



GMES AND AFRICA

GMES AND AFRICA: An initiative to integrate and promote the development of local capacities in access to Earth Observation based services in Africa

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United Nations/Ghana/PSIPW - 5th International conference on the use of space technology for water resources management
ACCRA, GHANA, 10-13 MAY 2022





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- **Brief Presentation of GMES & Africa Support Program**
- **Contribution of GMES and Africa initiative to support Water Resources Management**

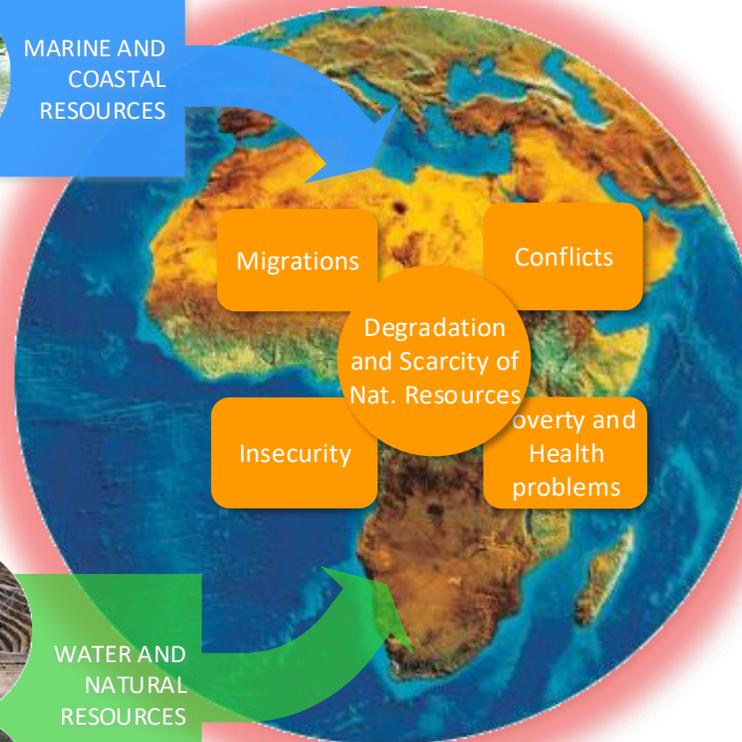


AFRICAN DEVELOPMENT CONTEXT

Africa Economic Pillars

1. Agriculture, Natural Resources and Water
2. Energy
3. Blue Economy
4. Digital Infrastructure

EUROPEAN COMMISSION



Rapid Change of the African Global Landscape

1. Impressive Economic growth over the last two decades but ... decreasing
2. Societal: Masse movements (migration) and growing youth population (60% under 30 year-age)

Global Challenges

1. Climate Change and variability
2. Disaster Risk Reduction
3. Sustainable Development Challenges
4. Deforestation



A JOINT AU-EU INITIATIVE RESULTING FROM A LONG STANDING COOPERATION

GMES and Africa: A UNIQUE HISTORICAL CONTINUITY.....



Preparation for the Use of MSG in Africa (PUMA)

African Monitoring of Environment for Sustainable Development (AMESD)

Monitoring For Environment and Security in Africa (MESA)

Global Monitoring for Environment and Security for Africa (GMES)



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European
Commission

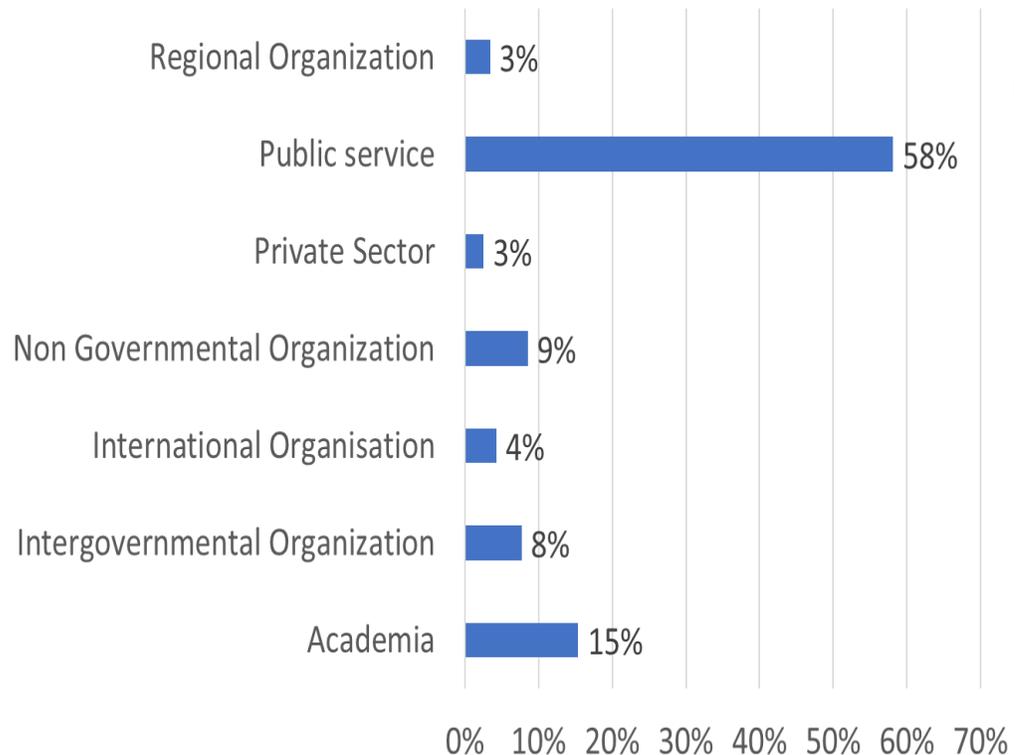
Objectives of GMES & Africa Support Programme

- **Implement the Earth Observation (EO)** segment of the African Space Policy and Strategy.
- **Enhance long-term strategic cooperation** for the integration and deployment of African requirements and needs in Copernicus Services.
- **Promote the development of local capacities (institutional, human and technical)** for the access and exploitation of EO-based services for sustainable development in Africa.
- **Enable the two continents to jointly solve and address specific and global challenges** and contribute to the attainment of their overarching development goals that include the AU Agenda 2063.
- Provide **policymakers, scientists, businesses and the public with EO services**

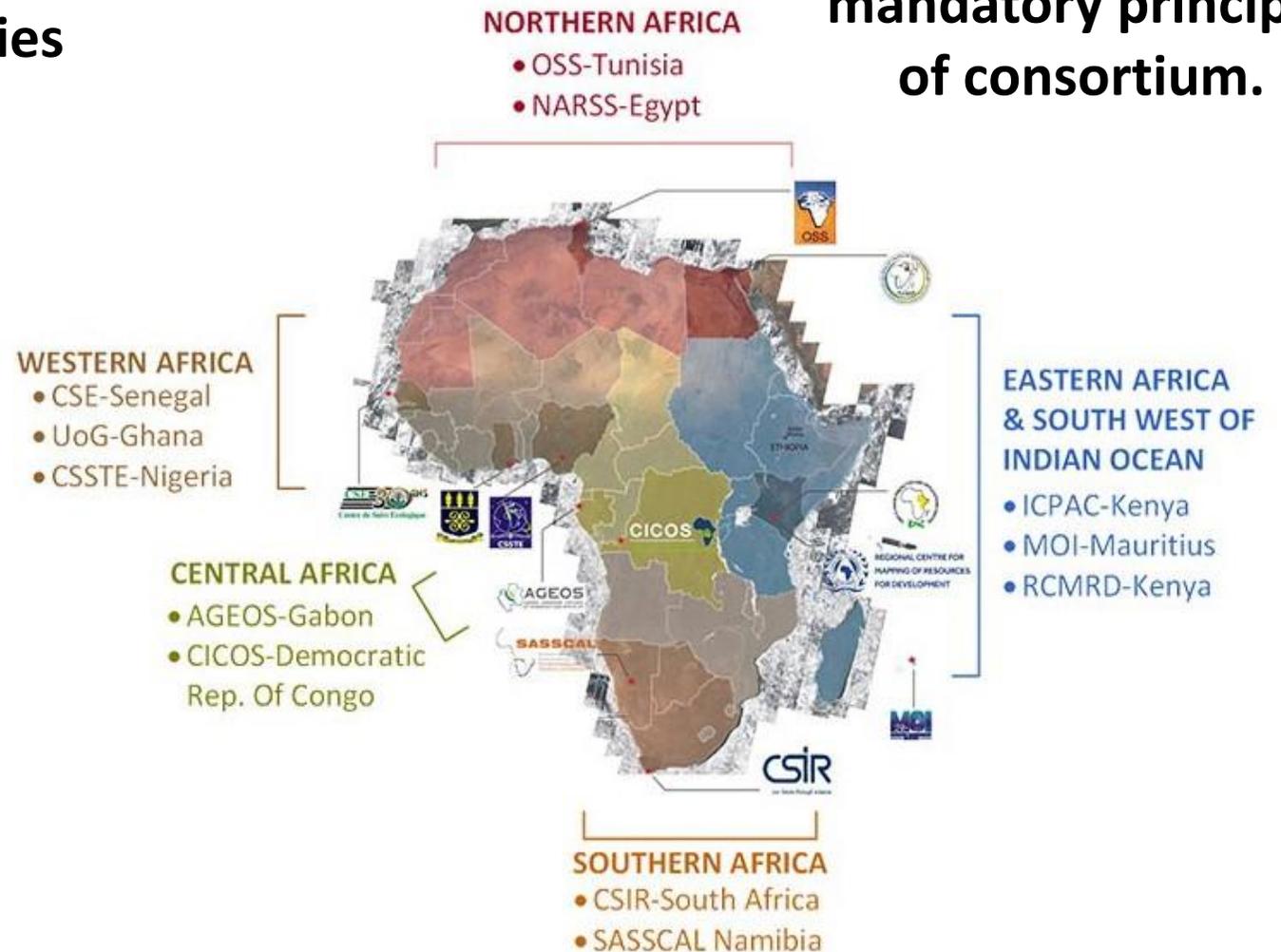
GMES & AFRICA AT A GLANCE

- 122 institutions in 47 African countries

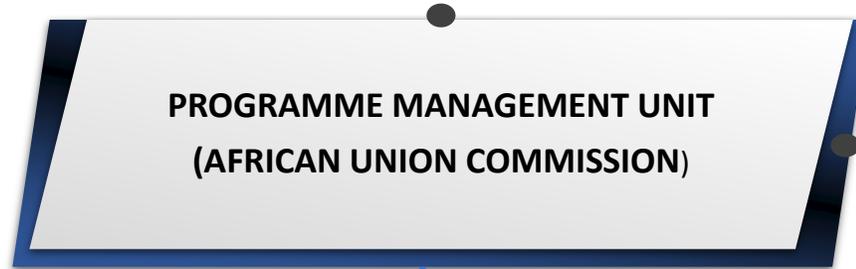
- 7 types of institution



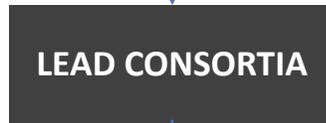
Based on the mandatory principle of consortium.



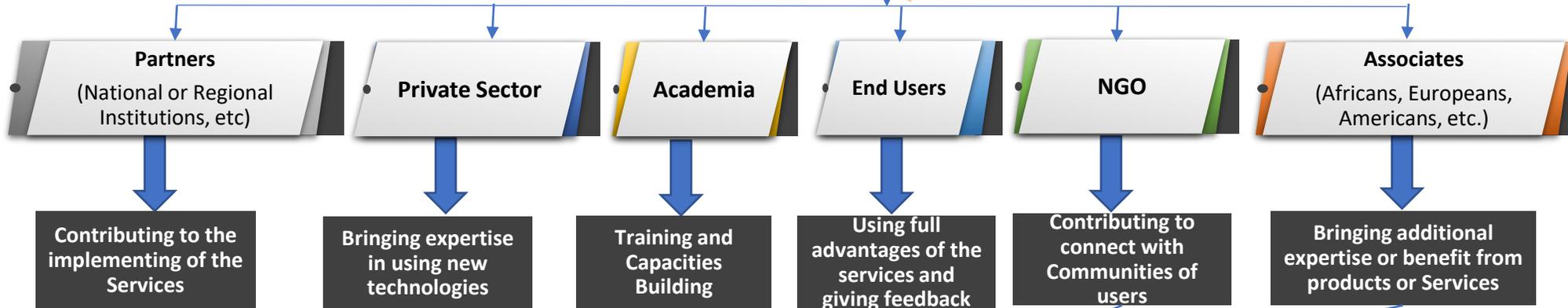
HOW GMES PROGRAMME IS IMPLEMENTED



Selection Process by AUC



Partnership, collaboration, agreements under supervision of Lead Consortia



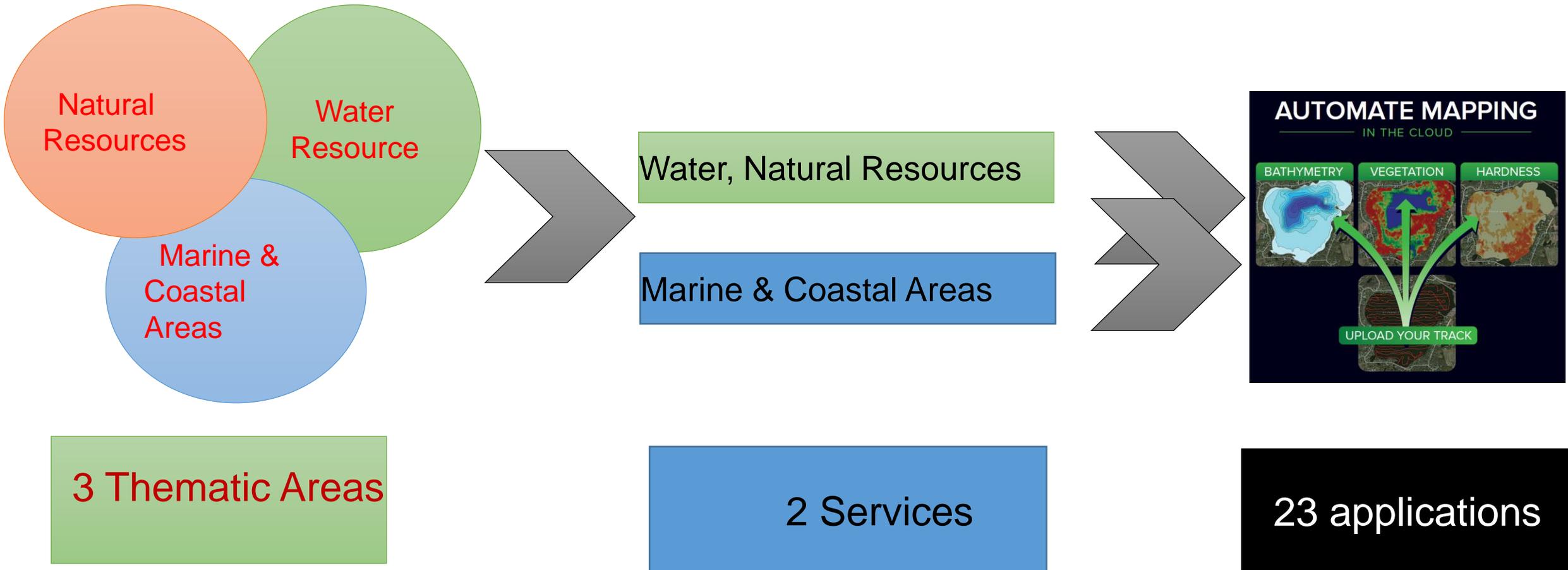
Activities and Services Delivery

Description of Action (DoA)

- **20% of the grant should be reserved to contract out services with private sector**
- **10% of the grant goes to Academia for training, development of curricula and support to graduate students**
- **Co-funding up to 20% is required by Consortia**

- Regional Meetings
- Continental Meetings
- Joint Workshop
- Capacity Building
- Workshops

GMES and Africa Phase 1 - 2: Support Programme (2017 2021; 2021 - 2025)





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Contribution of GMES and Africa initiative to support Water Resources Management

Using
EO Data

Wide coverage, High frequency of revisit, High spatial resolution, Multi-spectral bands

Radar and Optic Sentinel Images, Global weather data (precipitation, temperature...)

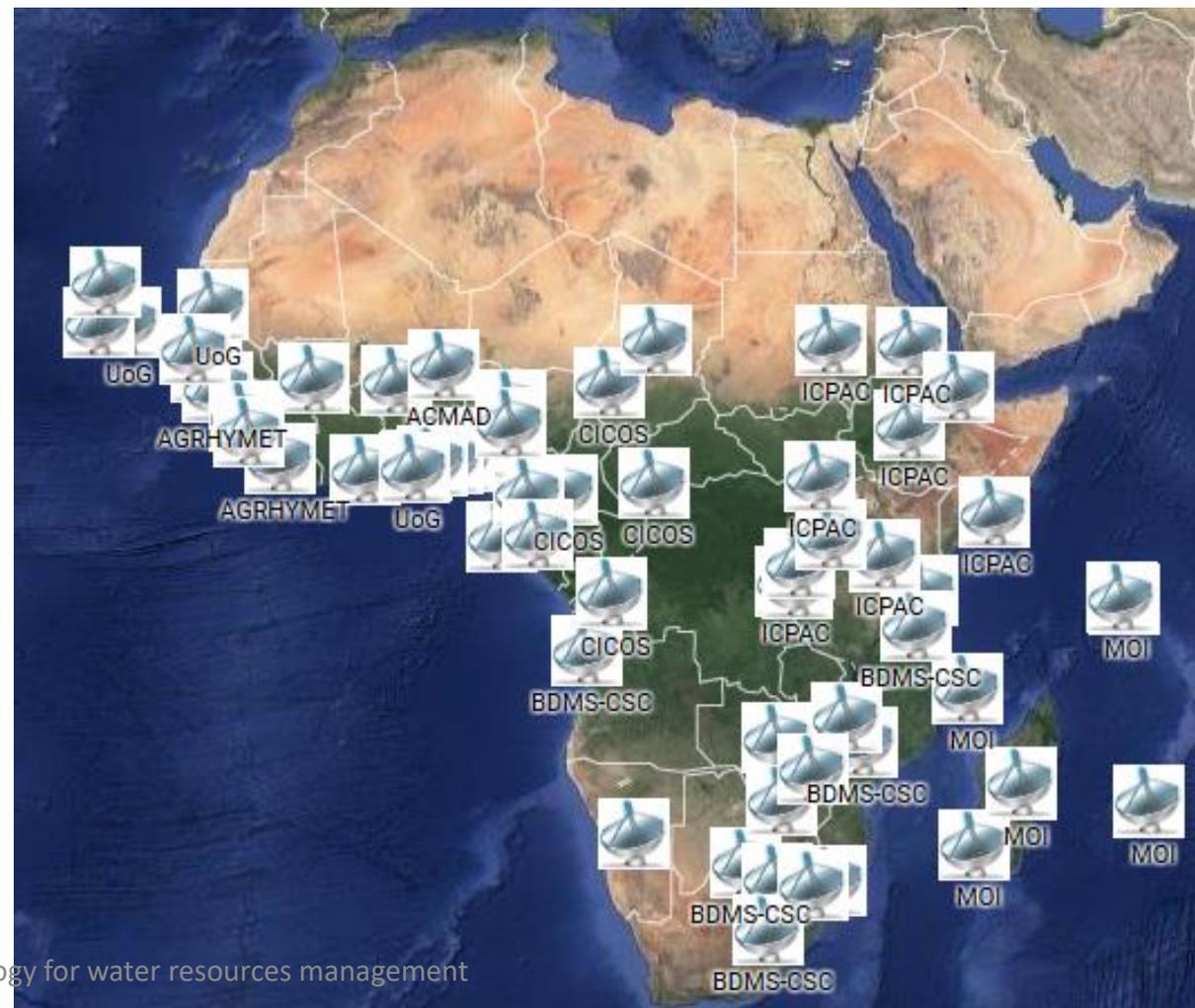




Contribution of GMES and Africa initiative to support Water Resources Management

Through EO Infrastructure from AMESD, PUMA, MESA..

- E-Station
- Internet
- EUMETCast
- Copernicus Hubs
- DIAS (*Data and Information Access Services*)



Contribution of GMES and Africa initiative to support Water Resources Management

12 e-Stations
delivered
(eStations)
48 operators
trained



West A.
1 in Nigeria
(CSSTE)

Central A.
1 in Gabon (AGEOS)

North A.
1 in Algeria (CTS/ASAL)
1 in Egypt (NARSS)
1 in Mauritania (IMROP)
2 in Morocco (CRASTE-LF,
UCD)
1 in Tunisia (CNCT)

East A.
1 in Kenya (RCMRD)
1 in Rwanda (RWB)
1 in Tanzania (SOAF)

Southern A.
1 in South Africa (CSIR)



Course Categories

Data And Infrastructure

This category contains continental and consortia courses addressing the pillar of Data and Infrastructure. The objective of courses is to reinforce kn...

68 Courses

View

Continental Training Courses

Data and Infrastructure

2 Courses

View

Consortia Training Courses

Data and Infrastructure

23 Courses

View

Other Training Sources

Data and Infrastructure

Training resources from other sources e.g. MESA

38 Courses

View





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WATER BALANCE MONITORING



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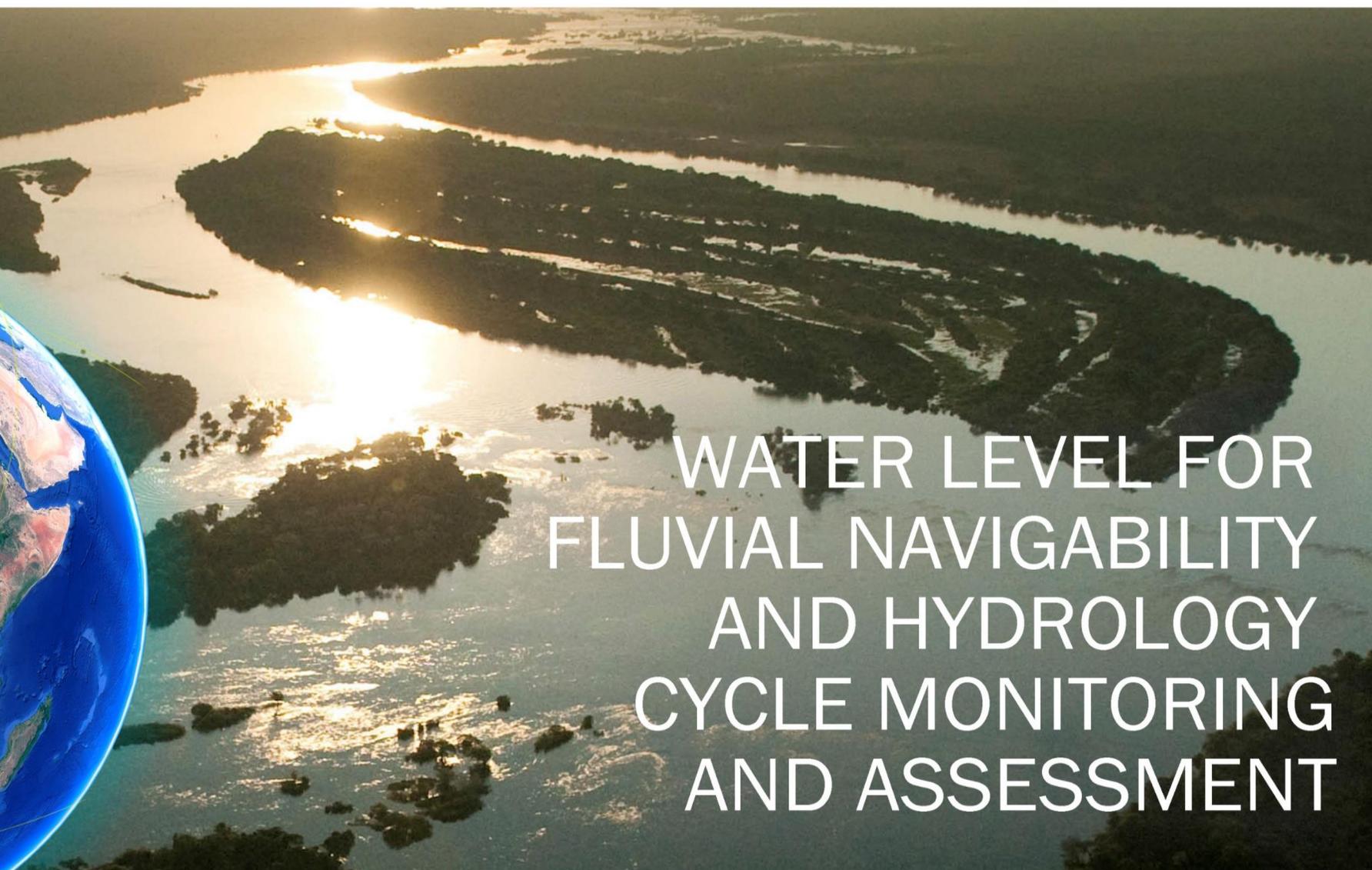


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WATER LEVEL FOR FLUVIAL NAVIGABILITY AND HYDROLOGY CYCLE MONITORING AND ASSESSMENT



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RIVERINE FLOODS MONITORING AND ASSESSMENT



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WETLANDS MONITORING AND ASSESSMENT



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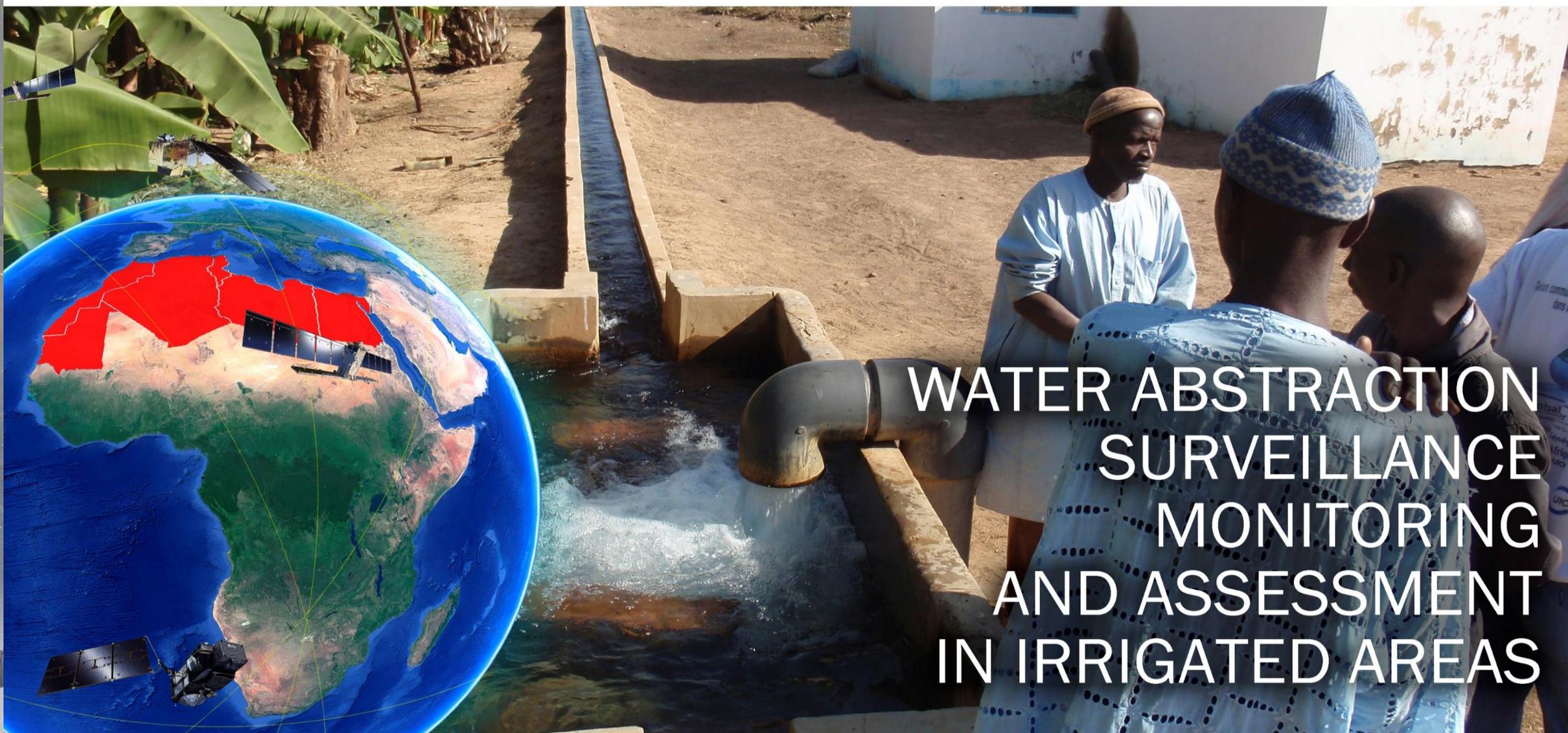


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WATER ABSTRACTION SURVEILLANCE MONITORING AND ASSESSMENT IN IRRIGATED AREAS



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GMES and Africa... it's a Community

- **12 Consortia** AGEOS | CICOS | CSE | CSIR | CSSTE | ICPAC | MOI | NARSS | OSS | RCMRD | SASSCAL | UOG
- **72 partners** (Research Centers, Academia, National and Regional Bodies, ...)
- **117 institutions**
- **53 Associates** (Research Centers, Universities, Private Sector, NGO's...)
- **47 African countries** (From the 5 regions: Pan African Programme)
- **5 European countries**



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Thank You !

The GMES and AFRICA Support Programme
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