

H2020 research project on the development of novel technologies for ore exploration



16 partners from leading EU research institutes (3), academia (3), service providers (5) and industry (5) from Finland, Sweden, Germany, France, Malta and Spain





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The main objective of NEXT is to develop innovative and sensitive exploration concepts and technologies, and to investigate and promote their acceptance by the society.







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Methodology

The overall methodology in NEXT is structured around three pillars of technological advances:

- (a) Mineral systems modeling,
- (b) Exploration methods and approaches, and
- (c) Data processing and data integration tools.



Project concept





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Specific objectives & developments

- 1 New **geological/litho-geochemical** technologies for the exploration of hidden critical metal-enriched ore deposits
- 2 A novel geophysical EM system for ore exploration based on unmanned aerial vehicles (UAV)
- 3 A high-end accurate **vector magnetic system** integrated to UAV in order to upgrade mineral exploration survey to totally new level
- 4 Better cost-efficient and environmentally-friendly multi-source surface geochemical exploration techniques for target scale mineral exploration
- 5 New environmentally friendly instruments for mineral exploration using optical spectroscopy
- 6 New geophysical inversion software for modern drone exploration surveys
- 7 New on-site geochemical and mineralogical analysis techniques
- 8 New advanced methods of data processing and data integration for the development of mineral prospectivity maps and spatial data mining
- 9 Improved relations between the mining industry and broader society by enhanced participation of civil society from the start of mineral exploration
- **New** scientific and technical **synergies** between European projects dealing with Raw Materials





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