

# UNDERCOVER - Unified Novel Deep ExploRation for Critical Ore discoVERY

- HORIZON-CL4-2024-RESILIENCE-01-01: HORIZON-RIA

(Duration: 1.1.2025 - 31.12.2027; Total budget: 4 999 987.50 €)

Goals:       

- Extending the **mineral systems concept** to deep exploration relevant spatial scales
- Integrate novel, cost-effective, and **low-impact technologies** and **AI-based geological mapping** and **geophysical joint inversion**.
- **Address and mitigate environmental, social, and governance** (ESG) aspects of mineral exploration at all stages.
- **Map primary raw materials potential** in EU and non-EU countries across **three major mineral belts**
- Promote the **use of UNFC** for innovative and effective exploration strategies.
- Advance **deep mineral exploration technologies**, stimulate R&D, and **ensure exploitation** by EU stakeholders, **inspiring confidence** among policy makers and stakeholders.



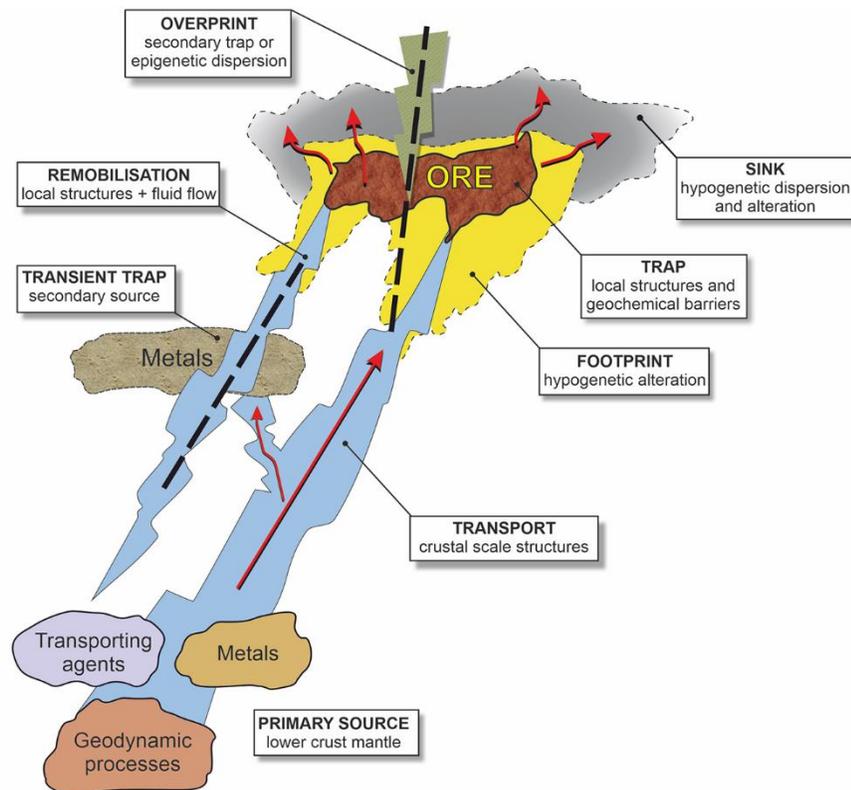
INDUSTRY & SME's (7 partners, 26% of the budget)

RESEARCH (6 partners, 58%)

UNIVERSITIES (3 partners, 16%)

# UNDERCOVER – Application of mineral system approach

- Initial and refined **mineral system**
- Define *the critical mappable components* (**vectors to ore**)
- Map the **critical components** in 2D/3D/4D space (geology, geophysics, geochemistry, data integration using machine learning and AI)
- Generate **prospectivity maps** (scale dependent)



- **WP1.** Mineral Systems under Cover (GTK/LNEG)
- **WP2.** Innovative Geophysics (IG CAS)
- **WP3.** Innovative Data Integration (BRGM)
- **WP4.** Environmental, Social and Governance (LGI)
- **WP5.** Integrated Exploration Strategy (UM)
- **WP6.** Communication, Dissemination & Exploitation (LGI)
- **WP7.** Project Management (GTK)

## FINLAND: Kuusamo Schist Belt

- Orogenic Au-Co ± Cu, REE mineral system

## PORTUGAL: Iberian Pyrite Belt

- VMS Cu-Zn-Pb ± Sn, Ag, Au, In, Ga, Ge, V and Se mineral system

## NAMIBIA: Kalahari Copper Belt

- Sediment hosted Cu mineral system