CONSOREM'S RESEARCH: DEVELOPING EXPLORATION TOOLS

**Methodological tools**

New methods developed or modified by CONSOREM. They are used in data treatments independently of the territory.

**Examples are:**

- Mass balance by precursor modeling: a new method to evaluate mass changes in altered igneous rocks.
- Spatial Signal Analysis Software (SSAS): a neural network has been trained on a database of mineral exploration models; it can powerfully integrate and process a large number of geological layers as inputs, and the location of mining potential targets can be predicted.
- PGE Spidergram ratio software application: it compares profiles with a database of profiles from different environments around the world.

**Decision tools**

Allow more easily the integration, comparison and analysis of data to evaluate the mineral potential of a specified region.

**Examples are:**

- Synthesis of various signals (geophysical, geomechanical, geochemical) in order to identify favorable locations for mining.
- PGE Spidergram ratio software application.

**Targeting tools**

Result from the integration of different databases, and/or the acquisition of knowledge, which allow pre-competitive targeting on precise territories.

**Examples are:**

- Artifical Neural Networks mining exploration models; it can powerfully integrate and process a large number of geological layers as inputs, and the location of mining potential targets can be predicted.
- PGE Spidergram ratio software application.

**What is CONSOREM?**

- Public Private partnership in applied research for mineral exploration
- Synergy between companies, governments and universities
- A unique research structure under industry control

**Objectives**

- Development of technologies and knowledge applied to mineral exploration;
- Development of mineral exploration models;
- Convey the knowledge towards the industry;
- Training of highly qualified personnel in mineral exploration

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