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PROJECT FACTS

Funding Programme: Horizon Europe

Topic : HORIZON-CL4-2023-RESILIENCE-01-02

Duration: 36 Months | Starting from 1 December 2023

Total Funding/EU contribution: 4.995.636 €

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CONSORTIUM



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A Sustainable Ecosystem for the Innovative Resource Recovery and Complex Ore Extraction



ABOUT XTRACT

XTRACT is a 3-year Horizon Europe funded project which brings together 14 partners from 9 European countries. **XTRACT** aims to introduce innovative solutions for assessing stockpiles and tailings, alleviating resource pressure, and significantly contributing to EU Climate Neutrality Goals with substantial emission reduction. The project also focuses on low-TRL green technologies, like bioleaching and phytoremediation, tailored for mining waste piles, offering sustainable solutions for waste remediation and precious metal recovery. **XTRACT** is not just a project; it's a bold step towards a greener and more sustainable future in the mining industry.

OBJECTIVES



Automate mineral prospecting and extraction in challenging conditions.



Introduce "precision mining" for selective recovery of metals from low-grade minerals and mine wastes.



Scale and deploy remote sensing for systematic monitoring of "hard-to-access" mining sites.



Enhance an open standards-based digital repository for sustainable mining transformation.



Evaluate mine sites and waste disposals, demonstrating the feasibility of green technological solutions.



Organise uptake, replication, and upscaling of **XTRACT** innovations.



Plan and facilitate the exploitation of project results.



Communicate and disseminate scientific and technical results, fostering knowledge transfer and market development.



TECHNOLOGIES



Difficult Mineral Contexts Classification



Reconfigurable UAV System



Electroanalysis & Processability Index



Borehole Detector System for Waste Mapping



Ground & Air-borne analysis



Drilling Performance Optimisation



Real-Time Ore Grade Assessment



Surface & Underground Mine Mapping



Sustainable Assessment: LCA, Carbon Footprinting, and Circularity Indicators



Phytoextraction & Phytoremediation Solutions



Eco-Friendly Bioleaching



Novel Membrane Filtration Technology



Novel Airborne Geophysical-Electromagnetic System



PILOTS



Pilot 2: Björkdal
SWEDEN

Pilot 1: Tellerhäuser
GERMANY

Pilot 3: São Domingos
PORTUGAL

Pilot 4: Lavrion
GREECE