



European Union Network for the Implementation
and Enforcement of Environmental Law

BUCHAREST WATER AND LAND CONFERENCE

17 and 18 October 2023

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Introduction to IMPEL

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the environmental authorities of the European Union (EU) Member States, and of other European authorities, namely from acceding and candidate countries of the EU and European Economic Area (EEA). The association is registered in Belgium and its legal seat is in Brussels, Belgium.

IMPEL was set up in 1992 as an informal Network of European regulators and authorities concerned with the implementation and enforcement of environmental law. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. The core of the IMPEL activities concerns awareness raising, capacity building and exchange of information and experiences on implementation, enforcement and international enforcement collaboration, as well as promoting and supporting the practicability and enforceability of European environmental legislation.

During the previous years, IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 8th Environment Action Programme that guide European environmental policy until 2030, the EU Action Plan: "Towards a Zero Pollution for Air, Water and Soil" on Flagship 5 and the Recommendation on Minimum Criteria for Environmental Inspections.

The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at: www.impel.eu



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| Title of the report: Bucharest Water and Land Conference | Number report: 2022(VI)WG8 |
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Executive Summary

Under the umbrella of the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), the Water & Land Conference 2023 took place on the 17th and 18th of October, in Bucharest, and also online, organized together by NEG (Romania), ISPRA (Italy).

Participants

The Water and Land Conference 2023 was attended by over 129 representatives on site from 21 IMPEL members and many more online and the agenda (pdf) included presentations from Environmental Crime (EnviCrimeNet), European Commission (DG ENV and JRC), OECD, United Nations Environment Programme (UNEP), European Environmental Agency (EEA), from Representatives of Emeritus and Horizon Europe Board, and authorities as the Portuguese Environmental Protection Agency, the Italian National Institute for Environmental Protection and Research, the National Environmental Guard and Geological Institute of Romania..

Disclaimer

This report is the result of a project within the IMPEL network. The content does not necessarily represent the view of the national administrations or the European Commission.



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1. INTRODUCTION

The main focus of the Water and Land Conference 2023 is to discuss key aspects of water management, soil health, and environmental regulations, with an emphasis on updates to EU policies like the Green Deal, Water Framework Directive, and Soil Monitoring Directive, while addressing challenges in water reuse, environmental crime, and the implementation of environmental laws, particularly through various IMPEL projects and collaborative efforts to ensure sustainable management of natural resources across Europe..

The [Zero pollution action plan](#) is an initiative adopted on 21 May 2021 by the European Commission, under the main objectives of The [European Green Deal](#), that announced headline actions on zero pollution, namely: A chemical strategy for sustainability, to better protect citizens and the environment against hazardous chemicals; Revising measures to address pollution from large industrial installations, to ensure they are consistent with climate, energy, and circular economy policies; and [Zero pollution action plan for water, air, and soil](#), to better prevent, remedy, monitor and report on pollution. The Commission, in cooperation with the Committee of the Regions, set up a [Zero Pollution Stakeholder Platform](#) to achieve the zero pollution ambition and to effectively mainstream the zero pollution agenda.

The main focus of the **Water Framework Directive** is to ensure the protection and sustainable management of all water bodies in the European Union, aiming to achieve good ecological and chemical status for waters by promoting integrated water resource management and preventing water pollution.

The main focus of the **Soil Monitoring Directive** is to ensure the protection, sustainable use, and restoration of soil health across the European Union by establishing a comprehensive monitoring system to assess soil conditions, manage contamination, and support resilience against environmental threats

The Water and Land Conference 2023 intended to explore the implementation and challenges of key EU environmental policies, such as the Water Framework Directive, the Soil Monitoring Directive, and the new Water Reuse Regulation. It aimed to address the current state of water and land management, including soil health, contamination, and the impact of environmental crime, while fostering discussions on innovative solutions, sustainable practices, and collaborative approaches to better manage natural resources and strengthen environmental compliance across Europe.



2. WATER AND LAND CONFERENCE

Under the umbrella of the European Union Network IMPEL, the Water & Land Conference 2023 took place on the 17th and 18th of October, (Agenda in Annex I), in Bucharest, and also online, in a hybrid event, in a joint organisation by Romanian NEG, ISPRA - Italy, and the Romanian IGR.

The Bucharest Water & Land Conference, held at the Palace of Parliament in Romania, brought together experts, policymakers, and stakeholders to address critical issues related to water and land management. Organized by IMPEL (European Union Network for the Implementation and Enforcement of Environmental Law), the event featured discussions on European Union policies, environmental laws, and ongoing projects.

The conference opened with remarks from key figures, including Marco Falconi, IMPEL W&L Expert Team Leader, Monica Crisan, Deputy Leader of the IMPEL W&L Expert Team, and Iustina Popescu Boaja of the Geological Institute of Romania. Romanian institutional leaders played a significant role in the opening session, with Mircea Fechet, Minister of Environment, Waters and Forests, delivering an address that emphasized Romania's dedication to environmental protection and sustainable development. Cristina Burciu, Vice-president of the Commission for Economic Policy, and other representatives from ministries overseeing research, innovation, economy, and agriculture also contributed to the opening, underlining the importance of coordinated efforts to meet the goals of the European Green Deal and tackle pressing environmental challenges such as water offenses, soil contamination, and waste management.

The sessions that followed provided a comprehensive exploration of environmental topics. Updates on the EU Green Deal and related policies addressed issues such as water offenses, environmental crime, and advancements in international programs. The importance of water reuse was emphasized through innovative projects like the WINE project and discussions on regulatory challenges and successes in implementation, illustrated by Spain's approach. Soil monitoring and contamination were also central themes, with presentations on directives for soil health, revised contamination indicators, and the EU Soil Observatory's initiatives, aligning with the Horizon Europe mission for sustainable soil management.

Romania's unique environmental challenges were examined in a dedicated session, focusing on the application of the Water Framework Directive, the management of landfills and old mines, and gaps in the enforcement of EU environmental laws. The conference also highlighted IMPEL's ongoing projects across areas such as water and land management, air quality, waste and TFS (Transfrontier Shipment), and nature conservation, showcasing collaborative efforts to advance environmental objectives.

The conference concluded with reflections on cross-cutting initiatives and a synthesis of insights gained. Marco Falconi reiterated the critical role of international collaboration in addressing shared environmental challenges. Overall, the event served as a vital platform for knowledge exchange and partnership building, advancing sustainable water and land management aligned with European Union policies.

In the following sections, there is a summary reference of the content presentations from the Water and Land Conference 2023, including slides from each presentation.

17 October

Session 1: UPDATE ON EU GREEN DEAL AND OTHER RELEVANT POLICIES

Moderator: Maria Mija - IMPEL National Coordinator for Romania

- **ECD proposal and its relevance for tackling water offenses** - **Elisabetta Reyneri** – DG ENVIRONMENT, European Commission

The presentation delivered by Elisabetta Reyneri at the IMPEL Water & Land Conference in Bucharest focused on the European Commission's proposal for a new Environmental Crime Directive (ECD) as part of efforts to align with the European Green Deal and related strategies. It highlighted the inadequacies of the current 2008 directive, emphasizing the need for stronger enforcement mechanisms, precise crime definitions, and stringent sanctions to combat environmental crime, which ranks as the fourth largest global criminal activity.

The presentation detailed the legal basis of the proposed directive, outlined key environmental offenses such as illegal water abstraction and ship-source pollution, and emphasized the necessity for effective sanctions and civil society involvement. Strengthening the enforcement chain and enhancing monitoring capabilities were underscored, with proposed measures for improved resource

allocation, inter-agency cooperation, and specialized training. The proposal also addressed obligations for statistical data collection and reporting to ensure consistent application and enhance enforcement of environmental laws across the EU.

General pollution offence and other relevant offences

- Article 3 (1)(a) COM proposal
- Discharge, emission or introduction of a quantity of materials or substances or ionising radiation into air, soil or water...
- “Substantial damage to the quality of water” – constitutive element of other offences (e.g., breaches of legislation on chemicals, waste management, industrial activities)



European Commission

- **Emeritus project** - **Mihaela Violeta Gheorghe**

The presentation on the EMERITUS project introduced an innovative initiative aimed at combating waste-related environmental crimes by supporting law enforcement authorities and border guards with advanced technological tools. The project, involving a consortium of 20 partners from nine countries, seeks to enhance crime detection and evidence collection capabilities through a unified platform that integrates cutting-edge technologies such as AI, satellite imagery, and geospatial

Use cases

Four relevant use cases have been identified to ensure that the project results can translate into technologies and operative support fitting in real-world scenarios and needs, as well as to test the EMERITUS results with actual data and operators.



European Commission



analysis. The platform will be complemented by a structured investigation protocol and specialized training for users.

EMERITUS aims to improve the intelligence landscape around organized environmental crimes, foster international cooperation, and empower security practitioners with the tools to detect and prevent illegal activities, such as waste dumping and cross-border waste trafficking. The project employs a co-creation approach with stakeholders, integrates previously developed technologies, and ensures real-world applicability through use cases like illegal waste dumping detection. By addressing challenges such as resolution limitations in satellite imagery and refining waste detection methods, EMERITUS seeks to create a robust framework for tackling environmental crimes while contributing to policy recommendations and the broader regulatory landscape in Europe.

- **The new frontiers of environmental crime - Massimiliano Corsano** – former ENVICRIMENET member

The presentation focused on the evolving nature of environmental criminality within the context of ecological transition. It explored the differences between common environmental crimes, often isolated and limited in scope, and organized environmental criminality, characterized by systemic operations involving corporate structures and significant resources. Investigative findings revealed that such crimes frequently aim for illicit economic gains, often compromising environmental and human health.

The discussion highlighted the vulnerabilities of emerging investment sectors and legislative loopholes, especially in relation to initiatives like the European Green Deal and Next Generation EU funding. Concerns were raised about the potential misuse of these funds by organized crime groups through practices like greenwashing and exploiting regulatory inconsistencies. The presentation concluded with an emphasis on the need for robust international cooperation to tackle these challenges and uphold the principles of sustainability and a circular economy.

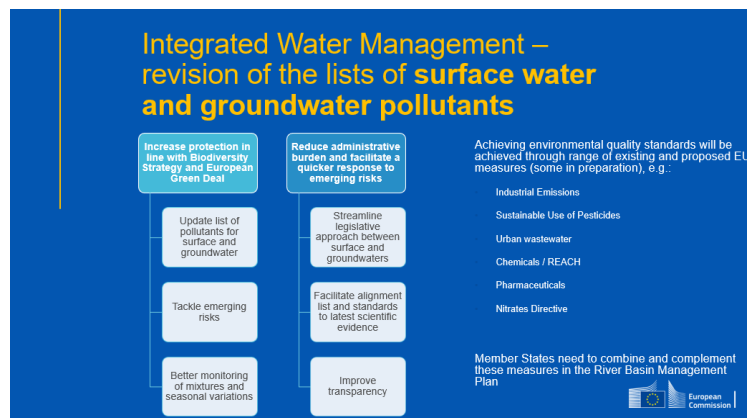


- **Update on Commission initiatives in relation to Water - Marianthi Podimata** – DG ENVIRONMENT, European Commission

The presentation provides an overview of the European Commission's recent and upcoming initiatives concerning water management. Key directives and regulations, such as the Urban Waste Water Treatment Directive, WaterReuse Regulation, and the Marine Strategy Framework Directive, are highlighted as part of the EU's evolving water policy framework.



The focus is on revising and updating legislation to address emerging environmental challenges like pollution, climate change, and biodiversity loss. This includes reviewing the lists of pollutants for surface and groundwater, improving transparency, and aligning water quality standards with the latest scientific data. The Commission is also working on initiatives such as the Water Resilience Agenda, which aims to boost awareness, implementation, and funding for water management programs across Member States.



The timeline for adopting key revisions is outlined, with important decisions expected in 2024 under the EU's water resilience initiative. Additionally, the Commission is preparing a comprehensive communication campaign and conducting ongoing assessments to strengthen the knowledge base for future EU water management measures.

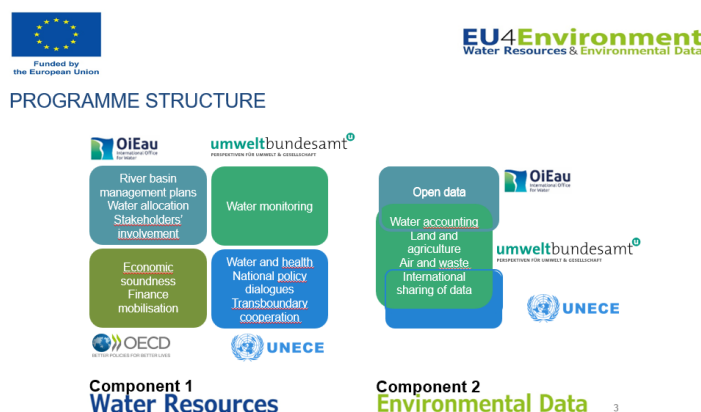
This presentation emphasizes the importance of integrated water management, the reduction of administrative burdens, and the need for international cooperation to address water-related environmental issues effectively.

- **OECD EU4Environment Action and the Water Resources and Environmental Data programme with the Eastern Partner countries - Olga Olson, Matthew Griffiths** – Organization for Economic Cooperation and Development (OECD):

The EU4Environment programme, presented by Olga Olson and Matthew Griffiths from the OECD, focuses on improving water resources management and environmental resilience in Eastern Partnership countries, including Armenia, Azerbaijan, Georgia, Moldova, and Ukraine. The programme, implemented with a budget of €12.75 million, aims to strengthen environmental governance and capacity building, particularly in integrated water resource management and sustainable water use.

Key activities include developing river basin management plans, enhancing water monitoring, improving economic instruments related to water pricing, and mobilizing finance for priority measures. The programme also promotes open data and stakeholder involvement to ensure more transparent decision-making processes.

Specific focus areas include reforms in water abstraction, pollution fees, and water tax systems in the partner countries. The presentation also highlights



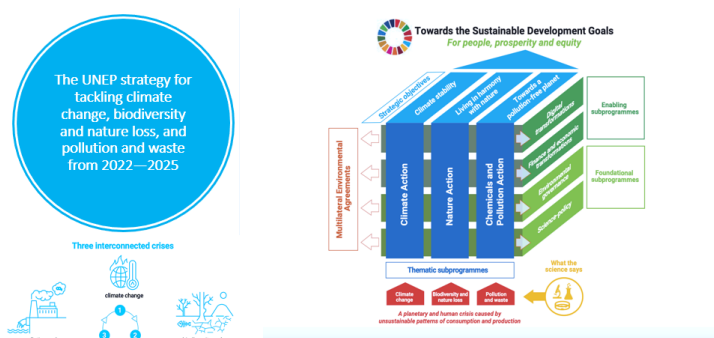


the role of international cooperation in achieving sustainable water management and environmental protection in the region, as well as providing practical solutions such as nature-based interventions.

- **UNEP activities related to Water and Land - Elena Stefanoni** – United Nations Environmental Program (UNEP)

The presentation outlines UNEP's initiatives to tackle climate change, biodiversity loss, and pollution in South East Europe, with a focus on promoting sustainable land management (SLM). Key projects highlighted include efforts to strengthen legal frameworks, capacity building, and ecosystem restoration in countries such as Albania, North Macedonia, and Serbia. These projects aim to reduce land degradation, promote sustainable land and forest management, and support the achievement of national land degradation neutrality (LDN) targets.

UNEP is the leading global authority on the environment, its mission is to inspire, inform, and enable nations and peoples to improve their quality of life without compromising that of future generations.



UNEP's Vienna Programme Office oversees these initiatives, focusing on cross-sectoral cooperation, institutional capacity-building, and sustainable management of vulnerable mountain ecosystems. Several ongoing and upcoming projects are also mentioned, including efforts to address contaminated sites and improve soil and water management practices in the Western Balkans.

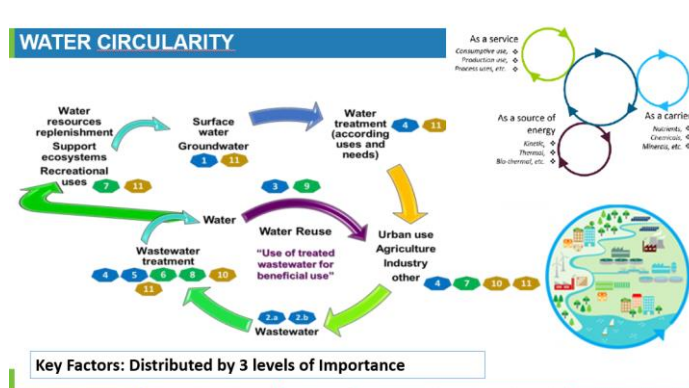
The presentation emphasizes the importance of regional collaboration, awareness-raising, and the implementation of best practices to support environmental protection and sustainable development in the region.

Session 2: WATER REUSE

Moderator: Iustina Popescu Boaja – Geological Institute of Romania (IGR)

- **The WINE project - Anabela Rebelo** – Apambiente, Portugal

The WiNE (Wastewater in Natural Environment) project focuses on improving water circularity through the development of a **Water Circularity Index**. This index measures the circularity of water use in industrial and urban settings, promoting efficient water management and reuse. The project aims to link water use, quality management, and sludge management to broader sustainability goals by assessing the environmental impact of various





processes and activities.

The project is based on principles of the circular economy, emphasizing the reduction of freshwater consumption, energy savings, and minimizing the over-exploitation of water bodies. The **Circularity Index** provides a framework for industries to assess their environmental compliance and optimize water reuse while identifying both positive and negative impacts.

Key focus areas include water use in high-impact activities, such as agriculture, where treated wastewater or biosolids are reused. The project also highlights the trade-offs between environmental decisions and technological developments, stressing the need for an integrated approach.

The index can be applied to both IED and non-IED installations and aims to help businesses understand the importance of environmental sustainability in their operations. Future development will further integrate energy considerations and CO2 emissions.

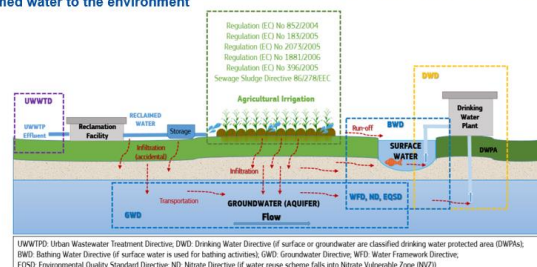
- **Regulation and future challenges/developments - Roberta Maffettone – Joint Research Centre, European Commission (JRC)**

This presentation outlines the European Union's efforts to address water scarcity and promote sustainable water reuse through the **Water Reuse Regulation 741/2020**, which became applicable in June 2023. The regulation sets minimum water quality and monitoring requirements for the safe reuse of treated urban wastewater, particularly for agricultural irrigation. It also introduces risk management plans to assess and mitigate potential health and environmental risks.

The presentation highlights the Joint Research Centre's (JRC) role in supporting the development of these regulations and guidelines, including organizing technical workshops and providing scientific input for water reuse risk management. Case studies from several EU countries demonstrate practical applications of water reuse, showing its potential in various sectors, such as agriculture and industry.

The Water Reuse System (KRM3 and KRM4)

Identification of applicable legislation (point 5 Annex II) to the water reuse system assessing potential routes of reclaimed water to the environment



UWWTP: Urban Wastewater Treatment Directive; DWD: Drinking Water Directive (if surface or groundwater are classified drinking water protected area (DWPA)); BWD: Bathing Water Directive (if surface water is used for bathing activities); GWD: Groundwater Directive; WFD: Water Framework Directive; EQSD: Environmental Quality Standard Directive; ND: Nitrate Directive (if water reuse scheme falls into Nitrate Vulnerable Zone (NVZ)).

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Ongoing efforts include the development of technical specifications and further research on water reuse for industrial, urban, and agricultural applications. The focus is on integrating environmental protection with efficient water use to reduce water scarcity and its associated impacts on ecosystems and human health.

- **Challenges and benefits of the New Regulation of Water Reuse: Case study of Spain - Ana Allendro Pietro – Centre for Soil and Applied Biology Segura, Spain (CEBAS)**

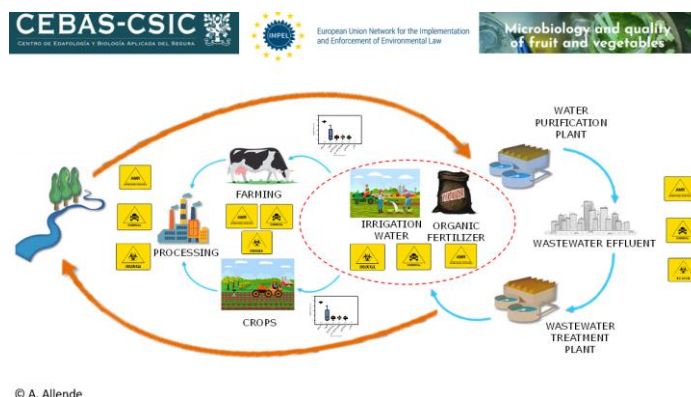
The presentation discusses the **new European Water Reuse Regulation** and its implications, using Spain as a case study. The regulation aims to create a flexible framework for water reuse, addressing the needs of

member states while ensuring safe and sustainable practices. Spain, with its long history of water reuse, faces both benefits and challenges under the new legislation.

Key challenges include strict microbiological criteria, the need for updating wastewater treatment technologies, and addressing emerging hazards such as antimicrobial resistance. The regulation promotes planned water reuse systems, which must meet strict standards to ensure public health and environmental protection.

The presentation also highlights the complexity of managing water reuse in agriculture, particularly regarding the "point of compliance," where water quality standards must be met throughout the distribution system to ensure crop safety.

Spain's experience offers valuable insights into implementing the regulation, particularly in balancing the benefits of water reuse, such as reducing freshwater consumption and supporting agriculture, with the challenges of meeting stringent safety and environmental standards.



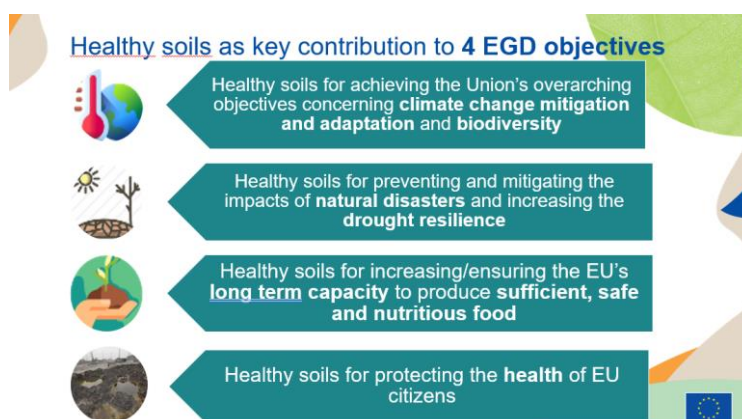
Session 3: SOIL CONTAMINATION AND SOIL MONITORING DIRECTIVE

Moderator: Marco Falconi – IMPEL W&L Expert Team Leader

- **Soil Monitoring Directive - Mirco Barbero – DG ENVIRONMENT, European Commission**

The **Soil Monitoring Law** is a new directive proposed by the European Commission to address the pressing issues of soil degradation, including erosion, pollution, loss of biodiversity, and land take. The law is a critical component of the **European Green Deal** and the **EU Soil Strategy**, aiming to ensure that all soils in the EU are healthy by 2050.

The proposal highlights the importance of healthy soils for achieving broader EU objectives such as climate change mitigation, biodiversity protection, disaster resilience, and food security. The directive introduces a comprehensive **soil monitoring framework** that includes soil health descriptors, regular assessments, and methodologies for data collection and analysis.





Key elements of the directive include:

- ✓ **Sustainable soil management** principles to promote soil regeneration and mitigate land degradation.
- ✓ A **risk-based approach** for identifying and managing contaminated sites.
- ✓ A focus on public participation, transparency, and the creation of a public register of contaminated sites.

The directive also emphasizes the need for a **staged approach**, allowing flexibility for member states to implement the law based on their existing policies. The overarching goal is to ensure that sustainable soil use and restoration practices become the norm across the EU by 2050.

- **The revision of the indicator “Progress in the management of contaminated sites” - Rainer Baritz – European Environmental Agency (EEA), Frank Swartjes – RIVM, EIONET WG Contamination**

The presentation highlights the need to update the **EEA Indicator LSI 003**, which tracks progress in the management of contaminated sites across the EU. This revision aligns with policies such as the **EU Green Deal**, the **Zero Pollution Action Plan**, and the **EU Soil Strategy 2030**, emphasizing the importance of achieving **healthy soils by 2050**.

The presentation provides an overview of contaminated sites in the EU, noting that there are an estimated **2.8 million contaminated sites**, with over **1.39 million registered** and around **115,000 remediated** so far. The existing indicator needs to account for new data and developments since 2016, including updates in the **EU Soil Monitoring Law** and a broader range of contaminants and polluting activities.

Potentially soil polluting activities¹⁾ Annex II



The revised indicator will focus on a risk-based approach, assessing contaminated sites for human health and environmental risks. The update also calls for the standardization of national contaminated site registers and greater transparency in site management. The presentation emphasizes the importance of monitoring soil contaminants, developing methodologies for site-specific risk assessments, and expanding the indicator's scope to better reflect the progress of site remediation across the EU.

- **EU Soil Observatory activity - Piotr Wojda – Joint Research Centre, European Commission (JRC)**

The presentation introduces the **EU Soil Observatory (EUSO)**, which plays a crucial role in supporting the proposed **Soil Monitoring Law**. EUSO collects and provides accessible data on soil health across the EU through the **Soil Health Dashboard**, a tool that helps identify healthy and unhealthy soils and track trends in soil degradation.

Key threats to soil health identified include erosion, pollution, loss of organic carbon, nutrient imbalances, soil sealing, and biodiversity loss. The Dashboard helps policymakers, scientists, land managers, and the public understand the status of soil health, offering data on soil pollution, biodiversity, and erosion, among other factors.



The **Soil Health Dashboard** supports the **Soil Monitoring Law** by providing up-to-date information, supporting evidence-based policymaking, and tracking progress towards EU soil health goals. However, the presentation also notes gaps in data, particularly on diffuse pollution, urban areas, and certain pollutants like pesticides and heavy metals.

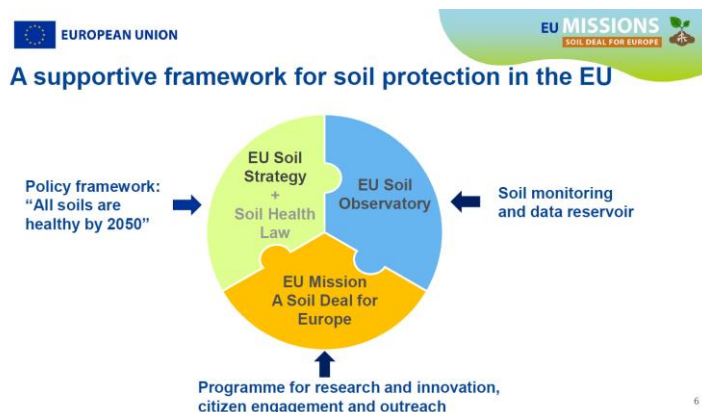
EU Soil Observatory



EUSO's ongoing work will involve updating the Dashboard with new indicators and improved methodologies to better monitor soil health across all EU regions and land uses.

- **"A soil deal for Europe" Horizon Europe Mission - Iustina Popescu Boaja – REA – Member of the Horizon Europe Mission Board**

The "Soil Mission" under Horizon Europe aims to achieve healthy soils across Europe by 2050, addressing issues such as soil degradation, pollution, and biodiversity loss. With a framework involving research, innovation, and citizen engagement, it seeks to reduce desertification, improve carbon stocks, and enhance soil health monitoring. A network of 100 living labs and lighthouses supports the transition by testing and demonstrating sustainable practices. The mission aligns with EU strategies like the Green Deal and Biodiversity Strategy, targeting reduced pollution, pesticide use, and greenhouse gas emissions by 2030. Implementation includes phased rollouts, financial support, and collaborative projects with diverse stakeholders.



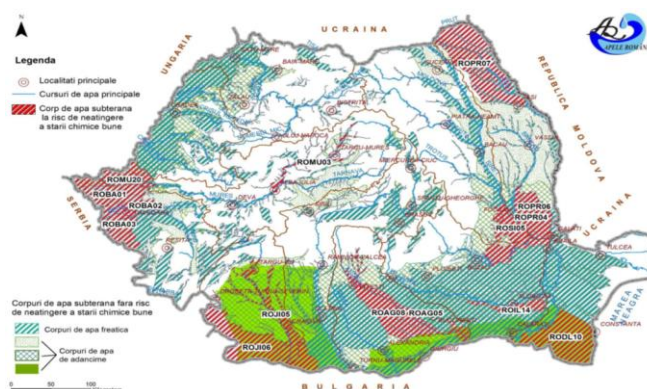
18 October

Session 4: CHALLENGES IN THE IMPLEMENTATION OF EU ENVIRONMENTAL LAWS IN ROMANIA

Moderator: Monica Crisan – IMPEL W&L Expert Team Deputy Leader

- **Application of Water Framework Directive - Gheorghe Constantin - Deputy General Director Ministry of Environment, Waters and Forests (MMAP)**

The Water Framework Directive (WFD) is a landmark European environmental policy designed to achieve sustainable water management by addressing water bodies holistically and integrating environmental systems. Implemented through river basin management plans (RBMPs), it emphasizes ecological health as an indicator of success and requires coordinated efforts to meet legal and environmental objectives. While progress has been made in areas such as monitoring and pollution reduction, challenges persist, including tight deadlines, financial constraints, and the complexities of implementing new approaches.



Key initiatives under the directive include addressing hydromorphological alterations, improving water body status assessments, and implementing cost-effective measures for environmental objectives. Despite advancements, achieving full compliance by 2027 remains ambitious due to ongoing pressures, evolving standards, and climate-related impacts.

- **Landfills of waste - Cosmin Teodoru** – Ministry of Environment, Waters and Forests (MMAF)

Romania faces significant challenges in managing landfill waste, reflecting broader difficulties in its waste management systems. The country has struggled with illegal landfills and compliance with European Union directives, which mandate sustainable waste disposal practices. Many older landfills in Romania fail to meet environmental safety standards, such as proper leachate control and landfill gas management. A considerable portion of municipal waste is still sent to landfills, with low recycling rates and ongoing issues with illegal dumping in some areas.

As an EU member, Romania is required to follow directives like the Landfill Directive and the Waste Framework Directive, aimed at reducing reliance on landfills and promoting recycling. However, the country has faced delays in closing non-compliant landfills and lacks sufficient infrastructure for waste separation and recycling. Despite these challenges, the government has made efforts to address the situation by closing older, non-compliant sites and investing EU funds in new waste management facilities. Policies have also been introduced to penalize illegal dumping and incentivize recycling.

Nevertheless, Romania continues to face barriers, such as inadequate public awareness about waste separation, insufficient infrastructure for recycling, and disparities between urban and rural waste management systems. Meeting EU targets requires accelerating the closure of illegal landfills, improving recycling rates, and adopting advanced waste treatment technologies. Public awareness campaigns and investments in modern infrastructure are crucial for addressing these systemic issues and aligning Romania's waste management practices with EU standards.

- **The problem of old mines - Marian Munteanu** – Geological Institute of Romania (IGR)

The problem of old mines in Romania represents a significant environmental, economic, and social challenge, rooted in the country's extensive history of mining activities. Many abandoned mines, particularly for coal, gold, and copper, have been left without proper closure or rehabilitation, resulting in widespread



environmental degradation. Acid mine drainage is a major issue, where exposed sulfide minerals react with air and water to produce acidic runoff, contaminating nearby water bodies and ecosystems with heavy metals like arsenic and mercury. Soil in surrounding areas is often polluted, rendering it unsuitable for agriculture, while dust and particulates from mining waste contribute to air pollution.

The socio-economic impact of mine closures, especially after the fall of communism, has been severe, leading to widespread unemployment and poverty in former mining communities. Many of these towns lack alternative industries, further exacerbating their economic challenges. In addition to these issues, old mines pose significant safety risks, including collapsing tunnels, unstable shafts, and flooding, which can spread contaminants over large areas. The remediation of these sites is costly and technically complex, often requiring advanced technologies and significant financial investment. Efforts by the Romanian government and European Union have included environmental restoration projects, stricter regulations, and funding for community development initiatives aimed at diversifying local economies.

However, challenges remain, including insufficient funding, technical difficulties, and unclear ownership of some sites, which complicate accountability and rehabilitation efforts. High-profile cases like Roșia Montană and Baia Mare highlight the tension between economic development and environmental preservation, as well as the pressing need for sustainable solutions. Comprehensive strategies that integrate environmental clean-up, community support, and compliance with EU standards are essential to address the ongoing impacts of these legacy mining sites.

Session 5: IMPEL PROJECTS

Moderator: Monica Crisan – IMPEL W&L Expert Team Deputy Leader

- **Water & Land Expert Team Projects - Mihaela Monica Crisan** - ET Leader / Deputy Leader

The presentation on Water and Land projects introduces a series of initiatives, each addressing critical environmental challenges within the framework of sustainability and circular economy principles. The **Water Circularity Index project** focuses on optimizing water use and promoting reuse to achieve the goals of the European Green Deal. The **Tackling Illegal Groundwater Drilling project** addresses the increasing challenges posed by climate change and growing water demand, utilizing advanced detection methods and improved regulatory practices.

The **Trend Reversal in Groundwater Pollution project** aims to combat the rising levels of pollutants like nitrates and pesticides by implementing measures to reverse these trends. The **Sustainable Landspreading project** investigates best practices for land application of waste materials, ensuring minimal environmental impact.

In the **Mining Waste Management project**, the focus is on evaluating historical mining waste as potential sources of raw materials, aligning with European efforts to reduce dependency on imports and promote



local resource utilization. Lastly, the **Water and Land Remediation project** supports the development of innovative, less impactful technologies for contaminated site clean-up, such as in situ chemical oxidation and soil vapor extraction. Each project highlights a collaborative, multi-stakeholder approach to addressing water and land management issues across Europe.

Additionally, the **Water and Land Conference**, held in Bucharest from October 17-18, 2023, provided a platform for experts, policymakers, and stakeholders to exchange knowledge, share project outcomes, and collaborate on solutions. This conference serves as a vital element of the broader effort to address water and land management challenges through coordinated, multi-stakeholder action.



WG8: WATER AND LAND CONFERENCE



- Bucharest 17-18 October 2023
- ET Water and Land on 19 October 2023
- Expected 60-70 attendants

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• **Industry & Air Expert Team Projects - Marinus Jordan** - ET Leader / Deputy Leader

The presentation highlights several key projects and initiatives undertaken within the scope of environmental permitting and regulation. It introduces the "Doing the Right Things for Environmental Permitting" program (2022–2024) focused on implementing the Industrial Emissions Directive (IED) through lessons learned from industrial accidents and collaboration across European inspection bodies. Specific working groups address various environmental challenges:

Risk Assessment and Planning (WG1): This group developed time estimation and focus selection procedures for different industrial sectors, with the final report available in 2023.

Prevention and Inspection (WG2a): Conducting numerous inspections across Europe, this group shared insights into non-routine inspections and compiled good practices from multiple countries between 2021 and 2023.

IED and Circular Economy (WG3): Emphasizing waste prevention, resource efficiency, and the integration of circularity metrics into permits, this group aims to guide industries toward sustainability and climate neutrality by 2050.

Public Nuisance Issues (WG4): This group tackled odour nuisances through surveys and site visits, with a project report expected in late 2023.

Program ('22-'24)

- *IED Implementation Project*
- *Lessons learned from industrial accidents*





Industry and Air (WG5): Focused on Best Available Techniques (BAT) conclusions, permitting processes, and setting limit values in emissions permits.

Operator Self-Monitoring (WG6): Addressing the reliability of self-monitoring by industries, the group conducted workshops and surveys to draft guidance for credible schemes.

Improving Air Quality (WG8): Concentrating on substances like nitrogen and fine particles, this group explores better legislative implementation for air quality improvements.

Waste Incineration (WG9): Targeting emissions, energy efficiency, and monitoring techniques, the group aligns its activities with BAT conclusions to promote standardized practices.

Poultry and Pigs (WG10): Investigating nitrogen exceedance in EU habitats, the group analyzes permits, enforcement strategies, and develops recommendations to cut emissions.

Each group aims to contribute to Europe's broader environmental goals through training, joint inspections, and the exchange of best practices, providing a foundation for regulatory advancements and sustainable development.

- **Waste & TFS Expert Team Projects - Helge Ziolkowski - ET Leader / Deputy Leader**

The presentation showcases key projects led by IMPEL's Waste and TFS Expert Team under the leadership of Helge Ziolkowski and other international collaborators. The conference emphasized waste management, circular economy, and international collaboration.

The **Waste Management and Circular Economy** project highlights advancements such as updated landfill guidance finalized in June 2023 and ongoing work on by-products, including a new database for end-of-waste, further tested and integrated into IMPEL's website. The subgroup on the Industrial Emissions Directive and Circular Economy held a meeting in June 2023 to foster progress.

A series of webinars and training sessions in 2023, including events in Bucharest and virtual engagements, addressed specific topics such as the classification of farm plastics, chemicals testing, and compliance criteria for waste shipments. A project leadership transition in plastic waste shipments marked a key milestone, complemented by planned case studies and interactive sessions.

The **Ship Recycling** project, led by Huib van Westen, strengthened cooperation with organizations like OLAF and FRONTEX through workshops and initiatives under the EMPACT Programme. It also delivered guidance on ship recycling regulations and its connection with waste shipment rules, with further collaborations and model explorations planned for late 2023.

Waste Management & Circular Economy project

Landfill Guidance New version was ready in June 2023

By-products and new business models

Survey on by-products (to be launched in June)

Working at the Guidance on by-products (including practical tools)

June 2023: meeting of the IED&Circular economy subgroup

End of Waste Database In 2023 the DEMO version has been further tested and converted into the new IMPEL website

2023: Training session in Bucharest (f2f) – October 2023





Overall, the presentation underscores IMPEL's focus on refining waste management frameworks, fostering international partnerships, and supporting innovative approaches in line with environmental legislation and circular economy principles.

- **Protection Nature Expert Team Projects - Cristian Trupina - ET Leader / Deputy Leader**

The Nature Protection 2023 presentation outlines various initiatives aimed at enhancing the enforcement of EU environmental laws to protect nature and biodiversity. Under the leadership of Alfred Dreijer and Cristian Trupina, the Expert Team (ET) is engaged in a series of projects to address critical conservation challenges.

The EU Plan on **Wildlife Trafficking** involves updating a guidance book and conducting joint inspections, such as in Madrid in March 2023, alongside workshops like the one held in Rome in April. Another key effort is the development of an Inspection Planning Tool for Natura 2000 sites, utilizing the NIRAM methodology to assess risks in sensitive areas. This tool was refined during training sessions and workshops, including one in Spain in June 2023.

Inspection Planning Tool for Natura 2000 sites

► NIRAM-Tool: Integrated Risk Assessment Methodology for Natura Sites



Invasive alien species are a focus of another project, aiming to identify best practices, raise awareness, and conduct joint inspections to combat these ecological threats. Additionally, illegal hunting tourism is being tackled through project team meetings and on-site inspections, analyzing both the origins and destinations of hunters in Italy and Romania.

The implementation of the **Birds and Habitat Directives** at European aerodromes is also underway, with inspections conducted at various civilian and military airfields across Europe, supported by the IMPEL-ESIX platform. Although currently offline, this platform is set to integrate with the IMPEL website for enhanced information sharing.

New initiatives include exploring fungi as indicators for Natura 2000 monitoring and investigating wolf populations under the project titled "Where Have the Wolves Gone?" To strengthen the network, the ET held a meeting in The Hague in November 2023, mapping EU agencies and encouraging broader member state participation in nature protection efforts.

- **Cross-Cutting Expert Team Projects - Francesco Andreotti - ET Leader / Deputy Leader**

The Cross-Cutting Tools and Approaches Expert Team presentation provides a comprehensive overview of key initiatives aimed at improving the enforcement of EU environmental law through innovative strategies and collaboration. Led by Martine Blondeel and supported by an expert steering group, the team emphasizes compliance assurance, better implementation of cross-cutting legislation, and novel approaches to environmental challenges.

Key projects include the Compliance Assurance initiative, which held a significant conference in Ghent in 2022, with its findings being integrated into ongoing efforts to implement the Environmental Crime



Directive. This project highlights strategic alignment and enhanced collaboration between permitting and inspection processes.

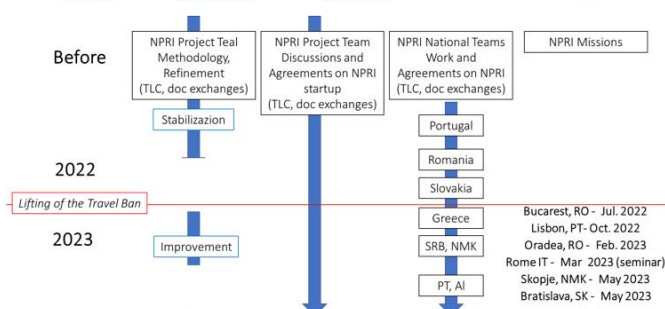
The IMPEL Review Initiative (IRI) focuses on fostering strategic alignment across various countries through site inspections and training programs. Peer reviews, like the National Peer Review Initiative, further aid capacity building and knowledge sharing, engaging new member states in project participation.

Significant progress is seen in the development of the Financial Provisions Webtool, which aims to improve accessibility to IMPEL guidance for decision-making on environmental protections. Similarly, the Criteria for the Assessment of Environmental Damage (CAED) project has advanced tools such as an e-learning platform, training materials, and an interactive website.

A key innovation is the Geospatial Intelligence for Environmental Damage Assessment (GIEDA) project, which utilizes earth observation data and geostatistics to detect, evaluate, and document environmental damages, such as pollution and illegal logging. This project not only builds technical capacities but also contributes to evidence gathering for legal proceedings.



A short recap of work methods, activities carried out and milestones



The Climate Change Emergency Programme addresses alternative approaches to interventions, while other projects emphasize the integration of administrative and criminal enforcement to combat environmental offenses effectively. These initiatives collectively aim to enhance sustainability, ensure accountability, and improve the capacity of regulators and agencies across Europe.





Annex – Water and Land Conference Agenda



European Union Network for the Implementation
and Enforcement of Environmental Law



WATER AND LAND

Bucharest Water & Land Conference (17-18 October 2023)

Local: Bucharest (Palace of Parliament- *Nicolae Balcescu Hall* + virtual meeting (via Teams)
[TEAMS link to connect](#)



17 October

Moderator: Maria Mija – IMPEL National Coordinator for Romania

9h00 Opening and welcome from IMPEL
Marco Falconi – IMPEL W&L Expert Team Leader
Monica Crisan – IMPEL W&L Expert Team Deputy Leader
Iustina Popescu Boaja – Geological Institute of Romania (IGR)

9h20 Opening and welcome from Romanian Institutions
Cristina Burciu – Vice-president of the Commission for Economic Policy, Reform and Privatization - Chamber of Deputies
Mircea Fechet - Minister of Environment, Waters and Forests (MMAF)
Bogdan - Gruia Ivan - Minister of Research, Innovation and Digitization (MCID)
László Borbély – State Counsellor: Chancellery of the Prime Minister, Coordinator: Department of Sustainable Development
Tudor Prîsecaru – Secretary of State Ministry of Research, Innovation and Digitization (MCID)
Andrei Alexandru – Secretary of State Ministry of Research, Innovation and Digitization (MCID)
Daniela Nicolescu – Secretary of State Ministry of Economy, Entrepreneurship and Tourism (MEAT)
Terente Ciui – Secretary of State Ministry of Economy, Entrepreneurship and Tourism (MEAT)
Sorin Moise - Secretary of State Ministry of Agriculture and Rural Development (MADR)
Andrei Rudolf Corlan – President of the National Environmental Guard (GNM)
Anca Isac – General Director of the Geological Institute of Romania (IGR)

10h00 Session 1: Update on EU Green Deal and other relevant policies
Moderator: Maria Mija - IMPEL National Coordinator for Romania

10h20 ECD proposal and its relevance for tackling water offenses
Elisabetta Reyneri – DG ENVIRONMENT, European Commission

10h40 Emeritus project
Mihaela Violeta Gheorghe - Emeritus project

11h00 The new frontiers of environmental crime
Massimiliano Corsano – former ENVICRIMENET member

11h00 Coffee/tea break

11h30 Update on Commission initiatives in relation to Water
Marianthi Podimata – DG ENVIRONMENT, European Commission

11h50 OECD EU4Environment Action and the Water Resources and Environmental Data programme with the Eastern Partner countries
Olga Olson, Matthew Griffiths – Organization for Economic Cooperation and Development (OECD)

12h10 UNEP activities related to Water and Land
Elena Stefanoni – United Nations Environmental Program (UNEP)

12h30 PLENARY DISCUSSION

13h00 Lunch

14h30 Session 2: Water Reuse
Moderator: Iustina Popescu Boaja – Geological Institute of Romania (IGR)

14h30 The WINE project
Anabela Rebelo – Apambiente, Portugal

14h50 Regulation and future challenges/developments
Roberta Maffettone – Joint Research Centre, European Commission (JRC)



European Union Network for the Implementation
and Enforcement of Environmental Law



- 15h10 “Challenges and benefits of the New Regulation of Water Reuse: Case study of Spain”
Ana Allendre Pietro – Centre for Soil and Applied Biology Segura, Spain (CEBAS)
- 15h30 PLENARY DISCUSSION
- 15h50 *Coffee/tea break*
- 16h10 Session 3: Soil contamination and Soil Monitoring Directive
Moderator: Marco Falconi – IMPEL W&L Expert Team Leader
- 16h10 Soil Monitoring Directive
Mirco Barbero – DG ENVIRONMENT, European Commission
- 16h30 The revision of the indicator “Progress in the management of contaminated sites”
Rainer Baritz – European Environmental Agency (EEA), Frank Swartjes – RIVM, EIONET WG Contamination
- 16h50 EU Soil Observatory activity
Piotr Wojda – Joint Research Centre, European Commission (JRC)
- 17h10 “A soil deal for Europe” Horizon Europe Mission
Iustina Popescu Boaja – REA – Member of the Horizon Europe Mission Board
- 17h20 PLENARY DISCUSSION
- 17h40 Closing day 1
Marco Falconi – IMPEL W&L Expert Team Leader
- 18 October**
- 9h00 Opening, agenda Day 2 and wrap-up of Day 1
Marco Falconi – IMPEL W&L Expert Team Leader
- 9h10 Session 4: Challenges in the implementation of EU environmental laws in Romania
Moderator: Monica Crisan – IMPEL W&L Expert Team Deputy Leader
- 9h10 Application of Water Framework Directive
Gheorghe Constantin - Deputy General Director Ministry of Environment, Waters and Forests (MMAF)
- 9h30 Landfills of waste
Cosmin Teodoru – Ministry of Environment, Waters and Forests (MMAF)
- 9h50 The problem of old mines
Marian Munteanu – Geological Institute of Romania (IGR)
- 10h10 PLENARY DISCUSSION
- 10h30 *Coffee/tea break*
- 11h00 Session 4: IMPEL Projects
Moderator: Marco Falconi – IMPEL W&L Expert Team Leader
- 11h00 Water & Land Expert Team Projects
Mihaela Monica Crisan - ET Leader / Deputy Leader
- 11h30 Industry & Air Expert Team Projects
Marinus Jordan - ET Leader / Deputy Leader
- 12h00 Waste & TFS Expert Team Projects
Helge Ziolkowski - ET Leader / Deputy Leader
- 12h30 Lunch
- 14h00 Protection Nature Expert Team Projects
Cristian Trupina - ET Leader / Deputy Leader
- 14h30 Cross-Cutting Expert Team Projects
Francesco Andreotti - ET Leader / Deputy Leader
- 15h00 PLENARY DISCUSSION
- 16h00 Conclusions and closing of the Conference
Marco Falconi – IMPEL W&L Expert Team Leader