

ESA Agency Report

WGISS#60 – 13-17 October 2025

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Successful Launches of MTG-S1/S4 & MetOp-SG A1/S5



MTG-S1/Sentinel 4 (1st July)

Two meteorological missions – Meteosat Third Generation Sounder-1 (MTG-S1) and the Copernicus Sentinel-4 mission – were launched on board a SpaceX Falcon 9 from Cape Canaveral in Florida, US.

MetOp-SG A1/S5 (12th Aug.)

Europe's first MetOp Second Generation, MetOp-SG-A1, weather satellite – which hosts the Copernicus Sentinel-5 mission – was launched aboard an Ariane 6 rocket from the European spaceport in French Guiana.



HERITAGE MISSIONS

TIMELINE



- Optical
- SAR
- SAR + Optical
- SAR + Optical + Atmospheric
- Gravity Field
- Ongoing



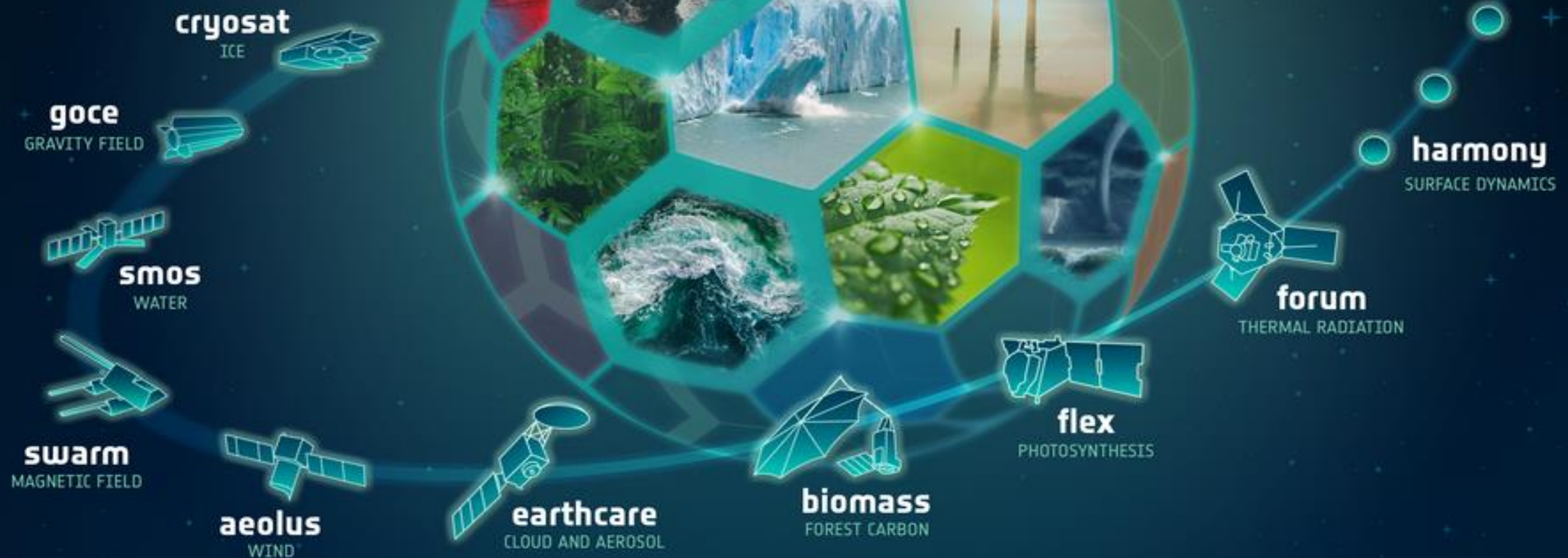
On some heritage missions only part of the dataset is available at ESA.



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EARTH EXPLORERS

Pioneering scientific and technical excellence



Science Missions in Operations



Science Missions in operations continue to deliver crucial data for science, many exceeding their original scopes



SMOS

Improved SMOS sea ice thickness, winds and freeze thaw processors implemented. Five high level SMOS papers published Nature/Science/PNAS



Aeolus

reprocessing campaign, focusing on Baseline 16 FM-A data was completed



BIOMASS

First image acquired on 21 May and shown at LPS2025



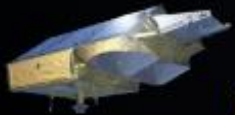
Swarm

First Swarm and MSS-1 Joint Scientific Conference hosted 12-13 May in Macau, China



EarthCARE

1 year in orbit. Lifetime estimate update shows now a (conservative) EarthCARE lifetime of 10+ years.



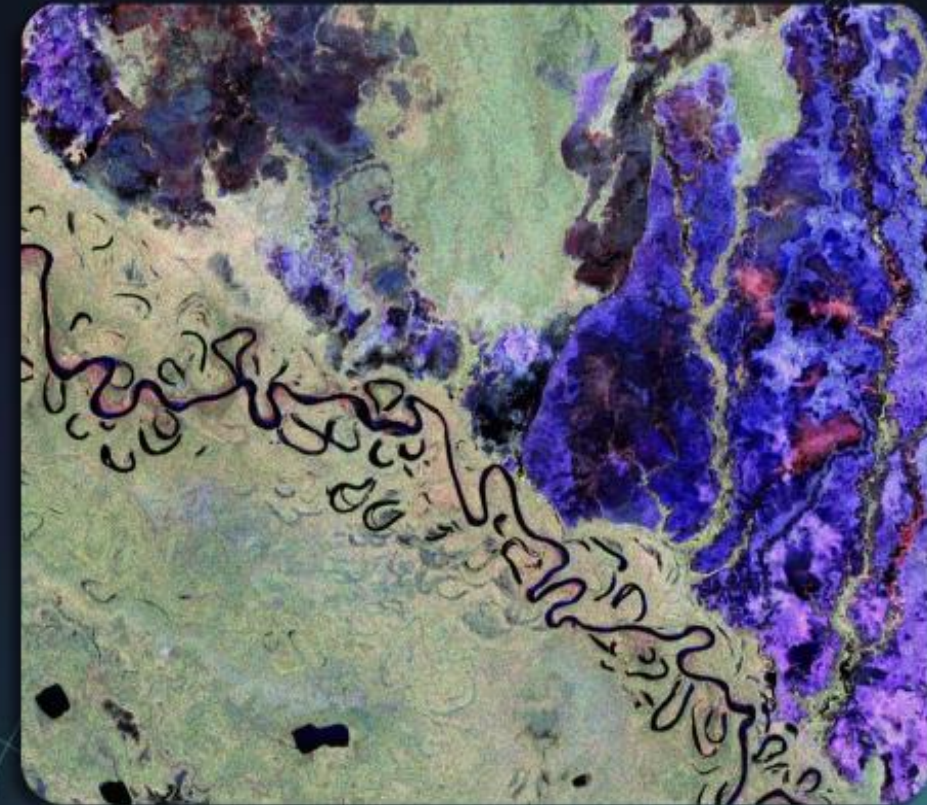
CryoSat

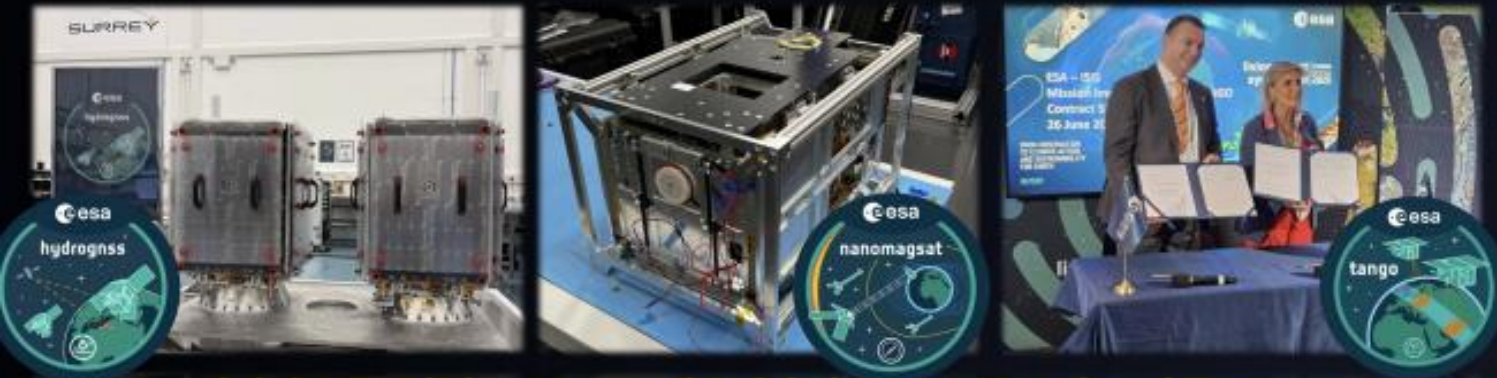
15th anniversary celebrated at LPS25. CMPR confirmed lifetime projection from Summer 2029 to spring 2032



PhiSat-2

IOCR completed, AI processed data available to public since 20 June





SCOUT-2/3/4: HydroGNSS / NanoMagSat / Tango

HydroGNSS: Satellites arrived at Vandenberg

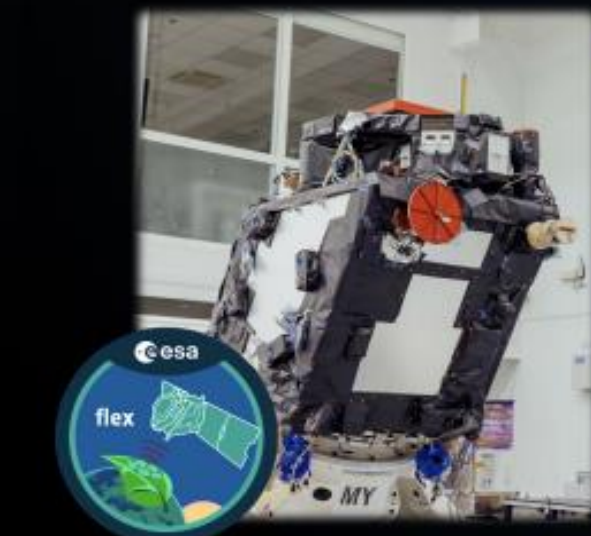
NanoMagSat: Structural model activities completed in July + SRR

Tango: Contract signature at LPS / Impl. phase KO 15 Jul. + SRR



Scout 2nd Cycle

Contract signature ceremony for shortlisted missions, HiBiDiS, NAIAD, SIRIUS and SOVA-S at LPS25



FLEX

FLORIS
Instrument
successfully
integrated

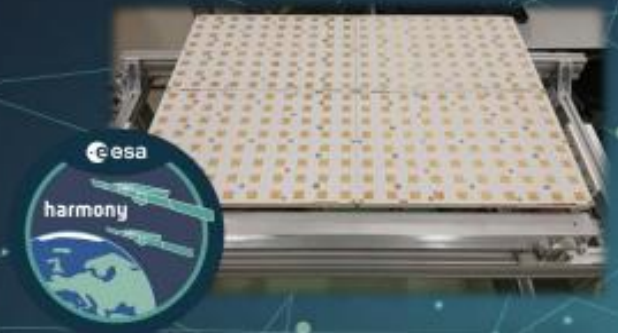


Forum

System CDR Board
Completed with close-
out actions pending by
November 2025.
Platform PFM AIT
starting in ADS UK

HARMONY.

Space Segment B2CDE1 Preliminary
Design Review successfully closed



DATA

Discover and download the Earth observation data you need from the broad catalogue of missions the European Space Agency operate and support.



Aeolus

Discover what data products are offered for ESA's Aeolus mission....

EXPLORE MORE



CryoSat

Discover what data products are offered for ESA's CryoSat mission....

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SMOS

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Swarm

Discover what data products are offered for ESA's Swarm mission.

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All other collections

See all of the available data collections and products for ESA and Third Party Missions....

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<https://earth.esa.int/eogateway/catalog>

DISCOVER LATEST DATA

[Find More Data >>](#)



LANDSAT 5 TM EUROPE AND NORTH AFRICA COVERAGE 1984-85

This collections contains Landsat 5 Thematic Mapper (TM) imagery acquired over Europe



LANDSAT 5 TM EUROPE AND NORTH AFRICA COVERAGE 1986-89

This collections contains Landsat 5 Thematic Mapper (TM) imagery acquired over Europe



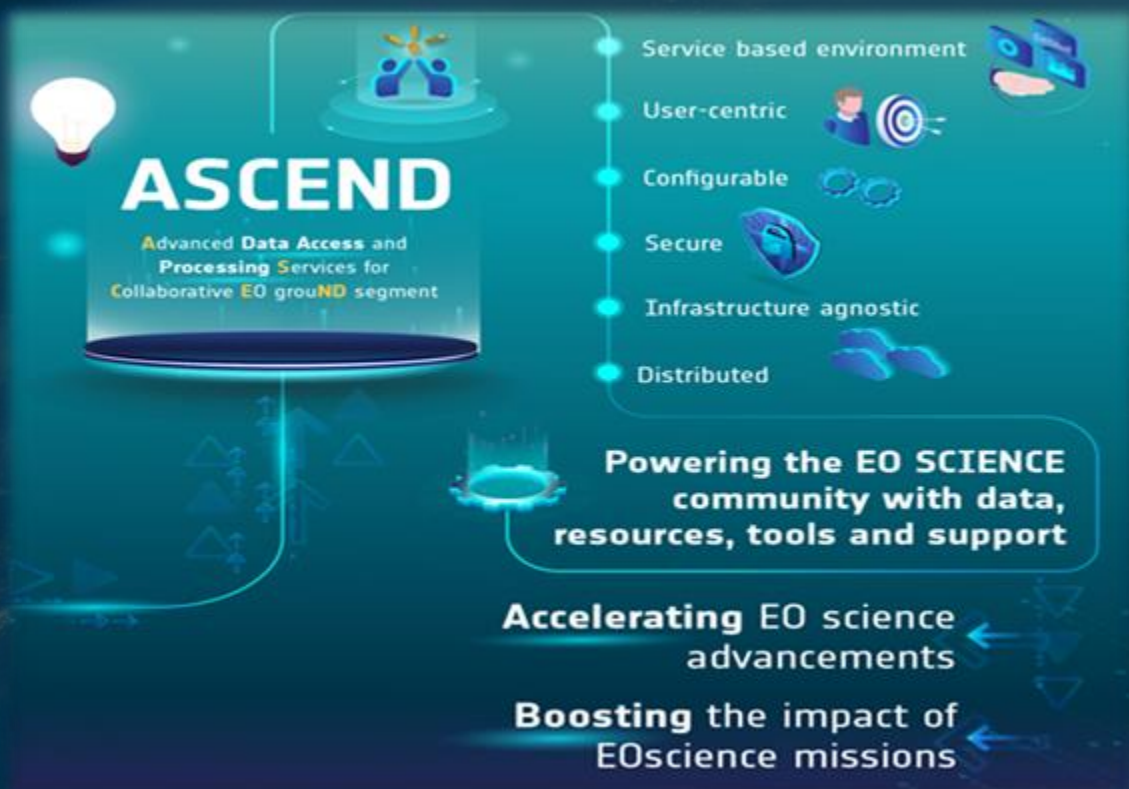
LANDSAT 5 TM EUROPE AND NORTH AFRICA COVERAGE 1995-98

This collections contains Landsat 5 Thematic Mapper (TM) imagery acquired over Europe

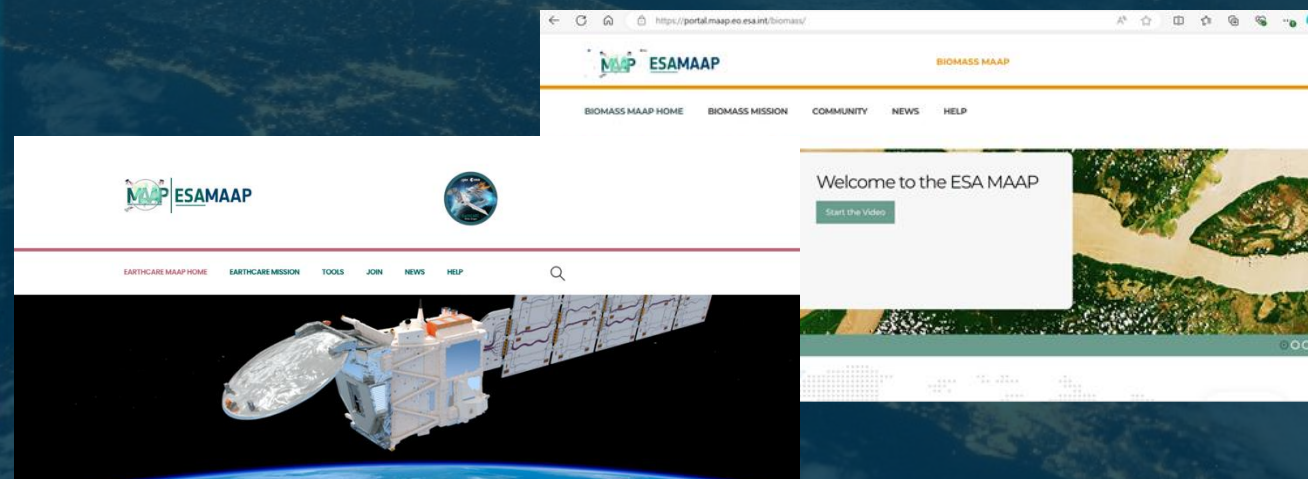


FUNDAMENTAL DATA RECORD FOR ATMOSPHERIC COMPOSITION [ATMOS__L1B]

TI Screenshot Data Record (FDR) for Atmospheric Composition UVN v1.0 dataset is



- Set-up, deployment and operations of a suite of services and tools suitable for a mission-generic collaborative environment.
- Set-up of dedicated MAAPs to serve, as a starting point, the Biomass, EarthCARE, and FLEX communities.



Biomass MAAP portal – <https://portal.maap.eo.esa.int/biomass/>

EarthCARE MAAP portal – <https://portal.maap.eo.esa.int/earthcare/>



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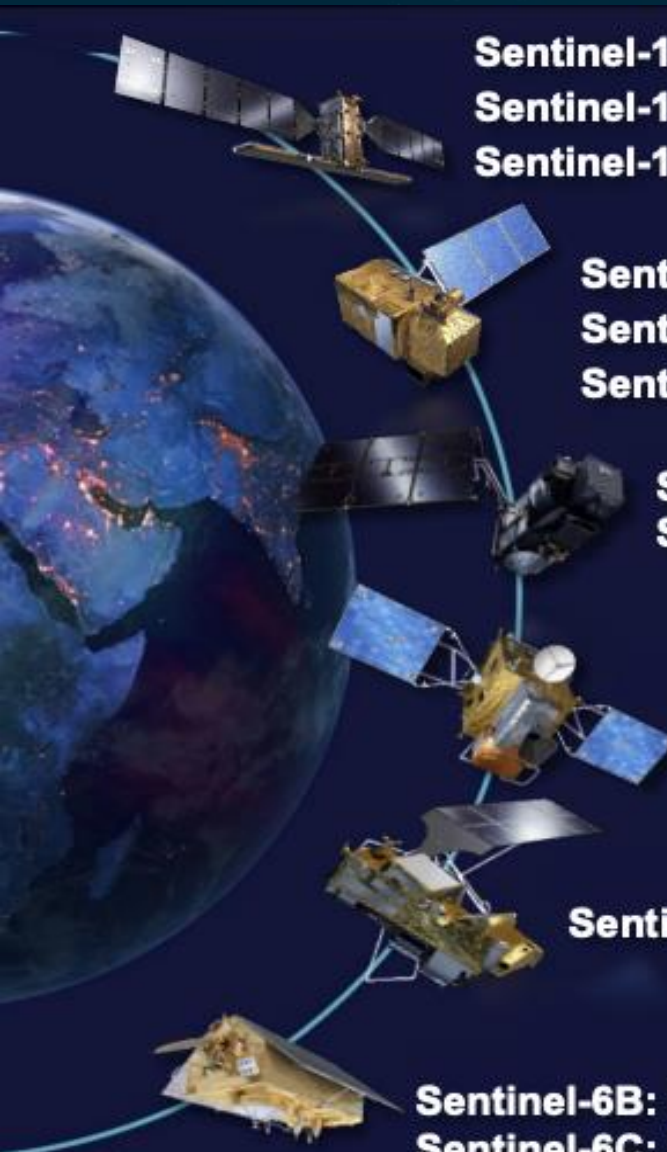


Copernicus



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Sentinels 1st Generation



Sentinel-1A: Has shown signs of aging with its propulsion system, situation remains stable since June 2024

Sentinel-1C: Nominal in operations

Sentinel-1D: Target launch date 4 November 2025 on Ariane 6.2

Sentinel-2A: Extended campaign ongoing since March 2025

Sentinel-2B/C: Nominal operations

Sentinel-2D: At ADS Friedrichshafen undergoing final functional tests before placed back in storage

Sentinel-3A/B: Nominal operations

Sentinel-3C: Launch period set to 1 Sept.-30 Nov. 2026. (FLEX mission is targeted as aux. payload)

Sentinel-4: PFM launched successfully on MTG-S1 on 1 July. Instrument in-orbit verification started

Sentinel-5: PFM launched successfully on MetOp-SG A1 on 13 Aug. Instrument in-orbit verification started

Sentinel-6B: Launch preparations proceeding according to plan. Target launch date: 17 November (UTC)

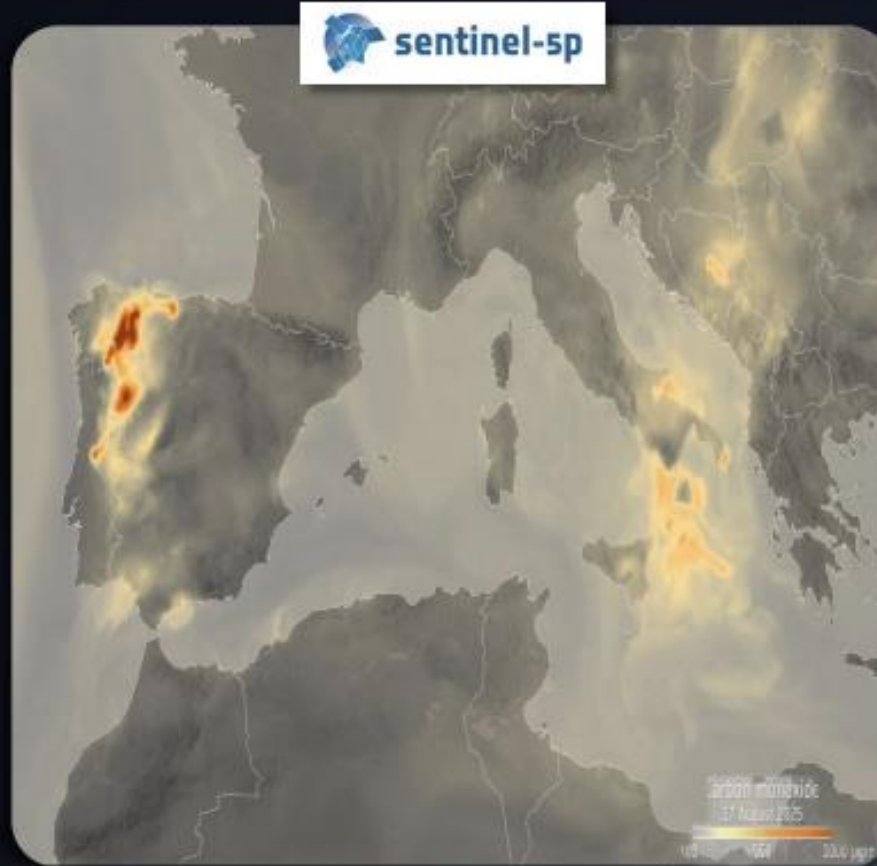
Sentinel-6C: Updated industrial proposal under evaluation, TEB planned 10th October.

Iberian Wildfires Seen from Space

Southern Europe is once again in the grip of extreme summer heat. Soaring temperatures and bone-dry land have fuelled widespread wildfires, with the Iberian Peninsula among the regions hardest hit.



Sentinel-3 image captured 17 August, providing a wide view of France, Spain & Portugal, dominated by smoke billowing from fires in the N-part of the Iberian Peninsula.



Carbon monoxide map, based on data from the European Commission's Atmosphere Monitoring Service, derived from satellite data.

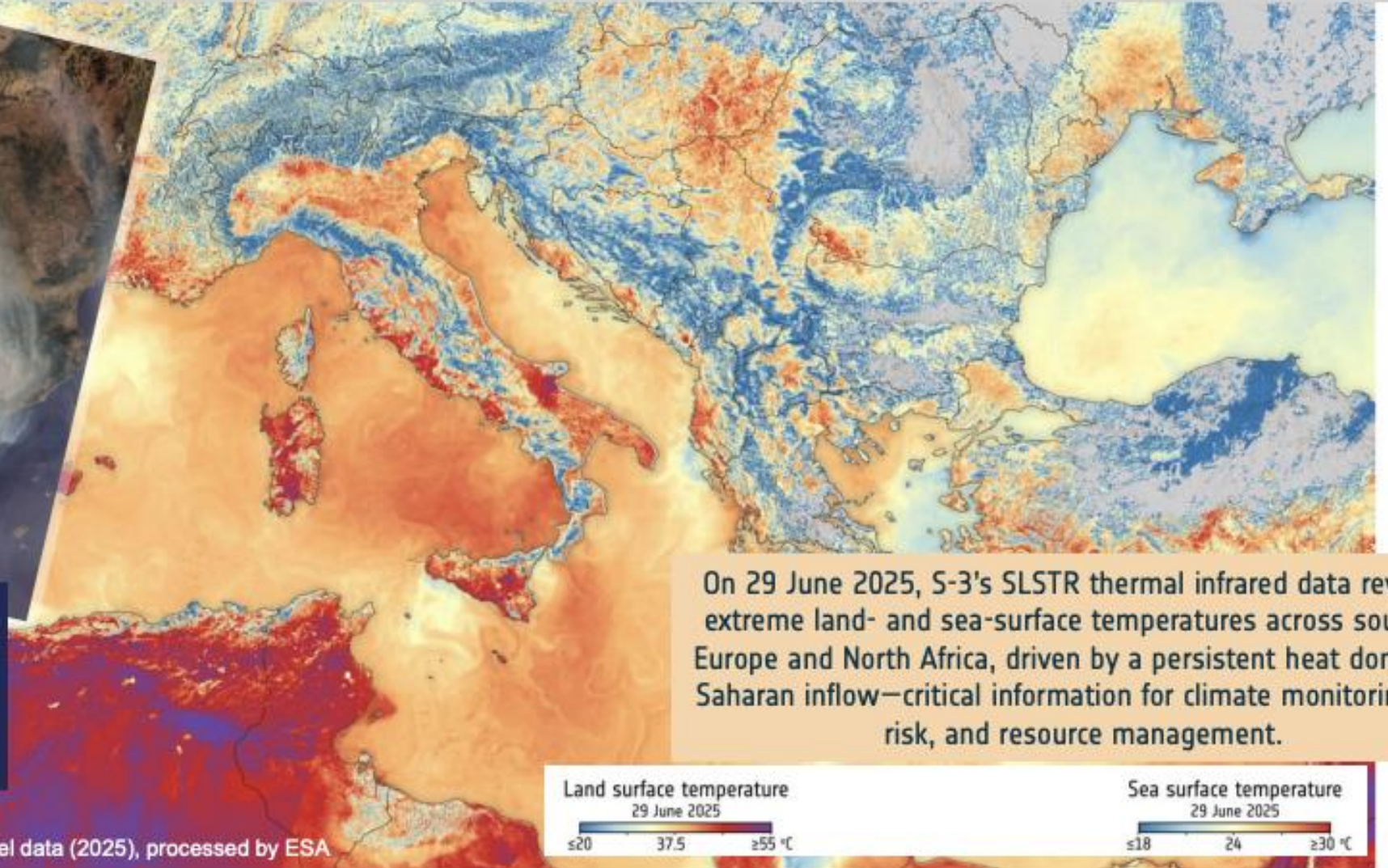


Sentinel-2 image captured 16 August. False-colour view to highlight active fires in NW Portugal and NW Spain.

Sentinel-3 Tracking Heatwave and Wildfire Impacts



On 17 August 2025, Sentinel-3 captured a wide-area view of France, Spain, and Portugal dominated by thick smoke plumes from northern Iberian wildfires, visibly sweeping across the Bay of Biscay



On 29 June 2025, S-3's SLSTR thermal infrared data revealed extreme land- and sea-surface temperatures across southern Europe and North Africa, driven by a persistent heat dome and Saharan inflow—critical information for climate monitoring, fire risk, and resource management.

Land surface temperature
29 June 2025



≤20 37.5 ≥55 °C

Sea surface temperature
29 June 2025

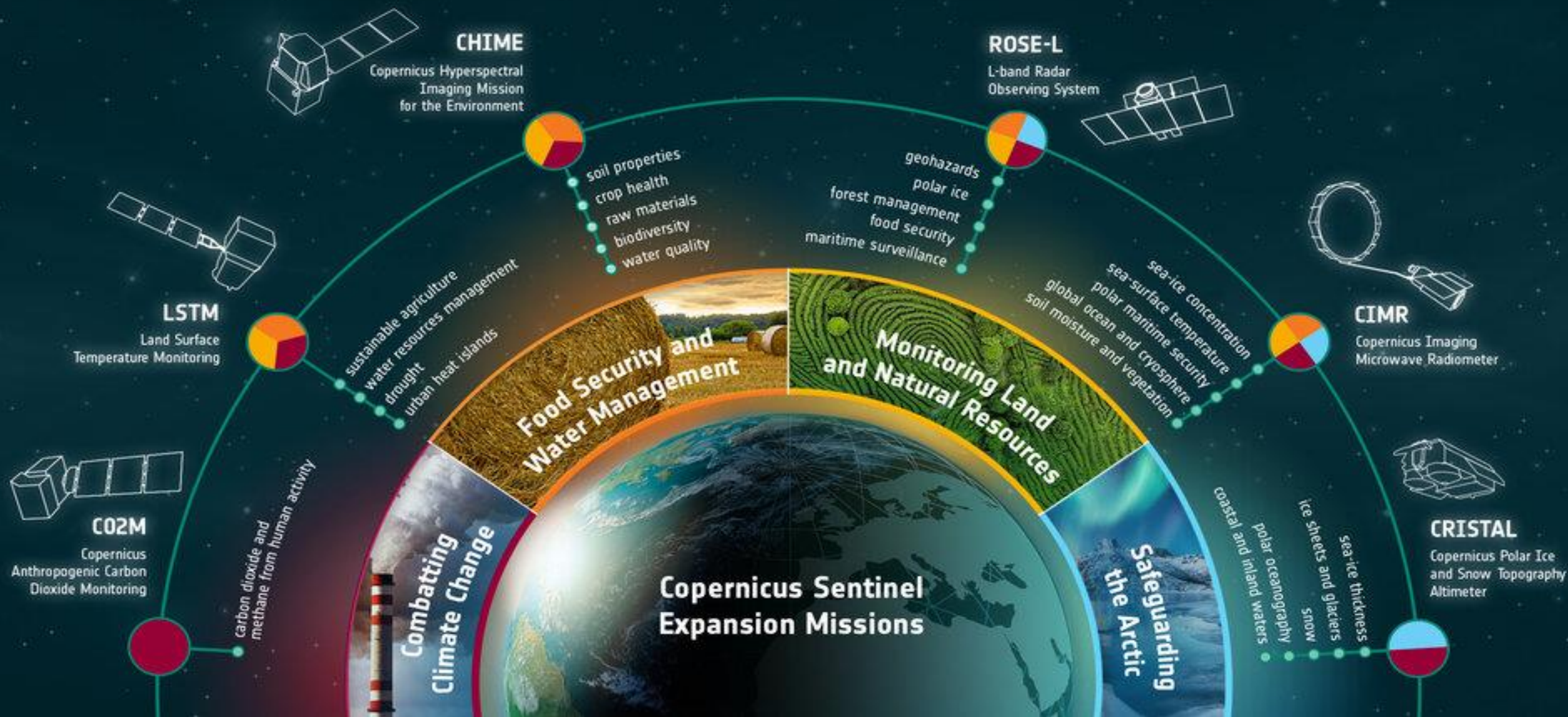
Contains modified Copernicus Sentinel data (2025), processed by ESA



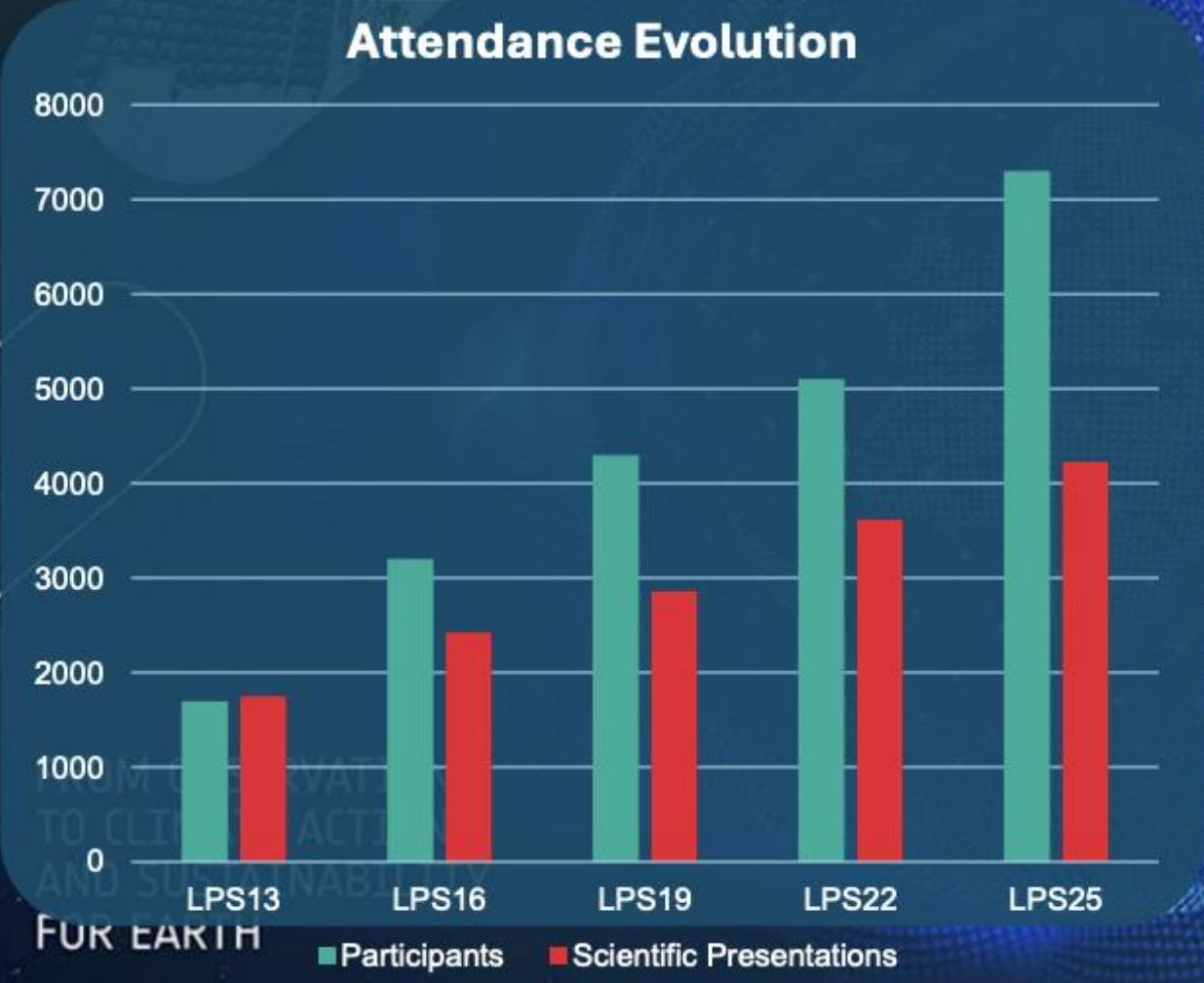
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7300 Registrations and **6900** onsite participants from **125** nationalities



57 Sponsors



250+ Sessions and **60+** Agoras



4200+ Scientific Presentations & Posters



800+ Members of the Scientific Committee



2200 Children at the School Lab & ca. **100** participants to the Open Day

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