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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

TUBAF · LULEÅ TEKNISKA UNIVERSITET · MUON SOLUTIONS · VNIVERSIDAD D SALAMANCA · ACCELIGENCE · brgm · UNPARALLEL · LNEG · ΠΟΛΥΤΕΧΝΕΙΟ ΚΡΗΤΗΣ TECHNICAL UNIVERSITY OF CRETE · LITHUANIAN RESEARCH CENTRE FOR AGRICULTURE AND FORESTRY · MANDALAY RESOURCES BJÖRKDALSGRUVAN AB · SAXORE BERGBAU · NTUA-AMDC · G.E.O.S. INGENIEUR-GESELLSCHAFT MBH

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XTRACT

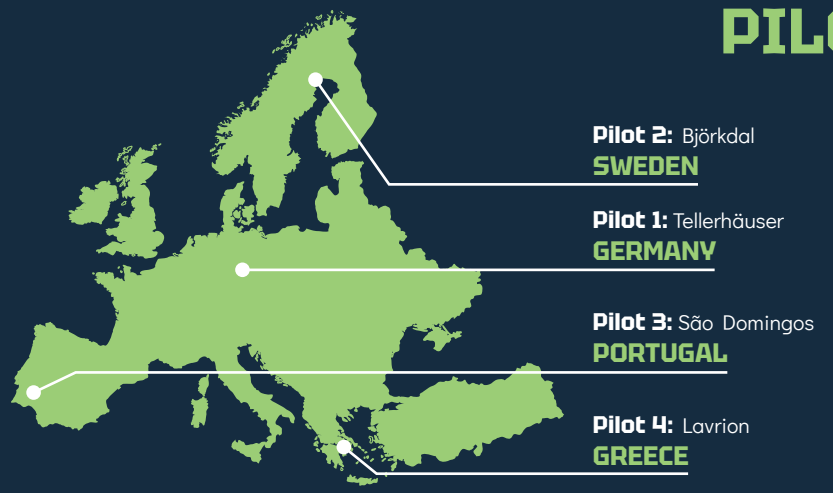
A Sustainable Ecosystem for the Innovative Resource Recovery and Complex Ore Extraction

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.

TECHNOLOGIES

PILOTS



Pilot 1 – Tellerhäuser, **Germany** (Underground Mine)

- Optimization of in-situ bioleaching (biomining)
- Sustainable metal recovery methods: membrane filtration, electrodialysis
- CRM / Raw Materials: Zn, In, As, Ag, Cu, Co

Pilot 2 – Björkdal, **Sweden** (Underground & Open Pit)

- Drilling and borehole optimization
- Improved ore recovery and reduced siderock dilution

Pilot 3 – São Domingos, **Portugal** (Open Pit)

- High-resolution geochemical mapping of mining wastes for CRM
- Drone surveys for volumes and geochemical validation
- Lab-scale chemical extraction and bioleaching tests
- CRM / Hazardous Elements: Zn, Pb, Sb, Cu, As, Hg, Cd

Pilot 4 – Lavrion, **Greece** (Underground & Open Pit)

- Phytoremediation and metal phytomining using trees
- Recovery of abandoned mine environment
- Circular economy metal recovery methods
- CRM / Hazardous Elements: As, Pb, Cd, Cu, Zn, Fe, Mn