

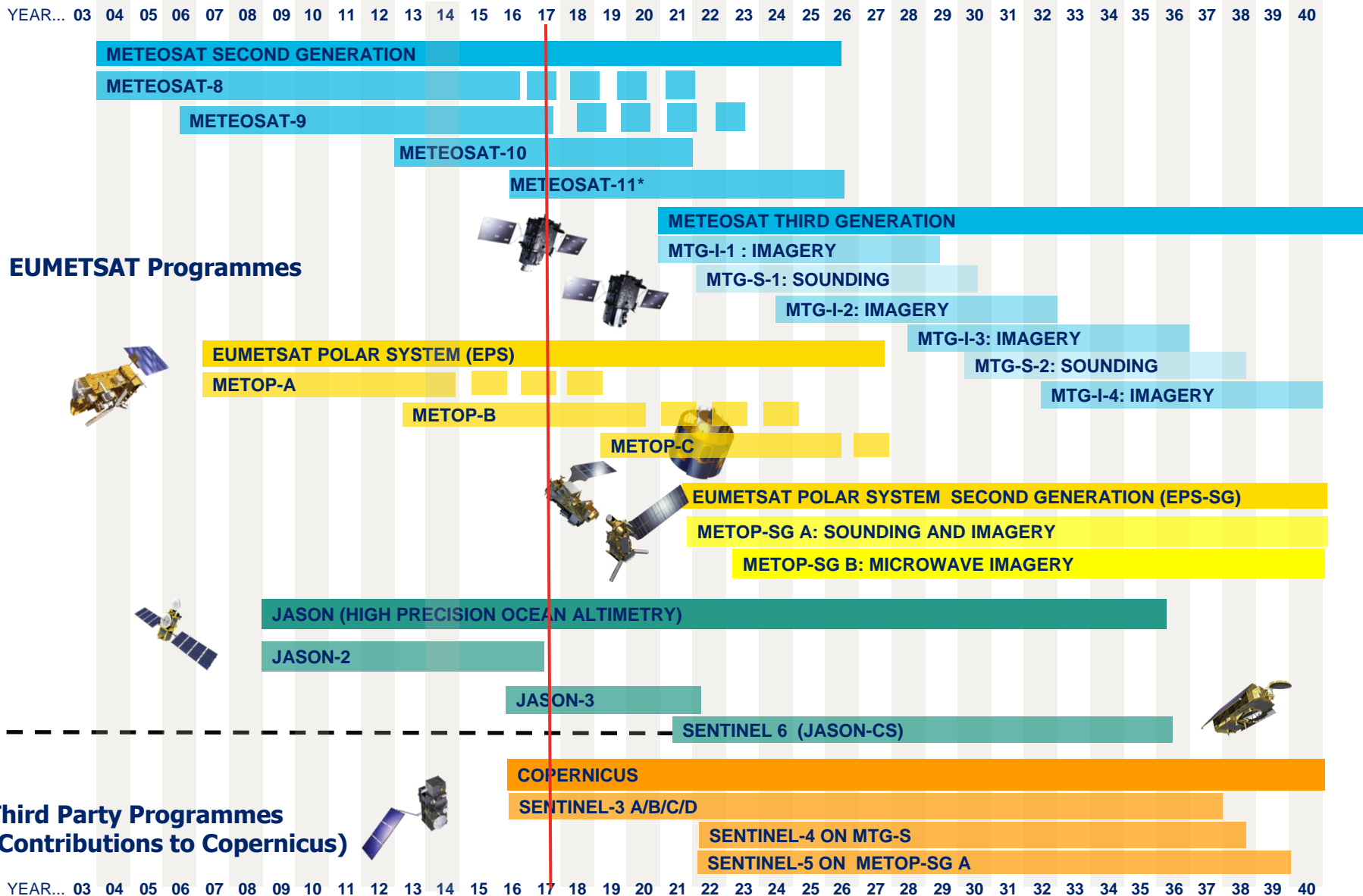
LATEST DEVELOPMENTS - EUMETSAT PROGRAMMES

Presented to CGMS-45
Plenary session
Agenda item D.3

**Coordination Group for
Meteorological Satellites**



OVERVIEW – PLANNING OF EUMETSAT SATELLITE SYSTEMS



Current satellites in orbit

METOP A-B

(LOW-EARTH, SUN – SYNCHRONOUS ORBIT)

EUMETSAT POLAR SYSTEM/INITIAL JOINT POLAR SYSTEM

JASON-2-3, shared with CNES/NOAA/EU
(LOW-EARTH, 63° INCL. NON SYNCHRONOUS ORBIT)

OCEAN SURFACE TOPOGRAPHY MISSION

Copernicus Sentinel-3A

(LOW-EARTH, SUN – SYNCHRONOUS ORBIT)

METEOSAT 9-10-11 (2nd GENERATION)

(GEOSTATIONARY ORBIT)

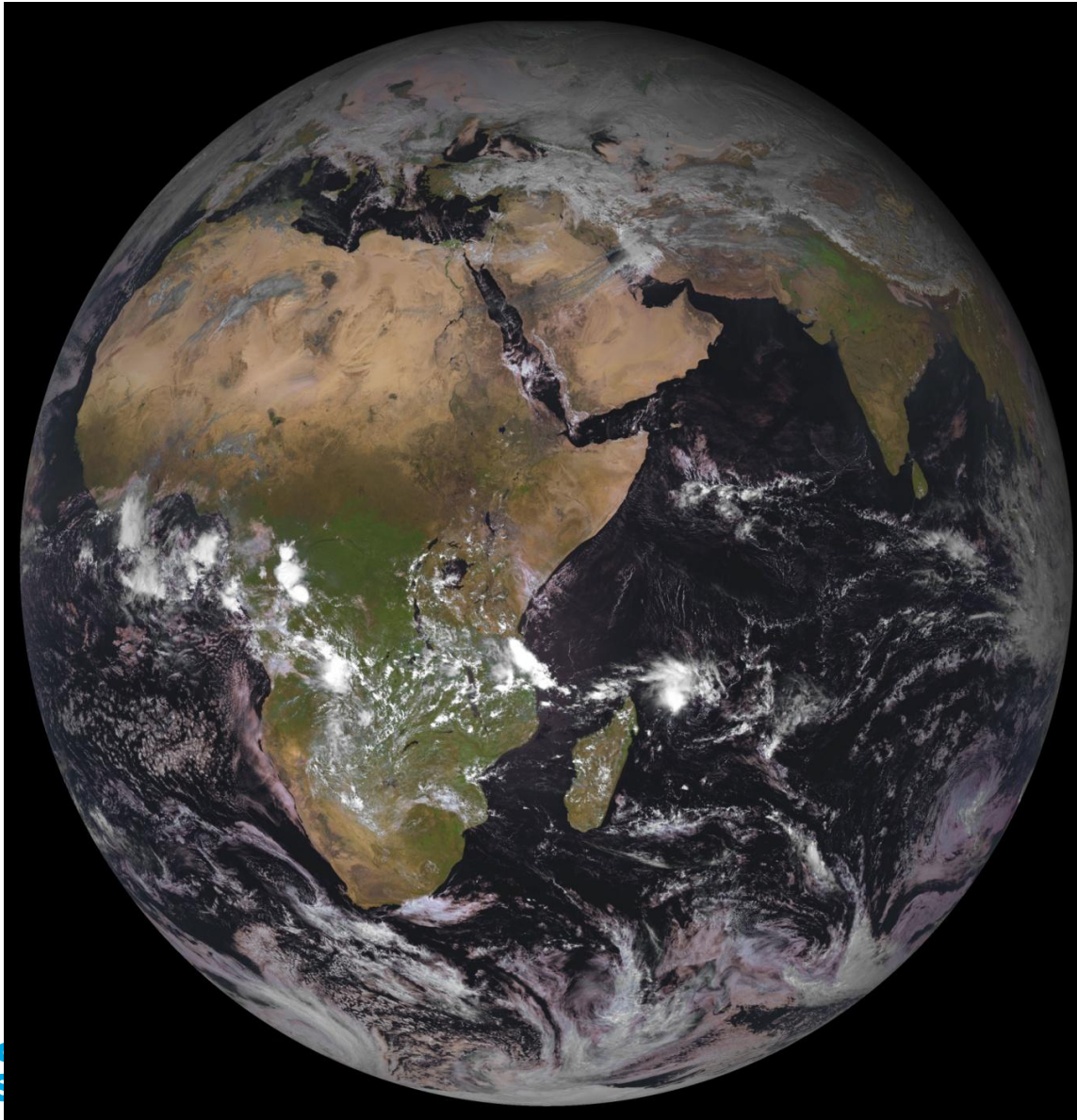
TWO-SATELLITE SYSTEM:

- METEOSAT-10: FULL DISK IMAGERY MISSION AT 0° (15 MN)
- METEOSAT- 9: RAPID SCAN SERVICE OVER EUROPE AT 9.5°E (5 MN)
- METEOSAT -11: Stored in orbit (until mid 2018)

METEOSAT 8 (2nd GENERATION)

INDIAN OCEAN DATA COVERAGE FROM 41°5 E
(FROM FEBRUARY 2017 UP TO MID 2020)

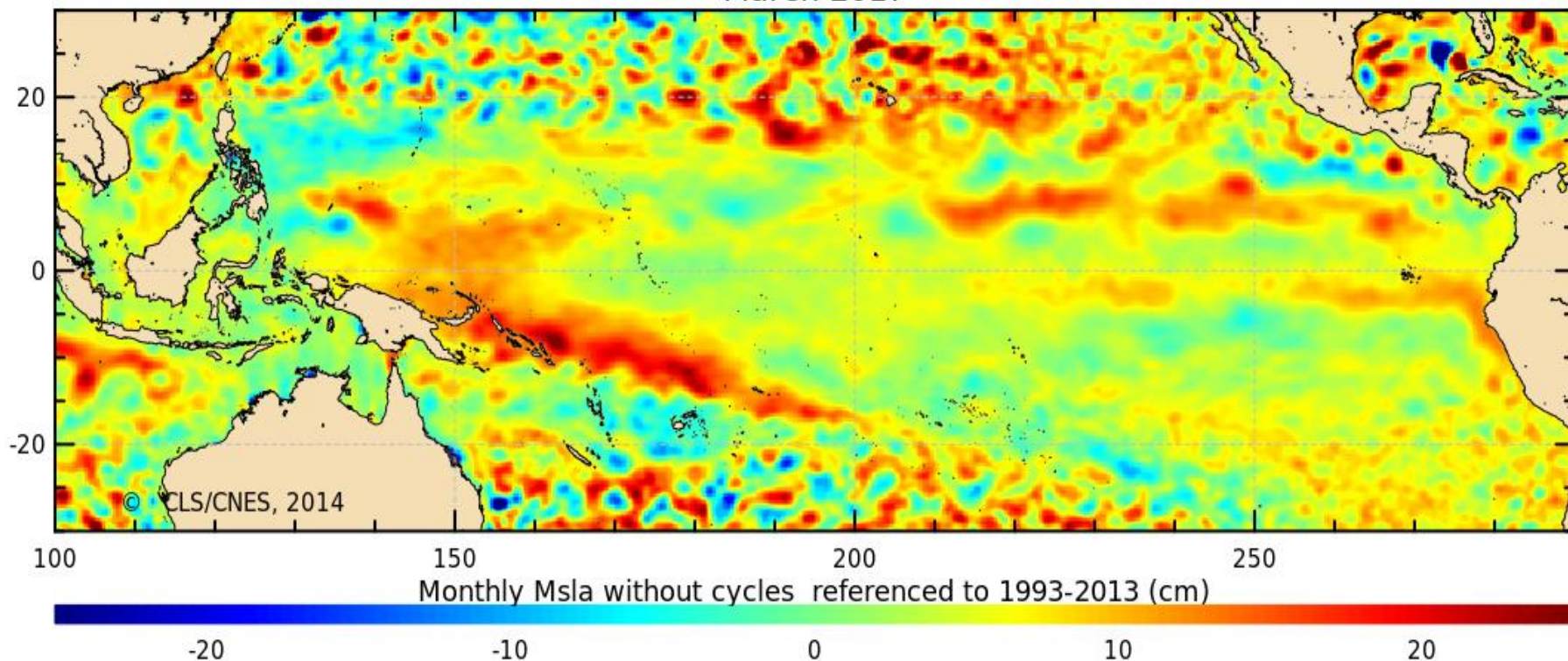
Meteosat-8 operational from 41.5° East



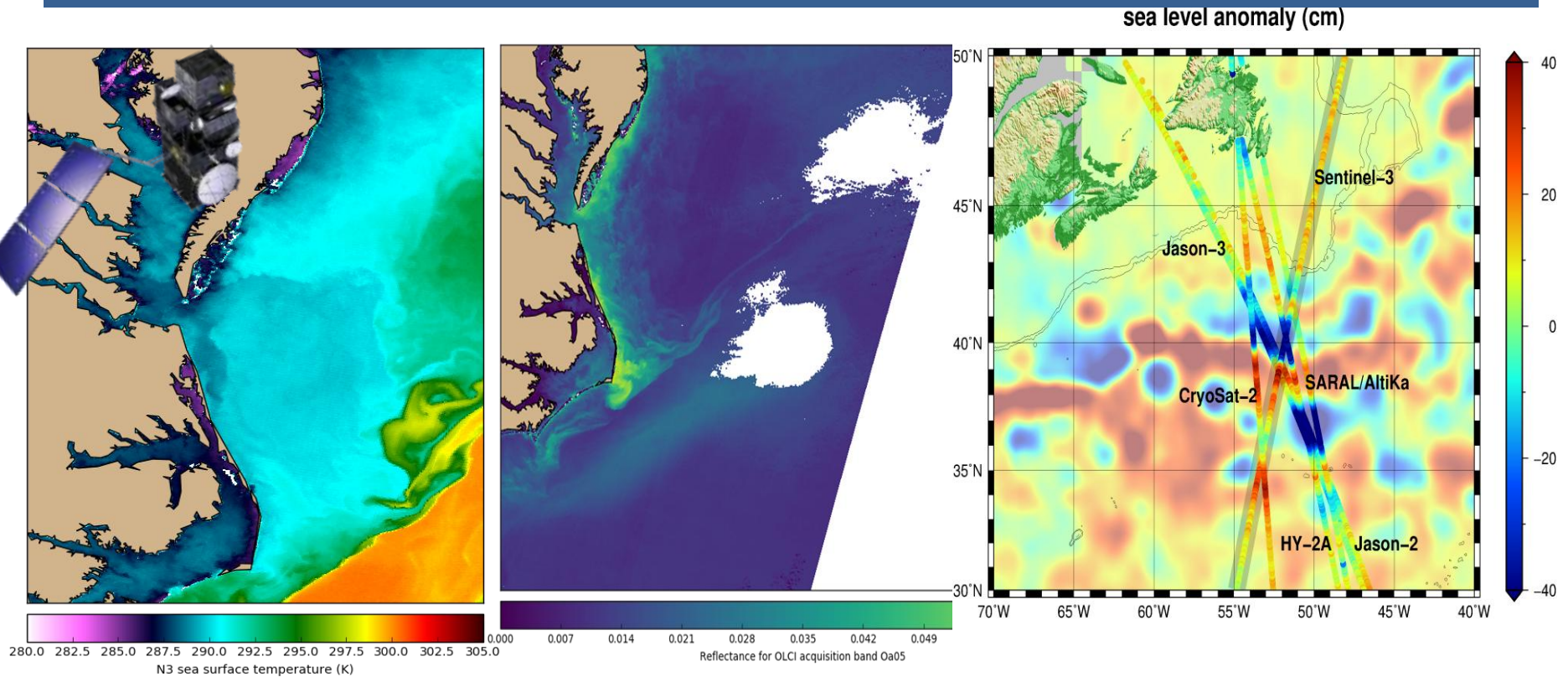
Cooperative Jason-3 mission operational since July 2016



March 2017



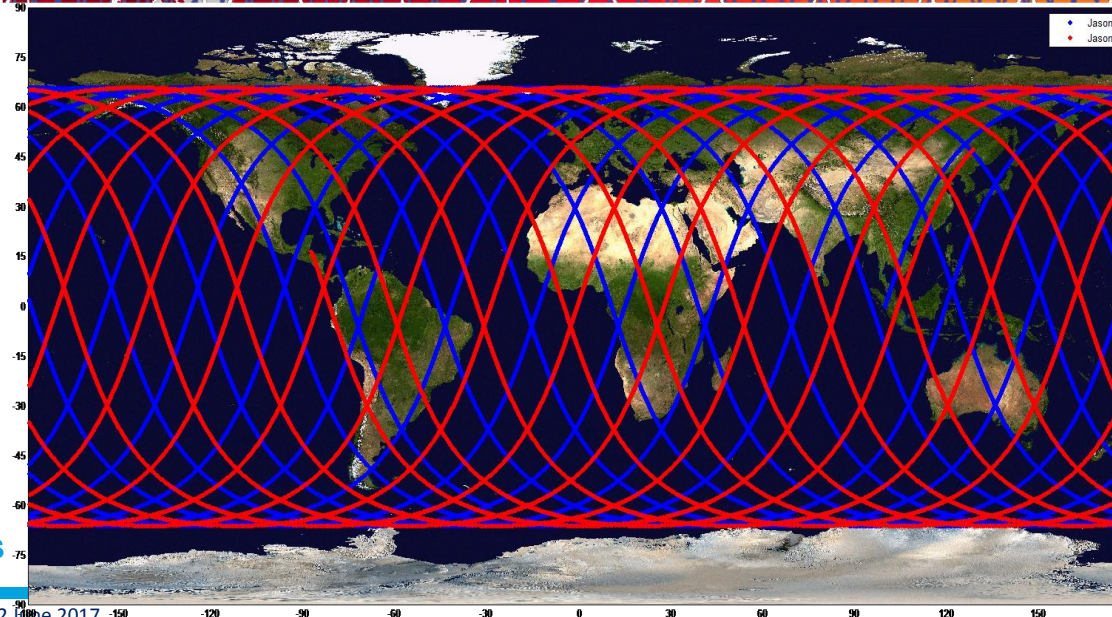
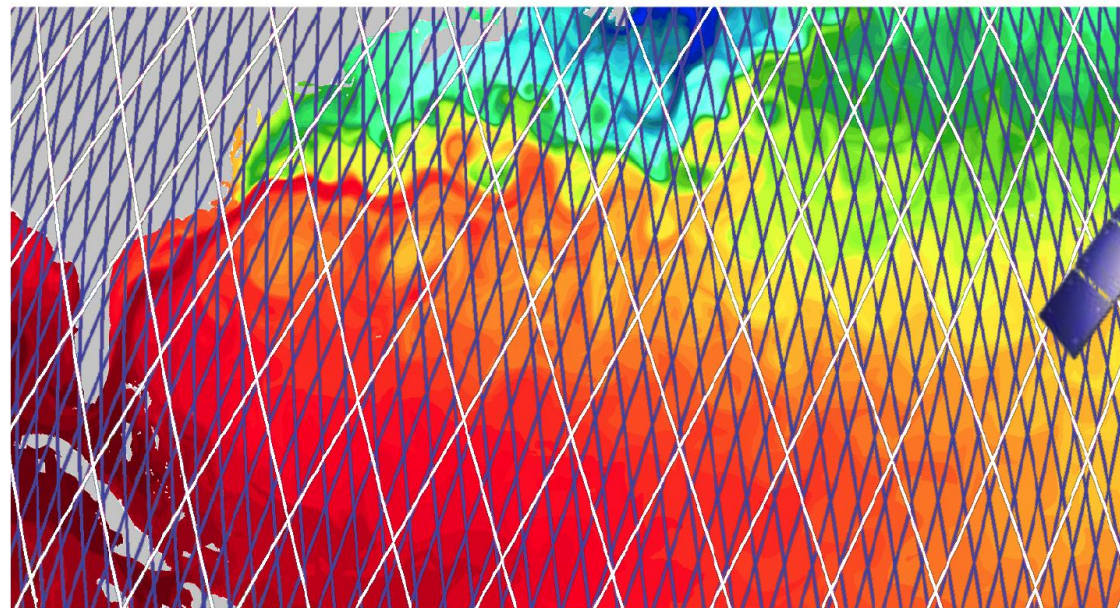
Copernicus Sentinel-3A marine products released



- Sentinel-3A Routine Operations Readiness Review in July
- Preparations for launch of Sentinel-3B (March 2018) and dual Sentinel-3 operations ongoing with ESA

**Coordination Group for
Meteorological Satellites**

Combining Sentinel-3 and Jason for operational oceanography

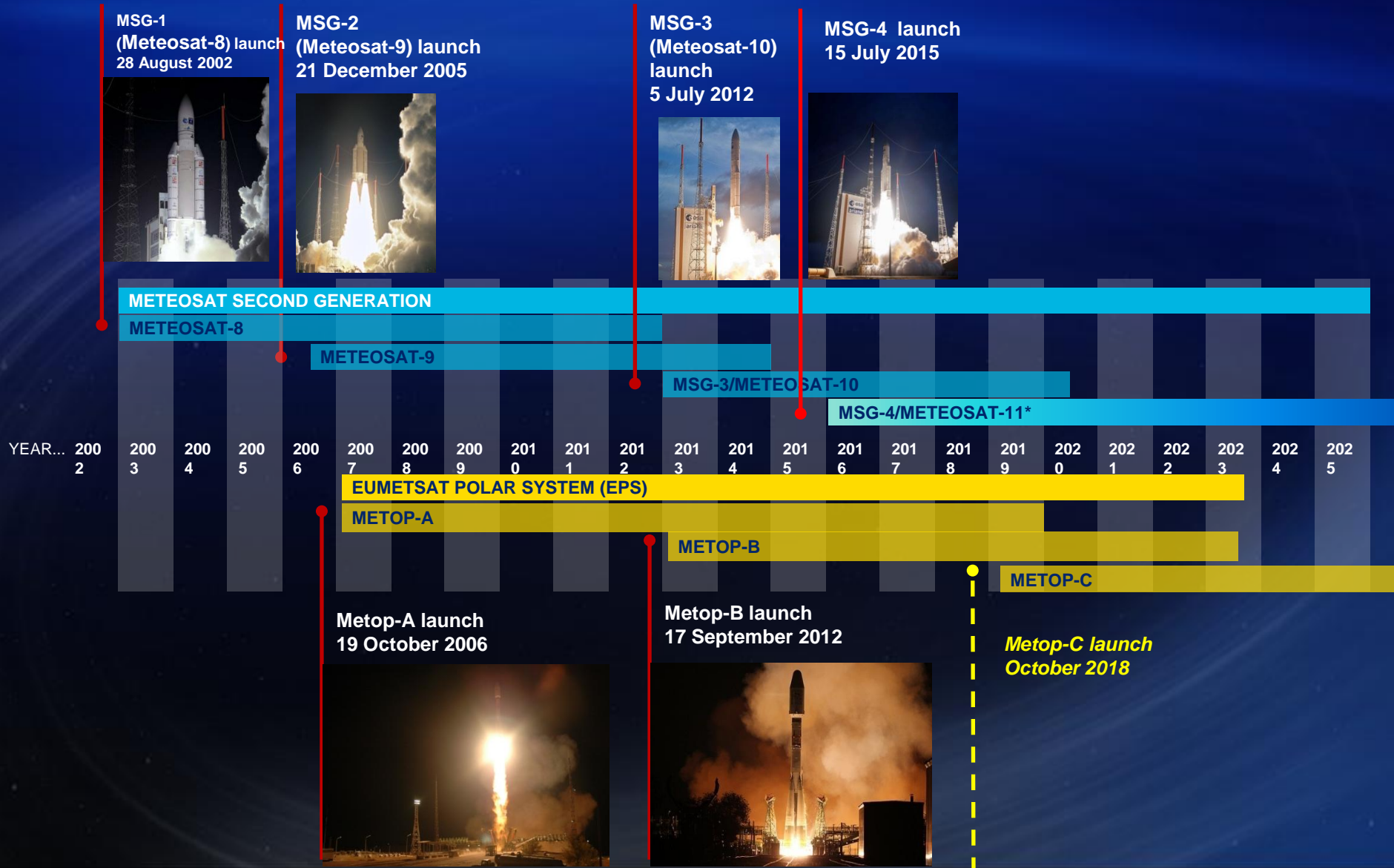


**Coordination Group for
Meteorological Satellites**

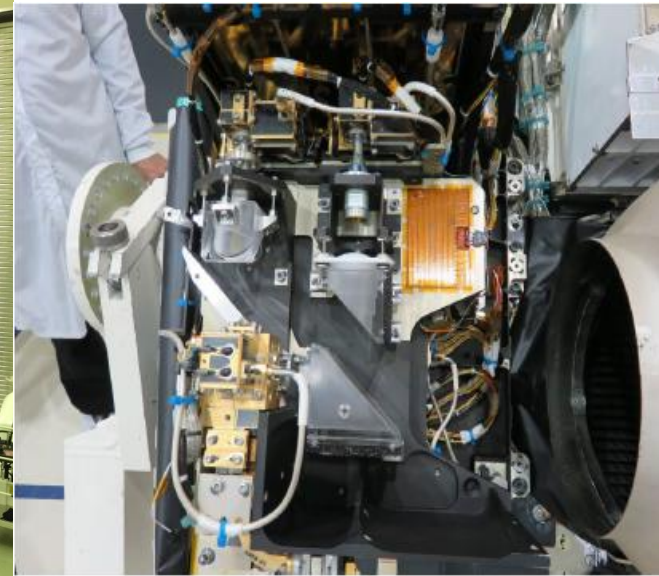
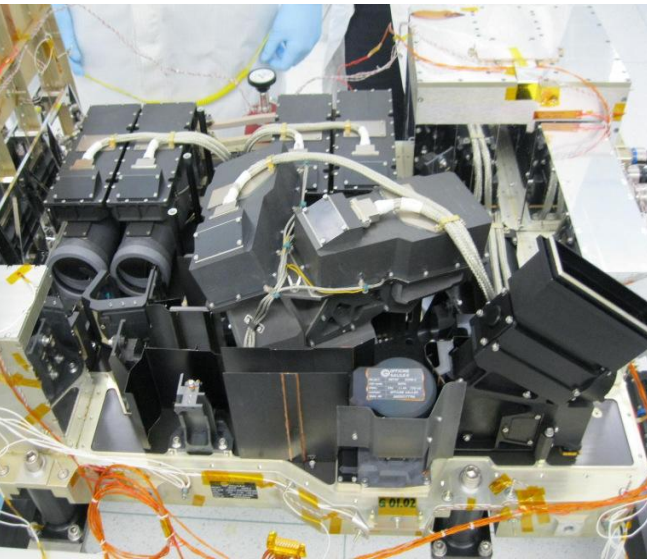


CGMS

Deployment of current generation satellites will be completed in 2018 with the launch of Metop-C



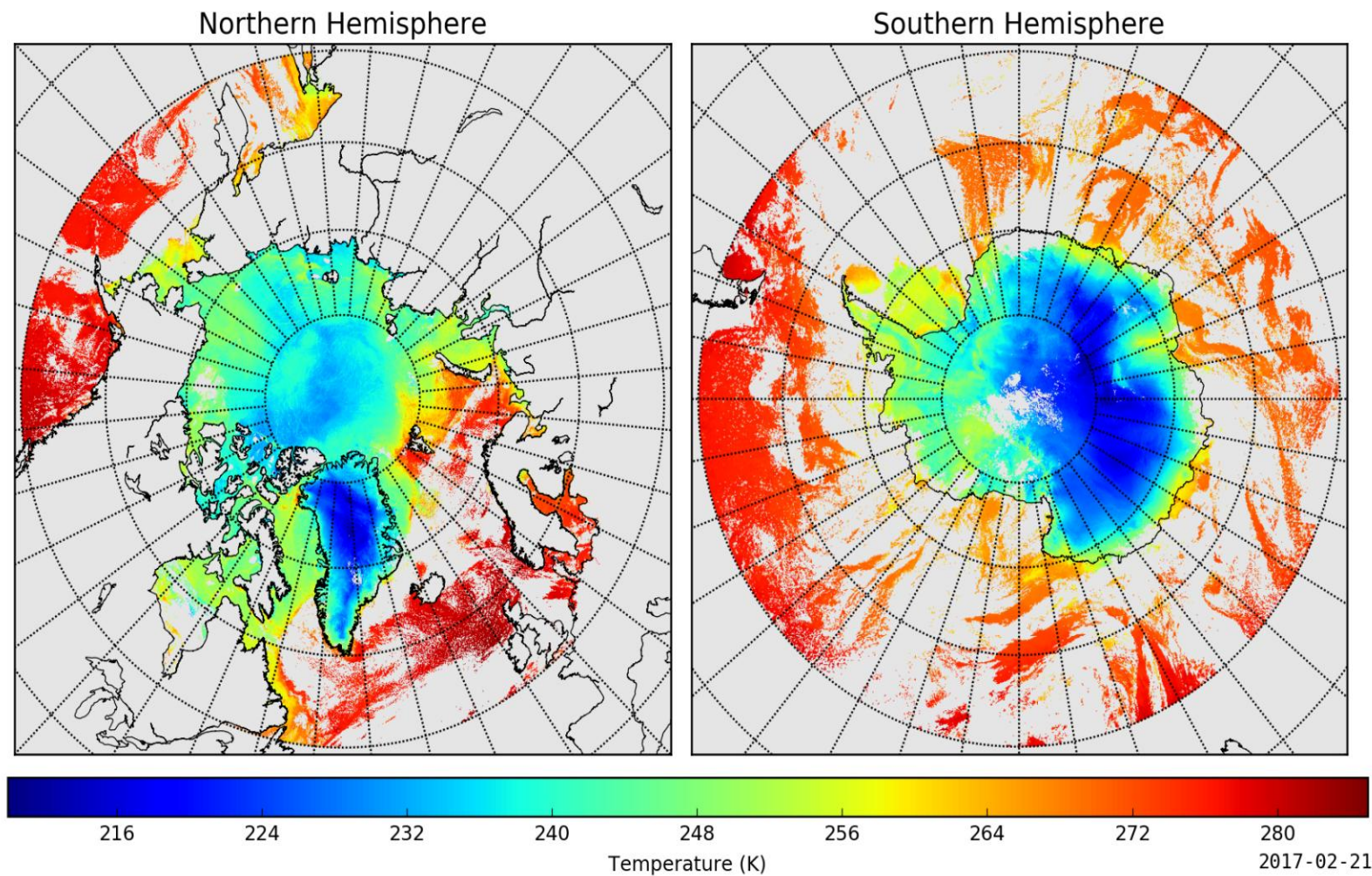
Preparations for launch of Metop-C on track



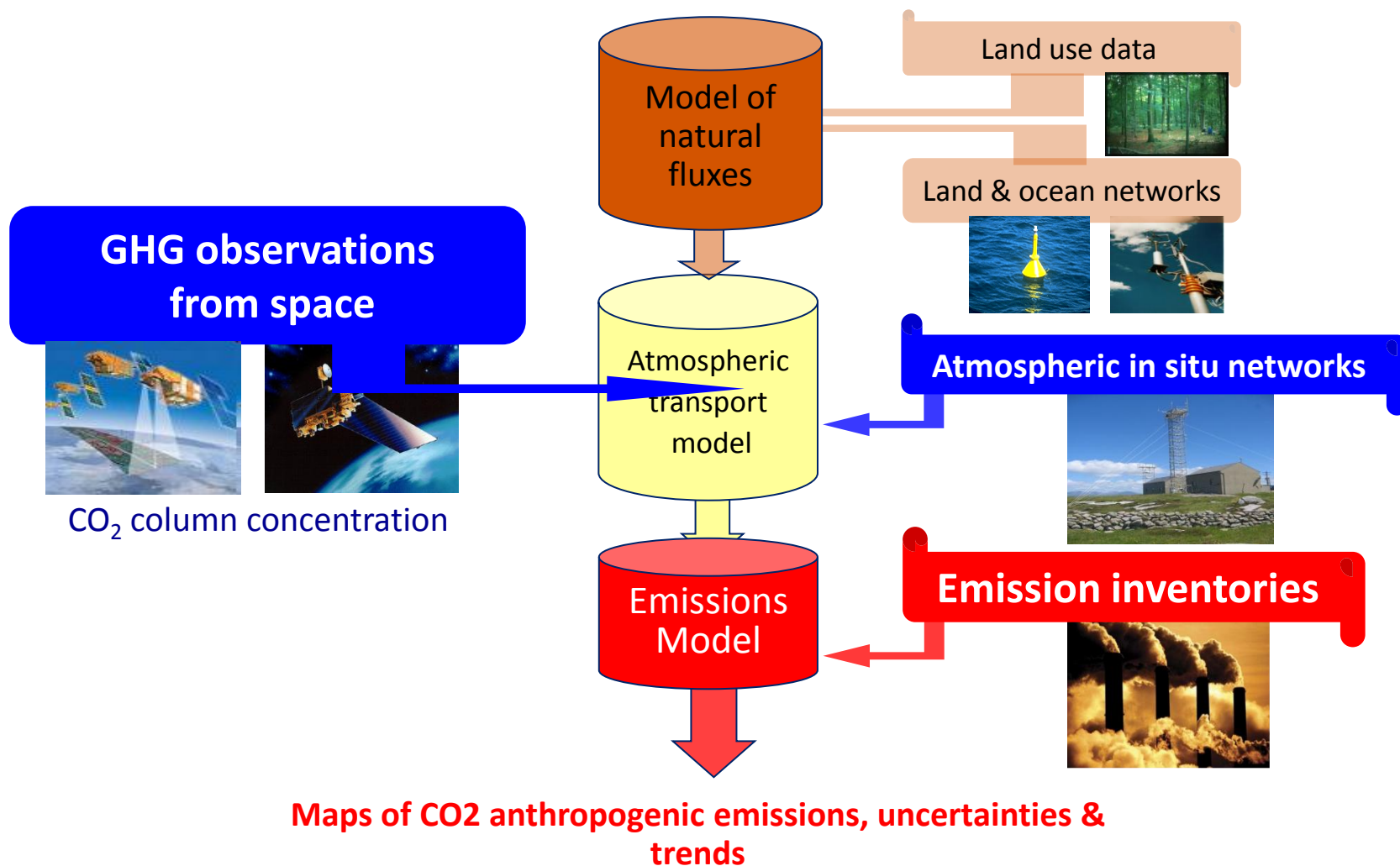
- Re-integration of PLM and SVM starting after TV tests
- Recalibration of repaired Gome-2 instrument ongoing, MHS repair starting
- Launch period notified: 1 October-31 December 2018
- Ground segment for 3-Metop operations validated, system V&V tests on going

**Coordination Group for
Meteorological Satellites**

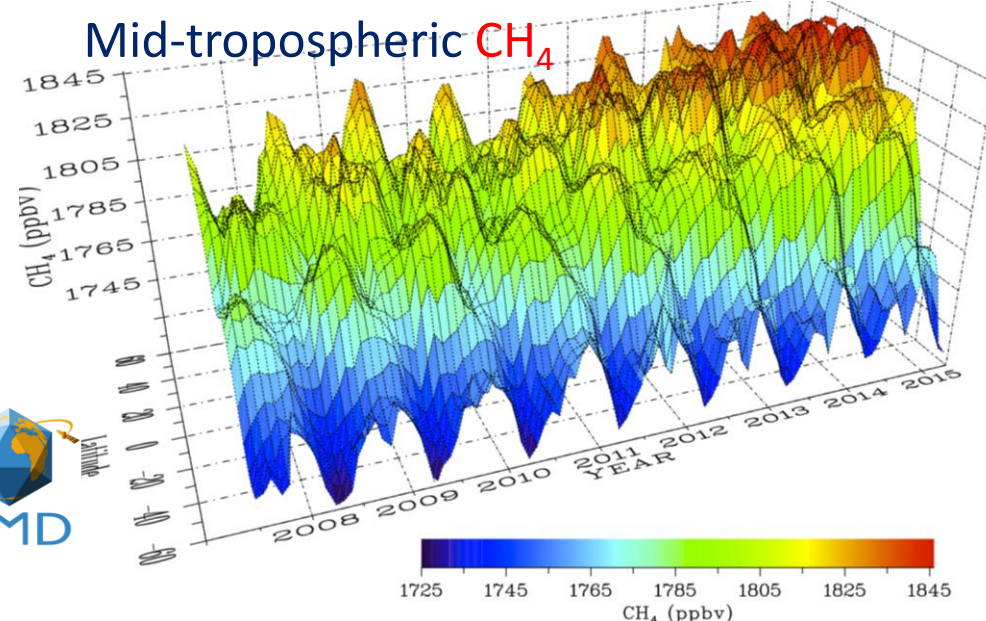
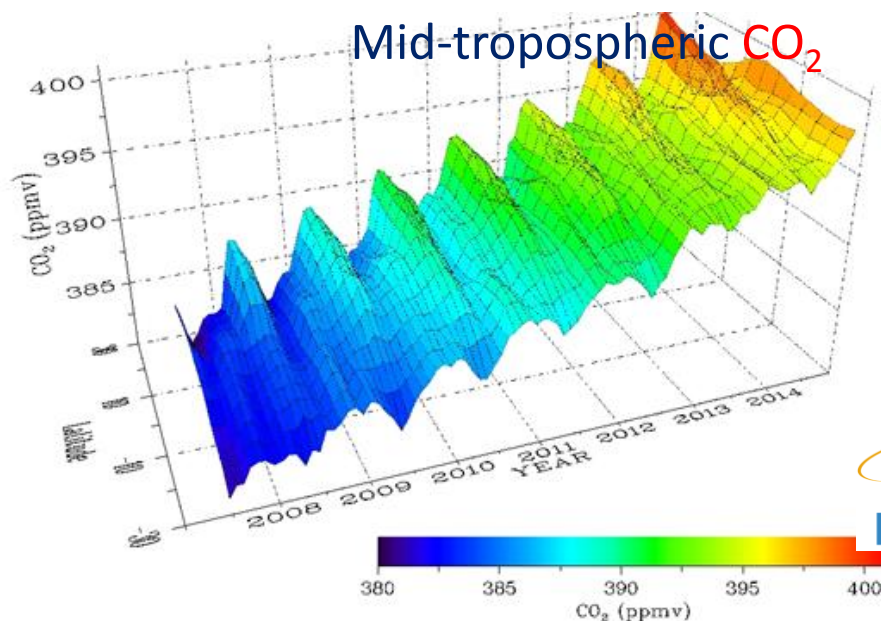
Sea and Land Ice Temperature products from OSI SAF



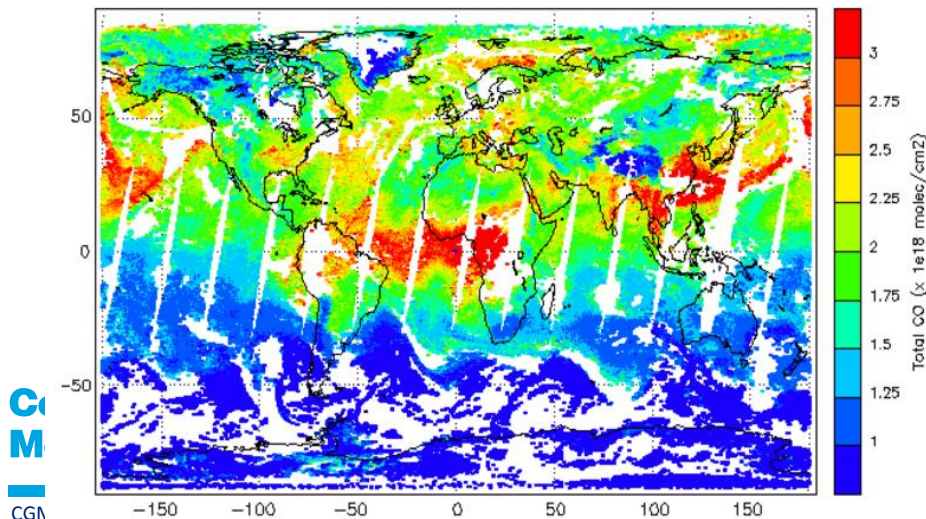
Information services feed for monitoring CO2 emissions



Monitoring CH₄, CO₂ and CO with IASI

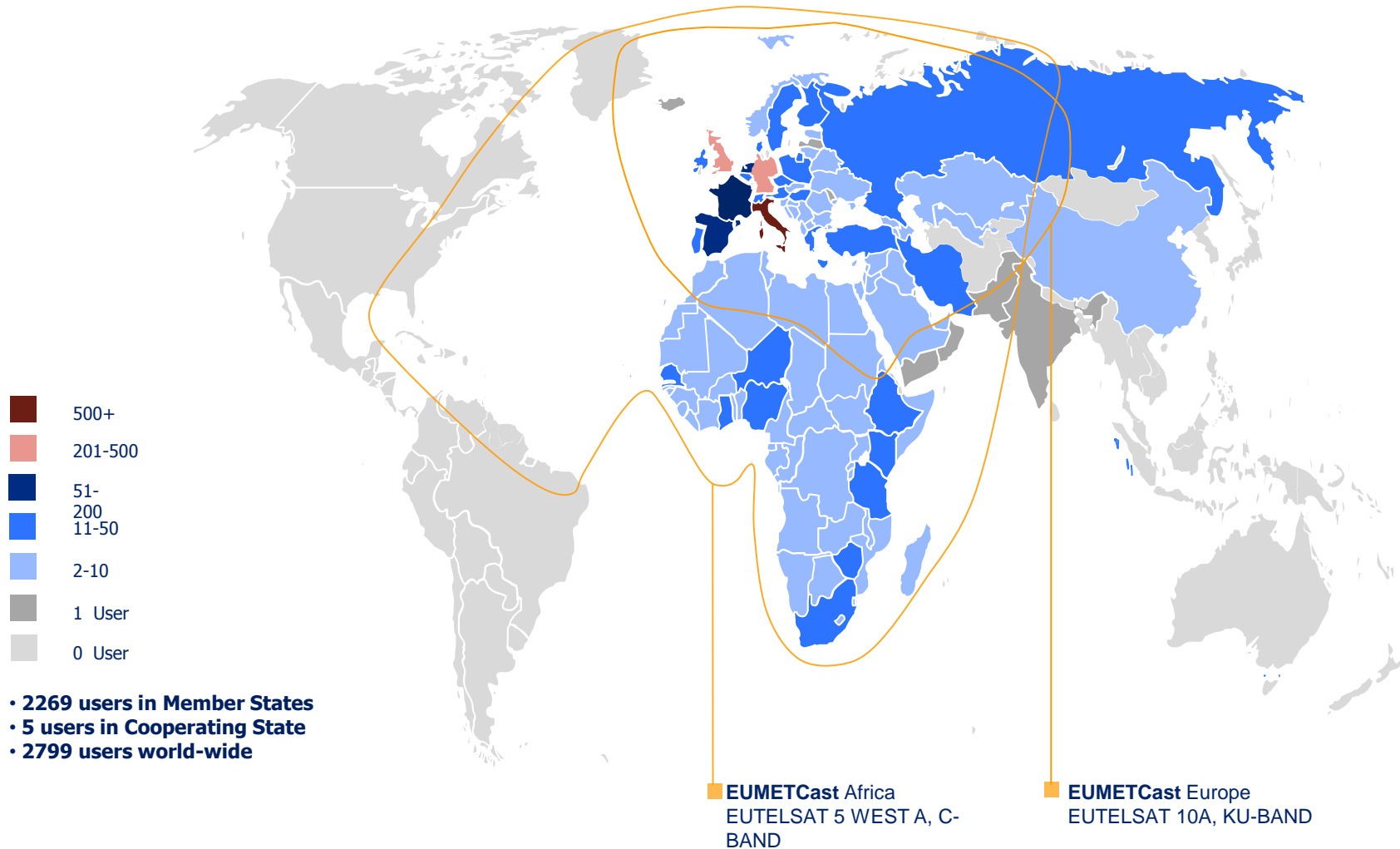


Monthly evolution (July 2007-December 2014)

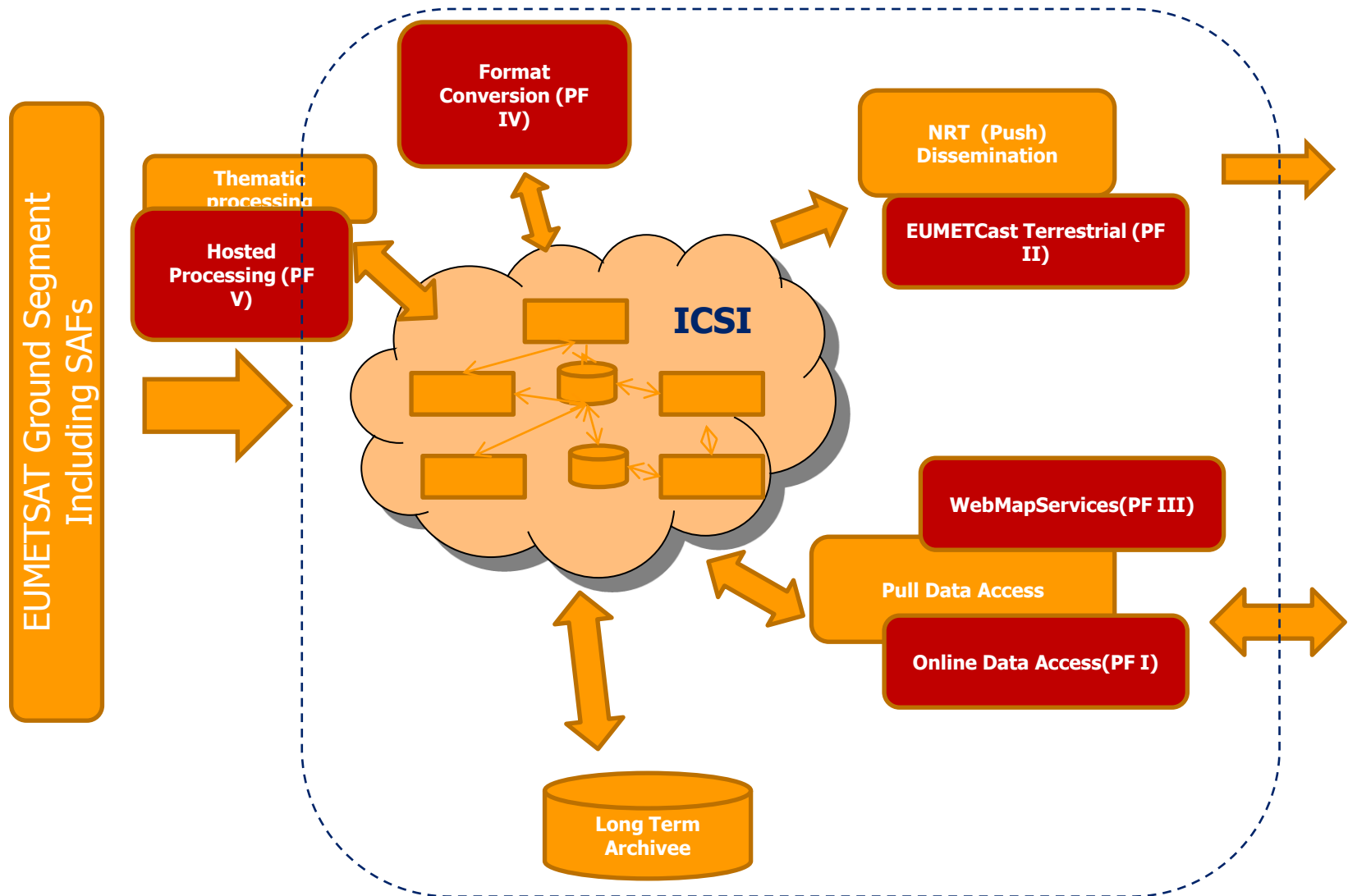


NRT CO column product
(released on 10 March)

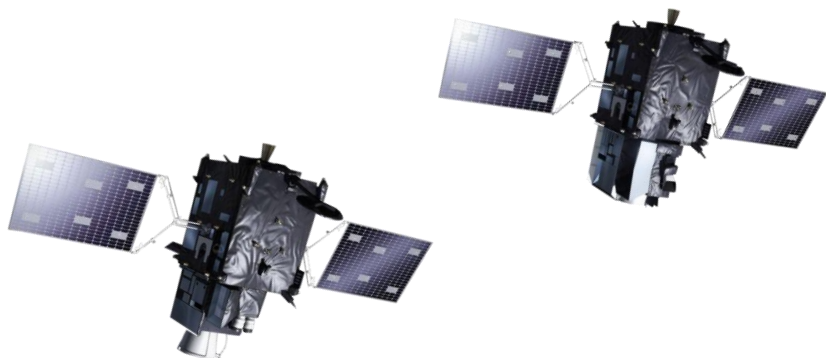
Delivering time-critical data to Europe and Africa



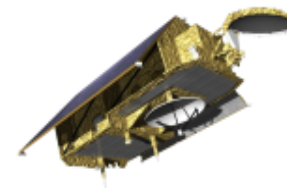
Planned evolution of data access in the Big Data era



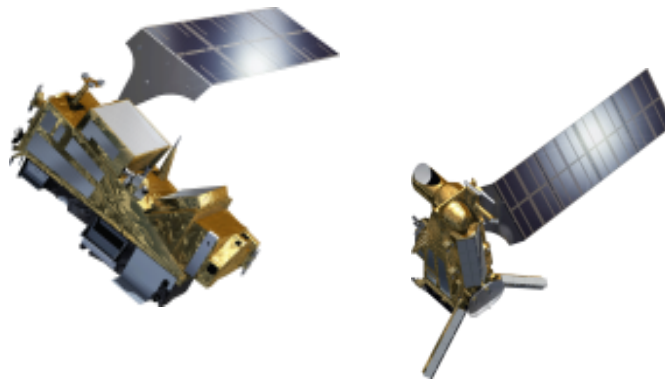
SATELLITES UNDER DEVELOPMENT



MTG
Hosts Sentinel-4 mission



Jason-CS/Sentinel-6
Shared with ESA, NASA/NOAA and EU



EPS-SG
Hosts Sentinel-5 mission

MTG DEVELOPMENT STATUS

- **STM of common platform tested, EM & PFM integration started**
- **MTG-I**
 - Maturity of satellite design and expected performance confirmed by Intermediate Design Check Point, FCI on critical path
 - Satellite CDR in 2018, MTG-I1 FAR in Dec. 2020 with margins
 - Development of ground segment well advanced
 - First SVT test with platform in September
- **MTG-S**
 - Intermediate Design Check Point ongoing
 - Satellite CDR in 2019, MTG-S1 FAR in Q3 2022, with margins
 - Dedicated ground segment add-ons being procured

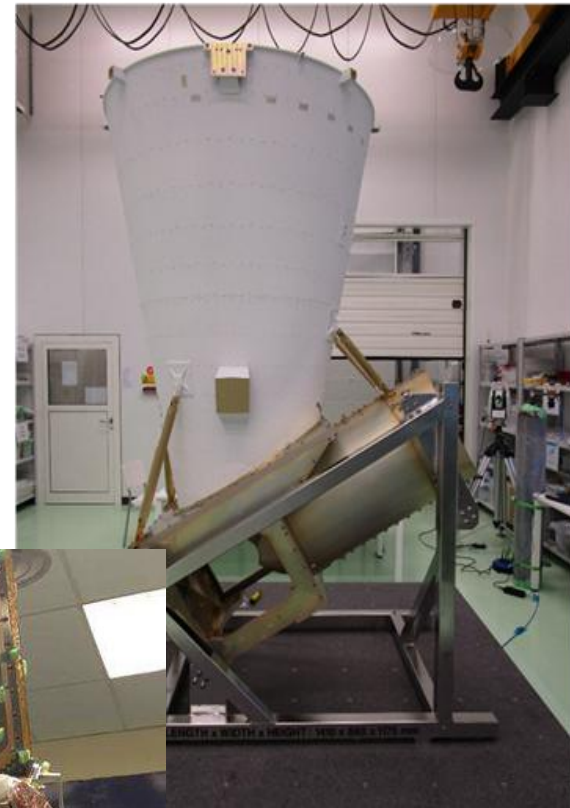
MTG – SPACE SEGMENT



FCI Instrument HW is becoming available:

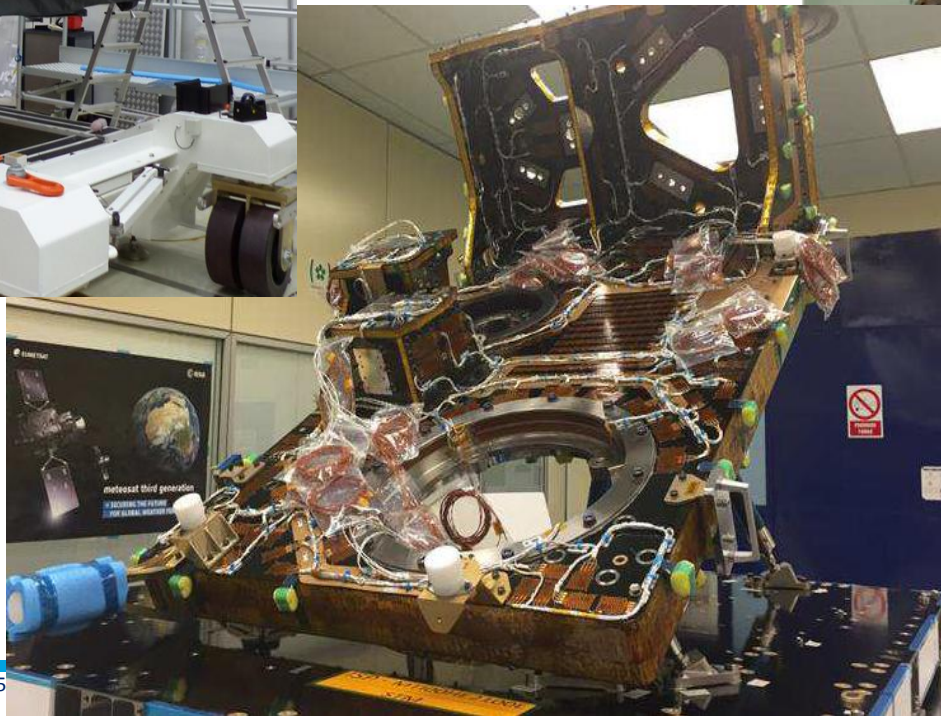
External Baffle Assembly

Optical Bench Assembly

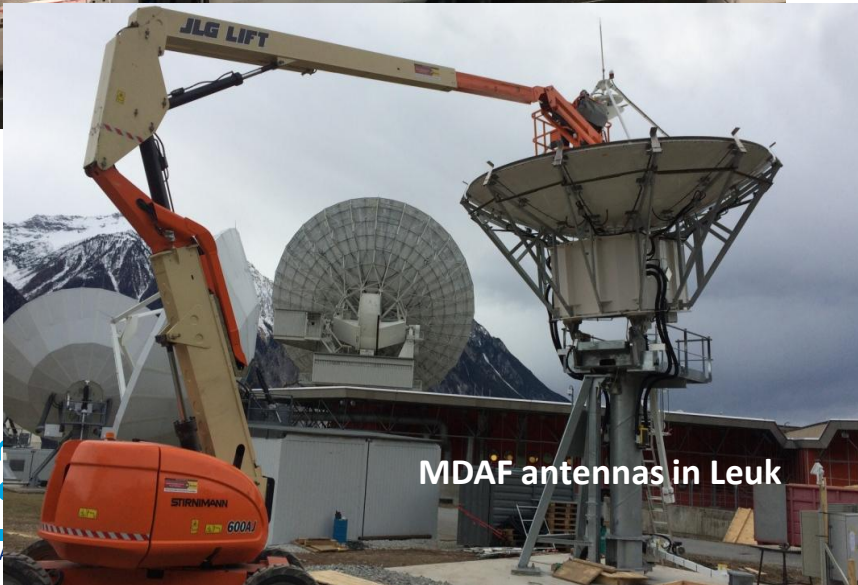


Platform before the Thermal Vacuum (TVAC) Test at IABG in Munich

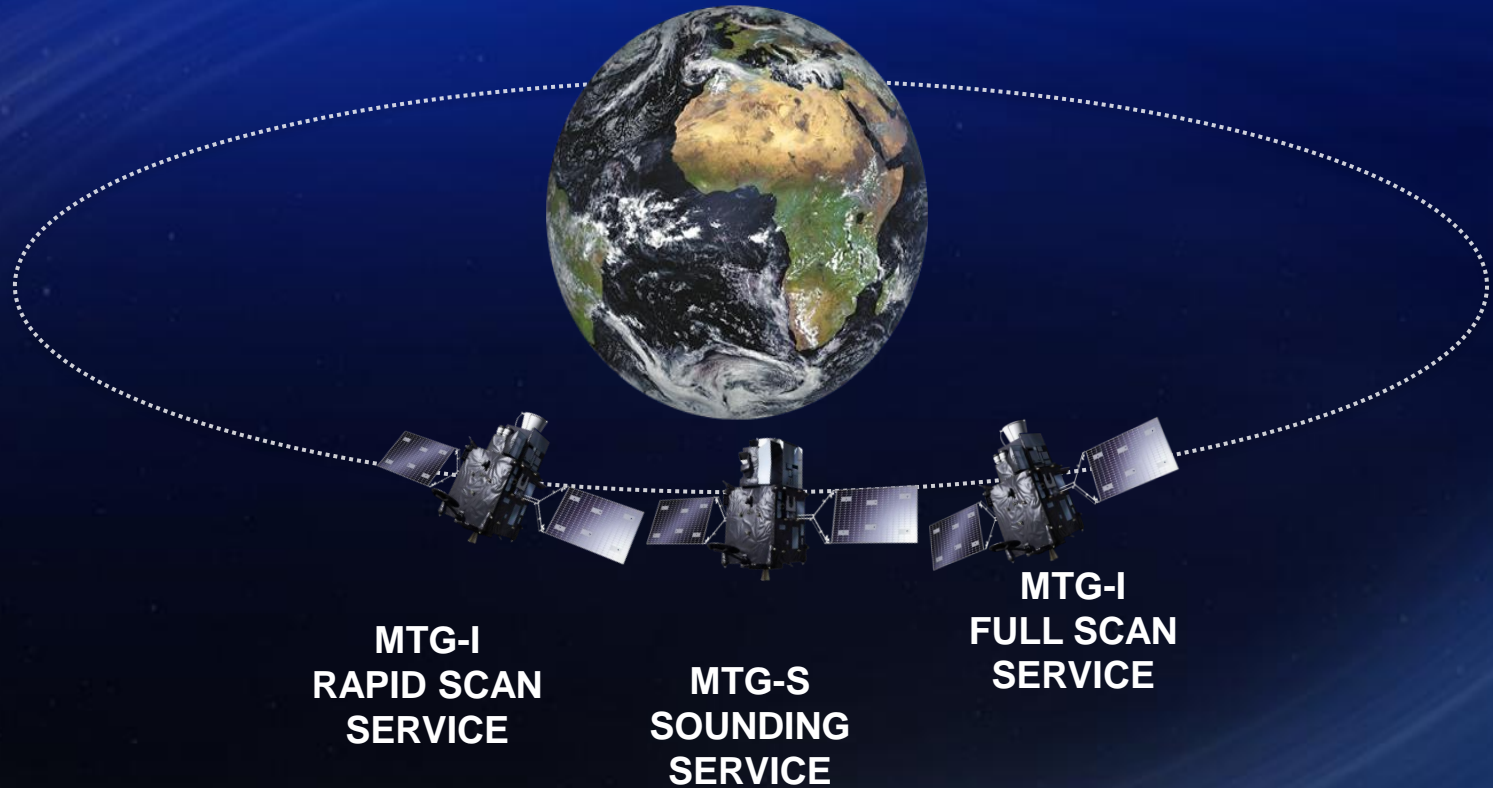
Coordination Group for Meteorological Satellites



MTG – GROUND SEGMENT



PLANNED DEPLOYMENT OF MTG FULL IN-ORBIT CAPACITY



EPS-SG DEVELOPMENT STATUS

- All major development contracts placed across all segments
- Space segment development well advanced in phase C
 - Metop-SG A CDR in June 2018, FAR in May 2021, launch in September
 - Metop-SG B CDR in May 2019, FAR in Aug. 2022, launch in December
- Ground segment Preliminary Design in progress
 - PDR of mission control and operations (MCO) chain closed
 - PDR of payload data acquisition and processing (PDAP) chain ongoing
 - Svalbard site infrastructure readiness review in 1 July
- Successful System Check Point end of March
 - System interfaces, performance budgets, product specifications robust