

Welcome to the EDAPHOS Newsletter #1



A word from the coordinator

Welcome to the inaugural newsletter of the EDAPHOS project! We are thrilled to share the progress and updates of our work focused on innovative Nature-Based Solutions (NBS) for sustainable land remediation. This edition will provide an overview of our project so far, descriptions of our key work packages, and upcoming events. We are excited about the journey ahead and look forward to your continued support and engagement.

Visit the website

Project updates

The EDAPHOS project has made significant strides in its early stages. Our team has been actively involved in gathering data, evaluating ecological risks, and testing remediation strategies. Through collaborative efforts, we are laying the groundwork for effective and sustainable solutions for contaminated lands across

Europe. Stay tuned for more detailed updates on our progress in the sections below.

Work Package 1: land mapping at different geographical scales

WP1 aims to build on publicly available national contamination maps to identify specific pollution hotspots. The team collects and processes optical multi-(hyper-) spectral remote sensing (RS) data at various scales, from ground-based to space-borne sensors. Intermediate scales are covered by cameras embedded on drone and aircraft devices. These data help in retrieving maps of variables that characterize soil contamination, such as vegetation species, sensitive traits and soil composition, providing a detailed understanding of the polluted areas.

Work Package 2: ecological risk & ecosystem services

WP2 focuses on evaluating the ecological risk of contaminated sites during the remediation process using the TRIAD approach. The team analyzes ecological risks and proposes a comprehensive testing strategy to assess and manage contaminated sites with NBS. They also evaluate ecosystem services (EES) of these sites and develop an advanced ecotoxicity tool based on microfluidic technology. These approaches at 7 experimental sites will help to evaluate the success of soil management practices.

Work Package 3: demonstrating the effectiveness of NBS

WP3 aims to establish a sustainable remediation strategy for contaminated lands that supports ecosystem services (ESS). The team selects woody and herbaceous plant species and microbes to recover polluted soils and implements lab and fileds trials at 7 EU sites with various soil contamination and land uses. They monitor plant and soil health indicators and will compile a portfolio of best practices, including an engaging online questionnaire to educate and involve stakeholders.

Work Package 4: environmental, economic & social performance

WP4 focuses on creating tailored socio-economic and environmental performance metrics for NBS. This includes re-postulating the sustainability paradigm (SP) to fit NBS, monetizing ESS as part of local natural capital using innovative economic methods, and performing product environmental footprint (PEF) analyses and cost assessments at the seven case study sites. The goal is to pave the way for establishing NBS-specific sustainability reporting obligations (SROs).

Work Package 5: innovative business, spatial & financial models

WP5 is dedicated to designing NBS markets, engineering financial instruments, and building digital information systems to mainstream soil remediation NBS. This involves creating spatially explicit, biophysically consistent, and synergistic business models, incorporating digital tools for enhanced decision making. The team postulates principles for institutions managing NBS-generated natural capital, structures innovative financial instruments for sustainable investments, and builds a digital marketplace as a hub for NBS knowledge and investment solutions. They also recommend a "NBS Market Chart" to guide future business practices across the EU.

Learn more on the project

Latest News

Stay tuned for announcements and latest news of relevant events and conferences where EDAPHOS partners will be presenting our findings and engaging with the broader scientific and business communities.



Soil Sampling Campaign

Learn more about the soil sampling campaign that started in April in the different case study sites accross Europe.

Read more



Soil Week 2023

In the wake of environmental challenges and the need for sustainable living, the European Union's Soil Mission took a significant step forward during its last Soil Week.

More

Resources

For more information, visit our website at EDAPHOS Project. Follow us on our social media channels for real-time updates and access to promotional materials.

Visit our website

All you need to know about the project objectives and case studies is on our website.



Check it out

Check our poster & flyer

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