



The imagery provided by the technology reduces the need for 'hit-and-miss' drilling | Photo source [Ideon Technologies](#)

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A NEW DISCOVERY PLATFORM FOR LOW-IMPACT MINING

 AGRICULTURE & ENERGY

A collaboration aims to increase the sustainable production of critical mineral resources needed to fuel the clean energy transition

Spotted: Canadian Digital Technology Supercluster has announced the launch of a new Discovery Platform that will enable mining exploration companies to target deposits more precisely beneath the Earth's surface. The company aims to increase the sustainable production of critical mineral resources needed to fuel the clean energy transition.

Referred to as the Earth X-ray for Low-Impact Mining project, the multi-party collaboration will be led by muon tomography pioneer Ideon Technologies in partnership with Simon Fraser University (SFU), Dias Geophysical, Microsoft, Fireweed Zinc, and Mitacs. The project also receives support from BHP, the largest mining company in the world [according to market capitalisation](#).

The platform will enable mining exploration companies to identify density and magnetic anomalies with greater accuracy – up to 1 kilometre beneath the Earth's surface. The organisation compares the technology to the workings of X-rays and MRIs.

The state-of-the-art combination of hardware and software could re-cast the economics of a highly traditional industry not known for its green credentials. The highly-detailed imaging provided by the technology will reduce the need for speculative, and environmentally-damaging 'hit-and-miss' drilling. The hope is that this type of development will pave the way for low-impact mining exploration.

Gary Agnew, Ideon CEO and Co-Founder said, "As co-innovators, we will deliver a solution to the global mining industry that will directly reduce the cost, time, risk, and environmental impact of finding new mineral and metal deposits, while dramatically increasing certainty and discovery rates in a sector that has been historically characterised by uncertainty."

Previous mining-related innovations spotted by Springwise include [autonomous drones](#) for underground exploration, and [solar energy](#) for mining processes.

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Takeaway:

The transition to renewables requires the production of critical minerals and metals to significantly increase. With a majority of near-surface deposits already being exploited, the mining industry is forced to search deeper underground. Traditional exploration methods involve extensive drilling, which is environmentally invasive. The new method promises to be more eco-friendly, both in the short and long run.