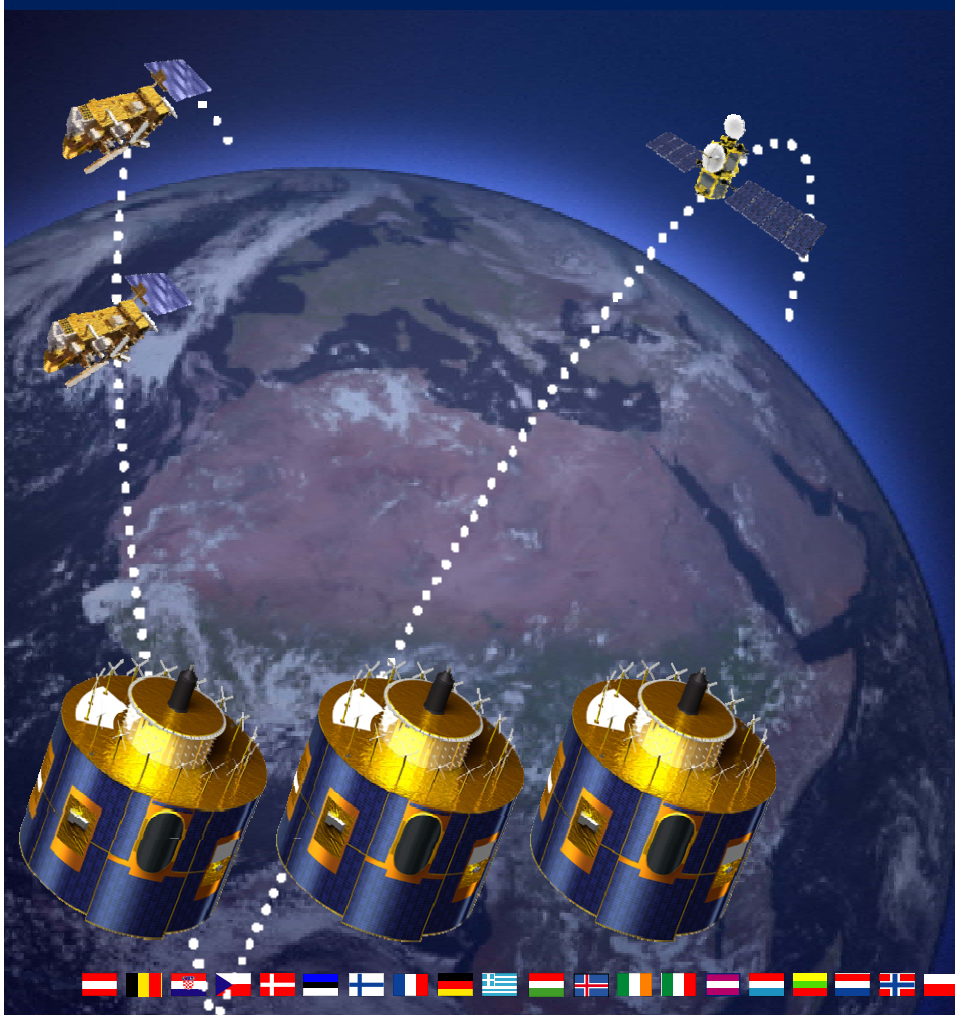


EUMETSAT AND AFRICA



**AMCOMET Expert meeting
Implementation Plan**

10-12 February 2014

**Vincent Gabaglio,
International Relations Officer**



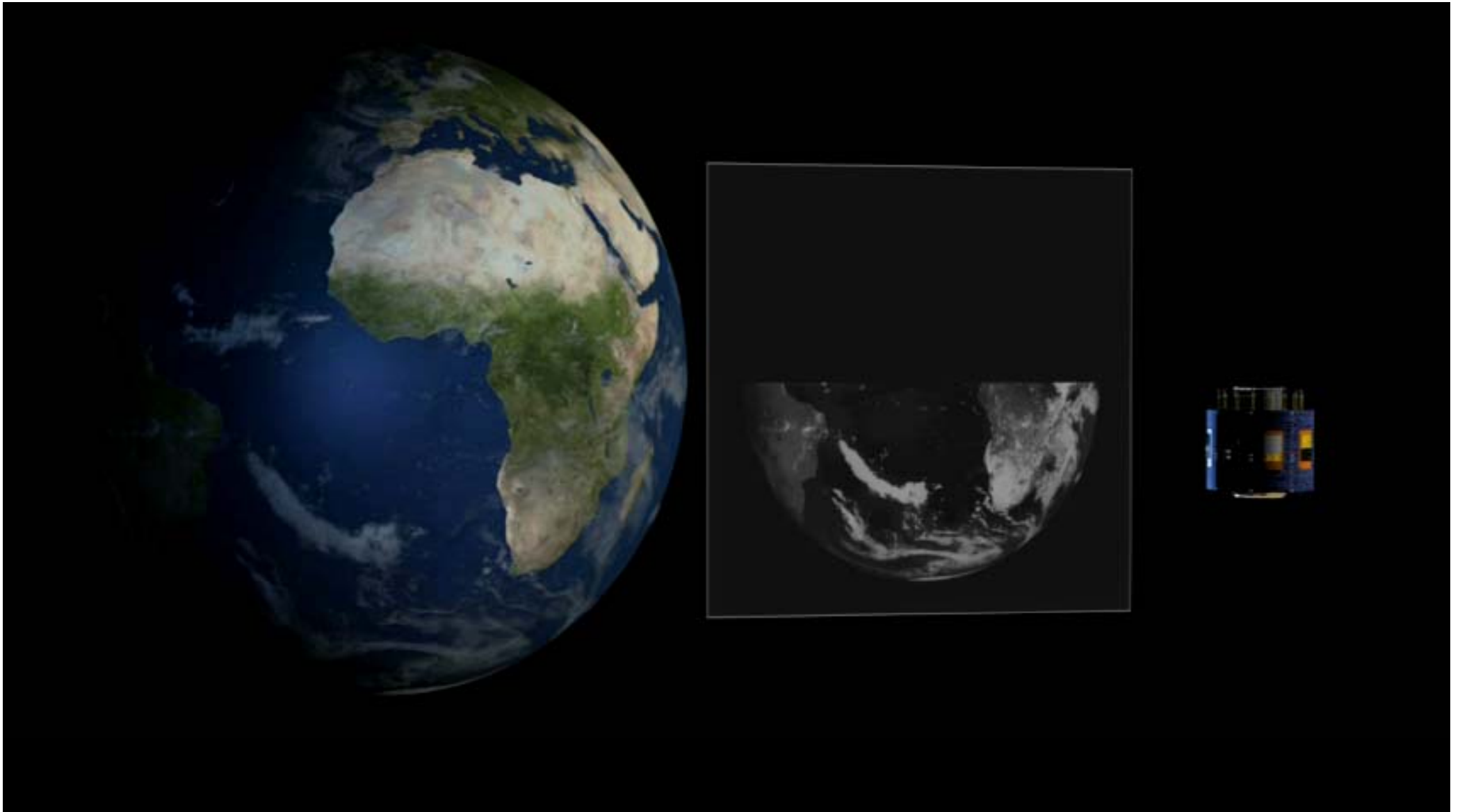
EUMETSAT and Africa



**1 full disc image every 15 min
24/24, 7/7**

**Africa on METEOSAT Images
~ 28% of the full disk
75% of the land surface**

Meteosat satellites



EUMETSAT Strategy

Strategic Objective #5:

Extend the user base for EUMETSAT data, products and service in EUMETSAT Member and Cooperating states and in WMO Members”

EUMETSAT shall “help the meteorological communities get easier access to EUMETSAT data, products and services and to make best use of available and planned satellite services in order to help individual countries and regions to meet their respective needs”.

Context

- **World Meteorological Organization:**
 - Support to WMO Strategic Plan, Expected Results 9:
Enhanced capabilities of NMHSs in developing countries, particularly least developed countries, to fulfil their mandates
 - WIGOS : Satellite part of the WMO Observing System - CGMS
 - Global Framework for Climate Services (GFCS)
- **Africa**
 - Integrated African Strategy on Meteorology
 - MoU with the AUC on Earth Observation
- **Joint EU-Africa Strategy:**
 - Partnership #6 Climate and environment
 - Partnership #8 Sciences, Info Society, Space.
-> EU-Africa Summit - April 2014

From Strategy.... to Activities

EUMETSAT Strategy

Long term commitment to cooperate with Africa



EUMETSAT activities for Africa

Data Coverage

Free data policy for developing countries and research
Long term – 2040

Ensure access to the data

Data Dissemination

Expert group on EUMTECast (chaired by Kenya)

Develop capacities to use the data

Training

4 WMO training centres in Africa

Ensure link with users

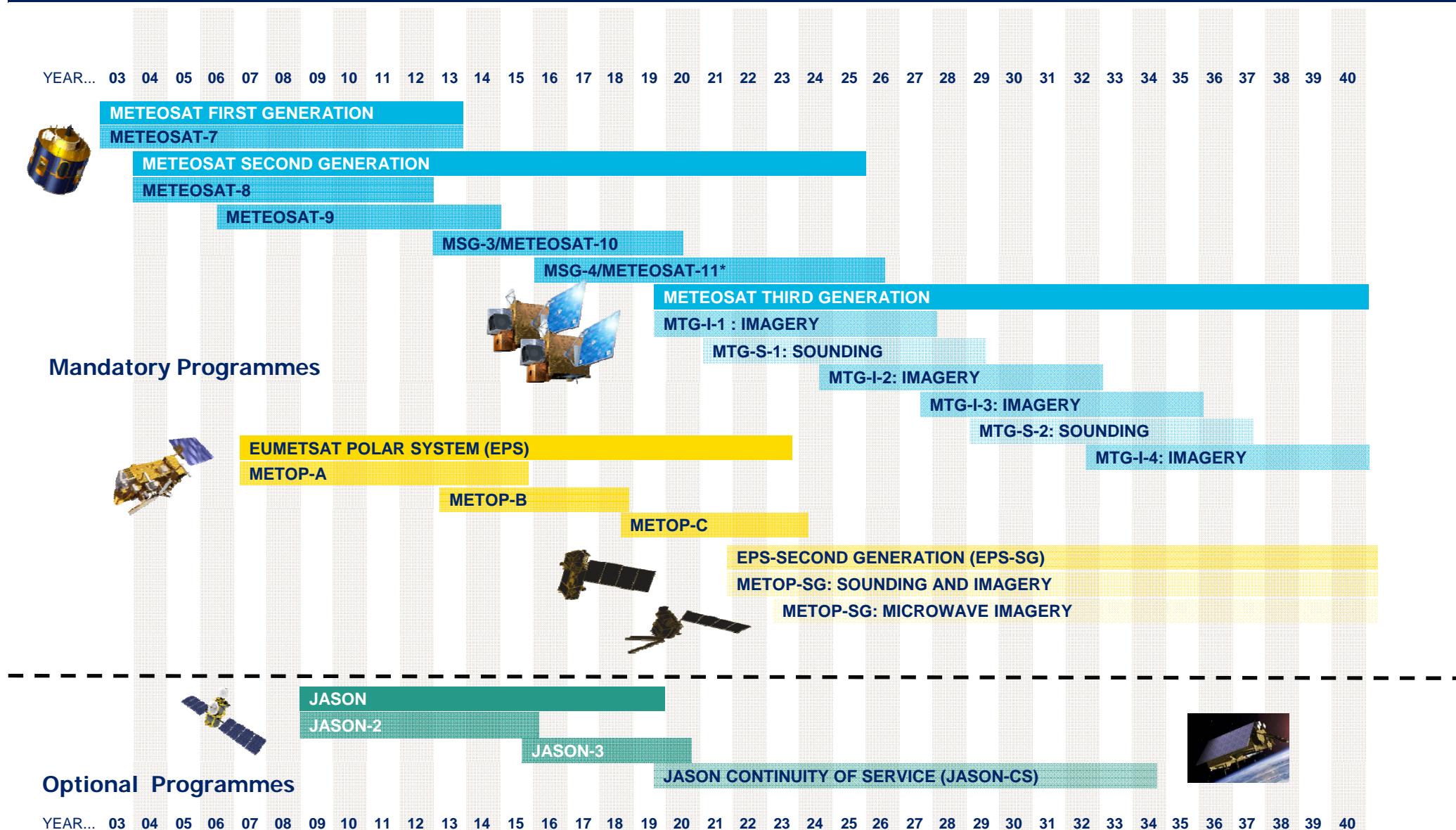
Help Desk
User Forum

Promote further exploitation of the data

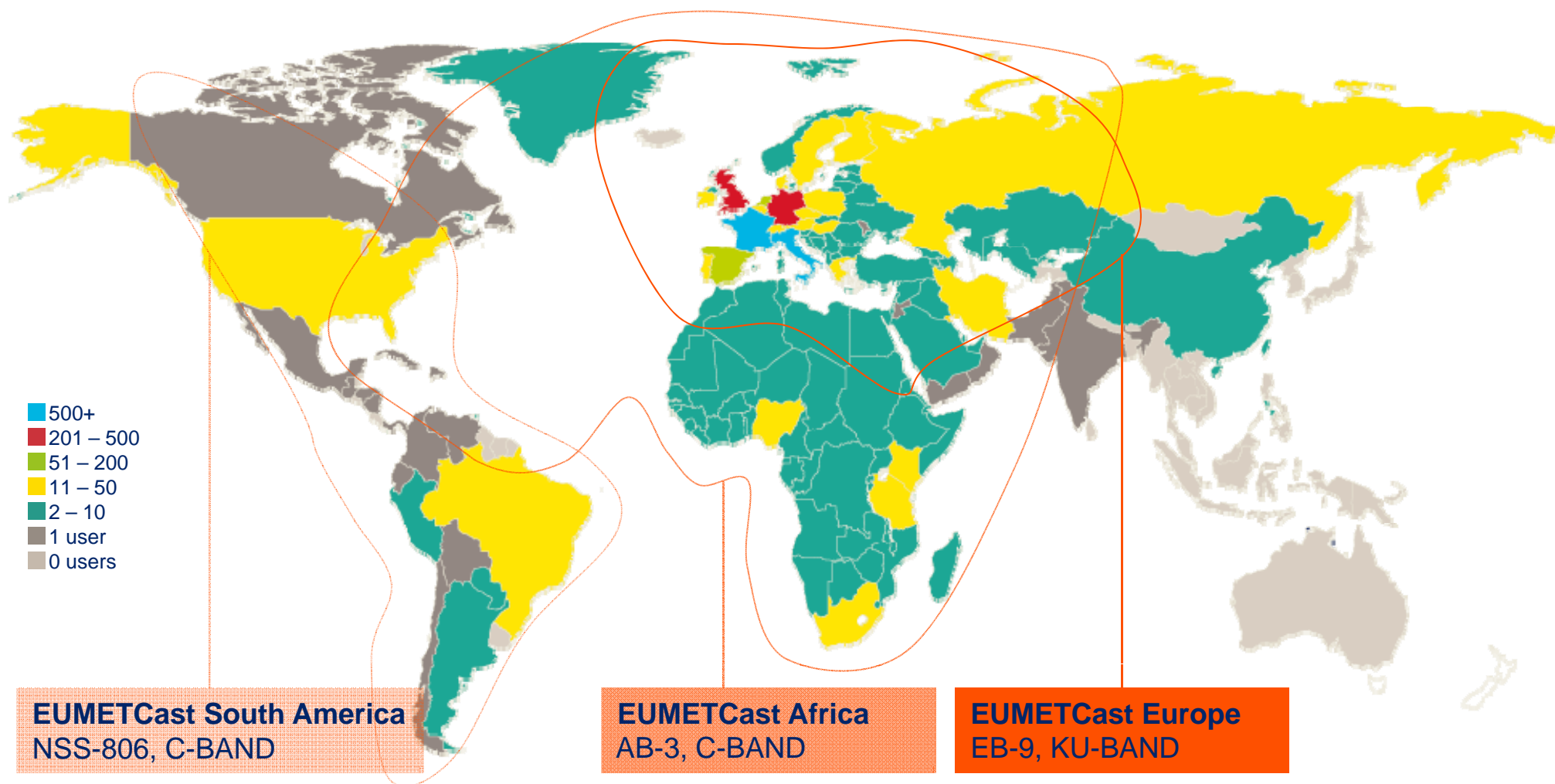
Cooperation with EU and African partners

PUMA, AMESD, MESA

Data coverage -> until 2040



Delivering to users worldwide



400 EUMETCast stations in Africa

Training on satellite meteorology



EU-Africa projects

- PUMA – 2001-2006, 11M€ (8th EDF), implemented by KMD
 - 53 PUMA receiving station deployed
 - 350 African technicians trained
 - 6 Pilot Projects (Outlook activities) -> AMESD
- AMESD – 2007-2013, 21M€ (9th EDF), implemented by AUC
 - All PUMA stations maintained and upgraded
 - Training (1000 experts trained)
 - Environmental services
- MESA – 2013-2017, 37M€ (10th EDF), implemented by AUC
 - All PUMA station maintained and upgraded
 - Training
 - Environmental and Climate services



EUMETSAT provides in-kind contribution, free of charge, to the projects

MESA thematic actions

<i>Regional Economic Community - REC</i>	<i>Regional Thematic Action - THEMA</i>	<i>Regional Implementation Centre – RIC</i>
CEMAC	Management of Water Resources (for fluvial transportation and environmental assessment)	CICOS, Kinshasa
ECOWAS	Water Management for Cropland and Rangeland Management	AGRHYMET, Niamey
IGAD	Land Degradation Mitigation & Natural Habitat Conservation & Forest Information System <i>NEW</i>	ICPAC, Nairobi
IOC	Coastal and Marine Resources Management	MOI, Quatre-Bornes with NMHS for training
SADC	Agricultural and Environmental Resource Management	BDMS/SADC-CSC, Gaborone
ECOWAS	Coastal and Marine Resources Management <i>NEW</i>	U Ghana
Continental	Support to Climate Services (Climate Change Monitoring) <i>NEW</i>	ACMAD, with the other RCC

Transversal support to NMHS -> PUMA 2015 and training

Benefits for NMHS and WMO regional centres

- PUMA stations deployed, maintained and regularly upgraded at each NMHS, Regional Centre, and training centre.
- Access to various data and products disseminated via EUMETCast (satellite, NWP model output, GTS data)
- Regular training of NMHS personnel in the WMO CoE for satellite meteorology and upgrade of equipment of the training centres
- Development of environmental services at regional level by hydro-meteorological and marine institutions (AGRHYMET, ICPAC, ACMAD, BDMS/SADC-CSC, CICOS, UoG and MOI)
- Support *Climate Service* activities at regional level with the RCC
- Visibility at African Union level (AUC is implementing)

Need for national uptake

- AMESD/MESA main focus is at strengthening regional centers, so that they can better serve the countries in their region
- MESA will support “national network” to increase impact at national level (NMHS in partnership with your “clients”/national partners in the thematic area)
- MESA serves several AU and regional policies
- Need for an uptake at National level:
 - NMHS need to avail resources to fully exploit the data
 - “National Network” might be a good vehicle to address government and donors

Suggestion for the Implementation plan

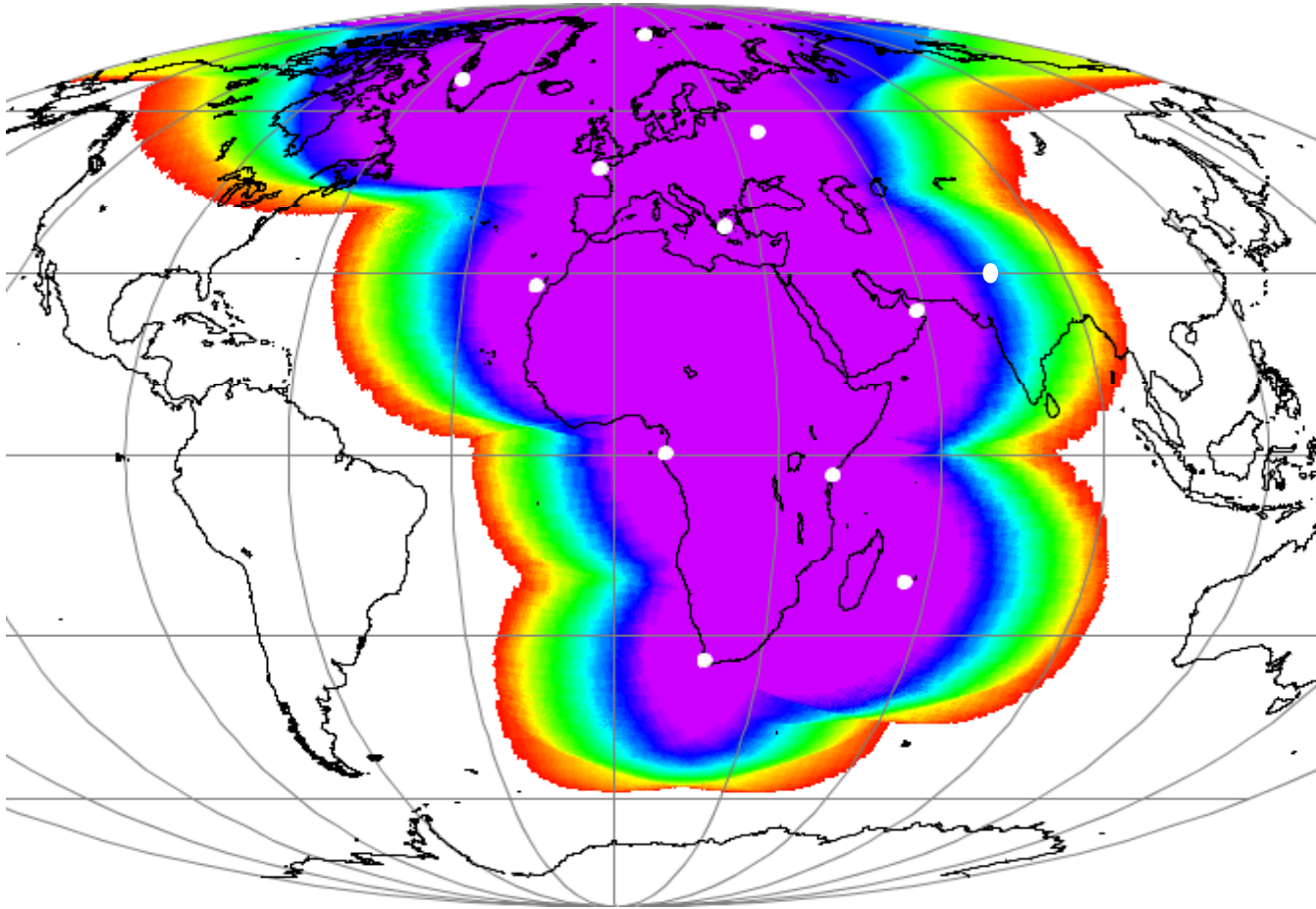
- Strategic Pillar #2
 - *Invest in ground systems, training and analytical tools to make best use of existing satellite and model information available from international partners; and in parallel*
 - *Engage with international partners on the design of numerical weather prediction and satellite derived products to better address African requirements;*
 - *EUMETSAT contribution*
 - *Free of charge data for developing countries*
 - *Continuation of EUMETCast over Africa*
 - *Through the MESA project (upgrade of PUMA stations and training)*
 - *Training activities at the WMO Centre of excellence*
 - *RARS Africa -> direct reception of polar orbiting satellites and assimilation of satellite data into NWP*

RARS Africa

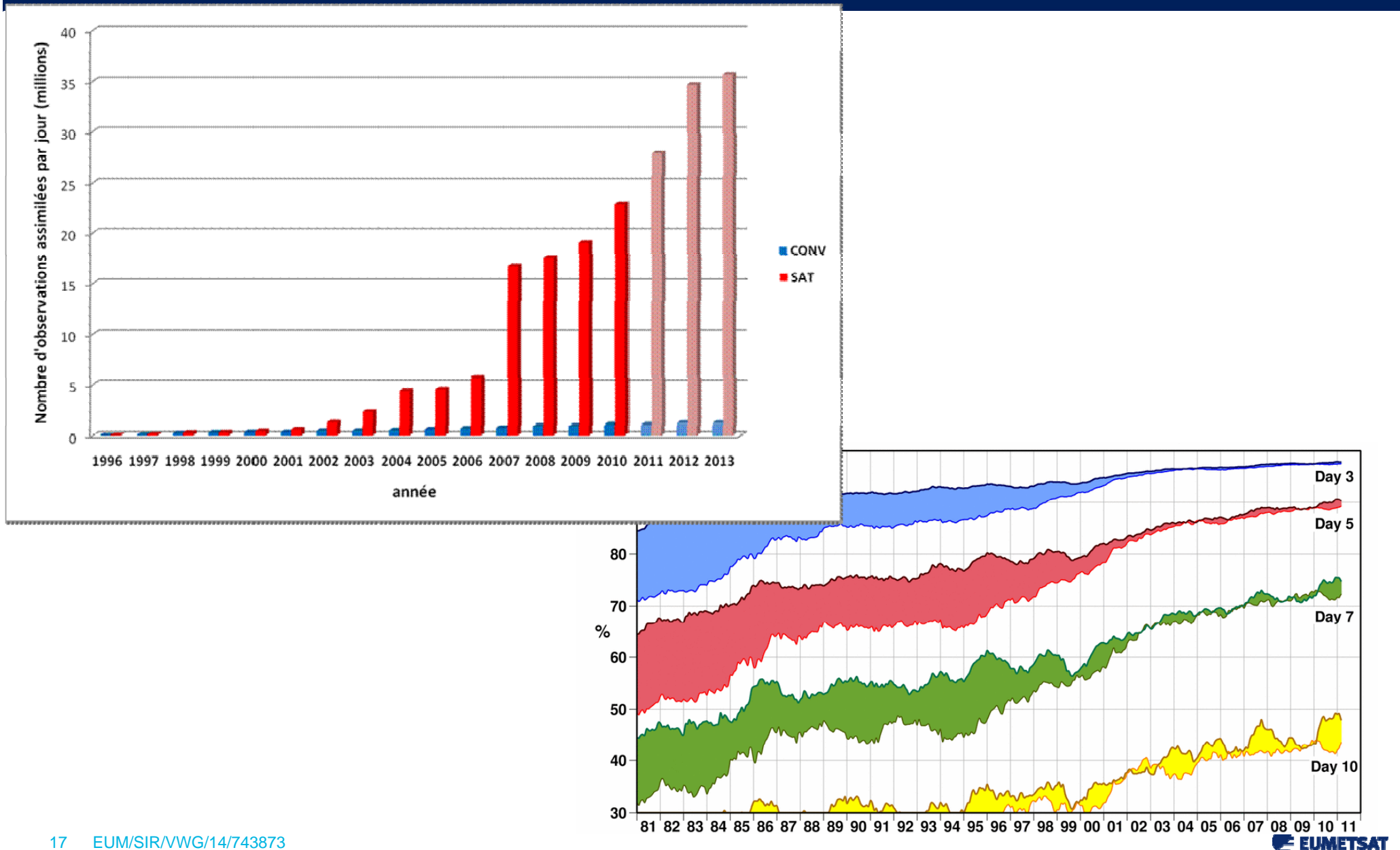
- Improve NWP in Africa with satellite products
 - Access to polar orbiting satellites (ATOVS, IASI)
-> RARS Africa
 - Based on SWFDP
 - Answer DRR needs



RARS Station



Numerical weather prediction



Example: SA12 Regional Model (based on UKMet. Office NAE model)

Southern African LAM

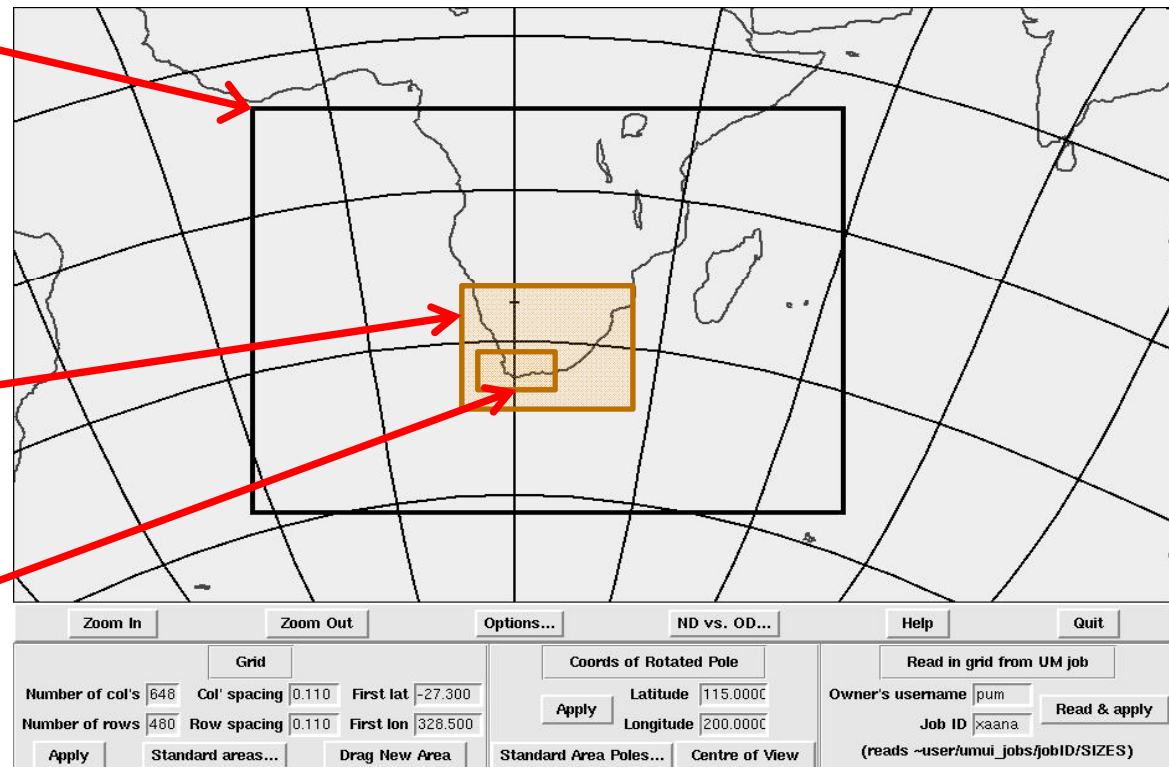
1. Reconfigure global input for 48hr fcst at 00Z
2. 12km 38 Levels
3. Continuous 3DVAR 6-hourly cycle => 48hr fcst at 00Z
4. 48 hour Forecast

South African Domain

1. 4km 72 Levels
2. Continuous 3DVAR
3. 72 hour Forecast

Focused Area Model

1. 1.5 km 72 levels
2. Incremental 3DVAR
3. 24 hour Forecast



Suggestion for the Implementation plan

- Strategic Pillar #2

- *Ensure that the African meteorological weather requirements on satellite derived products are channelled through the regional WMO Integrated Global Observing System (WIGOS) and the WMO Space programme [...]; and*
- *EUMETSAT contribution*
 - *Expert group on EUMETCast (data requirements) – linked to WIGOS*
 - *EUMETSAT User Forum in Africa*

Suggestion for the Implementation plan

- Strategic Pillar #2

- *Explore the feasibility of launching an African Meteorology Space Programme taking note, and advantage of the progress already being made by some African countries on this aspect as well as the already existing telecommunications satellite (RASCOM).*
- *AMCOST -> African Space Policy*
- *African Ministers of Infrastructure -> African Space Agency*
- *EU-Africa Dialogue on Space (EUMETSAT is an observer in this dialogue)*

Suggestions for the Implementation plan

- Strategic Pillar #5

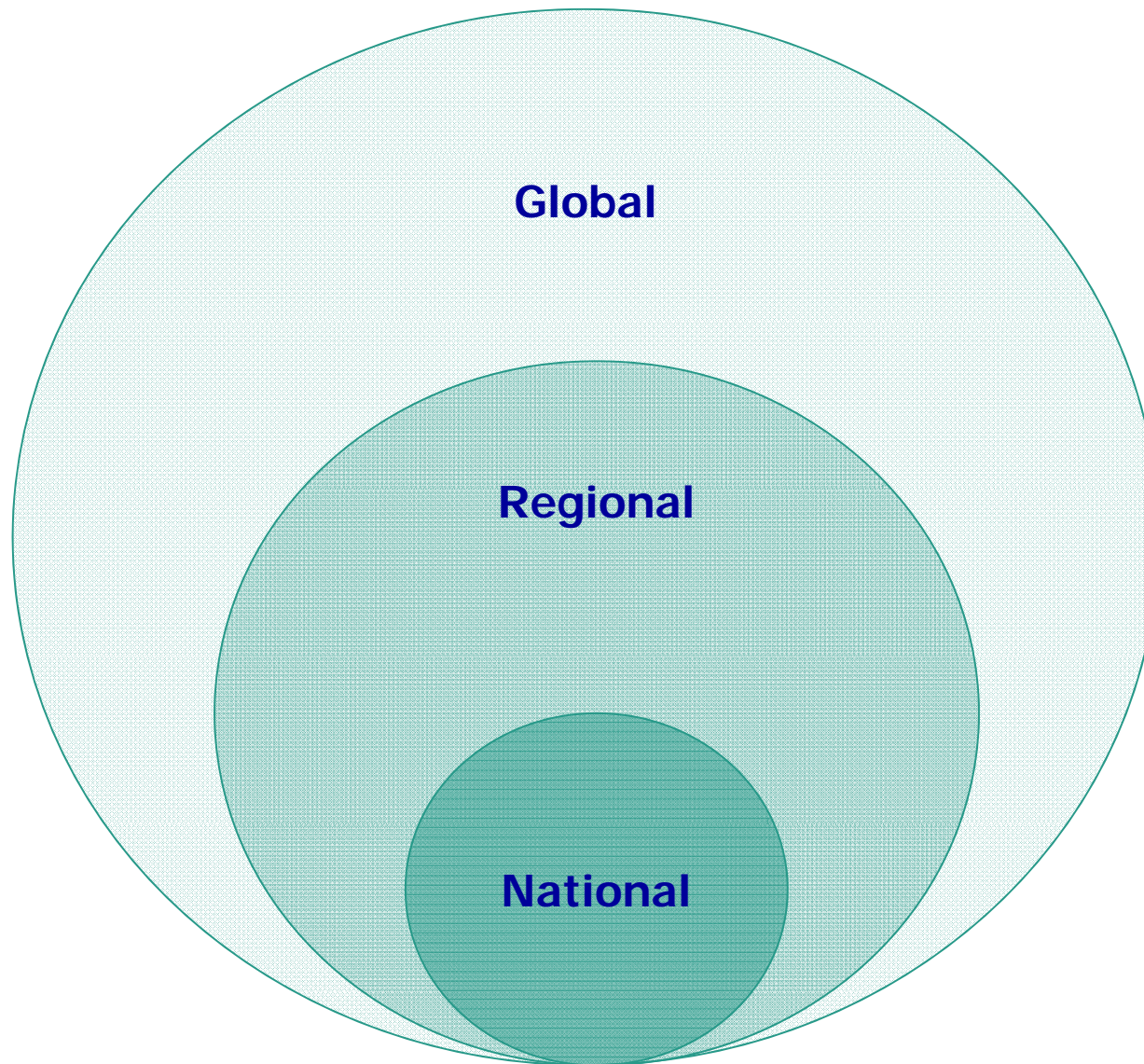
- *Ensure the implementation of a structured GFCS at regional (i.e. continental) level, based on the input provided in the Addis Ababa Declaration in Support of the Implementation of the Global Framework for Climate Service (GFCS) in Africa, attached as Annex 6 as well as WMO's Implementation Plan of the Global Framework for Climate Services, on the understanding that the regional GFCS implementation will facilitate links between national and global GFCS implementation activities; [...]*
- *EUMETSAT contribution (together with WMO)*
 - *Facilitate the follow-on of the Addis Ababa Declaration (including involving fully AMCOMET in the process)*

Addis Ababa Declaration

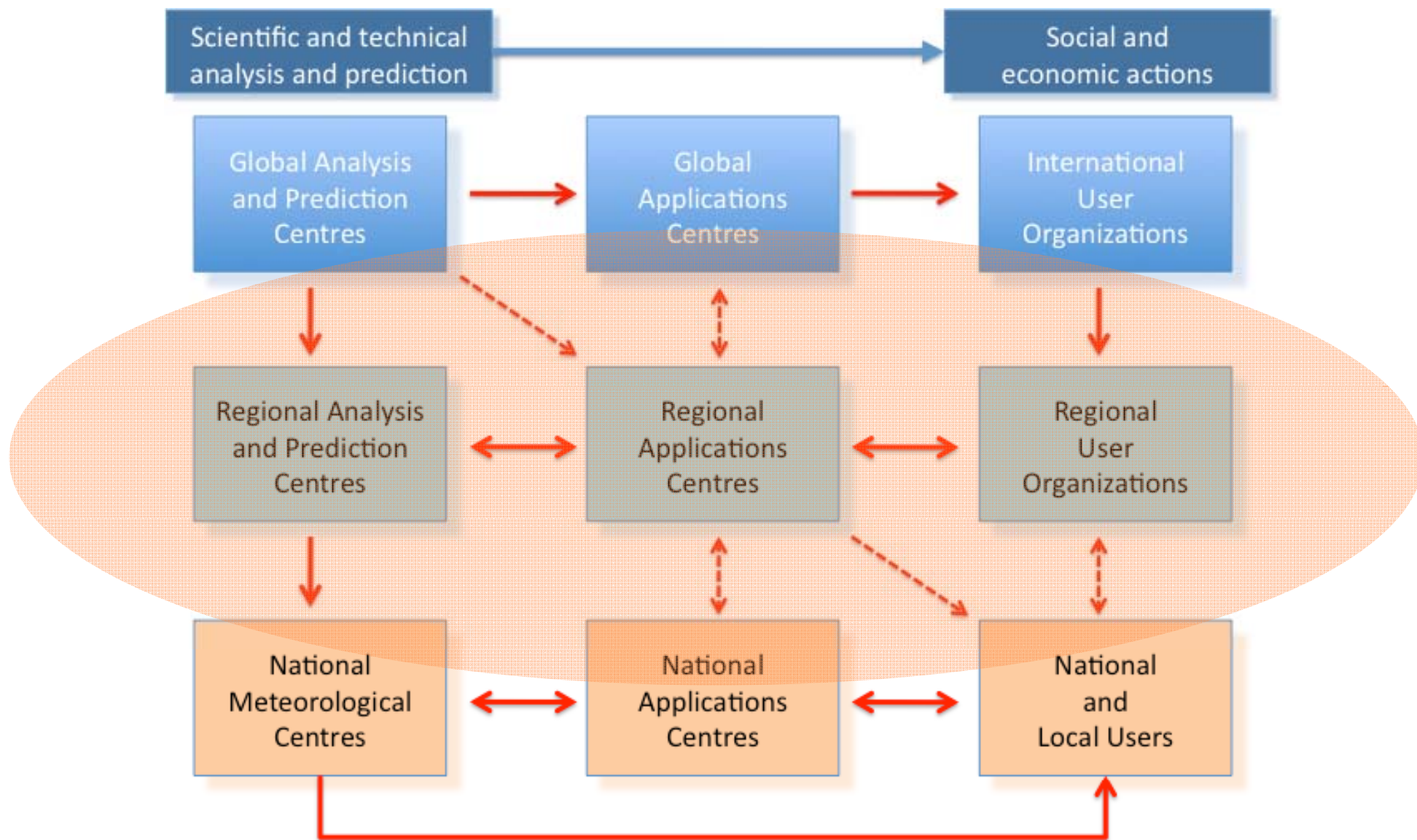
- Support to the GFCS by the RECs and AUC
- Need to strengthen the regional dimension of the GFCS in Africa, in order to help implementation of national Climate Service
- Strengthen Regional Climate Centre and Regional Climate Outlook Forum



GFCS various dimension



Linkages between Global, Regional and National



Overall approach

- Demand-driven (user and policy)
- Capacity Building project
- African ownership
- Sustainable dimension
- Long-term commitment



MERCI – THANK YOU

