

Activity 4 Gap analysis of mineral resources assessment



**Who have
contributed to this
activity**

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40 Years Listening to the Beat of the Earth

As a special topic

Mineral resources assessment in Africa – Recommendations and perspectives

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and

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Relevance of the Topic



Africa hosts 30 % of the world's reserves of natural resources including several strategic and critical minerals.

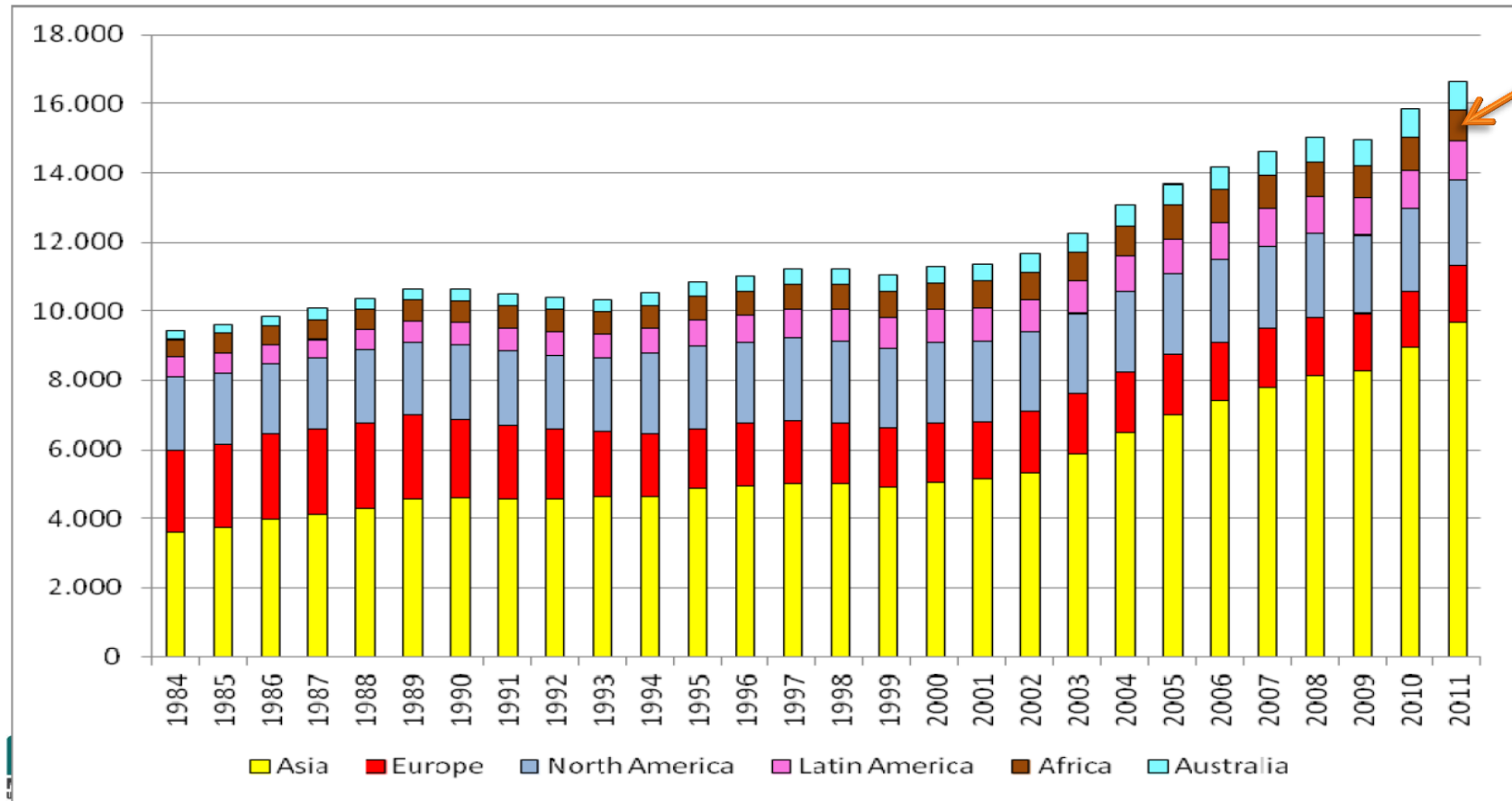
There is still undiscovered and unexploited potential in many parts of the African continent.

Although Africa is endowed with minerals, its share of the global metal production is minor and has not developed largely compared to e.g. Asia or Latin America.



Mineral production is not beeing increased

Quelle: World Mining Data, www.bmwfw.gv.at



Production of critical raw materials

Currently 20 critical raw materials mainly come from:

- **China** - antimony, fluorspar, gallium, germanium, graphite, indium, magnesium, magnesite, REE, tungsten, phosphate
- **Russia** - platinum group metals
- **DRC** - cobalt, tantalum
- **Brazil** - niobium and tantalum
- **South Africa** – platinum
- **USA** – beryllium, borates
- **Turkey** – borates
- **Kazakhstan** - chromium

World's demand of minerals is still increasing

- Continuing industrialisation in BRIC countries
- Concern for the supply of strategic and critical minerals



Relevance of the Topic

African countries could benefit much more of the mineral wealth and use it for national and local economic development and for the welfare of people (Africa Mining Vision).

The African Geological Surveys can play a major role in this development by generating updated information on the mineral potential in the country.

Easily available high quality data attracts investments.



Example - Improved availability of digital geodata in Mozambique

The average annual investment of mainly foreign companies in the mining sector increased from USD 10 M (2001) to USD 90 M (2006) and to USD 1,000 M (2011)

Mineral exports value skyrocketed from ca. USD 6 M (2002-2006) to more than USD 1,000 M annually from 2010 on

Several **"mega-projects"** started

- aluminum, copper, gold, heavy mineral sands, coal, gas etc.
- BHP-Billiton, Vale, Rio Tinto, Kenmar Resources, Sasol etc.



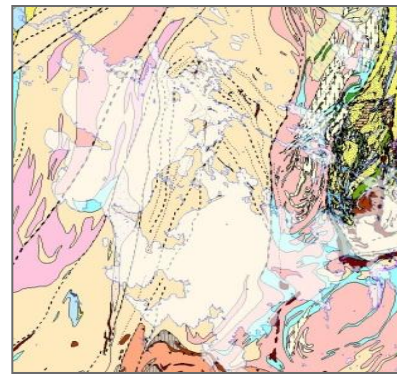
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- Training and capacity building

Proposed PanAfGeo project: support African Geological Surveys by strengthening their capacity as national repositories of high quality geoscientific digital data and information.

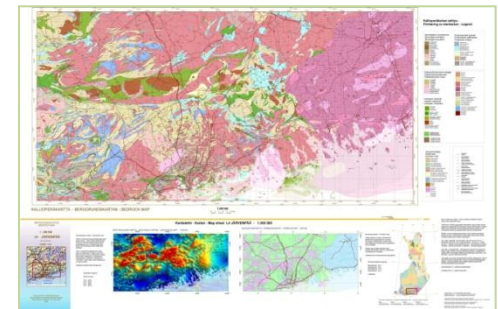


Field work



Geological maps

Printed
maps



Laboratory
analyses



EuroGeoSurveys - The Geological Surveys of Europe



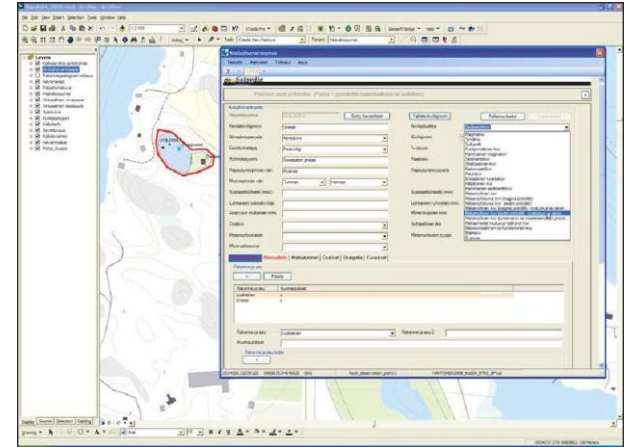
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- Training and capacity building

Drilling



Airborne geophysics

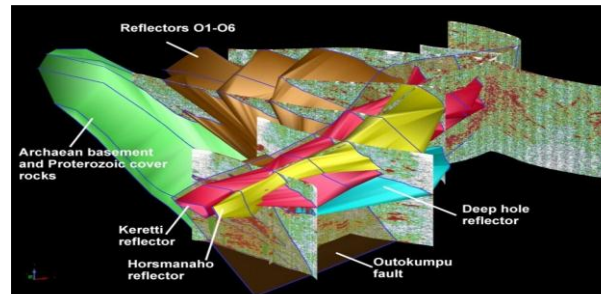


Data management

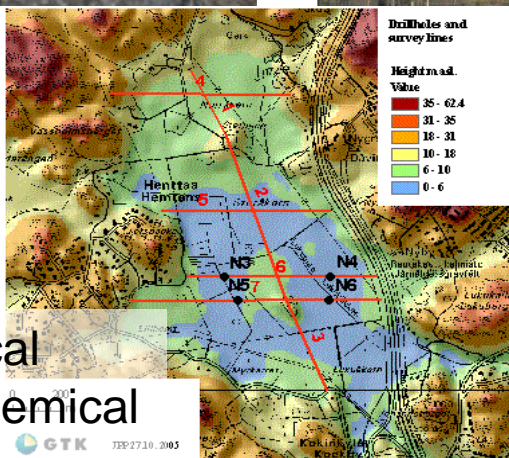
Data sharing

Internet

3 D modelling



Geophysical and geochemical maps



EuroGeoSurveys - The Geological Surveys of Europe



EGS – OAGS cooperation

Our work so far has been **to identify the obstacles** (gaps) that the African OGS have in this respect and where we could contribute.

- Questionnaire survey of the African OGS
- **Activity 4:**
 - Primary and secondary mineral resources;
 - Small scale mining;
 - Mining and the environment (incl. post mining).



Thank you for your attention

Merci de votre attention

Obrigado pela vossa atenção!

