



EUROPEAN UNION

# EU MISSIONS



## Concrete solutions for our greatest challenges

### A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030

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#EUmissions #HorizonEU



## R&I Missions

Linking EU's research and innovation to major societal needs; with strong visibility and impact

A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

Horizon Europe defines mission characteristics and elements of governance, and **5 missions areas**.



# HORIZON EUROPE

# EURATOM

## SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

*Exclusive focus on defence research & development*

Research actions

Development actions

## SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT\*

*Exclusive focus on civil applications*



**Pillar I  
EXCELLENT SCIENCE**

European Research Council

Marie Skłodowska-Curie

Research Infrastructures



**Pillar II  
GLOBAL CHALLENGES &  
EUROPEAN INDUSTRIAL  
COMPETITIVENESS**

**Clusters**

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre



**Pillar III  
INNOVATIVE EUROPE**

European Innovation Council

European Innovation Ecosystems

European Institute of Innovation & Technology\*

### WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

Fusion

Fission

Joint Research Center

\* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme



# Five EU missions

Adaptation to  
Climate Change

Cancer

Climate-neutral  
and Smart Cities

Restore our  
Ocean and Waters

Soil Deal  
for Europe





# Life on Earth depends on healthy soils



- Healthy soils are the **basis for nutritious and safe food**
- Soils deliver **vital, interconnected ecosystem functions**: water regulation, hosting biodiversity, nutrient cycling, climate mitigation and adaptation, carrying landscapes and cultural services
- **Green Deal Targets** on climate, biodiversity, zero pollution and sustainable food systems **depend on healthy soils**
- Soil is a **scarce, non-renewable resource**: it takes hundreds of years to generate 1 cm of top soil but only a couple of years or less to destroy it
- **Soils are threatened: 60-70% of all soils in Europe are unhealthy** as due to current management practices, pollution, urbanisation and the effects of climate change



# We need to act now

## Soils need our attention! EU Examples:

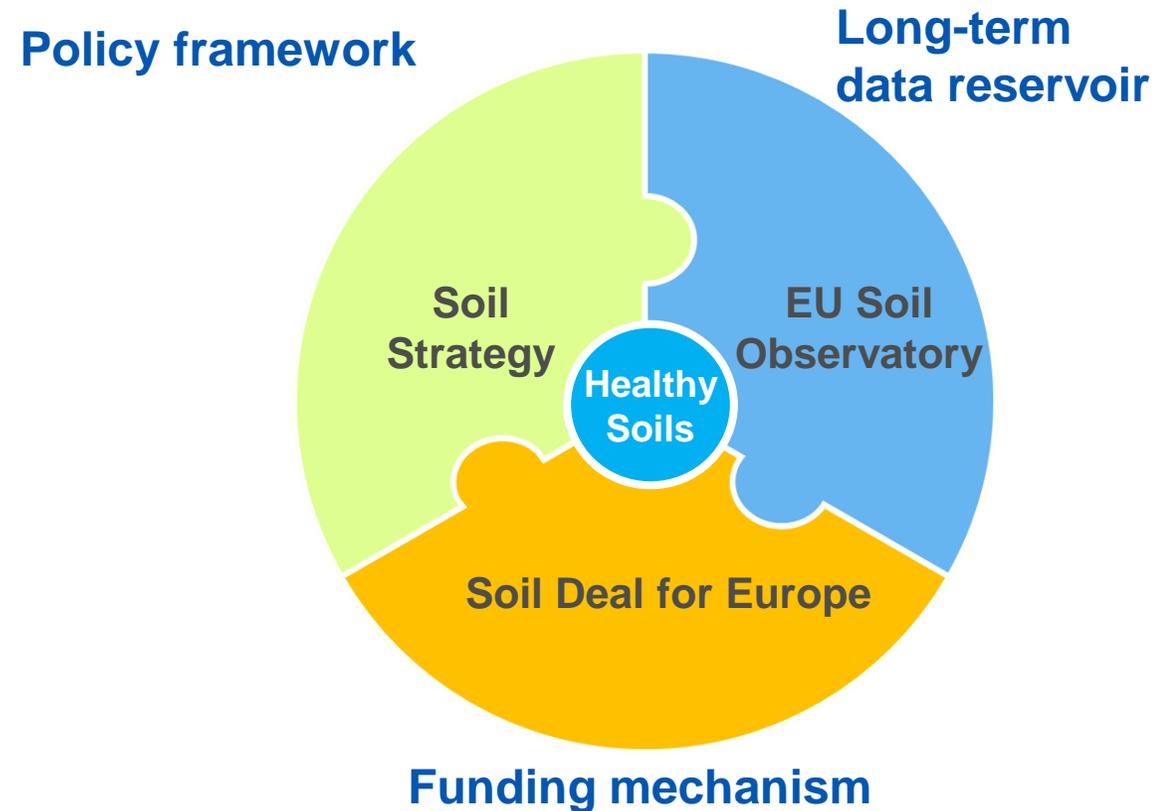
- 2.8 million potential **contaminated sites** (only 24% inventoried) posing major health risks
- 65-75% of agricultural soils with nutrient inputs at levels risking **eutrophication of soils and water** and affecting biodiversity
- Cropland soils **losing carbon** at a rate of 0.5% per year; 50% of peatlands drained and losing carbon – this is contributing to the climate crisis
- 24% of land with **unsustainable water erosion rates**
- 25% of land at High or Very High risk to **desertification** in Southern, Central and Eastern Europe in 2017
- The **costs associated with soil degradation in the EU exceed 50 billion € per year**

The effects of climate change put further pressure on soils and accelerate land degradation!



## Added value of mission Soil Deal for Europe

- **Novel approach to R&I:** Combination of R&I activities, local testing grounds, monitoring and training activities in a joined up manner that could not be implemented by individual parts of Horizon Europe or other instruments at EU or Member State level
- **Mobilisation of diverse actors** across EU, Member State and society in ways that would not happen otherwise
- New Soil Strategy, European Soil Observatory and Mission together build an **effective framework for soil protection and restoration**





# The mission contributes to the Green Deal

Mission is integrated in:

- Farm to Fork Strategy
- EU Biodiversity Strategy for 2030
- Climate Adaptation Strategy
- Forest Strategy
- Zero Pollution Action Plan for air, water and soil
- Organic Action Plan
- Long term vision for rural areas
- new Soil Strategy (to come)

And

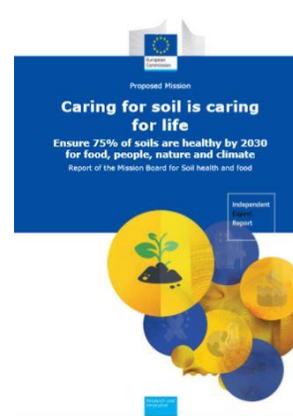
- EU Bioeconomy Strategy





# Co-creating the soil mission - from the MB report to the COM communication

## Mission Board "Soil health and food"



## R&I days 2020

the Mission Board hands over its report "Caring for soil is caring for life"



September 2019

## R&I days 2019

creation of the Mission Board and the Mission Assembly Soil health and food

until September 2020

the Mission board prepares its recommendation for a mission with involvement of Member States, the Mission Assembly as well as stakeholders and citizens: more than 60 events to promote and co-create the mission all around Europe

September 2020

until June 2021

Commission services prepare the **mission implementation plan (IP)** with the advise of the Mission Board

29 Sept 2021

**Official launch of the missions through a Commission Communication**



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# EU MISSIONS

**SOIL DEAL FOR EUROPE**

**Concrete solutions for our greatest challenges**

**#EUmissions #HorizonEU #MissionSoil**





# A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030

1. Reduce desertification

2. Conserve 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



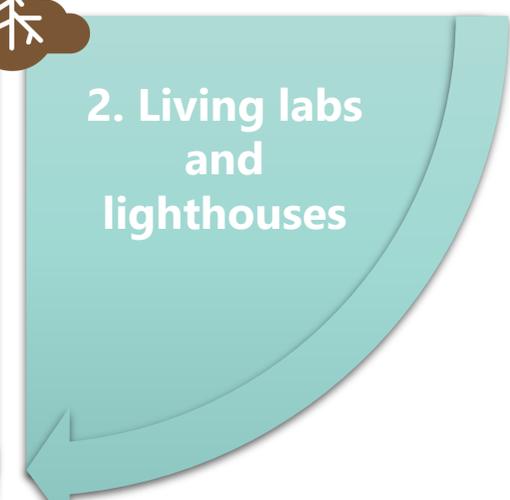
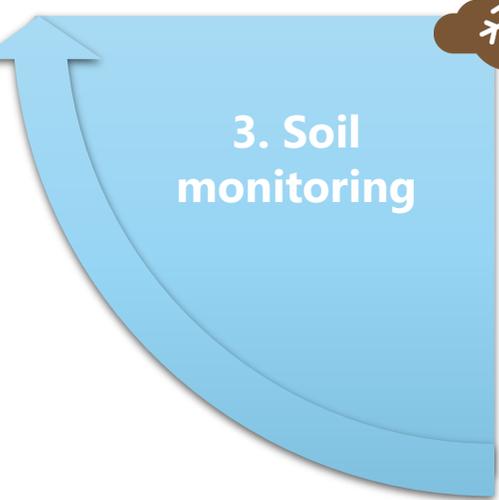
# How will the mission be implemented?

Communication material, training curricula for different target groups and specialised “soil advisors”



Data infrastructures and platforms; knowledge to support management practices, business models, technologies

Harmonisation of indicators, measuring and reporting for soil health across Europe; contribution to European Soil Observatory



A network of real-life sites for testing, demonstrating and upscaling of solutions; due attention to balanced representation across regions



Activities under the four building blocks to address soil health and drivers of soil health

## Who will act?

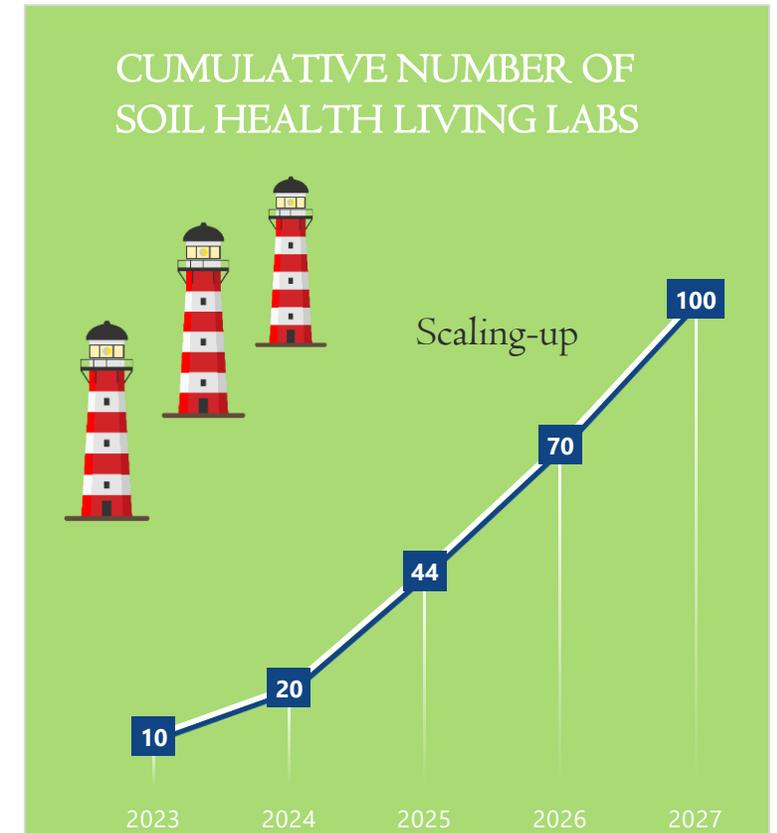
Co-implementation of mission by: researchers, land managers, regions, businesses, policy makers, citizens and international partners





## Creation of 100 Living Labs and Lighthouses

- **Living labs** are a core element of the mission – it reflects the ambition to “do research in new ways”: participatory, interdisciplinary, intersectoral.
- **Living labs (LLs)** are “real-life” places for experiments and innovation: each living lab corresponds to a cluster of sites working together at regional or sub-regional level.
- **Lighthouses** are individual places to showcase good practices. Can be from within or outside LLs.
- **Network of living labs** to be gradually established through consecutive calls for living labs under the various Work Programmes of Horizon Europe.
- Specific criteria for living labs have been developed under the mission to ensure **common approach and comparability of data and experiences.**





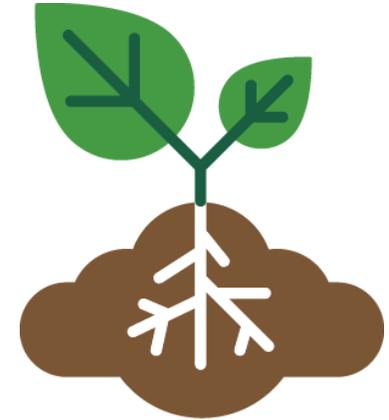
## Soils and food

About **95%** of our **food** comes from terrestrial sources!

Soil is the foundation of our food systems.

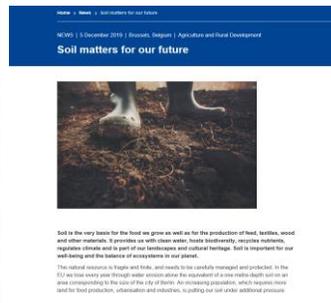
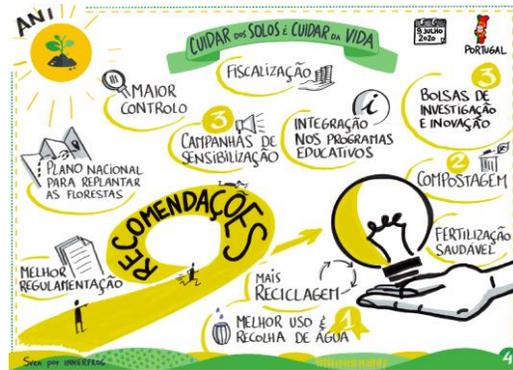
The mission will promote healthy and environmentally friendly **food systems** by:

- Reducing pollution in soils will decrease contaminants that enter the food chain and pose a threat to food safety
- Enhancing healthy soils practices will ensure adequate quantities of **safe** and **nutritious food**





# Communication and engagement... ongoing



- World Soil Day – video - tweet: more than **30,000 views** in less than 24h
- 2 major #EIPAgriSoil campaigns
- Articles, press releases, newsletters, social media, videos (**Mission video** more than **110,000 views** in August 2020)
- 150+ co-creation and engagement events (up to October 2021)
  - including **2 International fairs**: International Green Week 2020, Salon de l’Agriculture 2020
- Survey
  - sent to more than **7000** contacts (EN, FR, DE, PL, CS, PT)
  - **more than 2500** contributions received



## Useful links

- **Mission Soil Deal for Europe webpage** - <http://ec.europa.eu/mission-soil>
- **EU mission Soil Deal for Europe – Implementation Plan** [https://ec.europa.eu/info/files/eu-mission-soil-deal-europe-implementation-plan\\_en](https://ec.europa.eu/info/files/eu-mission-soil-deal-europe-implementation-plan_en)
- **Press release – missions launch:** [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_4747](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_4747)
- **EU missions** [https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/missions-horizon-europe\\_en](https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/missions-horizon-europe_en)
- **Video** [https://www.youtube.com/watch?v=53bbzE2lpKc&feature=emb\\_logo](https://www.youtube.com/watch?v=53bbzE2lpKc&feature=emb_logo)
- **Mission report handover to the European Commission (EU R&I Days 2020)** <https://youtu.be/oAG5-CQIOoc>
- **Soil mission session (EU R&I Days 2020)** <https://research-innovation-days-conference.online/hubs/mission>
- **On a mission to save our soils - the EU's plan to rebuild the land (Futuris episode, euronews)** <https://www.euronews.com/2020/09/21/on-a-mission-to-save-our-soils-the-eu-s-plan-to-rebuild-the-land>



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# Thank you!



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