

#### **NATIONAL INFORMATION DAY**

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**Horizon Europe** 

MISSION BOARD FOR
SOIL HEALTH AND FOOD



### Implementing "A Soil Deal for Europe"

#### **Emil Cienciala**

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 to provide advice for the identification and implementation of missions in the future Horizon Europe programme. 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.



Research and Innovation Moving from the proposal...

..to the implementation:

### A Soil Deal for Europe:

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In the context of this mission, **Soil Health** is defined as

"the continued capacity of soils to support essential ecosystem services" (assessed through a set of proposed measurable indicators)



#### **CHALLENGES**

- 60-70% of EU soils are considered "unhealthy";
- About 70% of agricultural land in the EU uses excessive nutrients with a negative impact on water quality and biodiversity;
- About 25% of land in Southern, Central and Eastern Europe is at high or very high risk of desertification;
- Soil degradation in the EU costs more than
   €50 billion per year.

#### **OPPORTUNITIES**

- Create effective partnerships for soil protection and soil restoration;
- Contribute to sustainable farming and forestry, healthy and safe food systems, climate resilience, biodiversity and other Green Deal ambitions;
- Support the EU's ambition to lead on the Sustainable Development Goals.

**GOAL** 

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



### Specific objectives and targets



### 1. Reduce land degradation relating to desertification

 Halt desertification and move beyond land degradation neutrality

## 2. Conserve and increase soil organic carbon stocks

- Increase carbon concentration on cultivated land by 0.1-0.4%/year;
- Area of managed peatlands losing carbon is significantly reduced



### 3. No net soil sealing and increased re-use of urban soils

- Urban land recycling is increased beyond 13%
- Achieve no net soil sealing



### Specific objectives and targets



### 4. Reduce soil pollution and enhance restoration

- 25% land under organic farming
- Reduce fertilization use and nutrient loss

#### 5. Prevent erosion

reducing 25% land affected by water erosion

### 6. Improve soil structure

..reducing 23-33% of affected soils

### 7. Reduce EU global footprint on soils

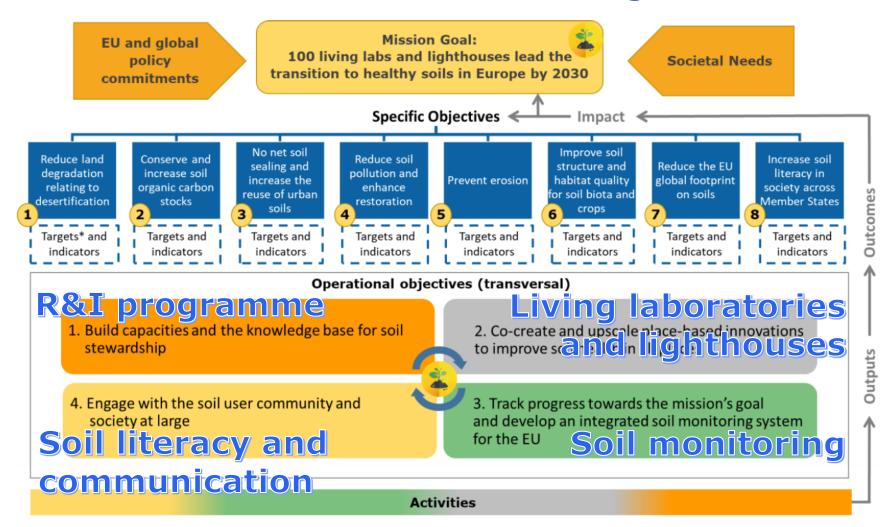
 Impact of food, timber and biomass import in line with international standards







### **How? Mission's intervention logic**







#### Operational objective 1:

5. Going global – international cooperation on soil health

Build capacities and the knowledge base for soil stewardship (Building Block: R&I programme)



### **O1.** Research and Innovation



- 1. Synthesize existing knowledge and gaps
- Exploit and further develop research infrastructures and platforms
- 3. Advance knowledge and capacities in relation to the specific mission objectives
- 4. Building the innovation ecosystem to accelerate innovation and deployment in practices, technologies, business models, value chains and policies
- Going global international cooperation; reducing the global soil footprint



Mission Goal: EU and global 100 living labs and lighthouses lead the Societal Needs policy transition to healthy soils in Europe by 2030 commitments Specific Objectives **Impact** No net soil Improve soil Reduce land Conserve and Reduce soil Increase soil sealing and structure and degradation increase soil pollution and literacy in increase the habitat quality Prevent erosion relating to organic carbon enhance society across reuse of urban for soil biota and desertification stocks restoration Member States soils crops 5 Improved social capital & citizen Improved awareness of challenges and uptake Measurable soil health improvement on mission Outcomes awareness in living lab regions of solutions by land managers (objectives 1-6) objectives 1-6 in living lab regions and beyond (objectives 1-6; 8) Knowledge on Validated healthy Practice-proof Training and List of factors **KE & networking** Methods on Demos R&I needs behavioural soil management Outputs monitoring across LL regions dissemination enabling and (rural & from running drivers of practices, with high techniques & & disciplines + material for hindering urban) practitioners LL/LH + map international indicators land managers change change adoption potential

Activities (projects)



#### Transnational clusters of living labs (RIA/IAs)

One Living lab (inc. one LH) in 100 regions

Co-creation, test and assessment of practices impact on SH/ESS +
socio-economic context, behavioural studies on drivers of adoption

#### 1 European Soil LL and LH network (CSA)

One pan-European network

Facilitating LL creation, networking & KE between LL and
LH + link to other initiatives in Europe and beyond

#### Operational objective 2:

Co-create and upscale place-based innovations to improve soil health in all places (Building Block: Living labs and lighthouses)



Outcomes



# O2. Co-creation of knowledge and innovation in living labs and lighthouses

Researchers, land managers, businesses, policy decision makers and citizens working together in

Living laboratories



- create knowledge
- test novel approaches

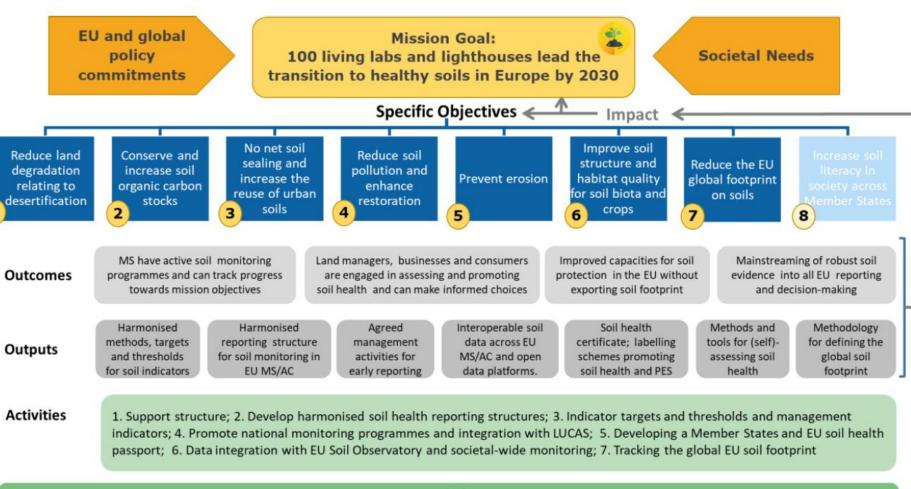
Lighthouses



- show good practice
- demonstrate solutions

Ambition: 100 living labs and lighthouses by 2030





#### Operational objective 3:

Track progress and develop an integrated soil monitoring system for the EU (Building Block: Monitoring and indicators)



Outcomes

### O3. Consistent soil health monitoring



Eight soil health indicators applied at different spatial scales over time.

#### Actions include (i.a.):

- Setting-up technical support for cooperation on monitoring
- Targets and thresholds for indicators of soil health and soil management
- Promoting national soil health monitoring programmes
- Data integration across mission activities and integration of data with EU Soil Observatory
- Harmonised Soil Health Report and EU Soil Health Certificate
- Robust approach to track the EU's global soil footprint



#### Vision

The EU Soil Observatory (EUSO) should become the principal provider of reference data and knowledge at EU-level for all matters relating to soil.



The above figure highlights the five main functions of the EU Soil Observatory

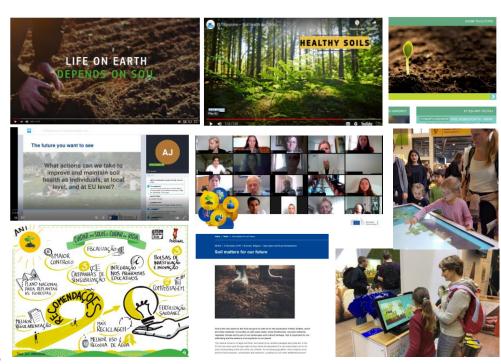


# O4. Engage with the soil user community and society



### Stimulus for

- Soils in education
- Integrated soil research
- Learning opportunities for society
- Engaging society in Living Labs & Lighthouses
- Workshops with citizens
- Access to advisory services
- Events, fairs, campaigns
- Articles, videos, newsletters







#### Operational objective 4:

Engage with the soil user community and society at large (Building Block: Soil literacy, communication and engagement)



### Soil mission in Horizon Europe



Work programmme 2021-2022 soon to be adopted with a sizable budget for proposals\* contributing to a structured roll-out of mission activities and contributing to the mission's goal and objectives

- \* Including
  - Coordination and Support Actions
  - Research and Innovation Actions



### **Expected impact**



put Europe on a path towards sustainable

land and soil management.



### Do you want to know more?



## Join the mission activities, have your say and spread the message

- Mission soil health and food webpage
   https://ec.europa.eu/info/research-andinnovation/funding/funding-opportunities/fundingprogrammes-and-open-calls/horizon-europe/missionshorizon-europe/soil-health-and-food\_en
- EIP-AGRI news
   <a href="https://ec.europa.eu/eip/agriculture/en/news/launch-eu-mission-soil-deal-europe">https://ec.europa.eu/eip/agriculture/en/news/launch-eu-mission-soil-deal-europe</a>
- EU Soil Health and Food implementation plan https://ec.europa.eu/info/publications/implementationplans-eu-missions\_en





