The Study Case #10 – ReSoil®-Urban in Moldova Nouă, ROMANIA

Information of site owner/site provider

- Universitatea Babeș-Bolyai din Cluj-Napoca, Strada Mihail Kogălniceanu 1, Cluj-Napoca 400347, Romania
- Source of funding: EU HORIZON-RIA, grant agreement No. 101112723

Objective

ReSoil® technology appraisal under the EU Horizon ARAGORN project. ARAGORN assesses its sustainability, contaminant removal effectiveness, and environmental remediation viability

Contaminated site characterization

- Remediation of soil/metallurgical deposit, contaminated with 110 mg kg^{-1} Pb, 0.5 mg kg^{-1} Cd, 1170 mg kg^{-1} Cu, and 150 mg kg^{-1} As
- pH: 3.2

Remediation results

- 43% Pb, 68% Cd, 32% Cu and 3% As were removed

Source: Universitatea Babeș-Bolyai din Cluj-Napoca

Site description

The Moldova-Nouă mining site has been exploited for copper since 1965, with underground and surface mining. After ceasing operations in 2008, a new exploitation license was granted in 2021 to CUPRUMOLD Mining SA. The area has a heterogeneous distribution of heavy metals due to its mining history.

ReSoil® REMEDIATION EFFICIENCY

Initial metal concentration

Pb	Cd	Cu	As
110 mg kg^{-1}	0.5 mg kg^{-1}	1170 mg kg^{-1}	150 mg kg^{-1}

Reduction in metal concentration