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Mission Update

The Mission Soil has made significant strides in promoting sustainable soil management across Europe. With its holistic approach, it crosses policy and governance boundaries, involving an increased number of stakeholders.

With EUR 466 million allocated to research and innovation, the Mission has 50 projects funded, one concluded and another 13 about to start. A new call for proposals will open in 2025, providing further opportunities to support research, innovation and practical solutions for healthier soils across Europe.

First 25 Living Labs started up in 2024 and a further 20 Living Labs will be funded in 2025. By 2030, more than a thousand sites across Europe will encourage co-creation and implementation of sustainable soil management in various landscapes (agriculture, forests, industrial, natural and urban areas) of sites across Europe will encourage co-creation and implementation of sustainable soil management in landscapes (agriculture, forests, industrial, natural and urban areas). The Mission continues to bring together various stakeholders (researchers, land managers, businesses, urban planners, citizens and public authorities) at different levels, from the EU to regional and local. The Mission is also leveraging additional resources from other parts of the EU budget and the private sector.

At the European Mission Soil Week 2024 (EMSW), held in Brussels last November, the critical role of soils in climate resilience, water management and biodiversity conservation stimulated discussions on best practices, innovative projects and upcoming policy developments. Interactive breakout sessions explored the latest research findings, on-the-ground initiatives and opportunities for cross-sector collaboration to support the Mission Soil's ambitious targets across different land uses.

Meanwhile, the Manifesto has now gathered over 3 300 signatures worldwide, including 631 from legal entities, all publicly accessible here. Among the newest signatories are the [Ministry of Science, Research and Culture in Brandenburg, Germany](#); [Ciência Viva](#) – the National Agency for Scientific and Technological Culture, Portugal; the [Bulgarian Ministry of Agriculture and Food](#); the [University of Córdoba, Spain](#); and the [University of Parma, Italy](#).

This network includes a wide range of local and regional authorities, as well as other public bodies, all working toward healthier and more resilient soils.

Click the 'more' button below to sign the Manifesto and join the Mission Soil community!

[more](#)

Commission presents roadmap for a thriving EU farming and agri-food sector

The new Vision for Agriculture and Food is a bold roadmap to ensure a competitive, resilient and sustainable agri-food sector. The strategy, announced in February 2025, prioritises simplifying policies, boosting digital innovation, and supporting farmers through fair incomes and generational renewal.

Recognising that healthy soil is fundamental to farming's future, the Commission will incentivise and support practices that recover, maintain or improve soil health. Research and innovation will drive the sector's transformation, ensuring that new solutions reach farmers faster and at scale. The Mission Soil plays a crucial role in supporting the transition to sustainable soil management through on-site testing and experimentation. A new EU strategic approach to research and innovation will further strengthen agriculture's competitiveness by aligning investments with scientific progress and emerging opportunities.

Click the 'more' button below to learn more about the Commission's Vision for Agriculture and Food.

[more](#)

Mission Highlights

EMSW 2024 event report is now available



The report offers a comprehensive overview of the event's key highlights, such as keynote speeches from high-level speakers, insightful summaries from the breakout sessions and field visits, and more. The conference was an occasion to show the progress of the Mission and present its first 25 Living Labs. Participants shared their knowledge and contributed to identifying research gaps related to soil health in agriculture, forestry, soil protection and remediation, and more. We extend our thanks to everyone who joined the EMSW 2024, both online and in person. We invite you to explore the report and the event materials.

[more](#)

EMSW 2024 video highlights



Watch our post-event video and relive some of the most inspiring moments from the EMSW 2024. Experience key highlights from the sessions and immerse yourself in the energy of the event.

[more](#)

New Mission Soil podcast episode out now!



In the second episode of the Mission Soil Podcast, we take a closer look at projects funded under the Mission Soil. Join us as we hear from three project representatives from BIOservicES, HuMUS, and PREPSOIL, who touch on topics like the link between soil organisms and ecosystem services, participatory soil governance, appraising regional soil needs, and more.

[more](#)

EU reaffirms commitment to soil health



The Mission continues to receive political support. In December 2024, during the Agri-Food Days in Brussels, Commissioners Christophe Hansen (Agriculture and Food) and Jessika Roswall (Environment, Water Resilience and a Competitive Circular Economy) signed the Mission Soil Manifesto. This important step reinforces the EU's commitment to preserving and restoring soil health as a foundation for sustainable agriculture and environmental resilience.

[more](#)

Check out the new Mission Soil dashboard!



The Mission Soil dashboard is an interactive tool that provides an overview of the progress of Mission activities through visual indicators and graphs. It shows data on Mission-funded projects, EU contributions and the number of signatories of the Mission Soil Manifesto. It also includes a map with EU Member States and Horizon Europe Associated Countries. As projects advance, additional indicators will be added.

[more](#)

Meet our newest Mission Soil Ambassadors



Our community of Mission Soil Ambassadors is growing! Meet Perrine Bulgheroni, Anne van Leeuwen and Tilen Praprotnik, Ambassadors in France, the Netherlands and Slovenia. Discover what inspired them to protect soils, and what they do to promote and support soil health across Europe.

[more](#)

World Water Day

World Water Day, celebrated on 22 March, highlights the essential role of water in sustaining life and ecosystems. Healthy soils are crucial for sustainable water

management. They act as natural water filters that regulate infiltration, reduce runoff, and enhance resilience against droughts and floods. Reducing soil degradation is fundamental to preserving water quality and availability. This aligns with [the European Commission proposal for a Water Resilience Strategy](#), foreseen in the second quarter of 2025.

Within the Mission Soil, several projects explore the vital connection between soil and water. By enhancing soil's capacity to absorb and retain water, these projects contribute to better water retention, reduced erosion and improved agricultural resilience.

Project Spotlight

In this issue, we will learn more about [SpongeWorks](#) (Co-creating and Upscaling Sponge Landscapes by Working with Natural Water Retention and Sustainable Management) – a project co-funded by the Mission Soil and the EU Mission Restore our Ocean and Waters.

Christian Albert, Professor of Landscape Planning at Leibniz University Hannover, Germany, shares insights into how SpongeWorks is increasing soil's water retention capacity and contributing to Europe's environmental sustainability.



Christian Albert, SpongeWorks project

Can you tell us about your background in soils?

I work with soil scientists and practitioners to assess and enhance the vital functions soils provide – supporting biodiversity, regulating water flows and

storing carbon. We develop conservation and land-use strategies to keep soils productive and resilient in the face of climate change and degradation.

Why is water important for soil health?

Water is key to soil health, affecting its ability to retain nutrients, maintain structure and support life. Poor water management leads to erosion, which affects 24% of EU soils at unsustainable rates, mostly in cropland. SpongeWorks tackles this by applying 'sponge measures' – such as reduced tillage and cover crops – in three large-scale demonstrator basins in France, Greece and Germany/the Netherlands. These solutions, highlighted in the [State of Soils in Europe report](#), help soils absorb and retain water, reducing erosion risks.

SpongeWorks is quite new, but are there already any achievements you can share with us?

Six months into our four-year project, we have laid key foundations. SpongeWorks is a true 'knowledge-to-action' consortium, bringing scientists together with policymakers and practitioners to drive change. We were also thrilled by the response to our Associated Regions Call, which attracted over 70 proposals – demonstrating strong interest from local and regional authorities in adopting sponge measures.

What do you enjoy most about working on your project?

The collaboration and shared purpose – everyone involved is committed to real impact. It's rewarding to work on a project that advances science while delivering tangible environmental benefits.

Why is the Mission Soil's work important for Europe?

Soil is an essential yet often overlooked resource, underpinning food production, clean water, biodiversity and climate resilience. Once degraded, it takes decades to recover. That's why the Mission Soil's work is so important – it brings attention to this critical issue and pushes for real action. I see its value not just in research or policy but in how it brings together scientists, farmers, planners and communities to make soil health a priority.

Project News

Explore the EJP SOIL outputs in a new interactive format

The EU-funded project EJP SOIL (Towards Climate-smart Sustainable Management of Agricultural Soils) has delivered a wealth of insights on sustainable soil management, and now discovering its key results is easier than ever. A new interactive PDF is in the works to help you navigate the project's extensive outputs. Get a first look at the preview version and stay tuned for the full, enriched edition.

[more](#)



New course on integrating soil education in schools

The Mission Soil project LOESS (Literacy Boost through an Operational Educational Ecosystem of Societal Actors on Soil Health) has launched a new massive open online course (MOOC) on integrating soil education in STEM (science, technology, engineering and mathematics) teaching. This free course helps to raise awareness of the importance of soil health among school children, linking it to real-world challenges, EU policies and the United Nations Sustainable Development Goals. Participants will explore interdisciplinary teaching methods, innovative pedagogies and practical strategies for engaging students in soil-related topics. Open to primary and secondary school teachers, practice teachers, and STEM educators, the course provides ready-to-use learning scenarios on soil health. Make sure to complete the course before 9 April 2025.



[more](#)

TERRASAFE on the global stage at UNCCD CoP 16

The Mission Soil project TERRASAFE (Terrestrial Resilience and Restoration Strategies for (semi) Arid and Fragile Ecosystems through a Multi-actor Approach) showcased its approach to combating desertification at the 16th edition of the Conference of the Parties (CoP) of the United Nation Convention to Combat Desertification (UNCCD) in Riyadh, Saudi Arabia. Prof Lindsay Stringer from the University of York highlighted the project's actor-oriented model, which fosters innovation partnerships across five pilot areas in Cyprus, Italy, Romania, Spain and Tunisia. She also introduced TERRASAFE's small and medium-sized enterprise partners, who are developing technologies tailored to tackle desertification challenges.



[more](#)

EDAPHOS highlights soil monitoring innovations

The Mission-funded project EDAPHOS (Advanced Mapping, Risk Assessment and Nature-Based Depollution Methods are Combined to Accelerate the Recovery of Contaminated Soils and Ensure that Ecological Restoration Enters Mainstream Business) participated in a 'coffee break' webinar by the Soil and Land Research Funding Platform for Europe. The project shared insights into its innovative use of nature-based solutions alongside advanced technologies for soil monitoring, ecological risk assessment and ecosystem services evaluation. The session featured contributions from project partners and explored how EDAPHOS



is advancing sustainable land management. Watch the full session below.

[more](#)

SOLO fosters collaboration in Sofia

In November 2024, the Mission Soil project SOLO (Soils for Europe) held its second in-person stakeholder meeting in Sofia, Bulgaria, bringing together 60 participants. Through interactive workshops, matchmaking sessions, and world cafés, think tank members exchanged knowledge and worked on overcoming bottlenecks in soil research and policy. Learn more about the key takeaways and next steps from this dynamic event.

[more](#)



Help test the SoilWise prototype

The Mission Soil project SoilWise (An Open Access Knowledge and Data Repository to Safeguard Soils) is developing an integrated access point for soil data and knowledge across Europe, ensuring they are findable, accessible, interoperable and reusable. Stakeholders – including farmers, policymakers and researchers – are invited to test and validate the prototype and join upcoming demo events. Click 'more' below to access and test the prototype.

[more](#)



SOILGUARD's first scientific paper published

The EU-funded project SOILGUARD (Sustainable Soil Management to Unleash Soil Biodiversity Potential and Increase Environmental, Economic and Social Wellbeing) has published its first scientific paper, Valuation of soil-mediated contributions to people (SmCPs) – a systematic review of values and methods, in the journal Ecosystems and People. This study underscores the vital role of soil biodiversity in ecosystem services. At the 11th Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, SOILGUARD was recognised by the European Commission as one of the most relevant Horizon 2020 projects on the biodiversity nexus. Click 'more' below to read the scientific paper.

[more](#)

The logo for SOILGUARD features the word "SOILGUARD" in a brown, sans-serif font. The letter "O" is replaced by a circular icon containing a stylized globe with green and blue elements.

New project joins the Mission Soil

The Mission Soil project SOILTRIBES (Spreading Open and Inclusive Literacy and Soil Culture through Artistic Practices and Education) is our newest addition, bringing together entrepreneurs, scientists, artists, educators and citizens to promote soil literacy. Through awareness events, educational initiatives and micro-financing for innovative projects, SOILTRIBES fosters collaboration and engagement in soil health. Find out more about the project.

[more](#)



MARVIC supports EU carbon farming policy

As the EU moves forward with the Carbon Removals and Carbon Farming Certification Regulation (EU/2024/3012), the Mission Soil project MARVIC (Developing and Testing a Framework for the Design of Harmonized, Context-specific Monitoring, Reporting and Verification Systems for Soil Carbon and Greenhouse Gas Balances by Agricultural Activities) is playing an active role in policy development. The project has contributed expert input on baselines, double counting, and monitoring, reporting and verification methodologies through policy notes, technical meetings and a thematic webinar attended by over 100 participants. Watch the webinar recording to learn more.

[more](#)



Help shape the future of carbon farming with LILAS4SOILS

The Mission Soil project LILAS4SOILS (Living Labs in the Mediterranean and Southern EU for the Healthy Future of European Soils) is launching an open call to support 50 farmers in the Mediterranean and southern EU regions in co-creating and implementing carbon farming practices. Selected participants will receive €5 000 per year for three years to test solutions, measure soil organic carbon levels, and develop sustainable business models. Join the growing network of farmers leading the way in soil health innovation! Apply by 16 May.



[more](#)

Join LivingSoiLL and drive soil innovation

The Mission Soil project LivingSoiLL (Healthy Soil to Permanent Crops Living Labs) is looking for participants to collaborate with its Living Labs on soil research and innovation. Selected applicants will work closely with LivingSoiLL partners for at least 30 months, contributing to and benefiting from cutting-edge soil health solutions. Don't miss this opportunity to be part of a pioneering initiative shaping the future of sustainable land management! Apply by 5 May 2025.



[more](#)

News

Global farmland at risk from excess soil salinity

[A new report from the United Nations Food and Agriculture Organization](#) reveals that about 1.4 billion hectares – 10 % of global land – is affected by salinity, with another 1 billion hectares at risk. Excess salt in soil is already impacting agriculture, reducing crop yields by up to 70 % in some areas. The findings were presented at the International Soil and Water Forum in Bangkok in December 2024, highlighting the urgent need for sustainable soil management solutions.

New soil function data from LUCAS 2018 now available

The Land Use/Cover Area Frame Survey (LUCAS) 2018 assessed soil functions at 881 sites across the EU, providing valuable insights into soil biodiversity. Key measurements include soil aggregates, enzyme activities, microbial respiration and biomass, and ester-linked fatty acid methyl esters. This data helps improve

our understanding of soil health and its role in ecosystem services. [Learn more about the new findings.](#)

Tracking progress on the EU Soil Strategy for 2030

The EU Soil Strategy for 2030 outlines clear actions to protect and restore soils, with a long-term goal of achieving healthy soils by 2050. The new Soil Strategy Policy Tracker monitors progress on these commitments, providing up-to-date information on implementation across the EU. [Explore the tracker to see how policies are advancing towards sustainable soil management.](#)

Events

Upcoming events

[2025 conference of the Forum for the Future of Agriculture: Exploring new frontiers for agri-food system transformation](#) (Brussels, Belgium & online, 1 April)

Join leading experts, policymakers and industry pioneers for a full-day exploration of agri-food system transformation. The event will feature high-level discussions on geopolitics, financing the green transition, and the role of innovation in sustainable agriculture. Highlights include an inspirational talk by National Space Agency Astronaut Mike Massimino, a discussion with EU Commissioner for Agriculture and Food Christophe Hansen, and the presentation of the Land and Soil Management Award.

[The 2025 Soil Health Now conference](#) (Wageningen, the Netherlands, 8–10 April)

This three-day international conference will bring together experts to explore the latest science, technology and business intelligence on soil health. Featuring keynotes, discussion forums, oral presentations, workshops and field demonstrations, the event will focus on measuring, monitoring and enhancing soil health. With a maximum capacity of 200 participants, the conference will provide an opportunity for in-depth discussions and hands-on learning experiences.

[The EGU General Assembly 2025](#) (Vienna, Austria & online, 27 April–2 May)

Organised by the European Geosciences Union (EGU), the Assembly will gather geoscientists from around the world to discuss a wide range of topics related to Earth, planetary and space sciences. The event will provide a platform for scientists, particularly early career researchers, to present their work and exchange ideas with leading experts. Covering multiple disciplines, the Assembly will foster interdisciplinary collaboration and knowledge-sharing among researchers working on global environmental challenges.

[SoilWise demonstration event](#) (online, 29 April)

Explore the SoilWise project's new Data and Knowledge Repository designed for researchers, scientists and soil experts. Watch a live demonstration, discover collaboration opportunities and share your feedback to help shape this powerful tool. Be part of the future of soil research!

[Horizon Europe info days – Cluster 6 Food, Bioeconomy, Natural Resources, Agriculture and Environment](#) (online, 20–21 May)

Looking for research and innovation funding in the areas of food, bioeconomy, natural resources, agriculture and environment? This event will provide insights into the Work Programme 2025, expert guidance on crafting strong proposals, and pitches for each of the topics from the Work Programme. In addition to the info days, two more events will take place in Warsaw, Poland, on 27 and 28 May, focusing on networking and matchmaking and proposal preparation.

[Horizon Europe info days – EU Missions 2025](#) (online, 22–23 May)

Discover the latest funding opportunities under the Work Programme 2025 connected to the following EU Missions: the Mission on Adaptation to Climate Change, the Cancer Mission, Climate-Neutral and Smart Cities Mission, the Restore our Ocean and Waters Mission, and the Mission Soil. Don't miss your chance to contribute to solving some of society's biggest challenges.

[Soil degradation control, remediation and reclamation – 2nd workshop](#) (Sofia, Bulgaria, 9–11 June)

Organised by Commission 3.5 of the International Union of Soil Sciences and the Institute of Soil Science, Agrotechnologies and Plant Protection 'Nikola Poushkarov', this workshop will focus on strategies for preserving and restoring degraded soils. Participants will explore topics such as soil remediation, erosion control, microbiology of degraded soils, carbon balances and soil pollutant uptake by plants. Discussions will also address the need for improved soil

legislation and policies to protect vital soil functions, including biodiversity conservation, water filtration and sustainable food production.

[EUROSOIL 2025](#) (Seville, Spain, 8–12 September 2025)

Europe's largest soil science event is expected to attract over 2,000 soil scientists, professionals and businesses. Key features will include the first European Soil Judging Contest, where participants will test their skills in understanding and evaluating soil, and the EUROSOIL Expo, a showcase of new technologies, products, and services in soil science. [Registration](#) and [abstract submission](#) are now open, with early bird discounts available until 31 March 2025. Reduced fees are offered for students, retired scientists, and participants from developing countries. Visit eurosoil2025.eu for more details.

Past events

[BIOEAST and beyond: Partnering for the future](#) (Budapest, Hungary, 4–6 December 2024)

The high-level event was hosted by the Hungarian presidency of the Council of the European Union in cooperation with the European Commission, the Standing Committee on Agricultural Research, and BIOEAST (the Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy). With over 350 key stakeholders, the discussions focused on soil health, freshwater resilience, food systems security and the bioeconomy, highlighting Central and Eastern Europe's role in addressing European sustainability challenges. The event marked a milestone with the adoption of Council Conclusions on a potential Europe-wide research and innovation (R&I) initiative and emphasised the importance of agricultural knowledge and innovation systems. The conference concluded with a call for a dedicated R&I initiative and a BIOEAST position paper to align Central and Eastern European priorities with future EU funding programmes.

[Caring for soils: Insights from EU Mission Soil projects on measurement, monitoring and management](#) (online, 12 December 2024)

This webinar, organised by the Mission Soil project [SOILL-Startup](#) (Startup of the SOILL Support Structure for SOIL Living Labs), highlighted cutting-edge approaches to soil measurement, monitoring and management. Representatives from key EU Mission Soil projects – [AI4SoilHealth](#) (Accelerating Collection and Use of Soil Health Information Using AI Technology to Support the Soil Deal for Europe and EU Soil Observatory), [MARVIC](#), [BENCHMARKS](#) (Building a European

Network for the Characterisation and Harmonisation of Monitoring Approaches for Research and Knowledge on Soils), and [MRV4SOC](#) (Monitoring, Reporting and Verification of Soil Organic Carbon and Greenhouse Gas Balance) – shared their insights on how innovation and research are driving progress in soil health. The event showcased how these projects are contributing to sustainable land management and supporting the EU’s soil health objectives.

[Living Labs in Action: Mirafiori Sud, City of Turin](#) (online, 23 January)

This webinar, hosted by the Soil Association, provided an in-depth look at the Mirafiori Sud Living Lab in Turin, part of the EU project proGInreg (Productive Green Infrastructure for Post-industrial Urban Regeneration). Speakers, including Laura Ribotta from the Municipality of Turin and members of the University of Turin, shared their experiences in developing the Living Lab, discussing challenges, successes and future opportunities. The event highlighted the role of Living Labs in fostering innovative, community-driven solutions for soil and urban sustainability. This webinar was part of the [NBSOIL \(Nature Based Solutions for Soil Management\) Academy](#) activities, in particular Module 2, which focuses on interactive innovation methods and Living Labs.

[2nd European Carbon Farming Summit](#) (Dublin, Ireland, 4–6 March 2025)

Organised by the Mission Soil funded project CREDIBLE (Building Momentum and Trust to Achieve Credible Soil Carbon Farming in the EU), the event has become a key platform for scientists, policymakers and stakeholders in carbon farming and soil management. The summit facilitated discussions on scaling up climate actions across the EU, focusing on carbon farming practices, certification schemes and monitoring systems. Participants exchanged insights on how to enhance soil carbon sequestration while ensuring environmental and economic sustainability.

Click the ‘more’ button to discover other events or to add an event you would like to promote on the Mission Soil Platform.

[more](#)

Resources & Readings

- [The mission 'A Soil Deal for Europe' \(100 living labs and lighthouses to lead the transition towards healthy soils\)](#), **Directorate-General for Research and Innovation (European Commission), November 2024**
- [Social sciences, humanities, and the arts in the EU Mission 'A Soil Deal for Europe'](#), **Mission Soil Board, January 2025**
- [How do diet shifts affect the greenhouse gas balance of agricultural soils? Denmark as a case study](#), **Vasilis Michailidis, Emanuele Lugato, Panos Panagos, Diego Grados, Florian Freund, Arwyn Jones, Diego Abalos, March 2025**
- [Benchmarking soil organic carbon \(SOC\) concentration provides more robust soil health assessment than the SOC/clay ratio at European scale](#), **Christopher J. Feeney, Laura Bentley, Daniele De Rosa, Panos Panagos, Bridget A. Emmett, Amy Thomas, David A. Robinson, November 2024**
- [Revisiting the soil carbon saturation concept to inform a risk index in European agricultural soils](#), **Timo S. Breure, Daniele De Rosa, Panos Panagos, M. Francesca Cotrufo, Arwyn Jones, Emanuele Lugato, March 2025**

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