



# AEGOS

## African-European Georesources Observation System

### Systeme d'observation Afrique-Europe des géoressources

Design a pan-African infrastructure of interoperable data and user-oriented services to strengthen the sustainable use of georesources in Africa. Safeguard, share, valorise the knowledge and data archived in African and European geological surveys. Support geoscientific communities and institutional decision-makers for sustainable development public policies.

#### PROJECT BACKGROUND

Collectively, European geological surveys have a **unique archive of public Africa-related georesources data** that needs to be shared with their African partners.

A **huge amount of geoscientific data and information** has been and is presently acquired by African R&D institutes, in collaboration with European counterparts.

Existing data and information assets exist in **multiple formats, several languages**, and are frequently difficult to identify and access.

#### EUROPE-AFRICA PARTNERSHIP

**Cotonou Partnership Agreement (2000):** the ACP-EU cooperation shall "provide technical and financial assistance for the acquisition, conservation, processing and dissemination of geoscientific data".

**SIGAfrique network (2003-2005):** 13 ACP countries, 2 ACP regional organisations and BRGM developed a digital low resolution harmonised pan-African geological and mineral resources GIS - [www.sigafrique.net](http://www.sigafrique.net)

**Maputo declaration (2006):** the African Earth sciences community is "convinced that geoscience's knowledge can help Africa learning from past mistakes in the environmental management of our Earth system in order to improve the quality of life of their populations".

**A priority for sustainable development and rules for intellectual property rights management**



**Contribution of African and European geosciences' community to 3 international initiatives:**

**GMES** – Global Monitoring for Environment and Security

**GEOSS** – Global Earth Observation System of Systems

**INSPIRE** – Infrastructure for Spatial Information in Europe

#### PROJECT HIGHLIGHTS

- > **Preparatory phase** for the building of a pan-African information system on Africa's geology and related resources: raw material, minerals, groundwater, energy, etc.
- > **Distributed architecture** of national multidisciplinary data sets presently disseminated and managed by African and European geological surveys
- > **Internet and satellite-based access** to public geoscientific metadata and harmonised data
- > **User-oriented products and services:** customized decision-support systems combining georesource information with socio-economic and sustainable development indicators
- > **Operational procedures and open standards** to browse interoperable spatial information: ISO/CEN, OGC (WMS, WFS), IUGS/CGI (GeoSciML)
- > **Capacity building and training programmes**
- > **Permanent network** of institutions and geoscientists to facilitate cross-border and continental overviews

#### AEGOS WORKPACKAGES

- 1- Spatial data infrastructure reference model, metadata and data specifications
- 2- Architecture specifications
- 3- Identification of data themes, user-oriented products and services
- 4- Preparation of innovative projects based on AEGOS
- 5- Interoperability and interdisciplinarity in support of GEOSS
- 6- Definition of common strategies for capacity building and training
- 7- AEGOS as a geoscientific contribution to GEOSS, in the context of the INSPIRE Directive



- Support action of the European Union 7th Research and Technology Framework Programme
- Project opened to the participation of all interested parties as associate partners or user committee members
- Design of georesources predictivity maps combining geological, environmental, societal and economic data and indicators
- Establishment of a partnership charter to define the commitments of the respective partners in the implementation of the actual Georesources Observation System
- Support of sustainable development policies for decision-makers and geoscientific communities



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