

10 years of TIGER

Looking after Water in Africa

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**TIGER
AFRICA**





The TIGER Initiative: Origin & Objective



- **ESA launched TIGER in 2002** as a CEOS response to World Summit on Sustainable Development in Johannesburg.



- **TIGER objective:**

“assist African countries to overcome problems faced in the collection, analysis and dissemination of water related geo-information by exploiting the advantages of Earth Observation technology”.



- TIGER involves more than **150 African experts in 42 countries** who actively participate in **TIGER development projects and capacity building actions**;

- **Key partners** includes CEOS (with a strong support from the CSA), the *African Ministerial Council on Water, the African Development Bank, the African Union Commission and the UN-Africa Water Group (UNESCO, UN-ECA), DWAf, R. of South Africa.*





TIGER History: Johannesburg to RIO+20



Launch following the WSSD

Endorsement by AMCOW

Recommendation at 1st African Water Week

UNESCO Research Publication

Launch of TIGER-NET



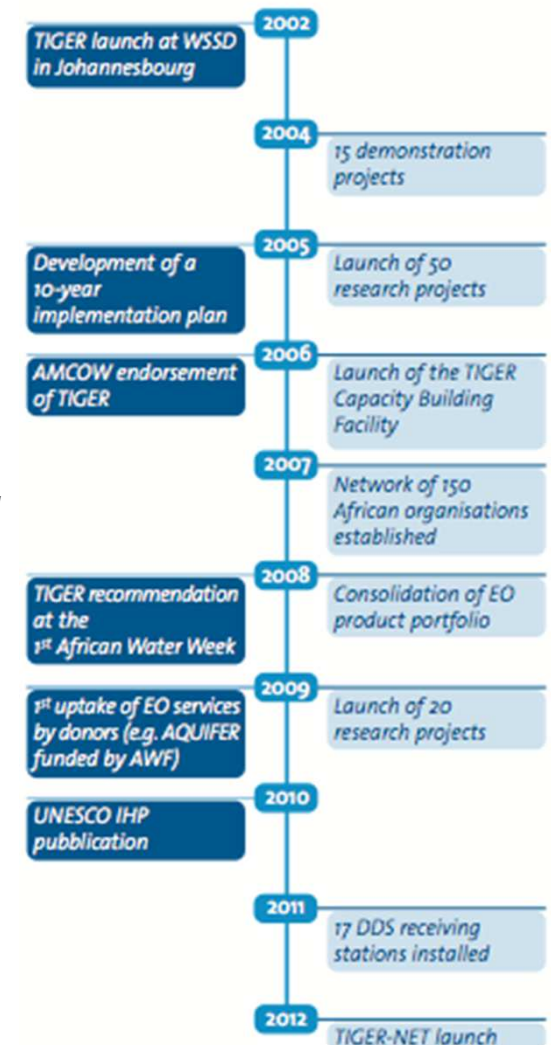
"Initiatives such as TIGER, which will deliver enhanced and timely information for water resource management, are therefore of critical importance to developing nations."

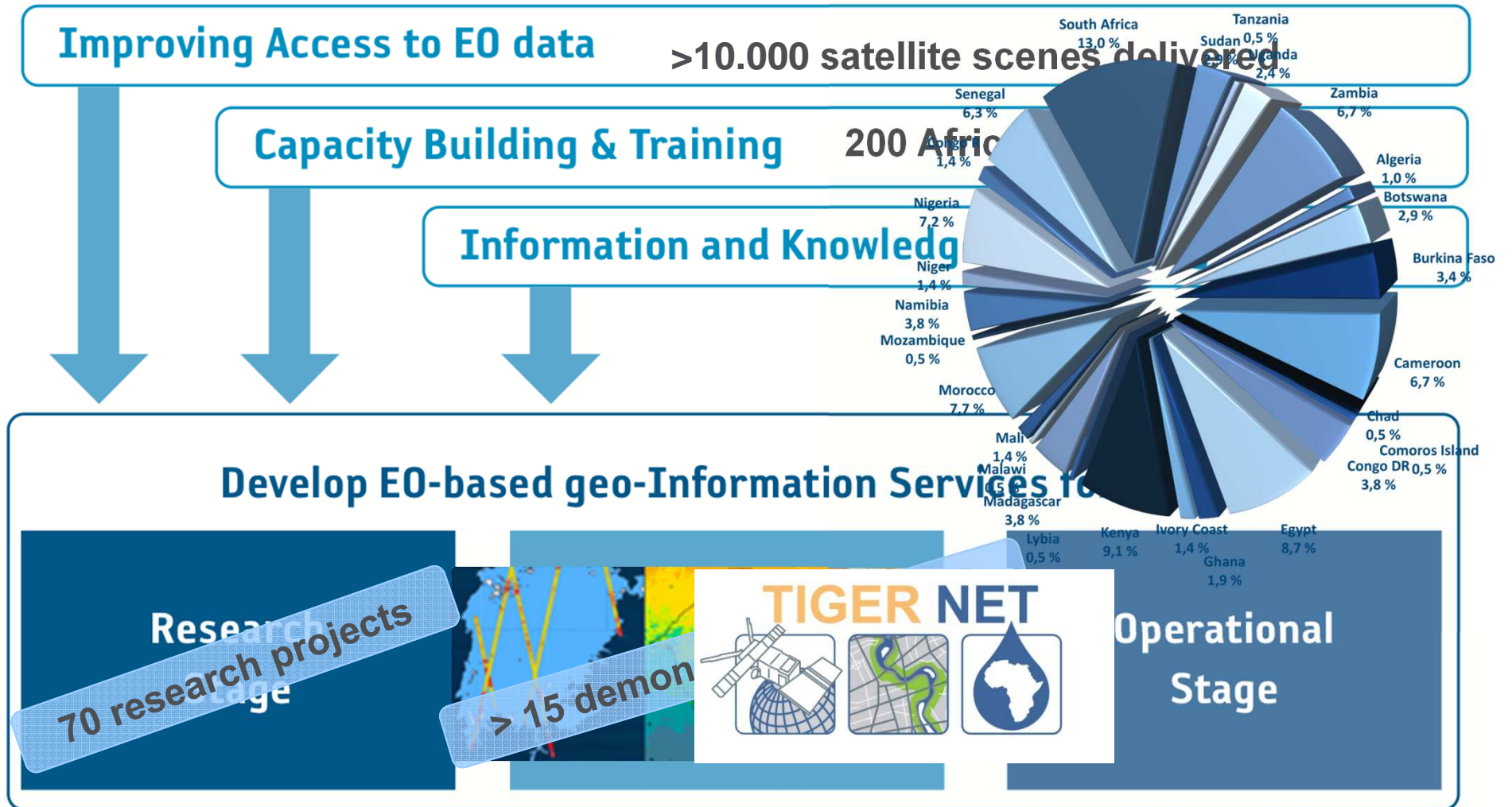


"International initiatives like TIGER which provide useful tools to the countries to strengthen their capacities for ensuring water security should be encouraged and supported"



THE TIGER INITIATIVE MILESTONES AND ACHIEVEMENTS





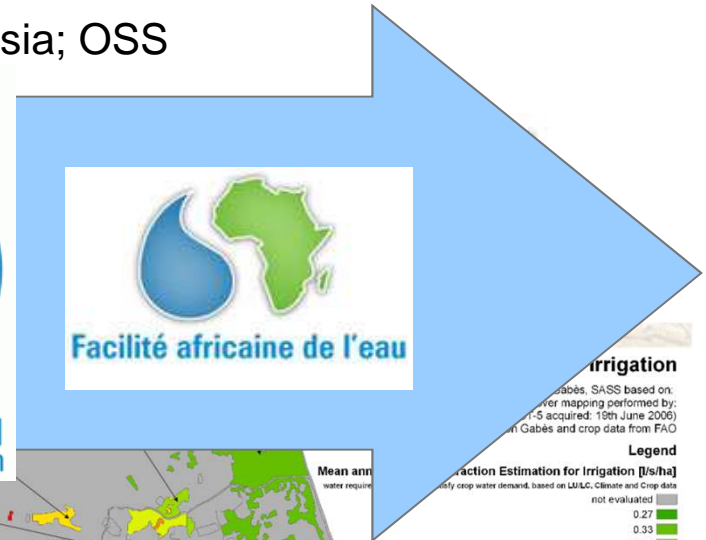


Transfer of EO services to local stakeholders

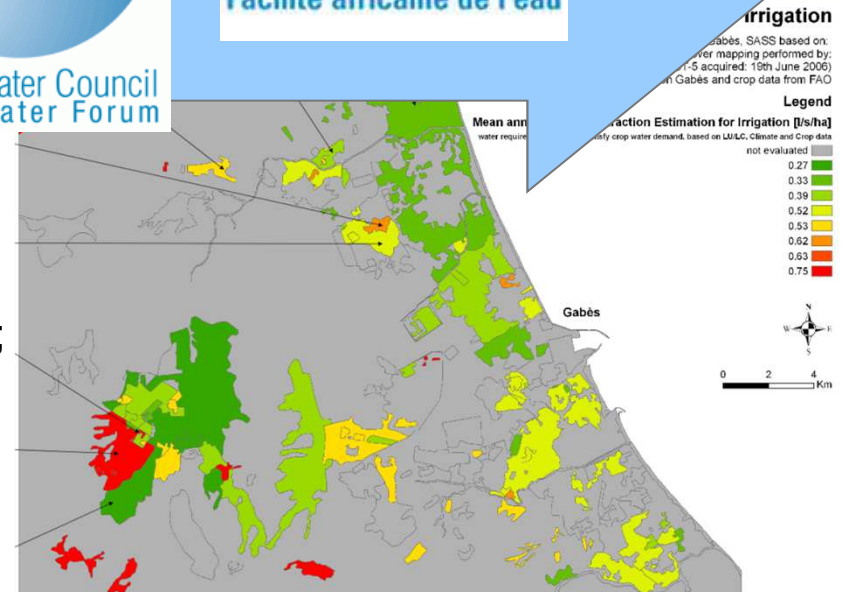


demonstration project within ESA's TIGER initiative

- Develop and demonstrate **EO products to support the management of trans-boundary aquifers in Africa** (SASS North-Western Sahara Aquifer System area);
- Users: Ministries in Algeria, Libya, Mali, Niger, Nigeria, Tunisia; OSS



- Co-funded by AWF (African Water Facility) & executed by OSS (Sahara and Sahel Observatory)
- Transfer the EO based decision making system to local service providers and promote local operations;
- Follow-on grant of 487.800 € by the AWF

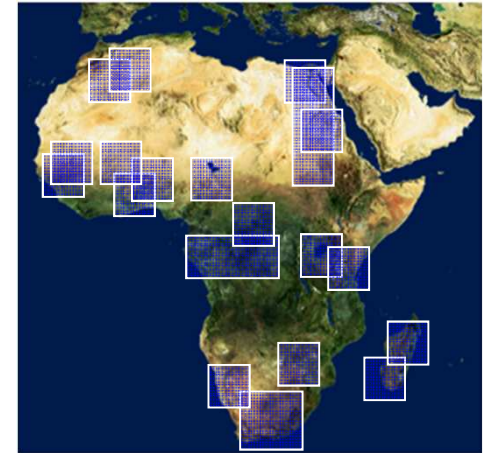




TIGER Capacity Building Facility (TCBF): Developing Knowledge and Scientific Capacity



- TCBF (lead by ITC) created in 2006 offering:
 - Dedicated courses (at ITC and in Africa) & E-learning;
 - Tailored technical support and research stages;
- Water Research Component
 - Support to 50 & 20 selected research projects in Africa
 - Regional Centres: AGHRYMET (Niger), RCMRD (Kenya), WRC (SA);
 - Installation of 17 DDS & access to free EO data



6th World Water Forum, 2012 - France



TIGER workshop 2011, South Africa



Countries Involved:

- Burkina Faso
- Chad
- DRC
- Egypt
- Ghana
- Kenya
- Madagascar
- Mali
- Morocco
- Namibia
- Republic of Congo
- Senegal
- South Africa
- Zambia





TIGER Capacity Building Facility:

TCBF Extension 2012-13



Empowerment of Regional Centers:

- Focus on the TCBF Regional Centers: AGHYMET (Niger), RCMRD (Kenya), WRC (South Africa), OSS (Tunisia)
- Preparation for an African Capacity Building programme for EO in collaboration with the African Water Facility

Activities:

- Enforce training capacity of Regional Offices for exploiting EO data
 - Training Kit with tailored EO applications (e.g. flood monitoring)
 - Training on the use of ESA EO Data
 - Develop a EO handbook for Water management
- EO data access for demonstration studies
- Trainings with stakeholders: in 2012 Zambian Government, EMWIS



- Project Extension:
 - 350 k€ budget
 - KO July 2012



TIGER Fellowships

African – European research collaboration



International Research Studies

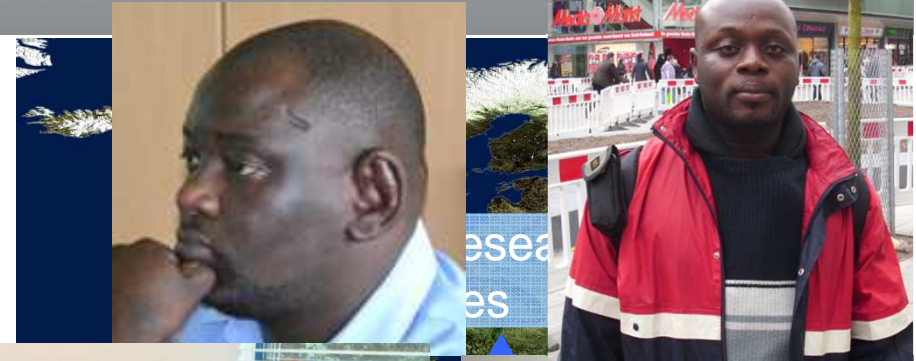
- Collaboration between African scientists and European research institutes
- 1 year scientific visits

Water Management Focus:

- Water quality & reservoir monitoring
- Irrigation monitoring
- Ecological & hydrological modeling
- Integrated Water Resource Management

Implementation:

- Funded by the ESA Alcantara studies
- In 2012 6 studies funded each 100k€





EO for Integrated Water Resource Management in Africa



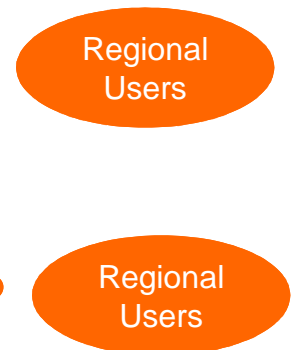
Objective:

- **Improve Integrated Water Resource Management (IWRM) by exploiting the advantages of Earth Observation (EO) technology.**

Main Activities:

- Develop and complement **Water Observation and Information Systems** for monitoring water resources with EO
- **Capacity building and training of African water authorities** and technical centres

Steering Group:



Project:

- 36 months, 2 project cycles
- 1.5 M € total budget
- KO Q1 2012
- Technical Team:

