Theory of change for the mineral Exploration - INFACT project

Cathryn MacCallum¹, Jon Russell¹, Moritz Kirsch², Leila Ajjabou², Insiya Salam¹, and Louis Bennet¹
¹Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, Exploration, Dresden, Germany (l.ajjabou@hzdr.de)
²SRK Exploration Services

The INFACT project aims to reinvigorate mineral exploration in Europe by engaging society and using new technology and research to improve mineral exploration practice. The consortium is formed of geo- and social scientists working together to achieve a new vision of mineral exploration. As a key part of INFACT, expert stakeholders from across Europe and other jurisdictions such as Australia and Canada have been engaged in a series of online and face to face discussions to determine and address identified challenges to exploration and a way to overcome them.

Five key environmental and social challenges and barriers to exploration in Europe have been determined by INFACT through a mix of qualitative and quantitative research. These were (i) existing land use, (ii) the cost of mineral exploration, (iii) public perceptions and negative attitudes toward the exploration and mining industry, (iv) sustainability and the environment, and (v) governance and regulatory structures and processes.

Through a series of workshops and interviews, discussing ways to address these challenges and barriers, a vision for mineral exploration and mining in Europe was created:

- Mining in Europe should contribute to local and regional sustainable development, enabling a low carbon economy through environmentally and socially acceptable extraction of critical raw materials (CRM). This will involve:
- The European Commission developing and enforcing rigorous and binding legislation with respect to all mineral exploration activities;
- Increased investment contribution for exploration of CRM within Europe;
- Exploration companies being required to adopt environmental and socially acceptable good practice;
- Increased awareness of the importance of mining to support a low carbon economy and improved public trust in the process;
- Creation of socio-economic shared value through adoption of multi-stakeholder collaborative planning and visioning; and
- Exploration companies achieving and maintaining a Social Licence to Operate;

The work presented will determine a way to ensure socio-environmentally sustainable supply of
raw materials and the key steps required to achieve this vision.