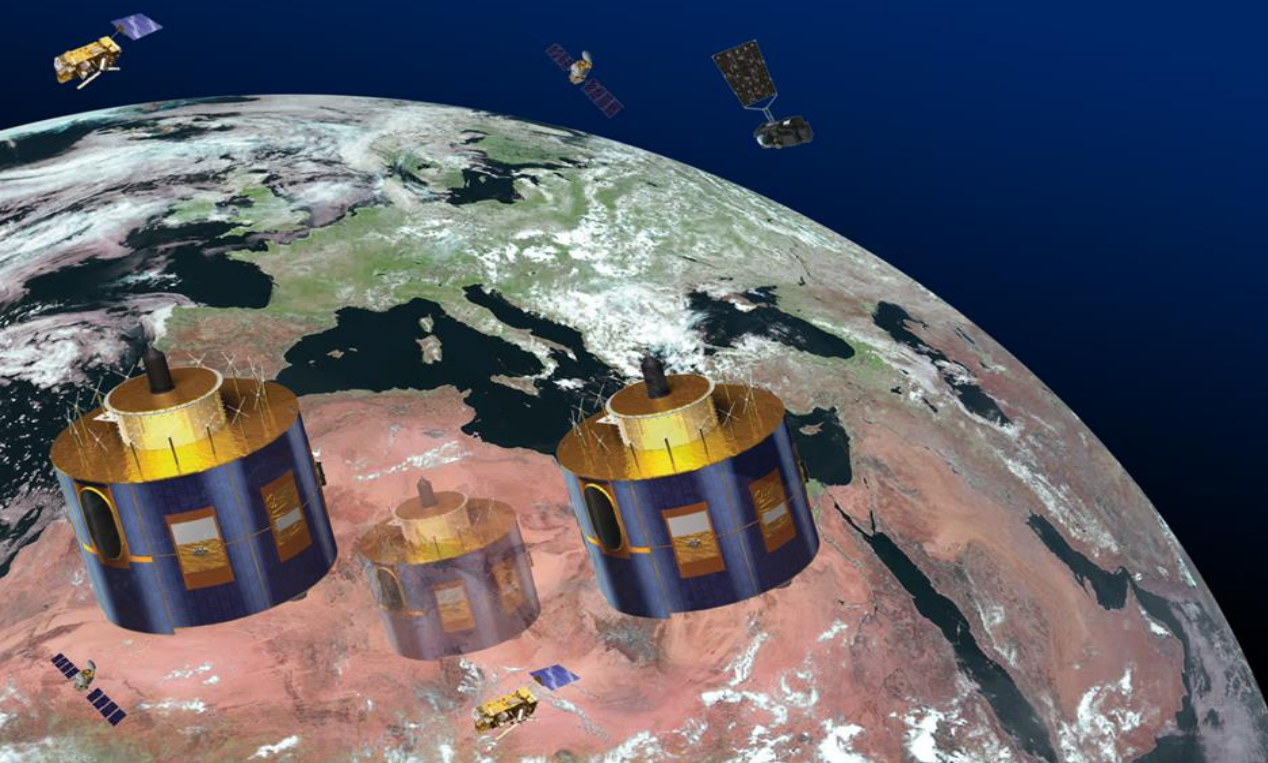


# EUMETCast Africa Operational Baseline Review

9<sup>th</sup> RAIDEG Meeting, Abidjan

Sally Wannop



- New EUMETCast Africa service
- Recent product changes
- Future requirements for Synergie updates
- Update on Data Services Pathfinder Projects

# New EUMETCast Africa Service from May 2018

- The old satellite was approaching its end of life, the follow-on service is provided from EUTELSAT 8 West.
- The service is based on DVB-S2 to take advantage of the better spectral efficiency of the broadcast.
- Contractual baseline service until August 2024 +extensions.

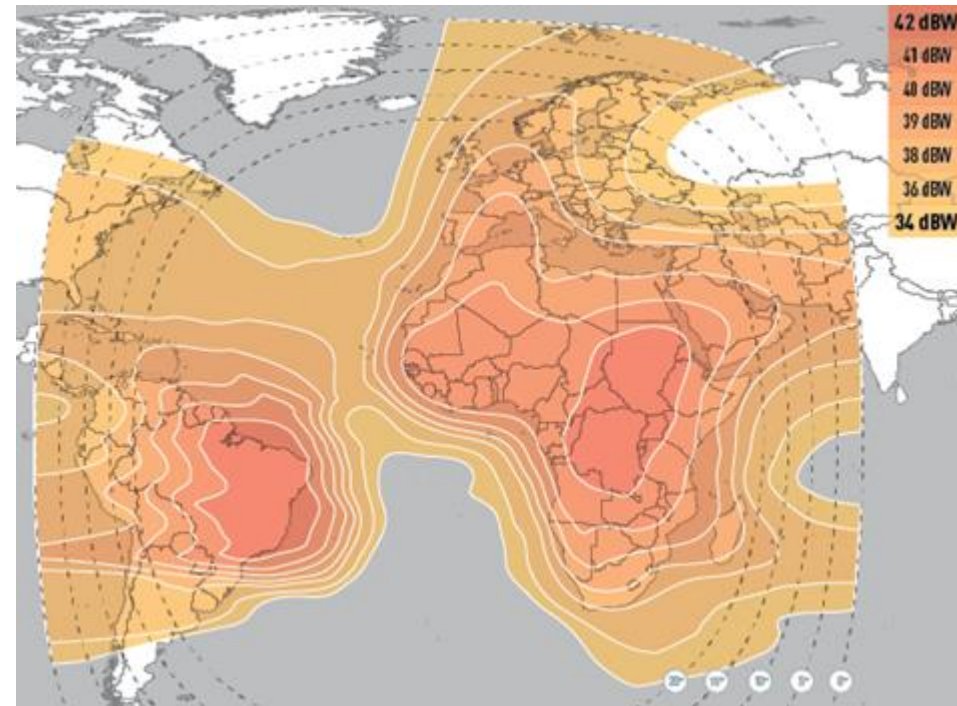


Fig: C-Band Downlink Coverage

# EUMETCast Africa New Service Transition Support

- Parallel operational phase to allow for transition by users May – July
- Change to new service required antenna reporting and configuration updates, where applicable, new DVB-S2 compliant devices
- Support from Telespazio to transition PUMA 2015 and MESA users:
  - 170 users planned to be transitioned under this contract
  - 18 additional MESA stations were later added
  - 10 PUMA 2015/MESA and 5 additional MESA installations are still outstanding, to be completed in the coming weeks.

# New Third-Party Content Updates

- JRC Products long-term precipitation estimate (GEE\_WB, SPOT\_VGT, CHIRPS) in Oct 2017
- Barcelona Dust Forecast Center
  - Atmospheric dust products (dust surface concentration, dust load, dust optical depth, dry and wet deposition) from H+0 to H+72 every 3 hours in netCDF
  - To begin Trial dissemination in early Oct 2018
- Indian Ocean image data from INSAT-3D from ISRO and Elektro-LN2 from Roshydromet by end 2018

# New/Updated Products from Copernicus Services

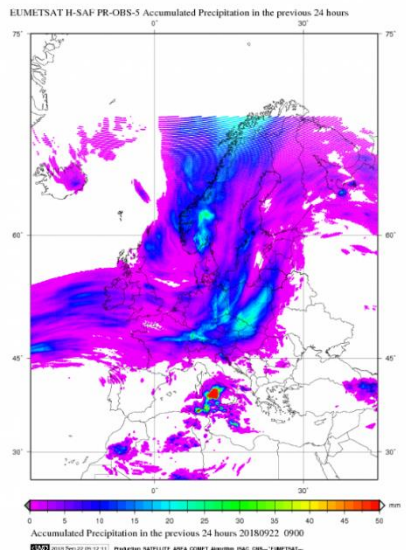
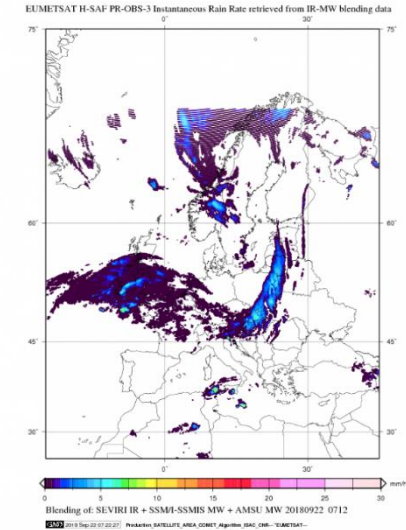
- Copernicus Global Land Service PROBA-V products Africa cut-out:
  - V2 Leaf Area Index; Fraction of green vegetation cover; Fraction of Absorbed Photosynthetically Active Radiation
  - Burnt Area 300m product replacing 1km product now in Trial dissemination
- Sentinel-3 Level 2 land products now in Trial dissemination, full dissemination in Oct 2018
  - Trial access given to SADC-CSC; ICPAC; AGRHYMET; CICOS
  - Feedback is welcomed!



# Replacement to MPE – H SAF H03a & H05a in 2019

## Precipitation rate at ground by GEO/IR supported by LEO/MW

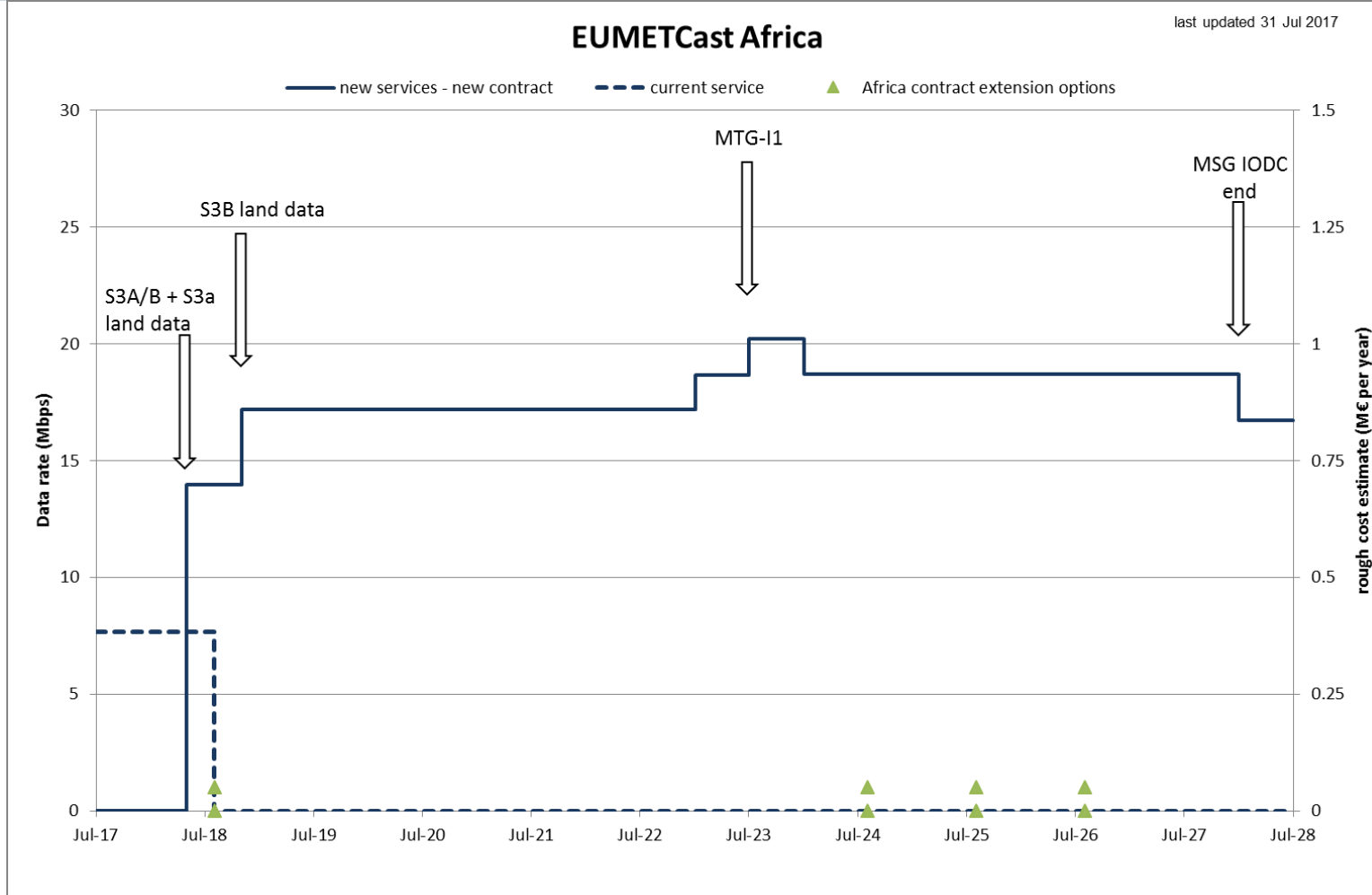
- <http://hsaf.meteoam.it/description-pr-obs-3.php>



## Accumulated precipitation at ground by blended MW and IR

- <http://hsaf.meteoam.it/precipitation.php?tab=4>

# EUMETCast Africa Bandwidth Profile



Current bandwidth supports 9.9 Mbps data rate



# Future Synergie Software Upgrade

- To bridge the gap between now and the future station upgrade (2021/3 timeframe) EUMETSAT will support a software upgrade in 2019;
- Release will be likely be in a single 'bundle' (limit the effort spent on compiling and testing the release package);
- RAIDEG is requested:
  - to identify priorities for this release and
  - to support the validation

# Candidates for inclusion in Synergie upgrade

- IODC L2 meteorological products
- Met Office new Tropical 4km model replacing the current Lake Victoria
- SAF Data:
  - NWC (cloud product format change & new SAF RDT & CRR)
  - OSI SAF (product & format changes)
  - H SAF
  - LSA SAF
  - AC SAF
  - CM SAF

# The Pathfinder Projects

## Project

**PF I: On-Line Data Access**

**PF II: High Volume Data Delivery – EUMETCast Terrestrial**

**PF III: Web Services**

**PF IV: Format Toolbox**

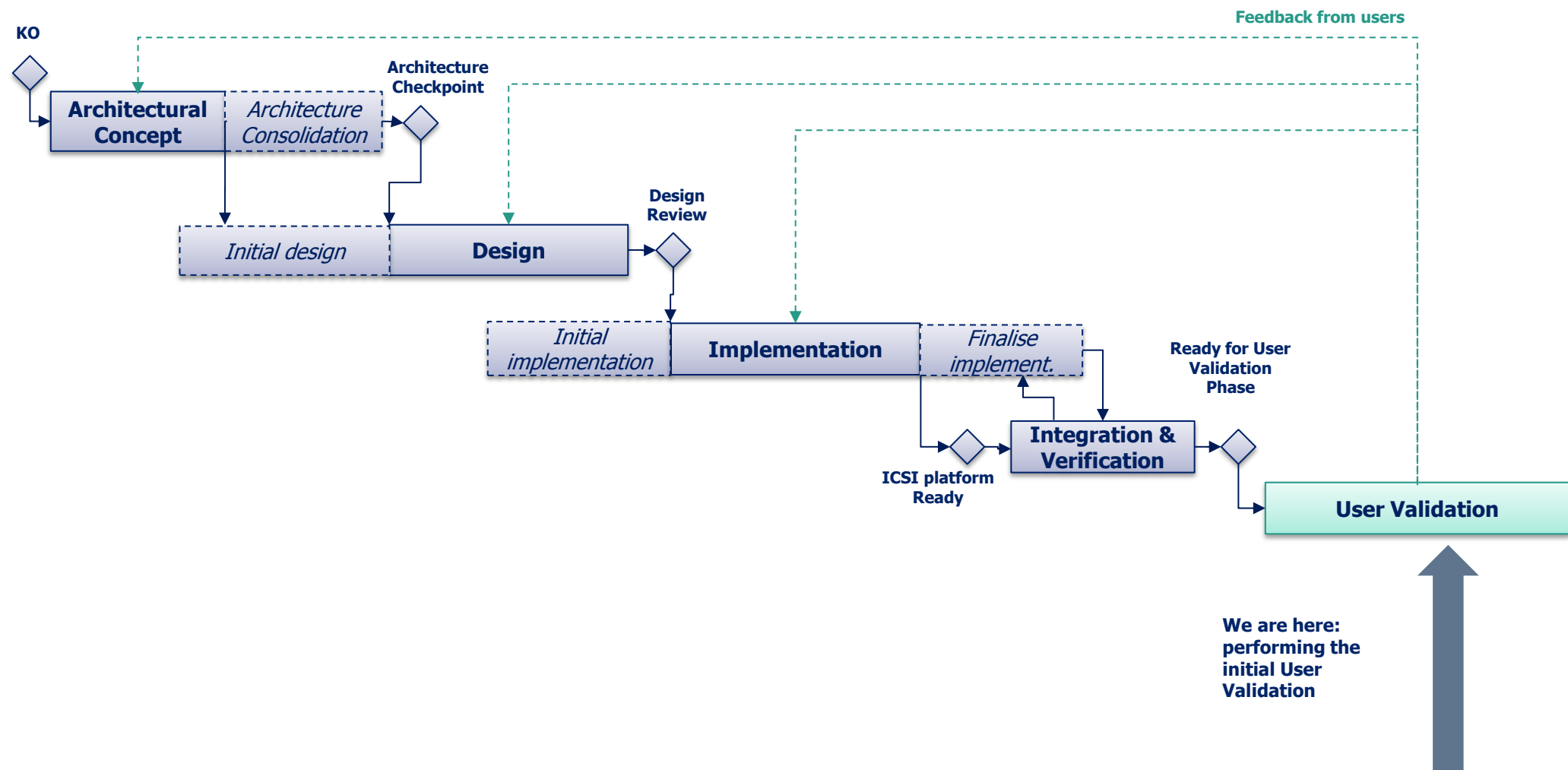
**PF V: Hosted Processing**

### Important notes:

- Pathfinders are “**exploratory**”, providing demonstrational services expanding the current ones;
- the **outcome** of the pathfinders are a set of service requirements and needed modifications of our data policy

# Framework development logic for Pathfinders

May to August 2018



# User Validation Overview

## Purpose of user validation:

- identify to what extent the success criteria of each Pathfinder have been met
- provide information on service aspects to improve, including possible integration across pathfinders
- give an indication of the scope and level of service expected during initial operations phase

# User Validation Overview

## Validation scope:

- Pathfinder I – Online Data Access
- Pathfinder III – Web Map Services
- Pathfinder IV – EUMETSAT Products Customisation Tool
- Pathfinder V – Hosted Processing

## Notes:

- Validation for Pathfinder Project II – EUMETCast Terrestrial will start in October and continue for at least 6 months. Its aim is to demonstrate that NMSs having no connection to GEANT/NREN can access the service using commercial links

# User Validation Overview

## Participation & Process:

- 16 MS-NMHSs participated in the validation for one or more of the Pathfinder Projects
- 3 African centres (MESA SADC, NMHSs of Senegal & Mauritius)
- Validation process was a combination of interviews and feedback via an online questionnaire
- User were asked to participate in pre-defined use cases designed to allow them to explore the functionality



# User Validation Overview

- Current phase of user validation has generally yielded important insights although the timeline was ambitious
  - User validation confirms that outcome of Pathfinder Projects meet users' expectations
  - With some adjustments these could become operational service used by NMHSs
- Further validation needed for Hosted Processing & EUMETCast Terrestrial is just starting.

# Data Services next Steps

- Discussion Delegate Bodies this Autumn on the outcome and proposed way forward
- Proposal of an operational service specification to Delegate Bodies in spring 2019 on continued service, procurements etc.
- By spring 2020 achieve operational status of agreed new data services