



RawMaterials

Connecting matters



COVER MAPPING USING AMBIENT SEISMIC NOISE

KAVA Call 9

Brokerage Event & Expert Forum³ | 13-14 October 2021



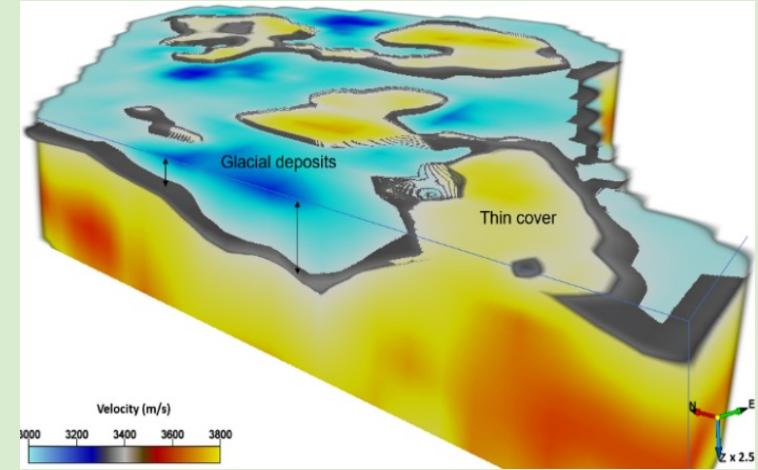
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COVER MAPPING USING AMBIENT NOISE SEISMIC METHODS

- *Ambient Seismic Noise Surface Wave Tomography is the premium method for mapping sedimentary cover that obscures numerous mineral exploration sites*

Alluvium, soil or sediments cover large areas of most continents and obscure vast regions that potentially contain mineral deposits. Sisprobe uses passive seismic methods to generate 3D models of shear wave velocity that map the thickness of cover, the geometry of cover-basement contacts, and major geological units. The approach can identify buried targets and direct exploration drilling.



Glacial deposits in Canada
500 seismic stations deployed over a 3x3 km area mapped glacial deposits with thicknesses from 50 to 200 m.

THEMATIC SCOPE OF THE PROJECT PROPOSAL

Category of activity:

- Upscaling/RIS

Links with topics addressed in KAVA Call 9:

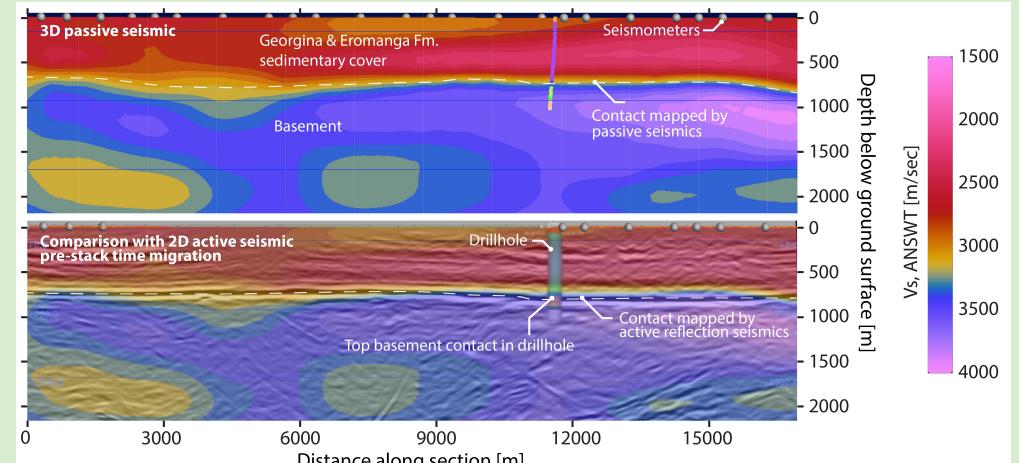
- Raw Materials and Circular Societies Lighthouse:
 - Supply of Strategic Materials and/or CRMs
- Sustainable Discovery and Supply Lighthouse:
 - Targeted exploration of Strategic Materials and/or CRMs

Glacial deposits, soil and alluvium obscure vast regions throughout Europe where mineral exploration is underway. These regions are potential sources of critical and strategic minerals that will help reduce Europe's reliance on foreign suppliers of metals essential for European industry.

In many regions, the exploration sites are in sensitive areas like natural parks or farmland, and the exploration technique must have minimal impact on the environment. Sisprobe's seismic technique serves this purpose.

CURRENT STATUS OF THE PROPOSAL

- Current status of the proposal:
 - Sisprobe has demonstrated or is demonstrating ambient seismic technology as a cover mapping tool at sites in Canada, USA, South Africa, Sweden and Australia. Results so far obtained have convinced several major mineral exploration companies to adopt the technology on a commercial basis
- Type of expertise requested:
 - Complementary geological, geochemical and geophysical techniques (EM, MT, IP, magnetics, gravity, etc)
 - Digital and AI experience to help improve the efficiency of data processing



Seismic velocity models mapping sedimentary cover in Queensland, Australia

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