



EU Soil Strategy for 2030

Reaping the benefits of healthy soils for people, food, nature and climate

5 October 2022
Intersoil Conference

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ENV.D1 Land Use & Management

| EU Biodiversity Strategy to 2030

Commitments:

- Protect soil fertility, reduce soil erosion, increase soil organic matter
- Adopt sustainable soil management practices
- Identify contaminated sites, restore degraded soils, define good ecological status, introduce restoration objectives, improve monitoring
- Update EU Soil Thematic Strategy in 2021



| Process

- EU soil expert group since 2015
- [Roadmap consultation](#): 4 weeks until 10/12/2020
- [Open public consultation](#): 12 weeks until 27/04/2021
- Adoption on 17/11/2021
 - [Communication](#): framework for protection, restoration and sustainable use of soils with long-term vision, objectives and actions.
 - [Staff working document](#): knowledge base, history of the file, positions of institutions, summary of stakeholder consultations.
- Exchange of views with European Parliament, Environment Council and European Economic & Social Committee



Policy context and links

- Continuing and aggravating soil degradation with transboundary impact
 - Common solutions necessary
- Soil as solution for climate and biodiversity crisis
 - Momentum
- Increasing cost of no action: benefits of soil restoration outweigh costs 6 times.
 - Sense of urgency



Challenges: what do we need tackle?

60-70%

of soils are not healthy

13%

of EU soils suffer from high erosion with 1.25 bEUR yearly losses in crop yield

78%

of land take takes place in agricultural land

7.4 million tonnes

of CO₂ lost yearly by mineral soils under cropland

25%

of land in Southern, central and Eastern Europe at high or very high risk of desertification

200 – 800 k deaths globally per year due to soil contamination

390.000 contaminated sites to be remediated

Erosion, compaction, organic matter decline, pollution, loss of soil biodiversity, salinization, desertification, land take and sealing



State and outlook of the environment report by EEA



Table ES.1 Summary of past trends, outlooks and prospects of meeting policy objectives/targets

Theme	Past trends and outlook		Prospects of meeting policy objectives/targets		
	Past trends (10-15 years)	Outlook to 2030	2020	2030	2050
Protecting, conserving and enhancing natural capital					
Terrestrial protected areas	Improving	Improving	✓		
Marine protected areas	Improving	Improving	✓		
EU protected species and habitats	Mixed	Mixed	✗		
Common species (birds and butterflies)	Mixed	Mixed	✗		
Ecosystem condition and services	Mixed	Mixed	✗		
Water ecosystems and wetlands	Mixed	Mixed	✗		
Hydromorphological pressures	Mixed	Mixed	✗		
State of marine ecosystems and biodiversity	Mixed	Mixed	✗		
Pressures and impacts on marine ecosystems	Mixed	Mixed	✗		
Urbanisation and land use by agriculture and forestry	Mixed	Mixed	✗		✗
Soil condition	Mixed	Mixed	✗		
Air pollution and impacts on ecosystems	Mixed	Mixed	✗		
Chemical pollution and impacts on ecosystems	Mixed	Mixed	✗		
Climate change and impacts on ecosystems	Mixed	Mixed	✗		
Resource-efficient, circular and low-carbon economy					
Material resource efficiency	Improving	Improving	✓		
Circular use of materials	Mixed	Mixed			
Waste generation	Mixed	Mixed	✗		
Waste management	Improving	Improving	✓		
Greenhouse gas emissions and mitigation efforts	Improving	Improving	✓	✗	✗
Energy efficiency	Improving	Improving	✓	✗	✗
Renewable energy sources	Improving	Improving	✓	✗	✗
Emissions of air pollutants	Improving	Improving	✓		
Pollutant emissions from industry	Improving	Improving	✓		
Clean industrial technologies and processes	Improving	Improving	✓		
Emissions of chemicals	Improving	Improving	✓		
Water abstraction and its pressures on surface and groundwater	Mixed	Mixed	✗		
Sustainable use of the seas	Mixed	Mixed	✗		
Safeguarding from environmental risks to health and well-being					
Concentrations of air pollutants	Improving	Improving	✗	✓	
Air pollution impacts on human health and well-being	Improving	Improving	✗	✓	
Population exposure to environmental noise and impacts on human health	Mixed	Mixed	✗		
Preservation of quiet areas	Mixed	Mixed	✗		
Pollution pressures on water and links to human health	Mixed	Mixed	✗		
Chemical pollution and risks to human health and well-being	Mixed	Mixed	✗		
Climate change risks to society	Mixed	Mixed	✗		
Climate change adaptation strategies and plans	Improving	Improving	✗		
Indicative assessment of past trends (10-15 years) and outlook to 2030			Indicative assessment of prospects of meeting selected policy objectives/targets		
Improving trends/developments dominate	Year	✓	Largely on track		
Trends/developments show a mixed picture	Year	✗	Partially on track		
Deteriorating trends/developments dominate	Year	✗	Largely not on track		



The vision for soil

- By **2050**, all EU soil ecosystems are in **healthy** condition and are thus more **resilient**, which will require very **decisive changes** in this decade.
- By then, **protection, sustainable use and restoration of soil** has become the norm.
- Healthy soils contribute as key **solution to our big challenges** to achieve climate neutrality, a clean and circular economy, revert biodiversity loss, safeguard human health, halt desertification and revert land degradation.

Existing objectives reconfirmed

For 2030

- SDG 15.3: combat desertification, restore degradation, achieve land degradation-neutrality
- Restoration of degraded and carbon-rich ecosystems
- LULUCF greenhouse gas net removal of 310 million tonnes CO₂eq
- By 2027, good status in surface waters and groundwater
- Reduction of nutrient losses by $\geq 50\%$, of use and risk of chemical pesticides and use of more hazardous pesticides by 50%
- Progress in remediation of contaminated sites

For 2050

- No net land take
- No risk from soil pollution for human health and environment
- Climate-neutral Europe, with land-based climate neutrality by 2035
- Climate-resilient society adapted to climate change





What is a healthy soil?

Soils are healthy when they are in **good chemical, biological and physical condition**, and thus able to continuously provide as many of the following **ecosystem services** as possible:

- provide food and biomass production, including in agriculture and forestry;
- absorb, store and filter water and transform nutrients and substances, thus protecting groundwater bodies;
- provide the basis for life and biodiversity, including habitats, species and genes;
- act as a carbon reservoir;
- provide a physical platform and cultural services for humans and their activities;
- act as a source of raw materials;
- constitute an archive of geological, geomorphological and archaeological heritage.

| Science-policy framework

Policy framework

Long-term data
reservoir



R&I funding mechanism

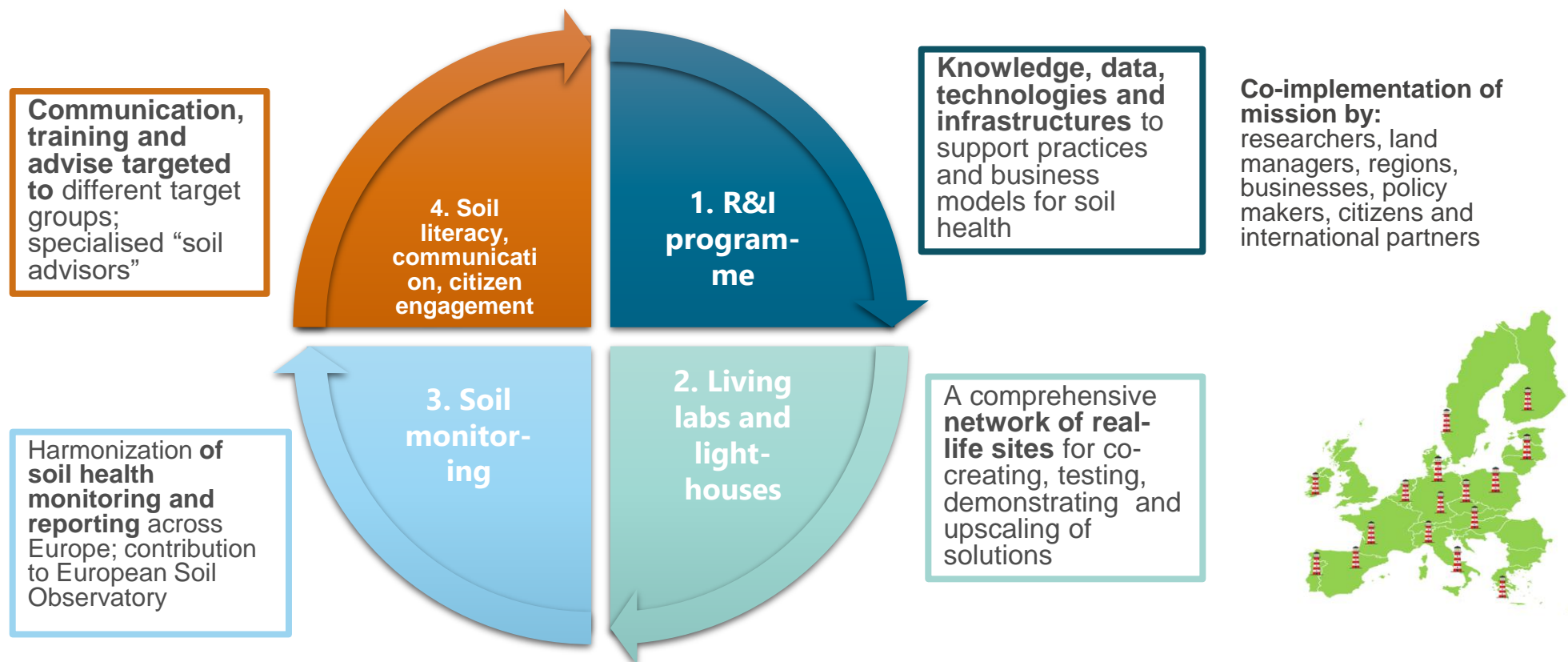


Mission "A Soil Deal for Europe"

- One of five missions: new instruments under Horizon Europe, the 2022-2027 EU Framework Programme for research and innovation
- Overarching goal: by 2030, establish 100 Living Labs (for co-creation and testing of solutions) and Lighthouses (for demonstration of best practices) to lead the transition towards healthy soils in Europe
- Contributing to implementation of the Soil Strategy by, *inter alia*:
 - Expanding the knowledge base for soil stewardship; widen the access to and use of results from research activities
 - Providing substantial funding to i) research solutions to increase soil biodiversity; ii) address soil degradation; iii) pilot innovative technologies for decontamination
 - Helping to create a network of excellence of practitioners with Living Labs and Lighthouses



Mission building blocks



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

ca. 300 M€ funding for 2021–2023



| Key actions

- **Soil health for climate change mitigation and adaptation**



- Assess the **state of peatlands** in the Global Peatlands initiative
- Join the global **4 per 1000 initiative**
- Present **carbon farming initiative** (2021) and proposal on **carbon removal certification** (2022)

- **Soil health and the circular economy**



- Benchmark streams of **excavated soils** in the EU (2023)
- Promote the **land take hierarchy** and ask MS to **set targets** for 2030
- Provide guidance and exchange of practices to **reduce sealing** (2024)
- Close the nutrient and carbon circle by **safely recycling biowaste**

- **Soil biodiversity for human, animal and plant health**

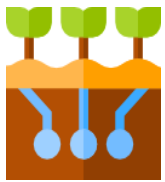


- Assess **soil biodiversity, antimicrobial resistance** (2022) and **invasive alien species**
- Put soil biodiversity on the **international agenda** (e.g. CBD COP 15, GSP)



| Key actions

- **Healthy soils for clean water**



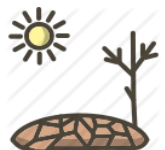
- Improve **soil-sediment-water nexus**
- Guidance on sustainable management of **sediment**
- Better integrate soil and land use management in the **River Basin Management Plans**

- **Making Sustainable Soil Management (SSM) the new normal**



- **Set of SSM practices** and criteria to phase out unsustainable practices
- Launch together with MS the **Test Your Soil For Free initiative**
- Promote **sustainable soil management through the CAP** and build a network of practitioners

- **Prevent desertification**



- Develop a common **methodology to assess desertification and land degradation** and report regularly
- Propose to declare the **EU as affected party under the UNCCD**
- Continue to support development projects **outside the EU**



| Key actions

- Prevent pollution



- Improve the **risk assessment of chemicals on soil quality** and of soil contaminants on human health and the environment
- **Restrict microplastics** (2022) and **PFAS** under the REACH Regulation, and develop a policy framework on bio-based, biodegradable and **compostable plastics** (2022)
- Revise the **SUP Directive**, evaluate the **Sewage Sludge Directive** (2022) and review the **Fertilising Products Regulation** (2026)

- Restore degraded soil and remediate contaminated sites



- Facilitate an exchange between MS on **risk assessment methodologies**
- Develop an **EU priority list for soil contaminants** (2024)
- Revise the **Industrial Emissions Directive** (2022) and evaluate the **Environmental Liability Directive** (2023)



| Key actions

- Improve digital knowledge, monitoring and research on soil



- Implement the **EU Soil Observatory**, the **Land Information System for Europe** and the **Soil Mission**

- Enable the transition to healthy soil

- With private finance and EU funding



- Publish a **guide** with an overview of EU funding opportunities for healthy soils (2022)
 - Foster investments towards sustainable soil management through the **EU Taxonomy Regulation**

- Through soil literacy and societal engagement



- Launch a **soil literacy initiative**
 - Exchange and **share best practices** in communication and engagement on soil
 - Use the European common reference framework of **sustainability competences**

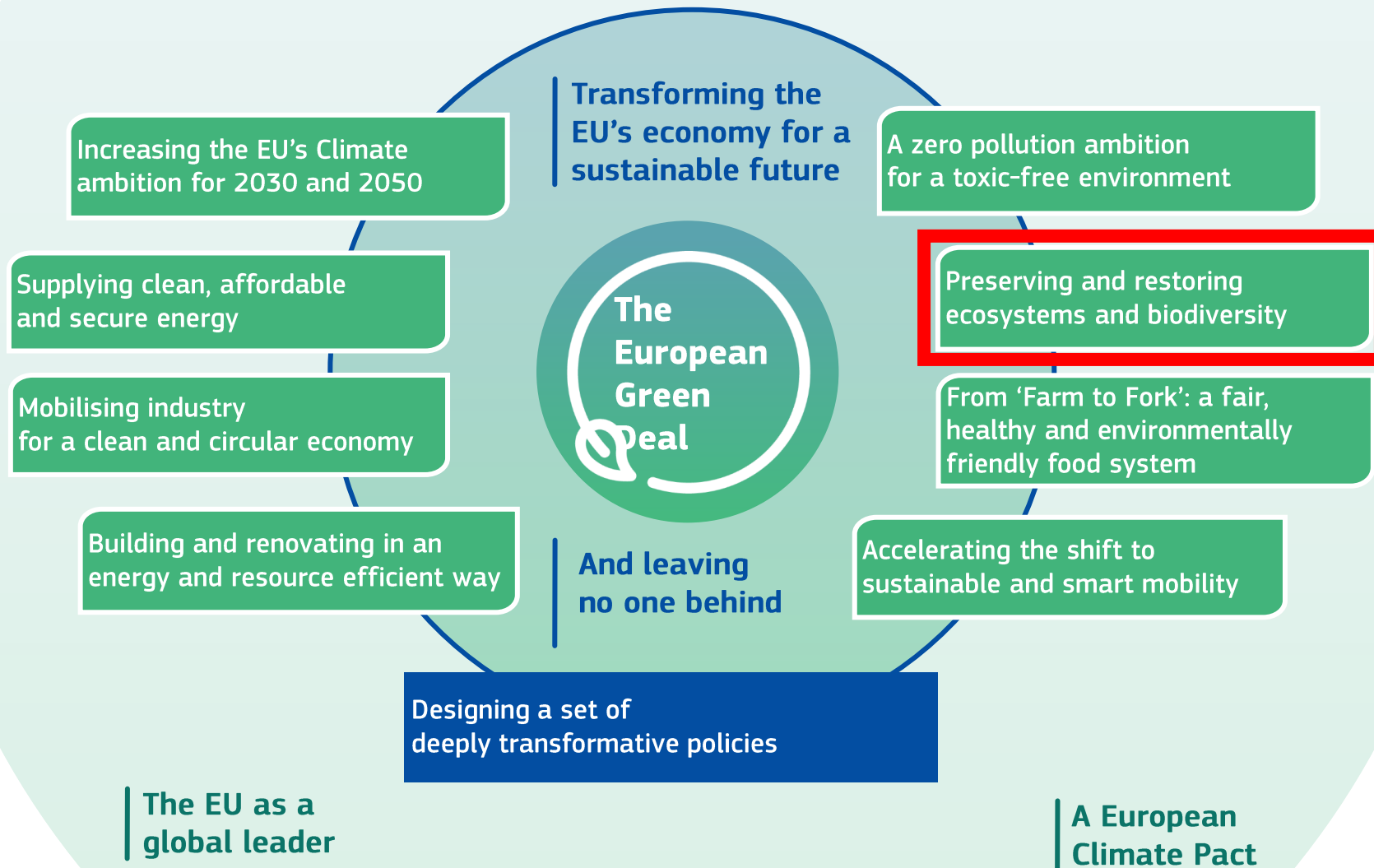


Enlarged soil expert group

- New Commission mandate to transform the former expert group on soil protection into the expert group on the implementation of the Soil Strategy
- More balanced representation of stakeholders
- Two-way interaction between experts and Commission:
 - Commission can test ideas and policy options, and inform about policy developments
 - Experts can flag concerns and contribute to the implementation of EU soil policy
 - Development of a joint pool of evidence (environmental, economic, social)



European Green Deal (°11/12/2019)



EU Biodiversity Strategy
(°20/05/2020)



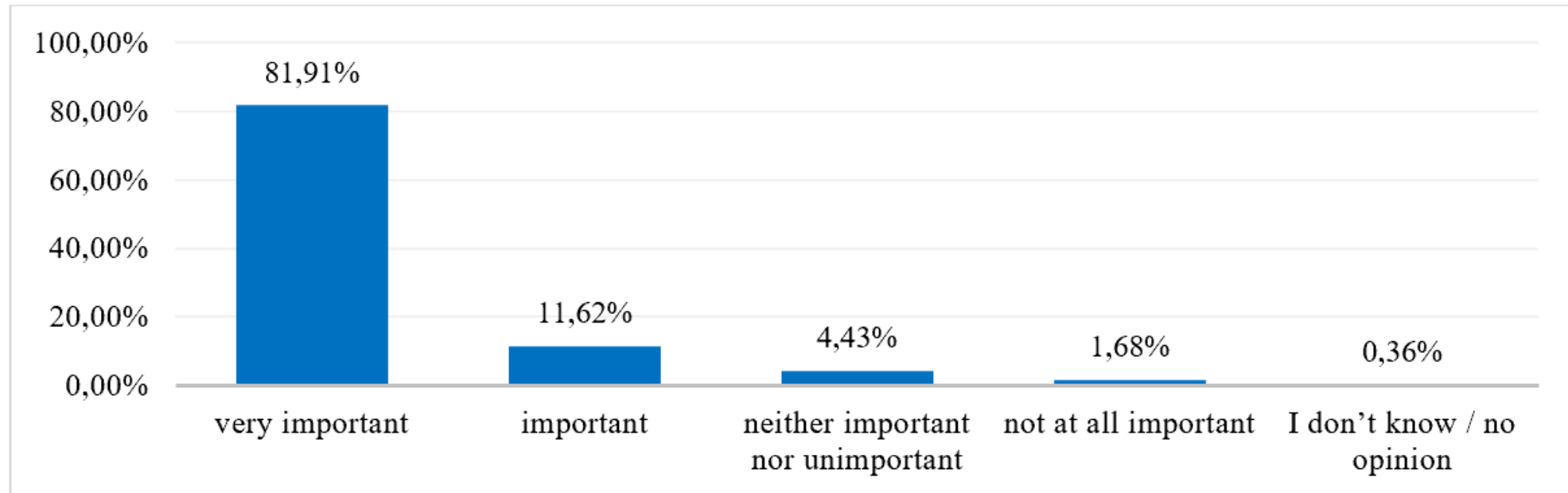
EU Soil Strategy
(°17/11/2021)



Proposal for a Soil Health Law
(planned first half of 2023)

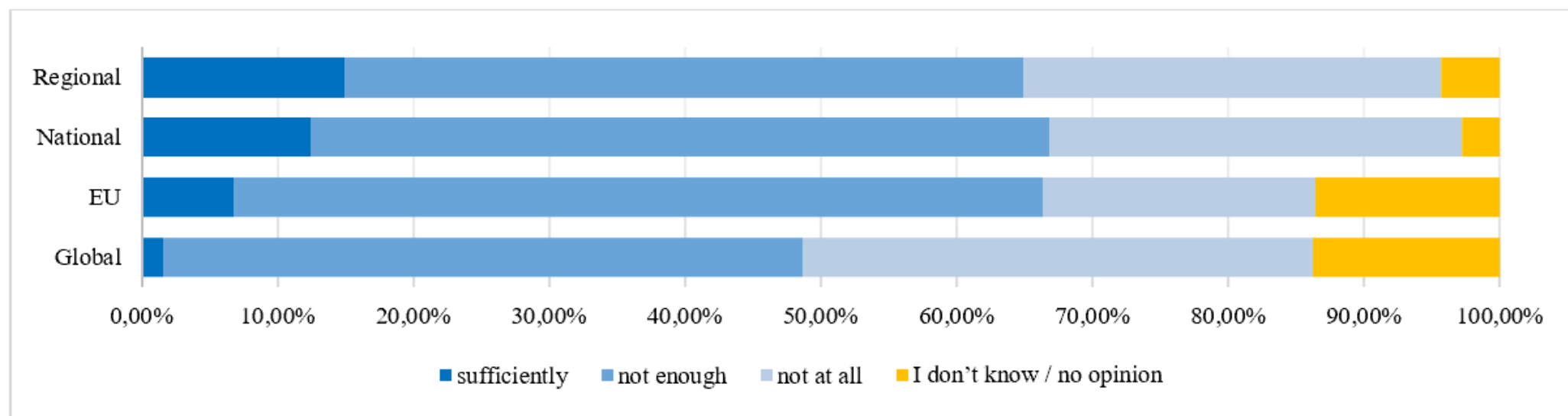
Public consultation Soil Strategy

How would you rank the importance of protecting soil health/quality and its restoration at EU level?



Public consultation Soil Strategy

Are the causes of soil and land degradation sufficiently addressed?






European Parliament resolution on soil protection



ENVI Committee Press  @EP_Environment · Apr 28



#EPPlenary adopts @EP_Environment resolution with 605  55  41 
calling on the @EU_Commission to design an EU-wide common legal framework for the protection & sustainable use of soil

Press release 



MEPs call for EU common legal framework for the ...
Parliament calls on the Commission to design an EU-wide common legal framework for the protection ...
europarl.europa.eu

New proposal for Soil Health Law

- Definitions (including for net land take)
- Indicators for soil health and range of values to be achieved by 2050
- Requirements for sustainable use of soil
- Target for reduction of nutrient losses
- Passport for excavated soil and soil health certificate
- Identification, registration and remediation of contaminated sites
- Monitoring soil health (including legal basis for LUCAS survey)
- Reporting on progress (including on net land take, contaminated sites)



Building blocks for Soil Health Law

1 Soil health and soil districts

Monitoring **2**

3 Sustainable soil management

Definition and identification
of contaminated sites **4**

5 Restoration: programme of
measures



| Policy options

- 01 | Only voluntary measures
- 02 | Full flexibility and subsidiarity
- 03 | Medium flexibility and subsidiarity
- 04 | Full EU harmonisation



Legislative process SHL

- Call for evidence 16/02/2022 – 16/03/2022: 189 replies

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13350-Soil-health-protecting-sustainably-managing-and-restoring-EU-soils_en

- Public consultation open until 24 October 2022
- Several meetings with the EU expert group on soil protection
- Targetted consultations and stakeholder meetings
- Preparation of the impact assessment
- Commission proposal: first half 2023
- Co-decision by the European Parliament and Council



Thank you! Questions?

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