



MINISTRY OF
MINES AND ENERGY





Geological Survey of Brazil



Mission, Vision,

The Geological Survey of Brazil is a state-owned company, under the auspices of the Ministry of Mines and Energy, that carries out the functions of the Geological Survey of Brazil.

Mission

To produce and divulge geoscientific knowledge with excellence, contributing to the improvement of life quality and sustainable development of Brazil.

Vision

Be a reference in the generation of knowledge and in the development of effective solutions in Geosciences for the well-being of Brazilian society.

Values and Principles

Ethical and Transparent Management:

To consider the **public interest above all**, making available to society mechanisms for monitoring and supervising the company's actions.

Technical and Scientific Excellence:

To assure total user satisfaction by **providing products of recognized quality and technical credibility**.

Training and Development:

To make valuing its professional resources one of the institution's scientific and cultural assets.

Social Responsibility and Ecological Awareness:

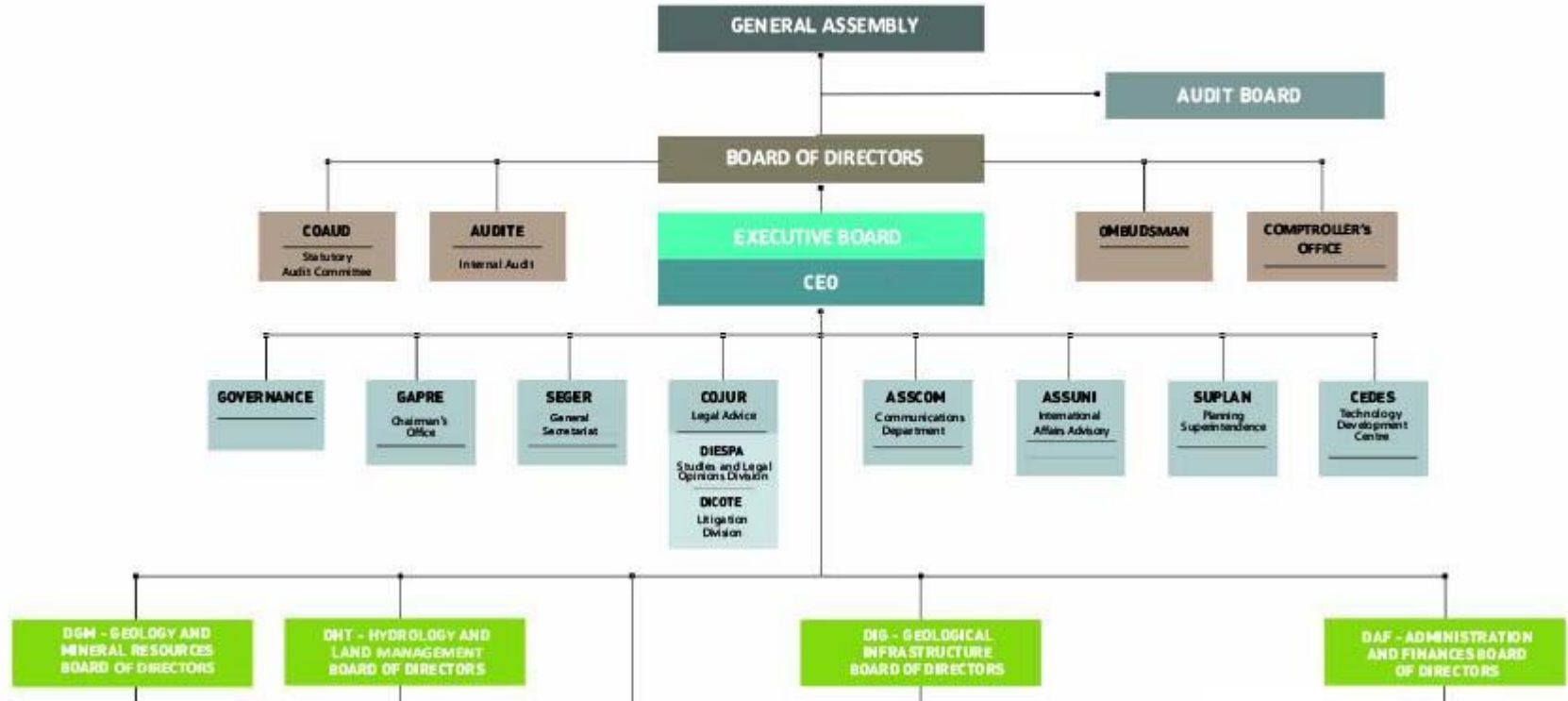
To **encourage the sustainable use of mineral and water resources** in perfect harmony with the environment and with society's current and future needs.

Geology for Society Welfare:

To **add value to geological knowledge** so that it becomes indispensable to the development of the country's mineral and water sectors and land use.

Water - Vital and Strategic Asset:

Organization Chart



Geology



Geological Hazard



Mineral Resources



Surface and Groundwater



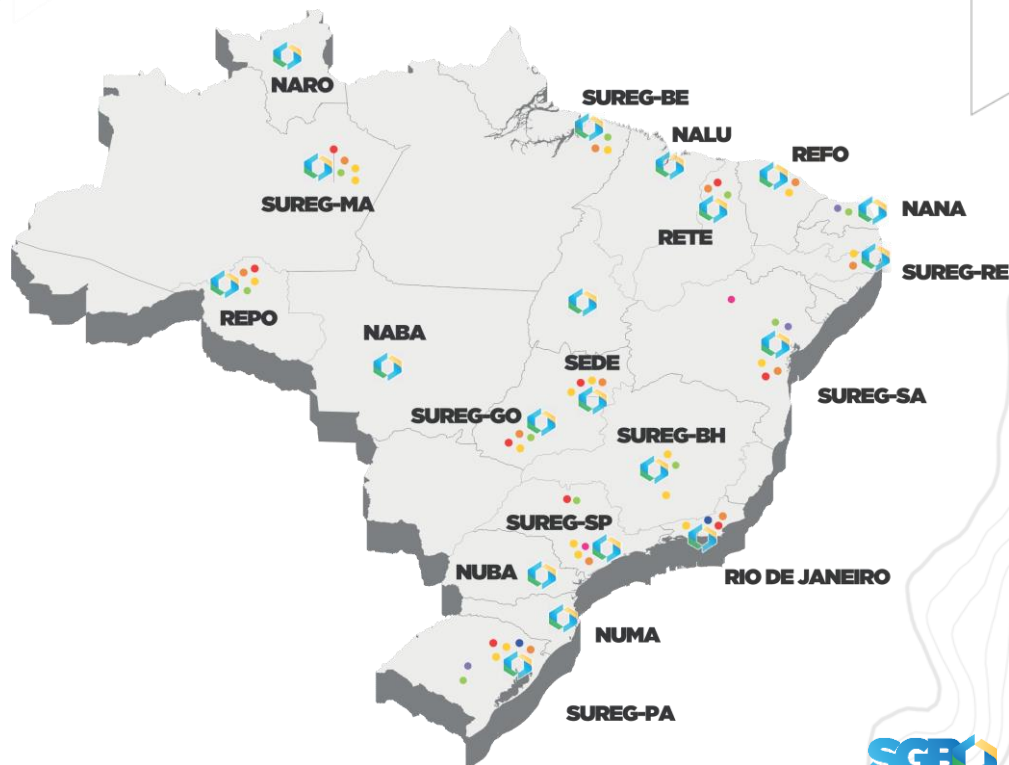
1411 Perm. Staff

295 Analysts (GIS; Oceanography)
551 Technicians (Hydro; Field; Lab.)



565 Researchers

134 Ph.D. (~23%)
366 M.Sc. (~65%)



Brazilian scenario



- Top 5 Mineral producers (IBRAM);
- Nearly 90 mineral commodities;
- Solid legislation;
- New mining operations require environmental licenses at three different stages of development;
- One of the “Cleanest” Electric Matrix in the world (~83% in 2022; EPE);
- Skilled workforce;

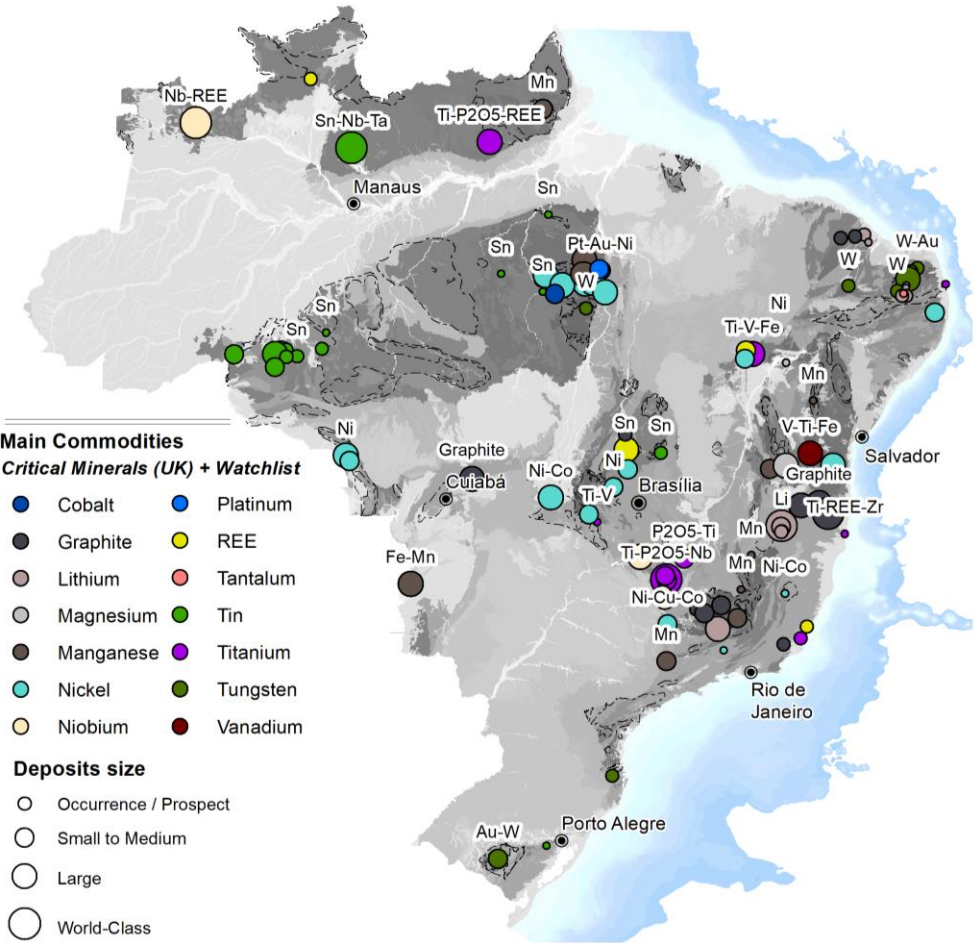
Main Commodities

Critical Minerals (UK) + Watchlist

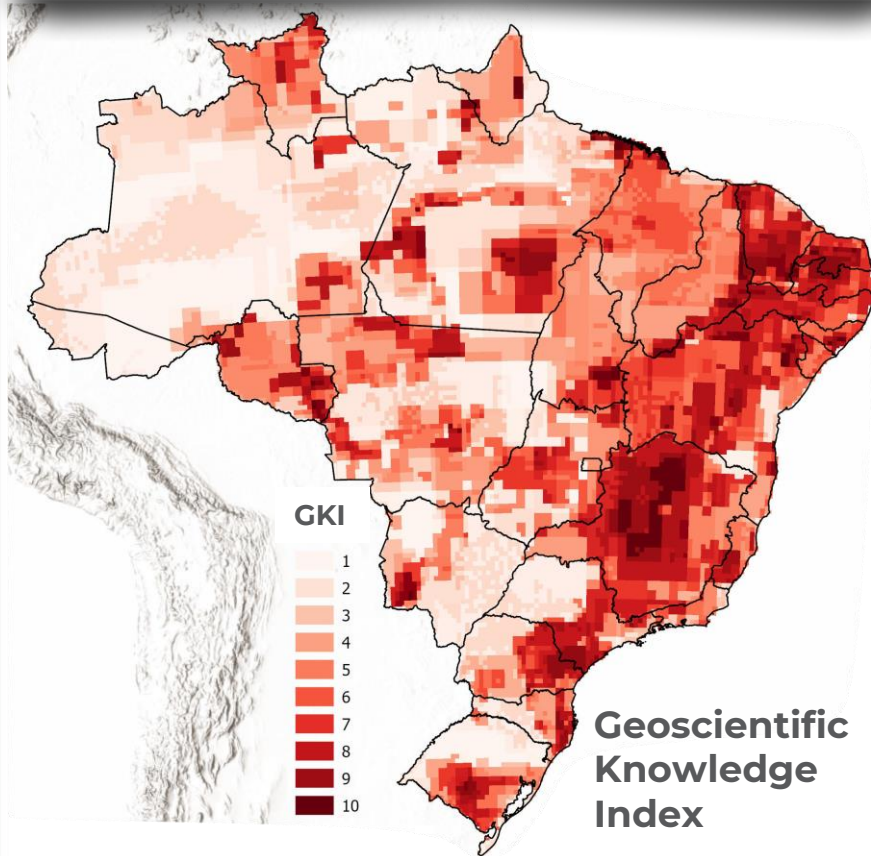
● Cobalt	● Platinum
● Graphite	● REE
● Lithium	● Tantalum
● Magnesium	● Tin
● Manganese	● Titanium
● Nickel	● Tungsten
● Niobium	● Vanadium

Deposits size

○ Occurrence / Prospect
○ Small to Medium
○ Large
○ World-Class



State-of-the-art of geoscientific knowledge

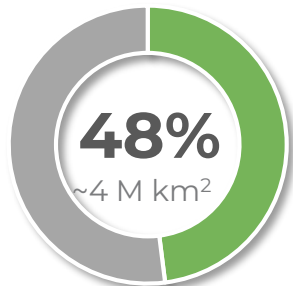


Pre-competitive geoscience Data:

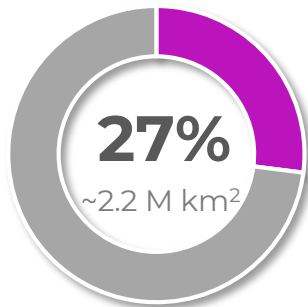
- pre-competitive geoscience information to **grow prospectivity**;
- reveal **new opportunities**;
- **reduce exploration risk** and drive industry **investment**.

Geological Mapping

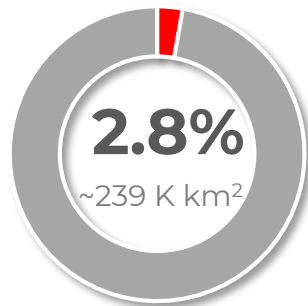
1:250K



1:100K



1:50K



Precambrian
Basement

78%

Sedimentary
Basins

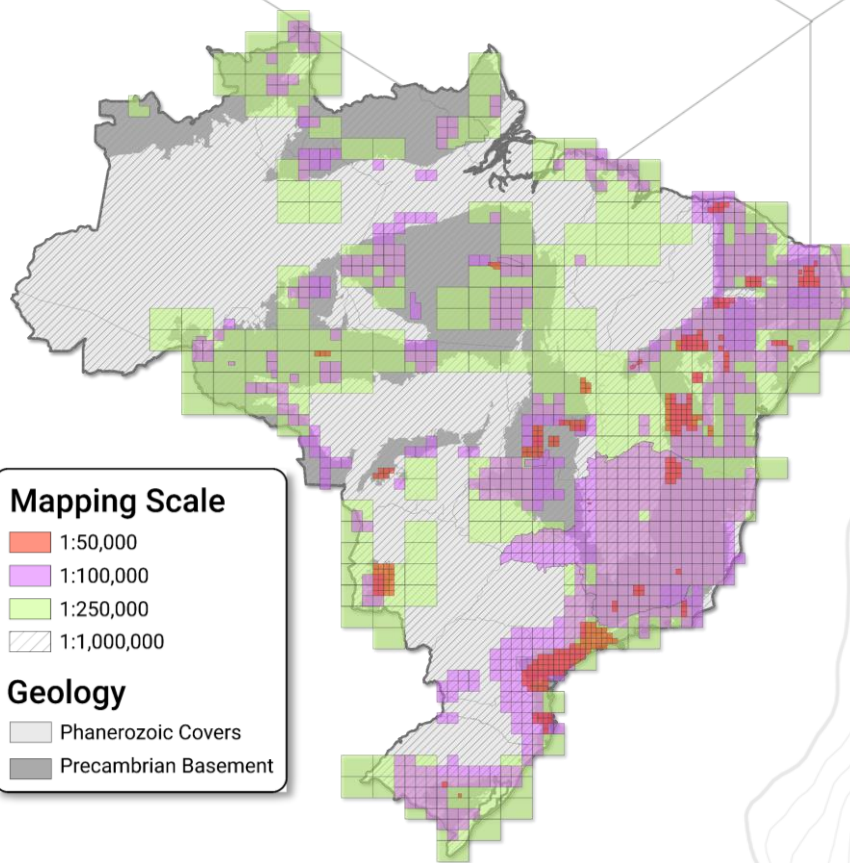
38%

Mapping Scale

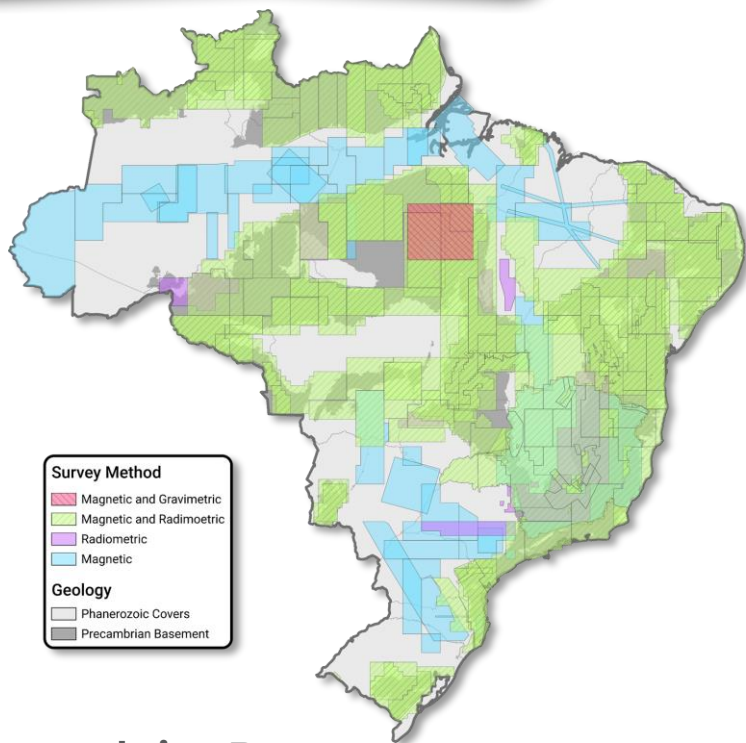
- 1:50,000
- 1:100,000
- 1:250,000
- 1:1,000,000

Geology

- Phanerozoic Covers
- Precambrian Basement

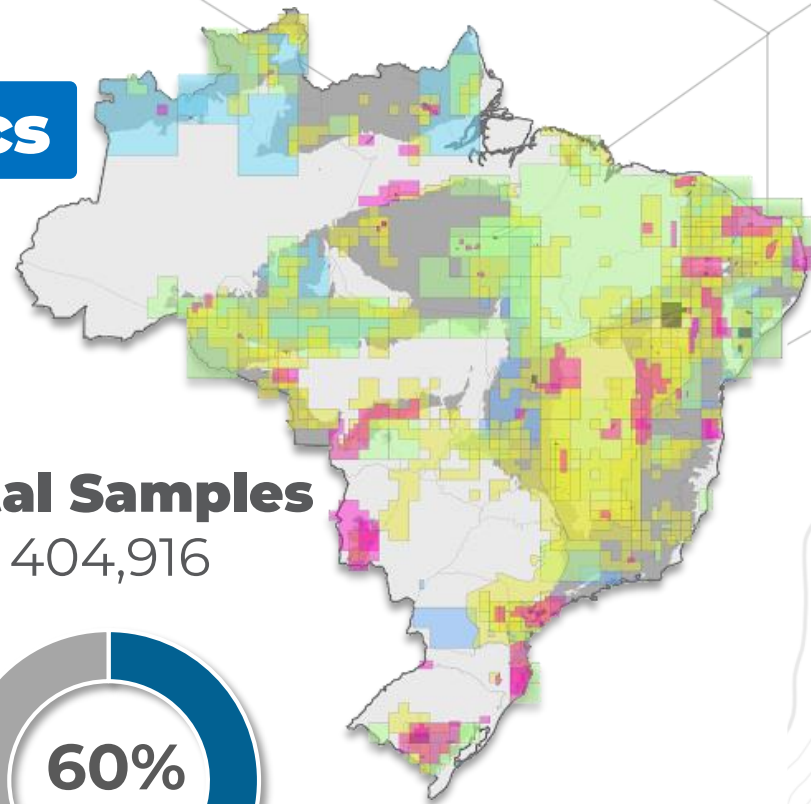


Geochemistry & Geophysics



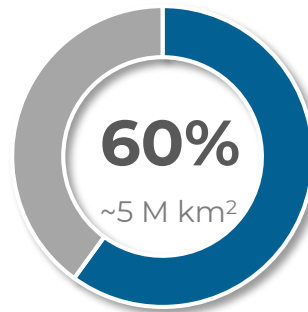
Precambrian Basement

92%



Total Samples

404,916

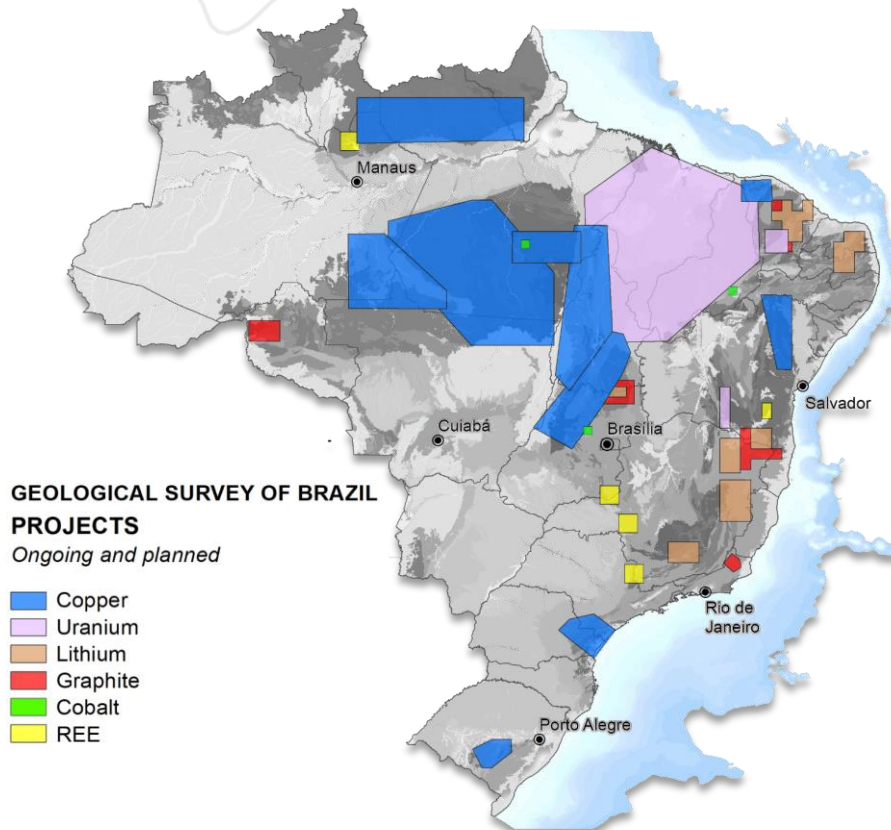


Soil
Stream Sediments
Pan Concentrates

Critical Minerals Projects

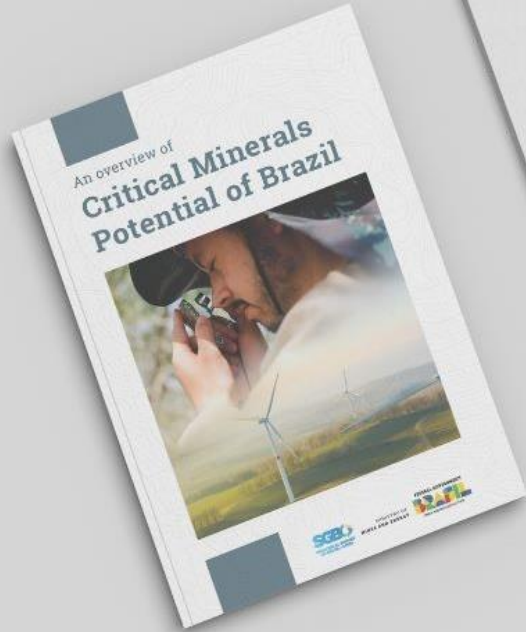
Main Activities:

- Integration of different datasets
- Revision of metallogenic models
- Geochemical and Geophysical exploration
- Multi-scale mineral potential modeling
- Footprint Identification
- Estimative of non-discovered resources
- Evaluation of non-conventional resources



TAKE-HOME MESSAGES

- ❖ **There will not exist a full energy transition without escalating the production of several critical minerals.** This is no longer up for discussion. However, the key question (and opportunity) on the table right now is where to find these resources.
- ❖ ***“If you can't grow it, you have to mine it!”*** Brazil has proven potential to be a major player as a relevant supplier of mineral resources for the energy transition. Brazil has at least one large deposit of each of the listed critical minerals, and its geological framework is suitable for increasing production.
- ❖ **In this scenario, the role of the Geological Survey of Brazil is to stimulate mineral activity** by increasing the level of geological knowledge and providing pre-competitive geoscientific information, including new techniques, mineral intelligence reports, scenario analysis, and the synthesis of exploration data.



Merci beacoup!

Obrigado!

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