

INFACT FACTS IN BRIEF

FUNDING ORGANISATION

EU/ H2020

FUNDING AMOUNT

5.6 Mio €

TIMEFRAME

Nov 2017 - Oct 2020

COORDINATOR

Helmholtz Institute Freiberg for Resource Technology at
Helmholtz-Zentrum Dresden-Rossendorf

PARTNERS

17 partners from research and academia, industry, state and not-for-profit organisations drawn from seven countries. Altogether they have extensive experience in mining, geology, exploration, IT, social science and communication:

Agencia de Innovation y Desarrollo (IDEA), Anglo American Sakatti Oy, Arhus Geo, Atalaya Mining, ATClave, Cobre las Cruces, Dialogik, European Federation of Geologists (EFG), Fraunhofer IAO, GALSA (Geotech), Geognosia, Helmholtz-Zentrum Dresden-Rossendorf (coordinator), Oulu Mining School, SRK Exploration Services, Supracon, SYKE, University of Eastern Finland.

MORE INFORMATION

Web: <http://infactproject.eu>
Social media: @INFACTproject



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THE FUTURE OF RAW MATERIAL EXPLORATION IN THE EU



INNOVATIVE, NON-INVASIVE AND FULLY
ACCEPTABLE EXPLORATION TECHNOLOGIES

<http://infactproject.eu>
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SOCIALLY ACCEPTED, ENVIRONMENTALLY-FRIENDLY & TECHNOLOGICALLY ADVANCED:



THE PROJECT SCOPE

Exploration discovery of raw material resources requires innovations that either change the geological targets of exploration, the physical places that are reached, or the manner in which they are explored. Despite its rich history of mining and residual mineral wealth, current conditions within the EU present several social, political, legislative, cost, technical and physical obstacles to raw material exploration: obstacles to be overcome by **innovation, dialogue and reform**.

The *Innovative, Non-invasive and Fully Acceptable Exploration Technologies* (INFACT) project unites stakeholders of Europe's future raw materials security in its consortium and activities. Via **effective engagement of civil society, state, research and industry**, the project will focus on each of the aforementioned obstacles. It will co-develop improved systems and innovative technologies that are more acceptable to society and that will invigorate and equip the exploration industry, unlocking unrealised potential in new and mature areas.

The project will develop **innovative geophysical and remote sensing technologies** (less-invasive than classical exploration methods) that promise to penetrate new depths, reach new sensitivities and resolve new parameters.

The project will also set the EU as a leader on the world stage by establishing permanent infrastructure to drive innovation in the next generation of exploration tools: tools that are cost-effective, designed for EU conditions and its raw materials strategy, and high-performing in terms of environmental impact, social acceptability, and technical performance.

INFACT is comprised of the following main components:

- Development and test of **innovative, non-invasive exploration technologies**;
- Foundation of **3 reference sites** for exploration technology in the south, centre and north of Europe;
- **Stakeholder engagement, education and policy reform**.

These actions are combined to reach each of the main areas in which the EU has the power to influence changes in its raw materials security.

PUSH DIALOGUE, INNOVATION & REFORM:

THE APPROACH



1. Establish EU reference regions

In the project's reference regions (Sakatti in the north of Finland; Geyer in the east of Germany and Andalusia in the south of Spain), which are marked by active or historical mining activities focused on both industry and high-technology metals, the researchers will test and establish benchmarks for non-invasive exploration methods. This will be accompanied by activities involving public authorities and local communities.

2. Develop innovative exploration technologies

The researchers will develop innovative exploration technologies and processes which are less invasive than the classical methods and promise to penetrate new depths, reach new sensitivities and resolve new physical properties. The project will focus on disruptive exploration technologies such as multi-sensor drones and superconducting sensors or, more precisely, superconducting quantum interference devices (SQUIDs).

3. Benchmark technologies

Both state-of-the-art and innovative exploration technologies will be benchmarked in terms of environmental impact, social acceptability and technical performance in order to increase transparency and competition and to better inform decision-makers in their technology choices. To do so, helicopters, airplanes and drones will be used in the reference regions to apply the technologies. The aim is to create a technology certification system.

4. Engage with key stakeholders and implement exploration practices that are more acceptable to society

Engagement with stakeholders across the EU (civil society, state, research and industry), globally and at the different reference sites will raise awareness of sustainable exploration methods, build public trust in the raw materials cycle and result in a shared vision of best practice in exploration that would enable to envisage and implement exploration practices that are more acceptable to society.

5. Provide a Discovery Roadmap

Building up on stakeholder dialogue and research, the project will produce a "Discovery Roadmap" that will provide recommendations for policy reform, plans for improved availability of quality exploration data, and education gaps related to civil society, the state and industry with the overall goal to improve exploration conditions in the EU and make it more attractive for exploration investment on a global stage.

