Geodata management: Insights from Swedish practices

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Geodata collected by SGU

- To support mining / exploration:
- Geology
- Geochemistry (soil, bio, stream)
- Geophysics (magnetics, gravity, gamma)
- Drill cores etc.

To support other societal needs:

- Soil classification
- Geohazards
- Groundwater
- Geoengineering etc.



450,000 km²

What resources are spent on data collection & analysis?

- ≈ 160 years data collection
- Current budget for "mapping": USD25M /yr (USD55/km²/yr; c.f. "USD1B map" @ USD37/km²)





Geodata browsing, retrieval & sales online



www.sgu.se/



Example:

Combined geology, geophysics, geochemistry mineral occurrences – identification of prospective areas.

Costs for data?

- Free of charge for research / universities
- Policy is to encourage exploration!
- Refined / managed data, rather cheap; raw data more expensive. Prospecting companies seem to prefer raw data
- Costs cover only rather small part of management & collection costs
- Administrative needs:
 - Geologists, geophysisits, GIS specialists
 - IT, software
 - Client service staff, etc.

Developments & debates

- To make all documentation available electronically
- Cores are being scanned (photo & geochem)
- Why give away data "for free", and why (especially) to foreigners?
- Mineralisations that have not yet been found, have no value – why then charge for data?
- Almost no greenfield exploration, projects are generally based on previous work (state funded)
- Mapping focused on prospective areas
- Increasing shift of focus to data collection to support sustainable development