



PanAfGeo: An unprecedented pan-African training program for African Geological Surveys



PanAfGeo

Pan-African Support
to Geological Sciences and
Technology Africa-EU Partnership

Appui panafricain aux géosciences
du partenariat Afrique-UE

Apoio pan-africano às geociências
da parceria África-UE

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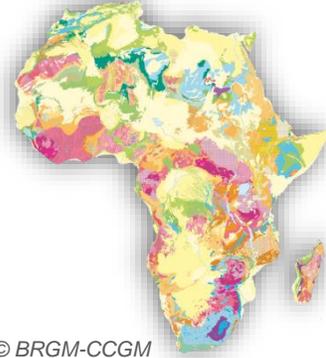
PanAfGeo Coordination (French Geological Survey (BRGM))



THE EPOS SP PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT N° 871121



Context of PanAfGeo



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- **Africa-EU Partnership**
- **Need for a better assessment, management and governance of mineral resources in Africa**
 - European-African initiative** to improve and reinforce knowledge and skills in African Geological Surveys
- Focus on establishing a **long-term strategic cooperation between EuroGeoSurveys and Organisation of African Geological Surveys (OAGS)**
 - Sustainable exploitation of non-energy mineral resources
 - Governance of mineral resources
 - Prevention and mitigation of natural and man-induced hazards
 - Development of local mining private sector
 - Geoscientific information management
- **Pan-African capacity program:**
 - Feasibility study (2015) / Phase 1 (2016-2019)
 - Phase 2 (2021-2024)



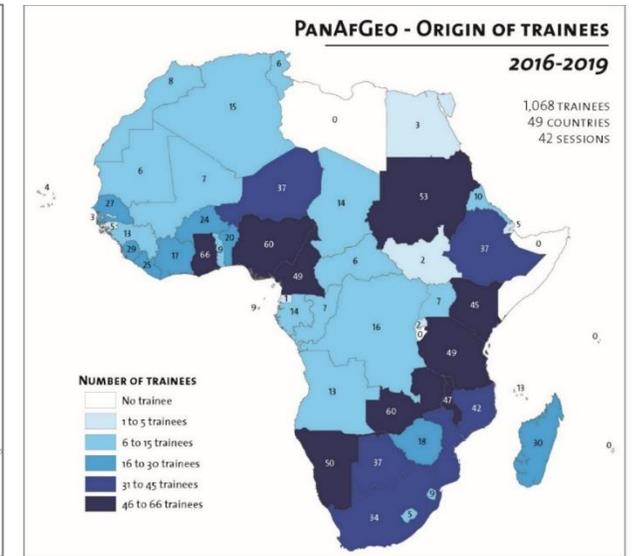
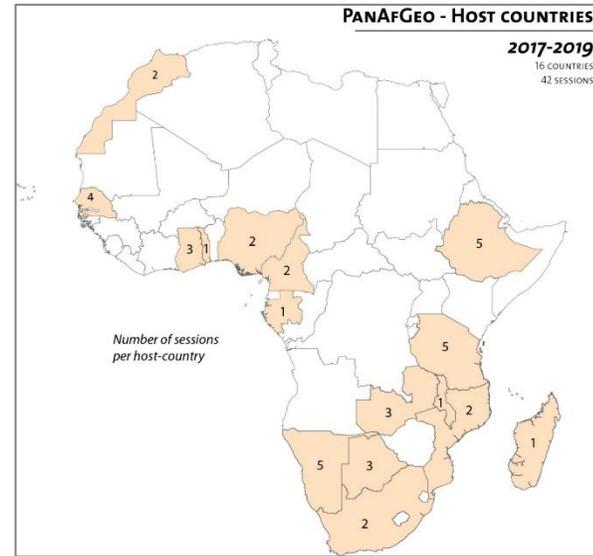
PanAfGeo Phase 1 (2016-2019)

- Grant Contract with DG-DEVCO (Directorate-General for International Cooperation and Development)
- BRGM Coordinator of a **Consortium of 12 European Geological Surveys**
- Budget: **10.3 MEUR** (co-funding DG-DEVCO & Consortium)
- Duration: 3 years
- 7 geoscientific training domains:
 - WP1: Geoscientific Mapping
 - WP2: Mineral Resources Assessment
 - WP3: Artisanal and Small-scale mining
 - WP4: Environmental Management of Mines
 - WP5: Geohazards
 - WP6: Geoheritage
 - WP7: Geoscientific Information Management
- European & African trainers and co-leaders
- All training sessions in Africa: lectures, field trips, workshops, handbooks, outreach

Phase 1 2016-2019

1,068 trainees
From **49** African countries

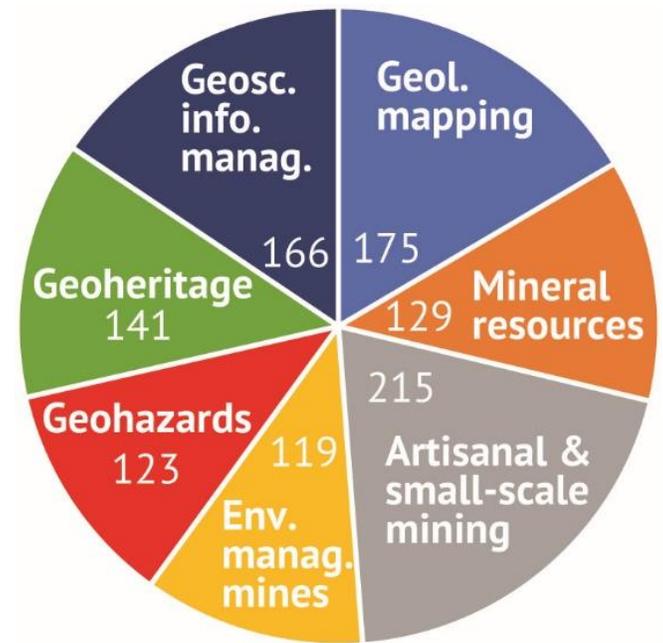
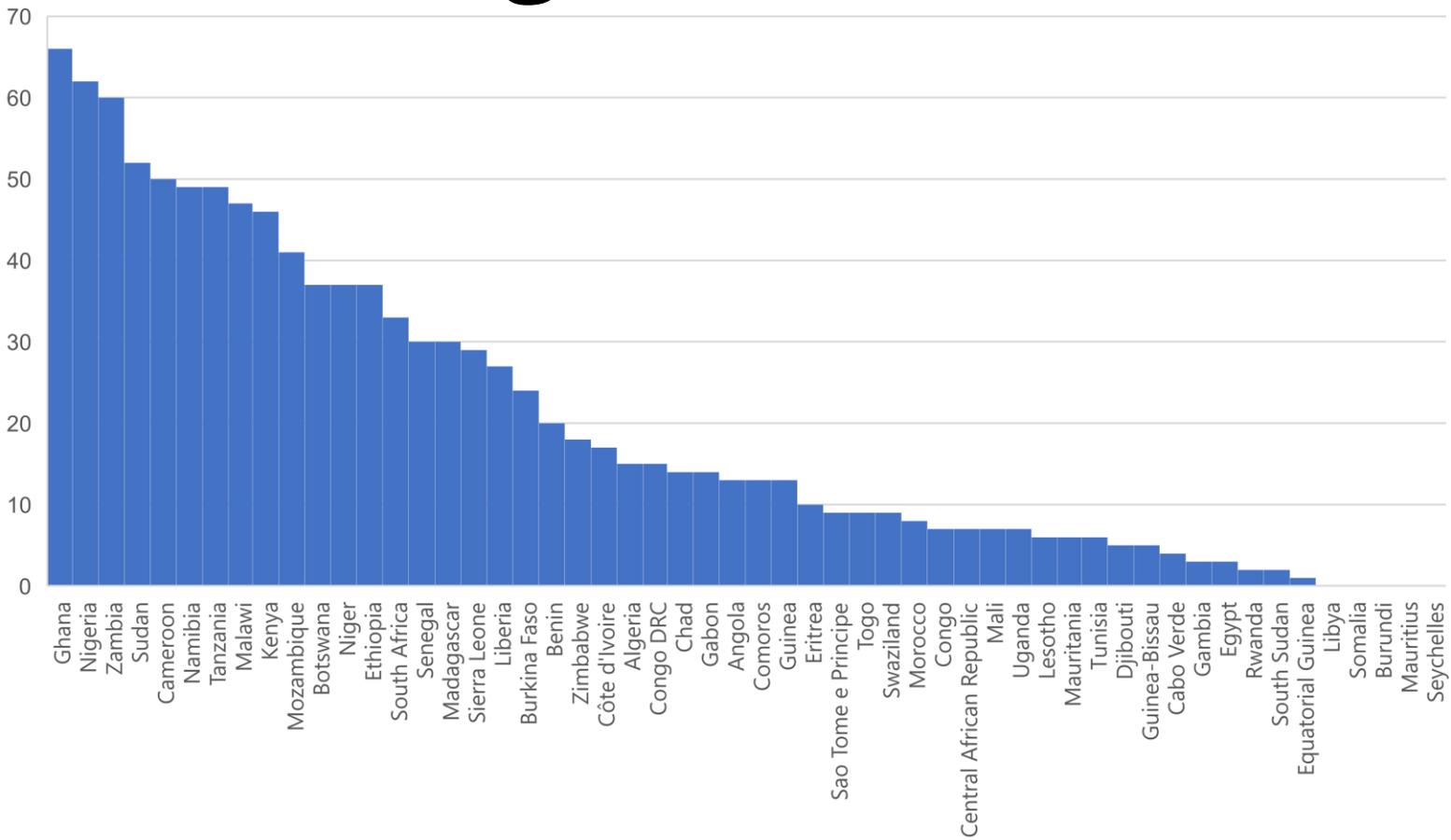
- **16** African host countries
- **42** sessions
 - 29 in English
 - 11 in French
 - 2 in Portuguese
- **150** African trainers
- **70** European trainers





Phase 1 (2016-2019)

Trainee geographic distribution & Training domains

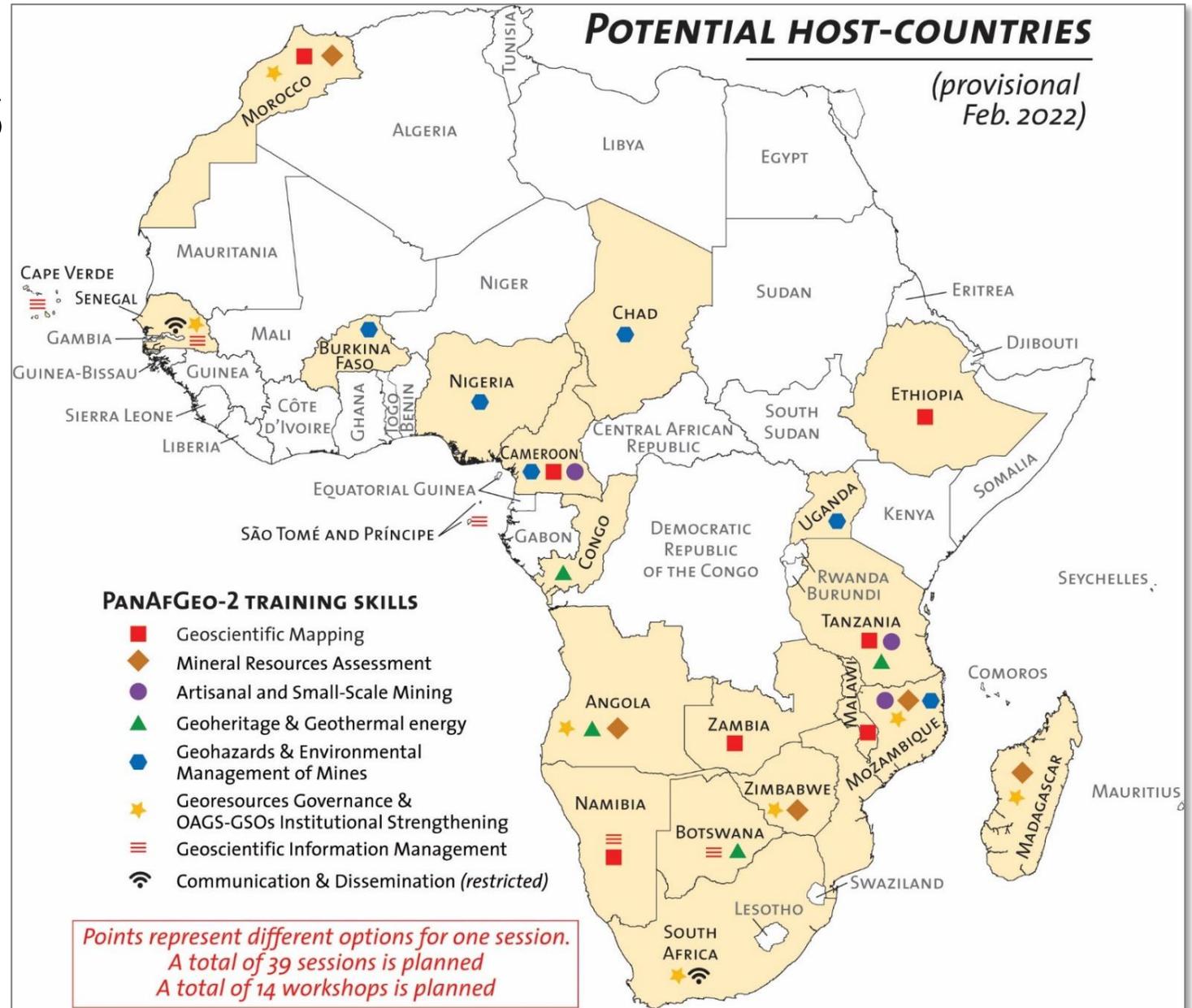


PanAfGeo Phase 2 (2021-2024)

- Contribute to a more **sustainable management of natural resources** and in **tackling climate change based on science and technology**
- **African Geological Surveys and the Organisation of African Geological Surveys** are more effective in terms of national, regional and continental support to policy-making and planning processes
- Adaptation of the training program:
 - Geoscientific Mapping
 - Mineral Resources Assessment
 - Artisanal and Small-Scale Mining
 - New frontiers in Geosciences (geoheritage and geothermal energy)
 - Geohazards & Environmental
 - Georesources governance & OAGS/GSOs institutional strengthening
 - Geoscientific information management
- Grant contract with DG-INTPA: Directorate-General for International Partnerships
- BRGM as Coordinator of a Consortium of **11 European Geological Surveys**
- 3 years – 9 MEUR (co-funding DG-INTPA/European Consortium)

PanAfGeo-2 Planned trainings (2022-2024)

- 19 African host-countries
- 53 sessions/workshops
 - ☐ 29 in English
 - ☐ 28 in French
 - ☐ 24 in Portuguese
- 1,165 trainees
- ca. 7,900 training days



PanAfGeo Phase 2 (2021-2024)

Stakeholders and cooperation

- UNESCO
- African Minerals Development Centre (AMDC)
- African Association of Women in Geoscience (AAWG)
- African Minerals and Geosciences Centre (AMGC)
- Geological Society of Africa (GSAf)
- Minerals Africa Development Institution (MADI)
- International Union of Geological Sciences (IUGS)
- Organisation for Economic Co-operation and Development (OECD)
- World Bank
- German Geological Survey (BGR)

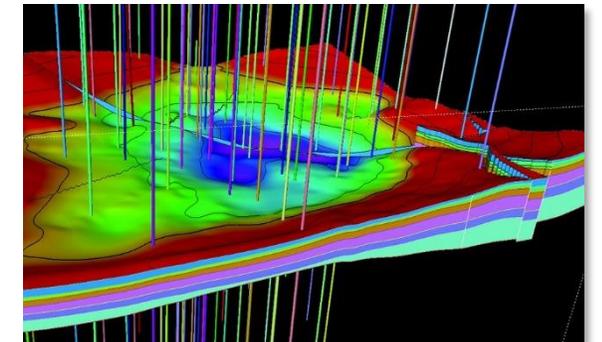
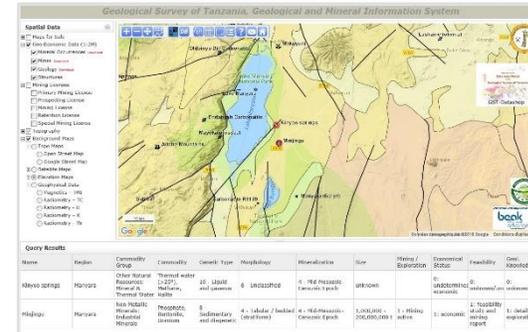
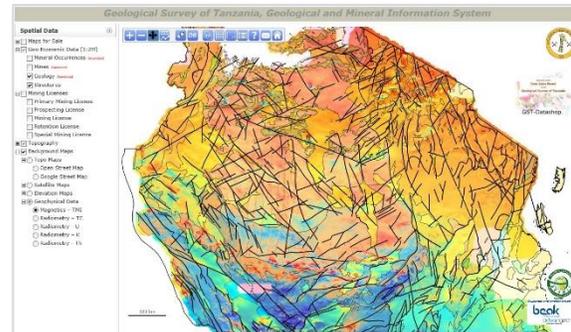
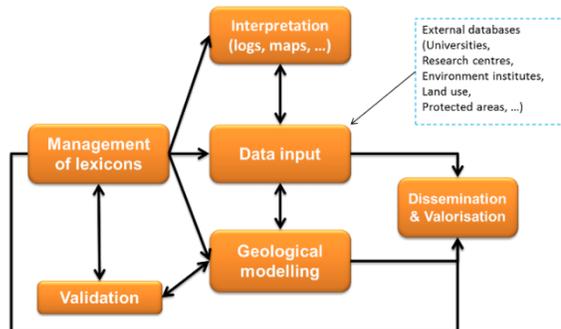


Geoscientific Information management

Objective: Improved and/or strengthened capabilities of staff employed by the African GSOs in the field of geoscientific information management and related digital information technologies:

- ❑ Database management, handling of spatial data and GIS interface (Basic & Advanced)
- ❑ Spatial data infrastructure - Data modelling - Interoperability standards - Data dissemination (Basic & Advanced)
- ❑ Geological data management and multilayer geological modelling using dedicated geoscience software

- Phase 1: 9 sessions – 170 trainees – 1,100 applicants
- Phase 2: **6 sessions – 120 trainees** planned



PanAfGeo Phase 2 (2021-2024)

- **Main expected outputs**

- ❑ Access and use of **comprehensive scientific information on natural resources** through geosciences data is improved in relevant institutions,
- ❑ Geoscientific and technological knowledge and skills of **African Geological Surveys** and other relevant institutions are improved,
- ❑ **Governance** and dissemination tools for **natural resources** related policy sectors are operational.



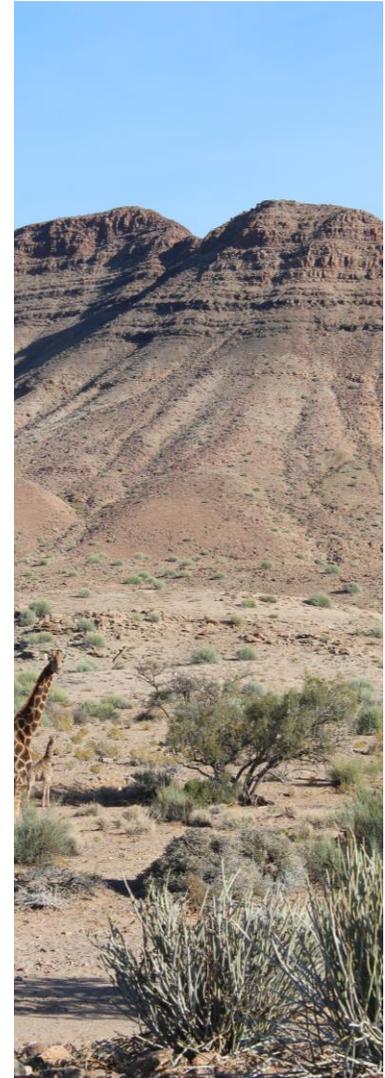
Strengths - Weaknesses

Strengths

- Pan-African geoscience training implemented by African and European GSOs.
- Networking opportunity for African geoscientists: establishing and strengthening relations.
- Exposure to different geoscience operations in African GSOs.
- Exchange and sharing of skills and knowledge.
- Raised awareness among politicians on the importance of skilled geoscientists.
- Extensive media coverage in the continent on geosciences.

Weaknesses

- Packed content for the duration of the courses.
- Limited hands-on/practical activities in most of the courses.
- Participants with different levels of technical competence.
- Limited/variable participation of some OAGS WP Deputy Leaders in development and implementation of geoscience training.



Lessons Learned - Challenges

Lessons learned

- Tailor courses to participants needs.
 - ❑ More practical activities.
 - ❑ Different levels of training e.g. Basic and Advanced.
 - ❑ Spread out course content.
- Link to regional and local geoscience initiatives.
- Local resource persons are key.

Challenges

- Build and maintain the technical PanAfGeo networks.
- Strengthen monitoring and evaluation of the impact of training towards improving operations/delivery of geoscience services in African GSOs.
- Building on the momentum of the first PanAfGeo to highlight the importance of a skilled geoscience workforce for the sustainable development and management of natural resources in Africa.



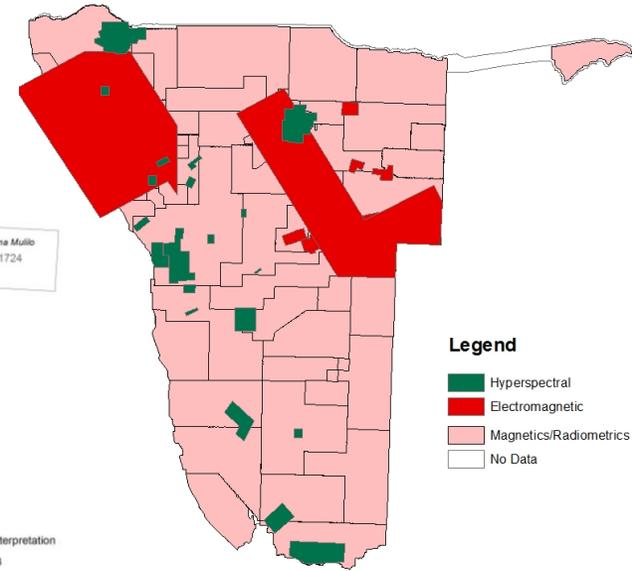
Geoscience Delivery in Namibia





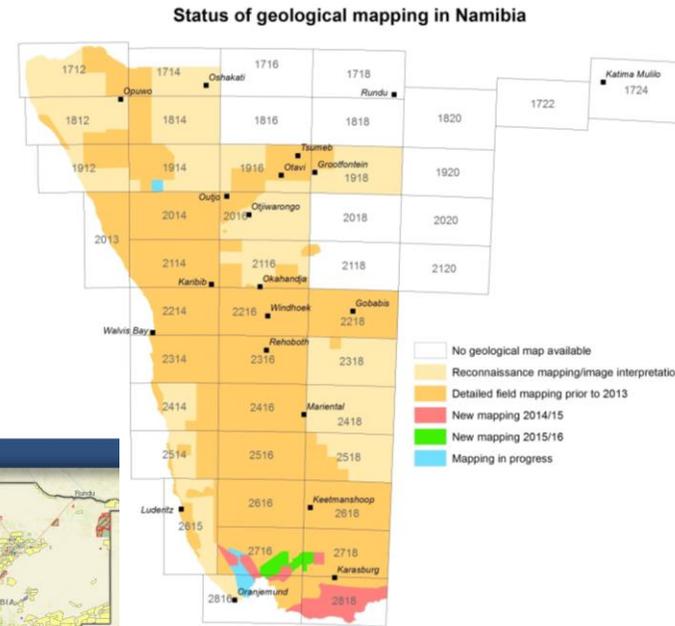
Geoscience Information Services

Geophysical Data Coverage



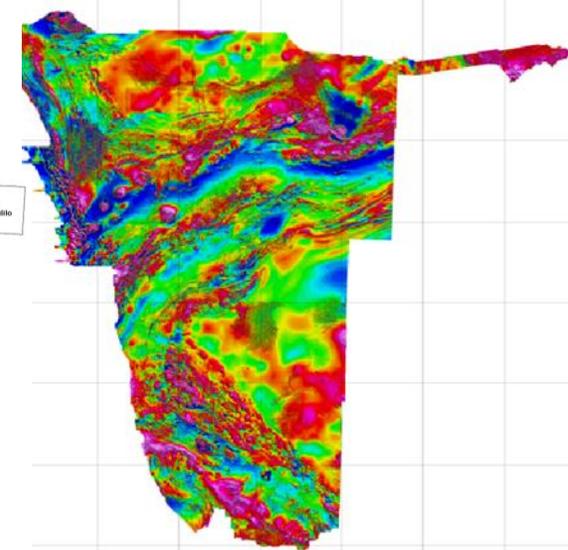
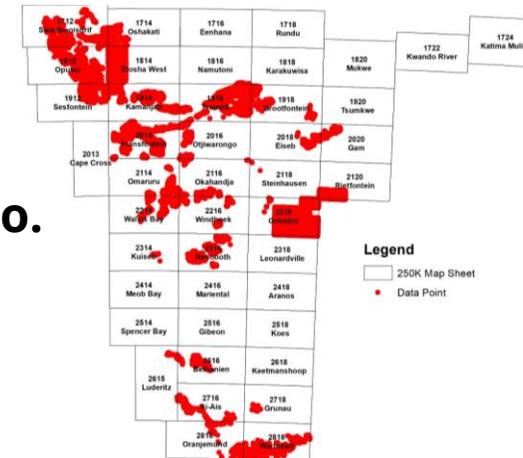
Earth Data Namibia

www.mme.gov.na/edn/



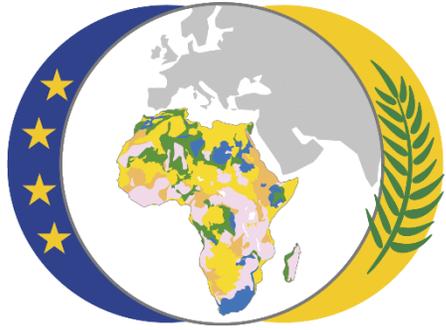
Namibia Mining Cadastre Map Portal

<https://maps.landfolio.com/Namibia/>



Namibian Geophysical Data Delivery System





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Appui panafricain aux géosciences
du partenariat Afrique-UE

Apoio pan-africano às geociências
da parceria África-UE



Thank you Merci Obrigado