

The Pan-Canadian Geoscience Strategy: Integration and Cooperation for Critical Minerals Exploration and Energy Transformation

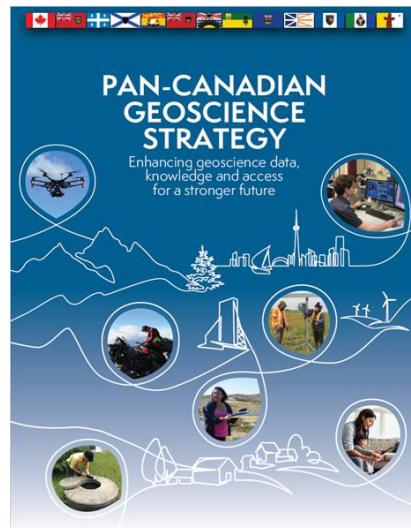
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Summary

Federal, provincial, and territorial geological survey organizations (GSOs) in Canada provide public, open-access geoscience that contributes to Canada's economic success and serves the public good. Public geoscience informs decisions by governments and industry on topics such as responsible energy, mineral and groundwater resource exploration and development, natural resource infrastructure development, and public safety and security, producing measurable benefits. According to an Ernst and Young study released in 2020, over the past decade GSO-led public geoscience programs have generated at least \$1.22B in economic benefits — 7.3 times the amount of money originally spent by government.

Rising demands for alternative energy sources and for critical minerals used for clean and digital technologies hold significant potential for Canada to contribute to net zero targets and global supply chains. However, with the long and steady decline of many Canadian mineral reserves, GSOs need to identify new prospective areas or new indicators of prospectivity – known to increase the success rate of private sector mineral exploration – while meeting societal demands to provide geological information about environmental factors for safe and responsible resource development.

To better position and coordinate public geoscience to meet these and other challenges, GSOs across Canada have developed a Pan-Canadian Geoscience Strategy (PGS) that is outlined in a document that was recently released (NGSC, 2022). This initiative, which falls under the Canadian Minerals and Metals Plan and was recently endorsed by Canada's Mines Ministers, builds on existing collaborations and represents a renewed commitment to strong intergovernmental and stakeholder relationships for delivering open and accessible geoscience data and knowledge to support mineral exploration and Canada's energy transition.



Based on needs identified by the minerals, mining and energy industries, academia and government producers/users of geoscience, the PGS priority areas are:

- Advancing framework geoscience
- Advancing mineral and energy potential modelling
- Facilitating access to online data
- Supporting the training of next generation geoscientists
- Enhancing public literacy in geoscience



As we take our first steps to advance the strategy, we are engaging of public geoscience users and stakeholders to help focus the activities and collaborations between geological survey organisations in Canada. This will work will support the transition to clean energy and meet society's expectations around environmentally and socially responsible development. Geoscience stakeholders are invited to share their views on where new geoscience knowledge is needed, what scale of data they require to succeed, and what skill sets the next generation of geoscientists coming up behind them will need.

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References

National Geological Survey Committee. 2022. Pan-Canadian Geoscience Strategy: Enhancing Data, Knowledge and Access for a Stronger Future. 24 p. <https://www.geologicalsurveys.ca/pan-canadian-geoscience-strategy>
<https://doi.org/10.4095/329347>