ministries & agencies, public administrations & other publicly-owned entities

#### Citizens, civil society & users

Both non-profit formal organizations like NGOs, charities, foundations, associations, trades unions & social entrepreneurs when not profit-seeking & more informal & loosely organized communities, citizens, interests groups & movements



**Citizens** 



**Industry** 

#### Industry

Firms, companies, entrepreneurs, SMEs, corporates, other profit seeking organizations operating in the market, including commercial ICT & technology sectors, representatives of these stakeholders like employers' and trade organizations

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. <a href="https://doi.org/10.1504/IJTM.2009.023374">https://doi.org/10.1504/IJTM.2009.023374</a>.

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



### Soil Health Living Labs & Lighthouses: Implementation Plan - Criteria

# Living Labs\*

# Innovation, co-creation, formal learning

- Contribution to societal challenges
- Improving soil health and related ecosystem services (=> mission objectives)

**ACTIVITIES** 

AIMS

- 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

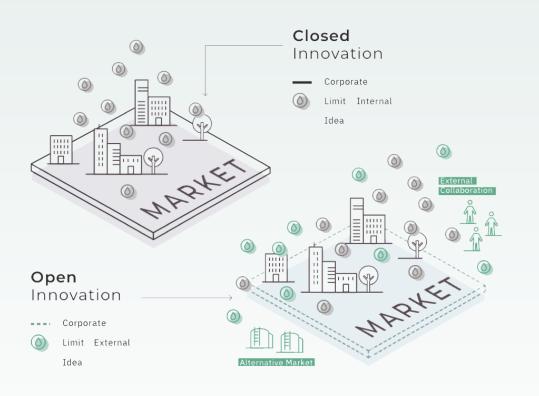






- Complex challenges cannot be solved by single stakeholders
- Lack of trust between stakeholders
- Different language
- Different approach (solution driven to problem driven)
- Different goals (solution for practice vs publishable results)
- Practical solutions from one farm are not widespread
- Practical solutions are not evaluated
- Lots of motivated farmers, still difficult for them to get heard
- **-**

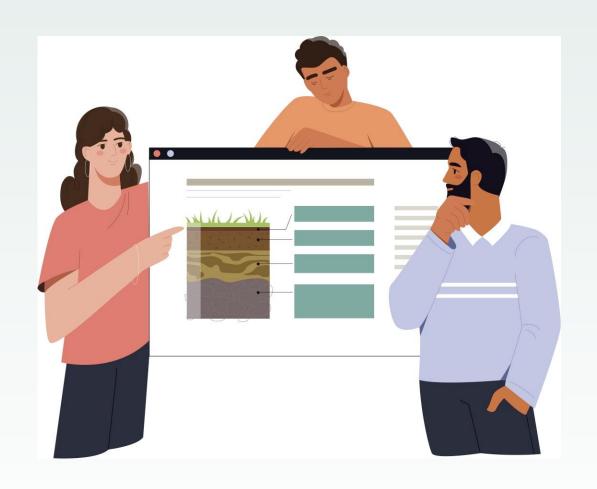




#### Cooperating in a multi-stakeholder team makes you

- ... become inspired
- ... 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
- ... find faster, more evaluated (from different perspectives) and therefore easier scalable solutions
- ...





## Operation

Experience
Commitment
Openness
Communication

# Organisation

Partnerships Management Governance Infrastructure

#### Users

User engagement
User-driven
Co-created
Values
Reality

#### **Business Model**

Innovation ecosystems
Lifecycle approach
Value chain coverage
Business models

Essential factors when setting up a Living Lab. Source: ENoLL (2019)







**Agricultural LLs** 



**Urban LLs** 



Forestry LLs



**Industrial LLs** 

#### 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. A re-assessment of the listed living labs according to Mission criteria will be carried out by ENoLL as of mid-2023.









**PA4ALL** has been established as a meeting place for all the relevant stakeholders. This is the first LL in Serbia and one of the first in Europe to focus on precision agriculture. PA4ALL based its activities on educating its community on precision agriculture, motivating endusers to test and validate the IT innovations and ensuring their adoption among various stakeholders.

#### **PA4ALL - Precision Agriculture for All**

BioSense Institute

**Country:** Serbia

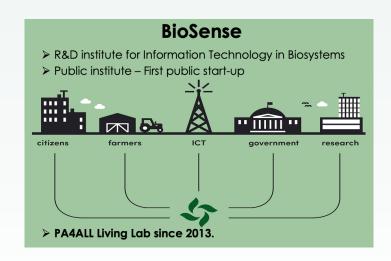
Agriculture & (Agri-)Food, Area:

Circular Economy,

Education/Vocational Training;

Environment/Climate change

https://biosens.rs/ Website:





Digital village Digital transformation of agriculture & community YouTube video

LALA robotic platform – on farm laboratory

On-farm soil sample & analysis YouTube video





#### Agricultural Living Labs: ÖMKi Living Lab





The ÖMKi On-Farm Living Lab is an agroecology-focused nationwide participatory experimentation network which includes a variety of field trials and technology tests co-designed and co-implemented with farmers in Hungary, with the aim to promote agro-ecological transition. Through the national network, ÖMKi tests how newly released sustainable and organic technologies, products and practices perform in diverse, everyday farming.

#### ÖMKi On-farm Living Lab

Hungarian Research Institute of Organic Agriculture

Country: Hungary

Agriculture & (Agri-)Food Area:

https://biokutatas.hu/en Website:

Email: info@biokutatas.hu



https://biokutatas.hu/en/page/show/onfarm



https://www.youtube.com/watch?v=zn75i1luf3o&t=9s



#### Industrial Living Labs: KPT Living Lab





The Kraków Technology Park (KPT) is the most complete one-stop-shop for business operating in Poland. They have a full toolbox at their disposal to let clients develop better and faster. The ecosystem they have built consists of about 350 enterprises, which they help day after day to build the best conditions for the development of their companies and increase in sales. KPT's portfolio of initiatives includes several Green Projects.

#### The Kraków Technology Park

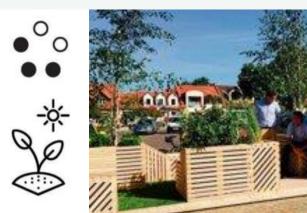
Poland Country:

Green and digital Areas:

transformation, Artificial Intelligence, Data Analytics and Simulation, etc.

Website: https://www.kpt.krakow.pl

biuro@kpt.krakow.pl Email:







Participatory Design of Green Spaces









Torino City Lab (TCL) is an initiative aimed at creating more accessible conditions for companies and other interested parties to respond to specific open challenges in response to concrete needs of the territory, the public administration and its citizens. TCL enables the testing of innovative solutions or business ideas in real-world conditions in the territory.

Recently Torino City Lab (TCL) relaunched itself with the smart life paradigm and with the aim of to the ecological and digital transition of the territory and contributing services to citizens. This reflects the City commitment for keeping climate neutrality by 2030. TCL involves a large number of local and international partners of the public and private sector, and all stakeholders interested in supporting and making the local innovation ecosystem network grow.

#### **Torino City Lab**

**Country:** Italy

New regenerated soil, community-Area: based urban farms and gardens, accessible

green corridors, etc (EUSO OBJ 3,6,& 8)

**Website**: https://www.torinocitylab.it/en/ torinocitylab@comune.torino.it Email:



Orti Generali urban gardens



New soil along the banks of Sangone stream



#### Forlì, area in front the museum complex of San Domenico



Save Our Soil for LIFE is a demonstration project funded under the LIFE programme «Environment and Resource Efficiency» which aims to contribute to the

implementation on a municipal scale of European guidelines on soil protection and urban regeneration.

The activity consists in de-sealing and de-paving a green area of approx. 6,500 m2 waterproofed and currently intended for public parking, through:

- the removal of flooring and existing structures up to the underlying permeable layer;
- the restoration of the area by backfilling of soil and topsoil;
- creation of itineraries cycle-pedestrian and underground utilities.

#### S.O.S. 4 LIFE - Save Our Soil for LIFE

**Country:** Italy

**Type**: De-sealing & de-paving soils

**Area**: urban regeneration, green urban

areas (EUSO OBJ 3,6, &8)

Website: <a href="https://www.sos4life.it/">https://www.sos4life.it/</a>

**Email**: <a href="mailto:stefano.bazzocchi@comune.forli.fc.it">stefano.bazzocchi@comune.forli.fc.it</a>









# Thematic focus of the 2023 Living Lab calls

Disclaimer

Information provided herewith are of the NATIOONS consortium.

The sole official source of reference shall remain the <u>2023-2024</u> <u>Mission Work Programme</u>, officially published by the European Commission January 2023.











# Soil health (0108)

HORIZON-MISS-2023-SOIL-01-08: Co-creating solutions for soil health in Living Labs

<u>https://ec.europa.eu/info/funding-</u>
<u>tenders/opportunities/portal/screen/opportunities/topic-details/horizon-miss-2023-soil-01-08</u>

# Carbon farming (0109)

HORIZON-MISS-2023-SOIL-01-09: Carbon farming in living labs

https://ec.europa.eu/info/fundingtenders/opportunities/portal/screen/opportuni ties/topic-details/horizon-miss-2023-soil-01-09

- 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.



#### Thematic focuses of the two 2023 Living Lab calls

# Soil health (0108)

HORIZON-MISS-2023-SOIL-01-08: 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

# Carbon farming (0109)

HORIZON-MISS-2023-SOIL-01-09: Carbon farming in living labs

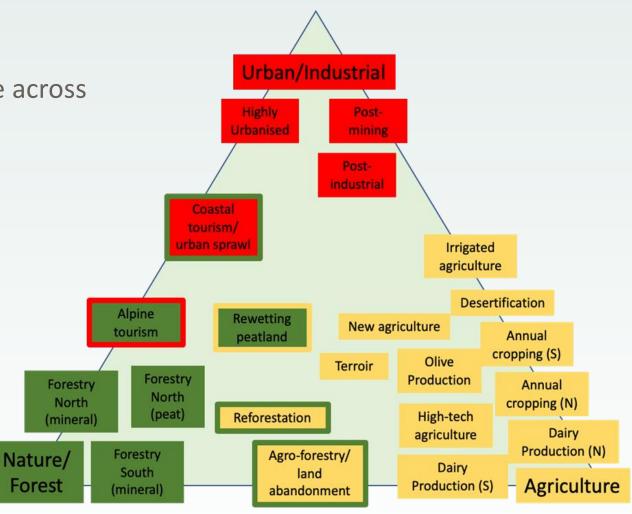
- 12 M€ funding
- Expect 1 application funded



# Aim of PREPSOIL Project

Synthesize soil needs and drivers of change across 21 EU-representative regions







## Stocktake agricultural soil challenges and research needs

# Regional soil needs

- Different regions have different soil challenges and different research needs.
   For example, salinisation; contamination; structure (in blue)
- Some soil challenges are relevant across regions, such as soil organic carbon (in yellow)

| Soil challenge | Research need  |  |  |  |
|----------------|----------------|--|--|--|
| Very important | Very important |  |  |  |
| Important      | Very important |  |  |  |
| Very important | Important      |  |  |  |
| Important      | Important      |  |  |  |
| Other          | Other          |  |  |  |

|           |                           | U   | N <sub>2</sub> O/CH₄ | Peat<br>degradation | Soil erosion | Soil sealing | Salinisation | Contamination | Structure | Biodiversity | Nutrient<br>retention | Water<br>storage<br>capacity |
|-----------|---------------------------|-----|----------------------|---------------------|--------------|--------------|--------------|---------------|-----------|--------------|-----------------------|------------------------------|
|           |                           | SOC | ZZ                   | a a                 | S            | S            | Sal          | ঠ             | Str       | Big          | ≥ £                   | <u>a</u> 34 &                |
| Central   | AT (Continental           |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | CZ (Alpine South)         |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | DE (Atlantic North)       |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | HU (Pannonian-Pontic)     |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | PL (Continental)          |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | SK (Continental)          |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | SI (Alpine South)         |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | CH (Continental)          |     |                      |                     |              |              |              |               |           |              |                       |                              |
| <b>\$</b> | DK (Atlantic North)       |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | FI (Boreal)               |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | LV (Nemoral)              |     |                      |                     |              |              |              |               |           |              |                       |                              |
| North     | LT (Nemoral)              |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | NO (Boreal)               |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | SE (Nemoral)              |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | IT (Mediterranean North)  |     |                      |                     |              |              |              |               |           |              |                       |                              |
| South     | PT (Lusitanian)           |     |                      |                     |              |              |              |               |           |              |                       |                              |
| "         | TU (Anatolian)            |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | BE (F) (Atlantic Central) |     |                      |                     |              |              |              |               |           |              |                       |                              |
| West      | BE (W) (Atlantic Central) |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | FR (Atlantic Central)     |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | IE (Atlantic Central)     |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | NL (Atlantic North)       |     |                      |                     |              |              |              |               |           |              |                       |                              |
|           | UK (Atlantic North)       |     |                      |                     |              |              |              |               |           |              |                       |                              |

Source: Thorsøe et al.



The project







#### NATIOONS: Engagement & Support to applicant LLs



Engagement events



Matchmaking – national



Factsheets & E-learning



Helpdesk & FAQ



Webinars LL methodology



Coaching



Thematic events & webinars



Matchmaking – International & thematic

Inform, engage & promote.

43 countries (EU MS + AC), national language

Facilitate creation of local LL.

Online and along engagement events

Inform & train.

LL, open call, types of LL peculiarity

Support.

Online, addressing all questions on LL creation

Train.

How to set up, develop and enlarge a LL.

Support.

Available in local language, appointed mentors.

Inform, train & engage.

Different themes for specific land uses.

Facilitate creation of partnerships of LLs.

Online and along thematic events





#### **Individual Coaching Sessions**

For confidential, individual coaching sessions, please contact: **Dr. Karel Klem and Dr. Martin Mistr.** <a href="https://nati00ns.eu/mentors">https://nati00ns.eu/mentors</a>



#### **Matchmaking Sessions**

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



#### Capacity-Building Webinars:

How to set-up a Living Lab, 23 February 2023 Register: <a href="https://www.nati00ns.eu/events">https://www.nati00ns.eu/events</a>, choose Webinars



#### Thematic Events

Industrial soil focus in creation of LL, planned for February 2024
 <a href="https://www.nati00ns.eu/events">https://www.nati00ns.eu/events</a>, choose Thematic events



# Join the Community

**Contact Details** 

nati00ns.eu

**Wawer Rafal** 



huwer@iung.pulawy.pl

