



Newsletter

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Quarterly Newsletter

Pathways towards tailored climate and environment service delivery system in Africa



Dr. Tidiane Ouattara, Space Science Expert and GMES & Africa Support Programme Coordinator, AUC.

“ Working on already identified regional priorities, building on lessons from precursor initiatives, end users’ need survey and experiences of partners are key principles that lead to tailor made services generations.

Dr. Tidiane Ouattara

The Contributions of Global Monitoring for Environment and Security, and Africa (GMES and Africa) in setting up tailored climate and environmental services delivery system in Africa tabled for discussion. It was discussed during the West African Science Service Center on Climate Change and Adapted Land Use (WASCAL) science Symposium, which was held at Tang Palace Hotel in Accra, Ghana from 19 to 21 June 2018.

In his presentation, Dr. Tidiane Ouattara, Space Science Expert and GMES and Africa Support Programme coordinator at the African Union Commission, underlines the importance of users’ engagement, demand driven service delivery approach and synergy among climate and environmental service providers paves the way to set up tailored services to wider range of users in Africa. Working on already identified regional priorities, building on lessons from precursor initiatives, end users’ need sur-

vey and experiences of partners are key principles that lead to tailor made services added Dr. Ouattara.

The Opening Ceremony and high level panel of WASCAL Science forum was commemorated by Deputy Minister of Environment, Science and Technology of Ghana, Hon. Patricia Appiagyei, Executive Director of WASCAL Dr. Moumini Savadogo, The German Ambassador to Ghana H. E. Christoph Retzlaff, Prof. Rene Haak – Federal Ministry of Education and Research Germany, Mr. Bougonou Kouassivi DJERIALASSANI Agriculture, Environment and Water Resources Sector- ECOWAS among others.

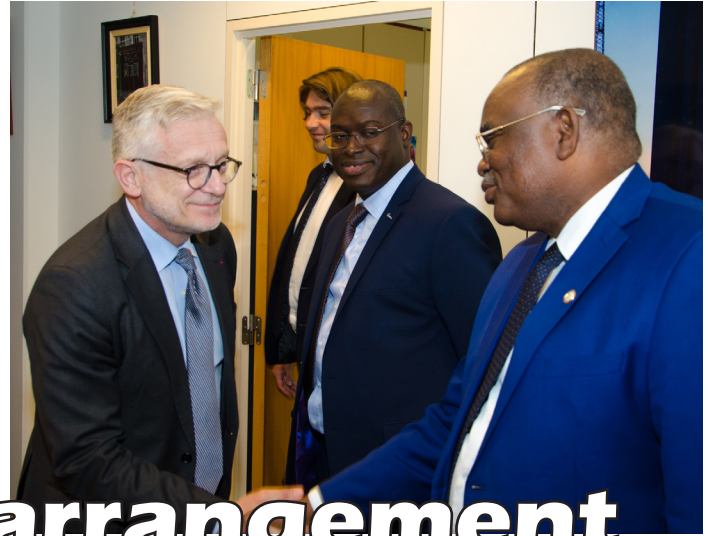
Scientists, Experts, Farmers, Policy Makers, Donors and Students attended the Science Symposium discussed efforts at reducing the vulnerability of the West African people to climate variability and change during the three days WASCAL Science

Symposium.

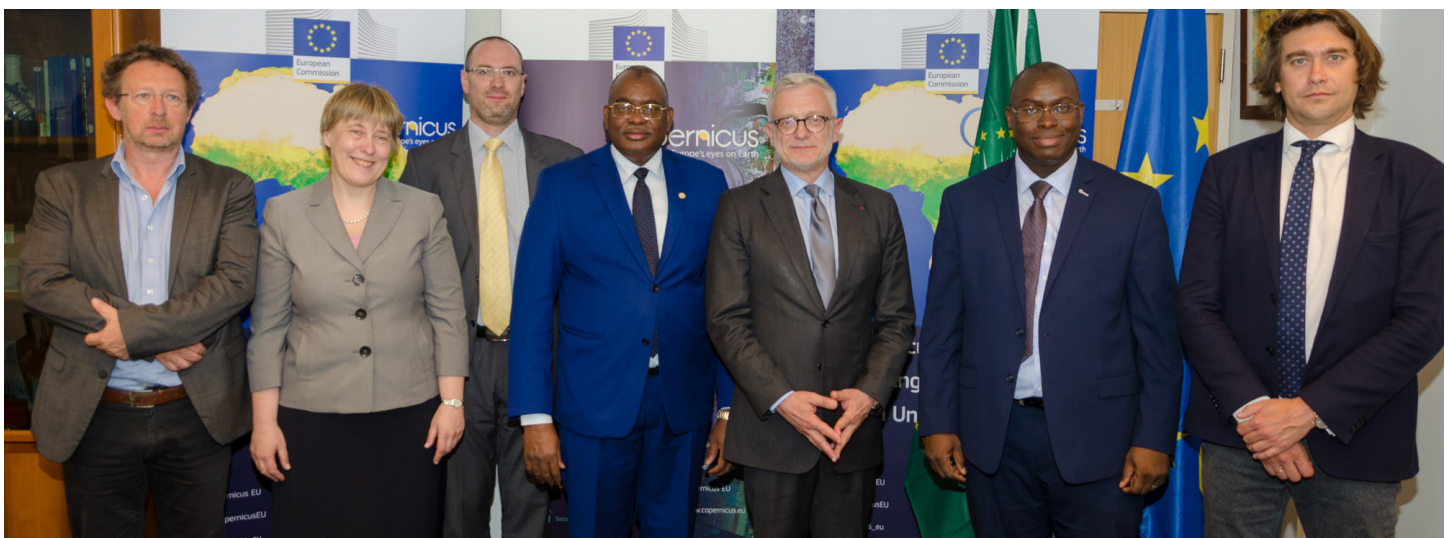
The GMES and Africa Support Programme is an African Union Programme. The programme is co-financed by the European Commission and the African Union Commission. The Programme uses Earth Observation data for marine and terrestrial applications in Africa. In West Africa the GMES and Africa is implemented by three lead consortia: University of Ghana based in Ghana, Centre de Suivi Ecologique (CSE) based in Senegal, and Obafemi Awolowo University based in Nigeria.

WASCAL is a large scale research-focused Climate Service Center funded by the German Federal Ministry of Education and Research (BMBF). It is established to enhance the resilience of socio-ecological systems to climate change and increase volatility. Benin, Burkina Faso, Cote d’Ivoire, The Gambia, Ghana, Mali, Niger, Nigeria, Senegal, and Togo are Member States of WASCAL.

COLLABORATIONS



Cooperation arrangement signed



Cooperation arrangement signed between AUC & EC



Cooperation arrangement signing ceremony in Brussels

The African Union Commission signed a cooperation arrangement with the European Commission in the area of Earth Observation data access from the Sentinel Satellites of the Copernicus on 12 June 2018, in Brussels, Belgium at the premises of the European Commission Directorate- General for Internal Market, Industry, Entrepreneurship and SMEs (DG-GROWTH). Dr. Mahama Ouedraogo, Director of the Human Resources, Science and Technology signed on behalf of the African Union Commission and Mr. Philippe Brunet, Director of Directorate I, Space Policy, Copernicus and Defence, on behalf of the European Commission.

The cooperation arrangement will enable

African Earth Observation data users to access to Sentinel Satellites data using high bandwidth terrestrial network connections from data hub to data hub so as to foster the exchange of Earth Observation data between Europe and Africa. This will help users to monitor their environment, crops, water bodies and coastal ecosystems among others.

The European Commission and the African Union Commission are pursuing Earth observation activities in a number of areas of common interest and cooperate in the framework of the GMES and Africa partnership. They consider that sharing satellite data and information, including from African Earth observation satellites, will provide

mutual benefits once inter operability and integrity are ascertained.

Both sides recognise the leading role of the African Union Commission in serving as the official central contact point to facilitate Sentinel data access and use in Africa. The African Union Commission coordinates efforts to support African users' access to and use of Earth observation data and information.

The GMES and Africa Support Programme is a 30 million Euro joint programme co-financed by the European Commission and the African Union Commission. The Programme uses and adapts the Copernicus Programme data and services to the African context.

GMES and Africa Coordinator Addresses EO and Africa's Development at Digital Earth Summit



Dr. Tidiane Ouattara, Space Science Expert and GMES & Africa Support Programme Coordinator, AUC.

The potential for Earth Observation to contribute to Africa's development was a key question addressed by panellists at the 7th Digital Earth Summit 2018, held from the 17th to the 19th of April 2018, at the Chouaib Douakkali University of Morocco.

The theme of the Summit was Digital Earth for Sustainable Development in Africa.

GMES and Africa Coordinator and Space Science Expert at the African Union Commission, Dr. Tidiane Ouattara – who was the keynote speaker at the Summit, dwelt on how earth observation can contribute to the development of Africa through GMES and Africa.

Dr. Ouattara cited the vital benefits of GMES and Africa, which provides demand-driven services aligned to regional priorities

identified by the Regional Economic Communities of Africa. The programme also contributes to the aspirations stipulated in the African Agenda 2063. GMES and Africa is the first Pan-African Earth Observation programme, designed to enhance Africa's access to Earth Observation data, and to provide services that will enable African countries to manage their land-based and marine resources for sustainable socio-economic growth.

Flood, recurrent drought, deforestation, land degradation, coastal erosion, climate change and pirate fishing are among the challenges continually confronting Africa, and Earth Observation data is considered a potent tool for addressing some of these challenges. Through AU-EU partnership, Africa has been utilizing and benefiting from Earth Observation data for the past

two decades.

Hosted in Africa for the first time, the Earth Summit was an inspiration, and an avenue for inquisition by the African and international EO communities, as well as for geo-spatial information scientists. It was organized by the International Society for Digital Earth (ISDE), in partnership with the African Association of Remote Sensing of the Environment (AARSE), and the Moroccan Association of Remote Sensing of the Environment (MARSE).

GMES & Africa Sets the Stage for the Signing of Implementation Contracts with 13 Consortia



Group photo of the first Technical Experts Meeting of the GMES and Africa

The GMES and Africa Technical Experts Committee (TEC) has held its first meeting in Tunis from 14-16 May 2018. The Committee comprises Consortia of African institutions awarded to implement the GMES and Africa grants, as well as EU affiliates EUMETSAT, JRC, and the Technical Assistance Team of GMES and Africa.

At the Tunis meeting, participants took a closer look at the proposals submitted by Consortia, focusing mainly on identifying the infrastructure and data needs of each consortium, their service development methodologies, training and communications needs, as well as performance indicators underpinned by the GMES & Africa Logical Framework.

The GMES and Africa Programme Coordi-

nator and Space Science Expert at the African Union Commission, Dr. Tidiane Ouattara, said the meeting was an opportunity to identify the roles and responsibilities of all actors and stakeholders, and to design an integrated implementation road-map. Preparations for the signing of implementation contracts with selected Consortia are at a final stage and the signing is slated for the first week of June 2018.

At the meeting, EUMETSAT affirmed to all GMES and Africa partners and the 13 consortia that they can obtain license enabling them to access its data and products free of charge. The Joint Research Commission (JRC) also expressed its commitment to providing technical support for the 13 consortia to implement the GMES and Africa Support Programme. The technical support

include training on usage of EO data, eStation software and on site support.

The representative of the European Union Delegation to the AU, Pietro NARDI, called upon the GMES and Africa Support Programme to collaborate and create synergies with other European Union-funded initiatives and projects in Africa. These initiatives include: the Sendai Framework for Disaster Risk Reduction; the Great Green Wall and African Risk Capacity.

The AUC calls upon the thirteen consortia to align their services to regional priorities

The African Union Commission calls upon the thirteen consortia of African institutions to align their services to the Regional Economic Communities regional priorities. It was made during at the beginning of an information exchange and technical workshop in Nairobi, Kenya, from the 23rd to the 27th of April, 2018. The workshop brings together a delegation of the African Union Commission, representatives of the Regional Economic Communities, the GMES & Africa Technical Assistance Team, and the thirteen consortia.

The workshop analyses the specific details of the proposals submitted by consortia and identifies various needs such as data, infrastructure, and technical support. During the workshop, the GMES and Africa's Commu-

nication and Engagement Strategy, Training Strategy and Logical Framework were tabled for discussion.

The GMES and Africa Support Programme Coordinator and Space Science expert at the Department of Human Resources, Science and Technology, Dr. Tidiane Ouattara, entreated representatives of various consortia to align their log-frames, training as well as communication and engagement strategies with those of the GMES & Africa Support Programme.

Participants also paid a technical visit to the Regional Centre for Mapping of Resources for Development, a Kenya-based institution leading one of the East African consortia.

The Programme is to enable the implementation of the African Space Policy and Strategy, formulated to harness the continent's capabilities in utilizing space science and technology for economic growth and sustainable development. In the implementation agreement, the African Union Commission is the 'delegated authority' responsible for the management of the Programme.

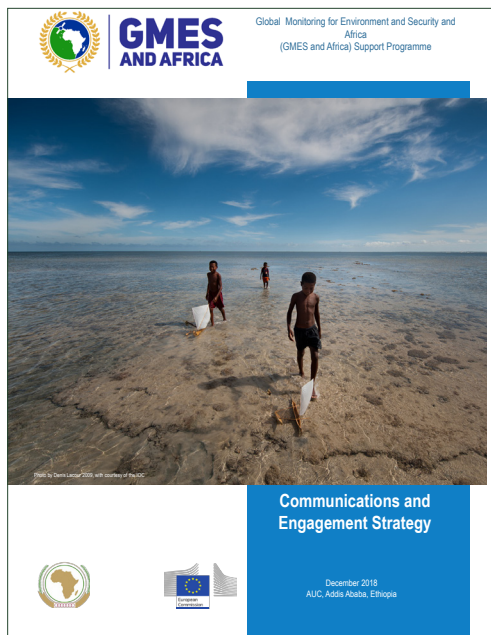
GMES and Africa Support Programme aims to improve African policy-makers', planners', scientists', business and private sector and citizens' capacities to design, implement, and monitor national, regional and continental policies and to promote sustainable management of natural resources through the use of Earth Observation data and derived information.



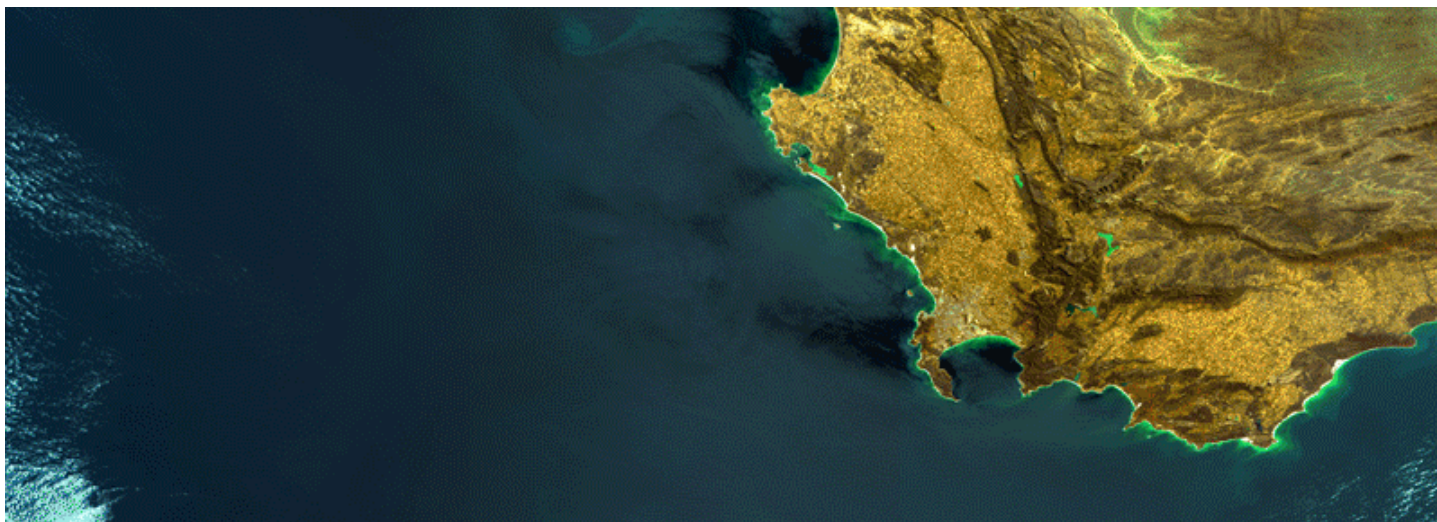
Technical visit at the RCMRD

GMES and Africa Publications

The GMES and Africa Support Programme has produced four publications: Communications and Engagement Strategy, Training Strategy, GMES and Africa Newsletter Volume 01 Number 01 and Online Media Monitoring Report. Soft copies of these documents are shared to stakeholders. They are also accessible online



Sentinel monitors Harmful Algal Blooms



When colonies of microscopic algae grow out of control in the water bodies, Harmful Algal Blooms (HABs) can occur. HAB produce toxins that cause massive fish deaths, poison shellfish beds, and contribute to human illness and death. Thanks to Sentinel-3's , it is possible to track HABs.

Sentinel-3's Ocean and Land Colour Instrument (OLCI) sees and detect Harmful Algal Blooms (HABs) by using ocean colour measurements. OLCI allows biogeochemical measurements like concentrations of

Chlorophyll a — the photosynthetic pigment of phytoplankton (algae) — and suspended sediments. Using a time series of OLCI images, the bloom can be tracked. A threshold of the Chl-a concentration can be set, and the first time that this is exceeded within a season can be calculated. This can give insight in to the typical progression of these events in space and time, a useful predictor for aquaculture farms in the region.

The Africa continent is surrounded by the

Atlantic and Indian oceans together with two seas, the Mediterranean and Red Sea. According to a study in 2015, the Western Indian Ocean fishing zone alone produced 4,659,209 tons of fish.

The GMES and Africa Support Programme intends to use Sentinel data to provide marine and land services through 13 regional implementing centre for the entire Africa Continent.

GMES & Africa discusses usage and applications of Copernicus Data

Experts from Africa and Europe discusses how the Global Monitoring of Environment and Security & Africa Support Programme can adapt and use Earth Observation data from Sentinel satellites. The discussion is going on in a workshop organized by the Copernicus and the GMES & Africa programme for the upcoming three consecutive days (19-21 February 2018) in Accra, Ghana.

GMES &Africa Support Programme is the

African Union Commission's Earth Observation flagship programme and the key component of the EU-AU Partnership (Lisbon, 2007) in the space sector. The workshop exchanges views regarding the implementation and adaptation of the COPERNICUS programme in Africa through the development of the African EO services and applications tailored to African needs at continental, regional and local level.

The active collaboration between the two programmes is an essential element of the

EU-AU Partnership. The meeting brought together experts from GMES & Africa Support Programme management, GMES & Africa Consortia and European and COPERNICUS Institutions (GROW Copernicus units, DEVCO, JRC, ESA, EUMETSAT, CLS, Mercator, ECMWF).

The GMES and Africa discussed at Toulouse Space Show 2018



Some of the round table speakers at Toulouse Space Show 2018,

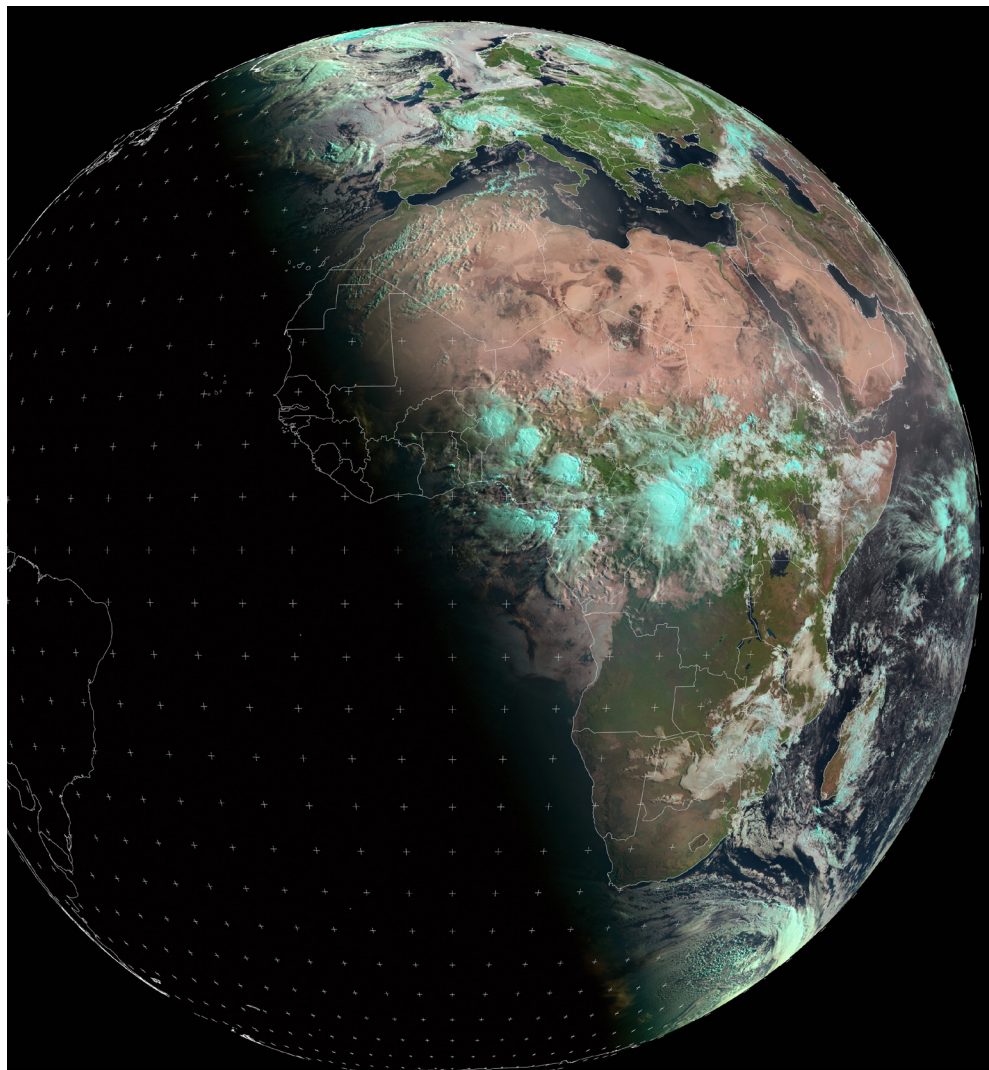
A global forum dedicated to highlight future trends and the new space economy and space solutions organized in Toulouse, France from 26 to 28 June 2018. The Toulouse Space Show 2018 brought together more than 3000 participants, stakeholders & decision-makers from all over the world. Entrepreneurs, Space Agency directors, executives of key organizations and political leaders attended the Toulouse Space Show.

Dr. Tidiane Ouattara, Space Science Expert and GMES and Africa Programme Coordinator of the African Union Commission was one of the round table speakers in the Toulouse Space Show. The round table discussions at Toulouse Space Show discussed

the current evolutions and upcoming trends occurring within the global space economy. By integrating and developing new technologies, infrastructures and services, information from the Space has served as a tool for global socio economic development. Currently value added services of information from the space provides new economic opportunities industries and institutions. Dr. Ouattara underlines that the African Space Policy and Strategy is an African instrument to contribute to the Sustainable Development in Africa in the area of Space. The Global Monitoring for Environment and Security and Africa (GMES and Africa) Programme is one of the concrete actions in Africa that provides and promotes value

added services generated from information from the Space for marine and terrestrial applications in Africa.

Dr. Ouattara has tremendous experience in international relations and business development, research and development (R&D), strategic policy development and program management issues related to environment, natural resources, and sciences and technology. He began his career in Canada as lecturer at Sherbrooke University from 1996 to 2001. He taught not only scientific courses, but also African geopolitics and sociocultural issues. After a brief stay with the private sector in Montreal, in 2002 Dr. Ouattara was working with the federal government of Canada.



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MoU signed between the AUC and EUMETSAT

The African Union Commission has entered into a Memorandum of Understanding with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), to cooperate in the area of Earth Observation. The purpose of this Memorandum of Understanding is to maintain and further develop the general framework for cooperation between the AUC and EUMETSAT in activities in the field of Earth observation, taking into account the African Space Policy and Strategy adopted in January 2016 and the EUMETSAT Strategy

“Challenge 2025” adopted in June 2016. Specifically the Memorandum intends to formulate and implement projects or activities falling within the scope of (i) the Joint Africa-EU Strategy or (ii) the intra-ACP Cooperation Strategy, in particular those responsible for meteorology, climate, environment and space matters. It aims at facilitating:

- Access to and use of EUMETSAT data and products, EUMETSAT’s infrastructures (e.g. EUMETCast) and third party data, products and services dis-

- seminated via EUMETCast in Africa;
- The development of a training curriculum, the dissemination of training material and the strengthening of capacities on the use of Earth observation for the monitoring of weather, climate and the environment in support of sustainable development;
- The sharing of expertise and experience based on the implementation of past projects.

Who says what?

"The Delegation of the EU to the AU calls upon the GMES & Africa Support Programme to collaborate and create synergy with other EU funded similar initiatives and projects in Africa (For example the Great Green Wall and African Risk Capacity).



Pietro NARDI, Attaché, Agriculture, Environment, Delegation of the EU to the AU



Antoine ROYER, Scientific Officer at the Joint Research Centre

"The Joint Research Centre (JRC) is committed to provide technical support for the 13 consortia to implement the GMES & Africa Support Programme. The technical support include training on usage of EO data, environmental Station software and on site support.

"Good news! EUMETSAT will provide to all the GMES & Africa Support Programme partners and the 13 consortia license that will enable them to access all EUMETSAT data and Products through EUMETCAST free of charge. We will also provide technical support in the area of training on applications of Earth Observation.



Vincent Gabaglio, International Relations Officer, EUMETSAT

Experiences and results of users of Earth Observation data from Sentinel-2 in Morocco

Experiences and results of users of Earth Observation data from Sentinel2 tabled for discussion among scientific and research communities in Rabat, Morocco. It was discussed during the international workshop on the Contribution of Sentinel2 Satellite Imagery for Research and applications for managing Environmental resources in Africa. The workshop ran from 06 to 08 February 2018, in Rabat, Morocco.

GMES and Africa Support Programme is a pan-African Earth observation programme that uses Earth Observation data and information from Sentinel Satellites for the management of natural and environmental resources and civil security in the entire Africa.

GMES and Africa's Programme Coordinator and Space Science Expert, Dr. Tidiane

Ouattara, briefed participants of the workshop how the Global Monitoring for Environment and Security and Africa (GMES and Africa Programme) using Earth Observation contributes to the realization of aspirations of African States stipulated in Africa's Agenda 2063. GMES and Africa Programme is part of a global and African strategy that contributes to the implementation of Agenda 2063 and to the realization of the aspirations contained therein.

Dr. Tidiane underlines the close relationship between aspirations of Agenda 2063 and concrete needs of populations. He also briefed the role of Earth Observation for contributing to the management of abundant natural resources and environmental resources of Africa.

GMES and Africa Support Programme

aims to improve African policy-makers', planners', scientists', business and private sector and citizens' capacities to design, implement, and monitor national, regional and continental policies and to promote sustainable management of natural resources through the use of Earth Observation data and derived information.

The GMES and Africa Support Programme through its recently awarded thirteen consortia of institutions based in different regions of Africa, will provide marine and land services using data from Sentinel Satellites of the Copernicus Programme.

Fifty representatives of research institutions, universities and user communities attended the workshop.

Establishment of Humanitarian and Early Warning Mechanisms in Africa

The African Union Commission and various stakeholders and partners have been discussing the establishment of integrated and continental Humanitarian and Early Warning Mechanisms in Africa, at a workshop which ran from 26 to 28 February 2018, in Nairobi, Kenya. The theme of the workshop was "African Union: A Decade of Humanitarian Action (2016-2025)".

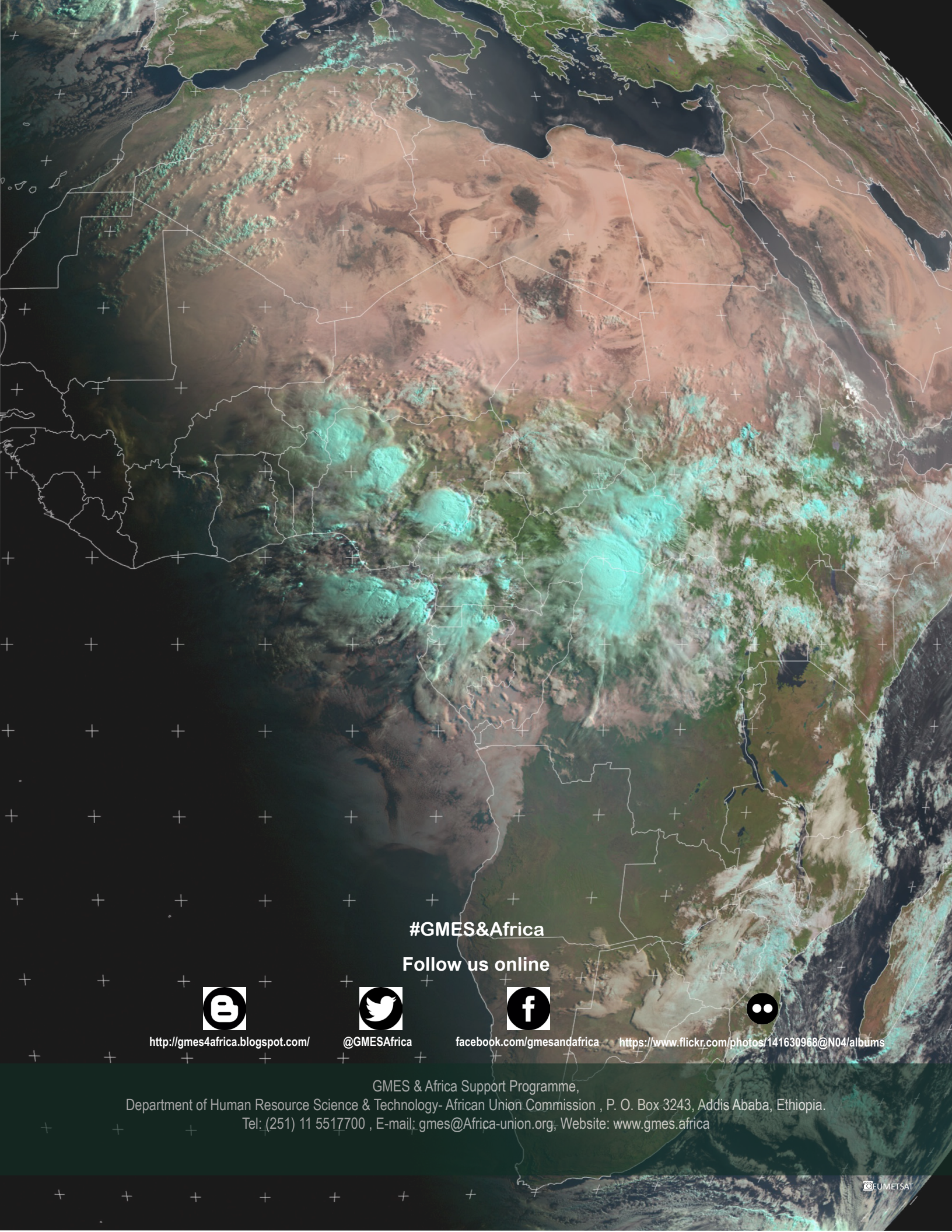
The GMES & Africa Programme Coordinator and Space Science expert, Dr. Tidiane Ouattara, briefed participants on the potential contribution of Earth Observation

through the GMES & Africa Support Programme to early warnings in Africa. The GMES & Africa Support Programme provides Satellite-derived information for the management of water and natural resources as well as marine and coastal resources management in Africa.

An overview of Early Warning Systems in Africa, the contribution of Earth Observation to early warning through the GMES & Africa Support and MESA Programmes, conflict early warnings, synergies and the collaborative role of early warning services

formed the agenda for discussion. The workshop culminated in an integrated strategy to address humanitarian action for the year 2016 to 2025 in Africa.

Participants from African Union Commission, The IGAD Climate Prediction and Application Center (ICPAC), African Union Conflict Early Warning (AUCEW), Conflict Early Warning (CEWARN), West Africa Network for Peace building (WANEP), ECOWAS Warning & Response Network (ECOWARN), Famine Early Warning Systems Network (FEWSNet), UNOCHA, WFP, IFRC, and IOM are attending the workshop.



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GMES & Africa Support Programme,
Department of Human Resource Science & Technology- African Union Commission , P. O. Box 3243, Addis Ababa, Ethiopia.
Tel: (251) 11 5517700 , E-mail: gmes@Africa-union.org, Website: www.gmes.africa