

ESA updates since CGMS-52 and report on the medium to long-term plans for Earth observation

Coordination Group for Meteorological Satellites 53rd Plenary meeting

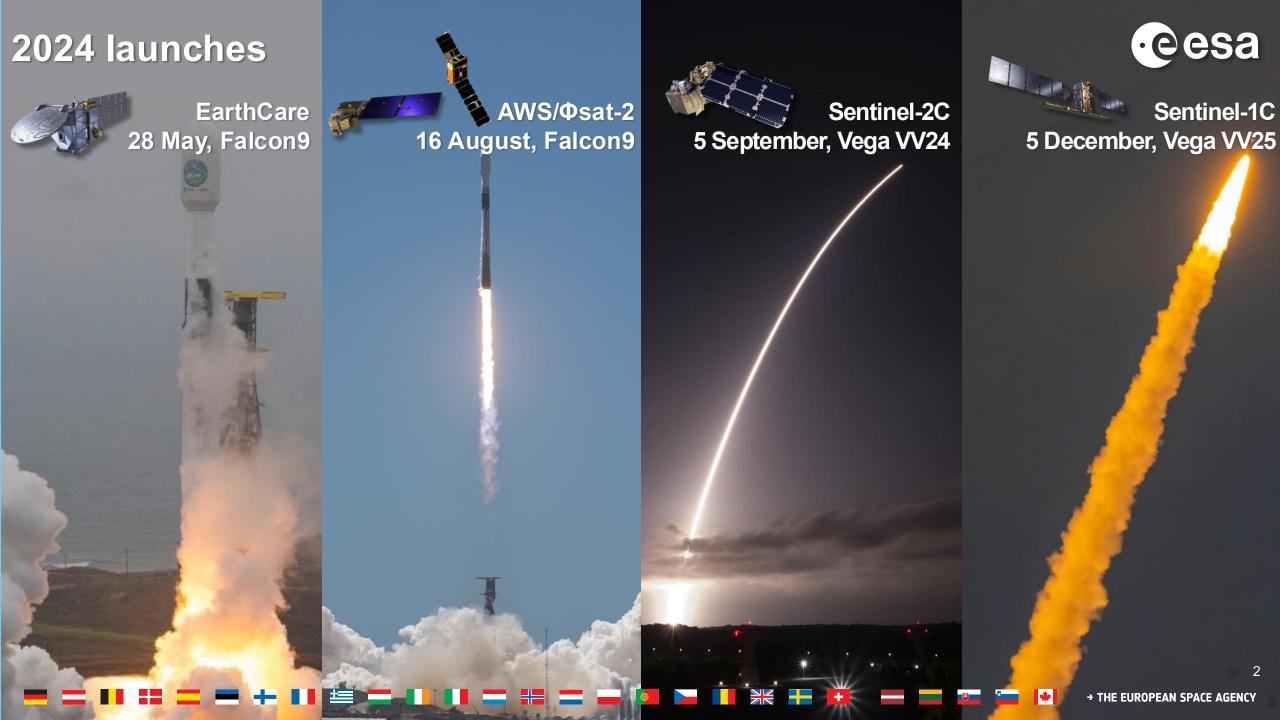
02 June 2025

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2025 launches





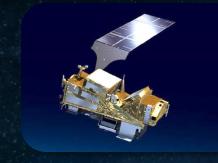
Biomass Launched 29Apr25



Nov: Sentinel 6B



Jul: MTG-S1 & S4



Aug: MetOp-SG A1 & S5

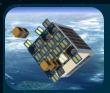


Q3-Q4: Sentinel 1D



Q4: HydroGNSS

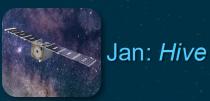
ESA InCubed Supported Development



Jan: AIX



'25: UKKO





'25: Hyperfield



Jan: Forest-3

Launched

National Constellations

Italian constellation - Iride

Jan & Q3: Argotec HEO satellites

Q4: OHB-I Eaglet-II satellites

Launched

Greek constellation

Q4: Iceye satellites

Q4: Ororatech satellites

2025 Meteorological Missions



MTG-S1 / Sentinel-4 arrival at Port Canaveral (6 May)



Arrival at Canaveral marks the start of the launch campaign of the satellite, scheduled for lift-off from Cape Canaveral on 1 July on a SpaceX Falcon 9 rocket

MetOp-SG / Sentinel-5 at cleanroom press event at ADS in Toulouse (8 April)

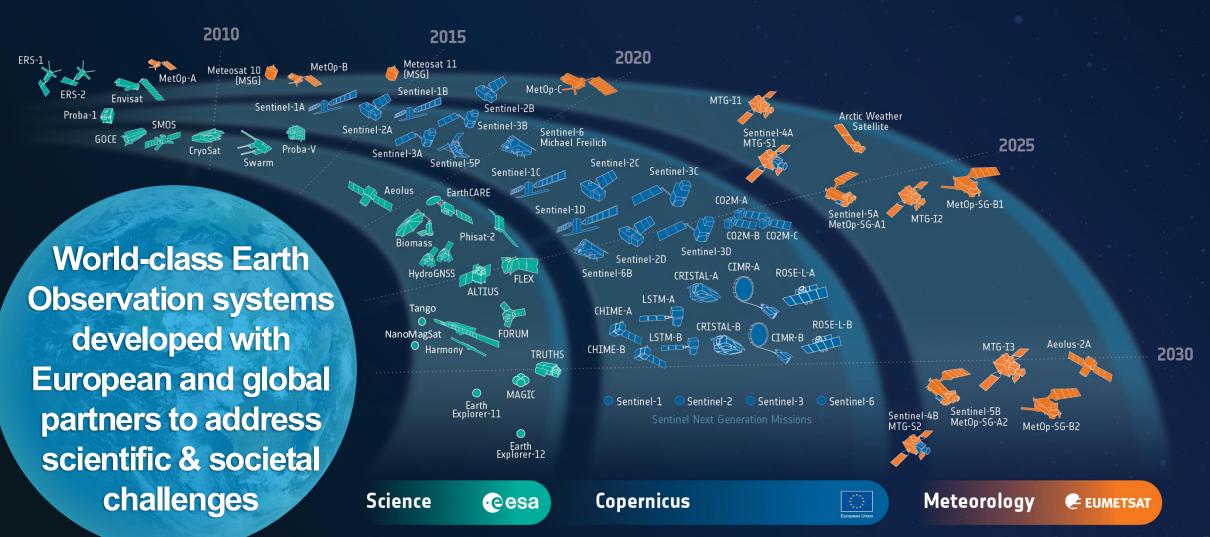


The satellite will be shipped beginning of June to Europe's spaceport in Kourou and has a scheduled launch on 12 August on the next Ariane 6 rocket

ESA's Earth Observation Missions



Satellites: Heritage 08 / Operational 16 / Developing 40 / Preparing 22 / Total 86



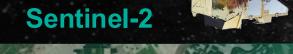
The Copernicus Space Component | Sentinels



All-weather, day-and-night radar imaging mission for land and ocean services

2014 / 2016 / 2024





Multispectral high-resolution imaging mission for land monitoring

2015 / 2014 / 2024



Multi-instrument mission for sea-surface topography, sea/land-surface temp. and ocean/land colour

2014 / 2018









ocean





data in the world with full,

> 330,000 Registered Users

20 TB of daily data production

800+ PB

of products disseminated for services to society

supporting 6 operational services





atmosphere climate







disaster security

The largest producer of EO free & open data policy*

Sentinel-4

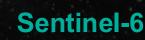
Geostationary atmospheric monitoring

2025



Polar orbit atmospheric monitoring

2017



Altimeter for global sea-surface height

2020 / 2025

operational

*Esa Sentinel Data Policy (Sep 2013) and EU Delegates Act on Copernicus Data and Information Policy (Dec 2013)



Copernicus Space Evolution













L-band Radar Observing System



food security maritime surveillance



LSTM

Carbon dioxide and methane from human activity

Land Surface Temperature Monitoring

water les outres management sustainable astriculture und heat should

soil properties

crop health

raw materials

biodiversity

Water quality

Sea lie concentration Sed-SIFFACE TEMPORATURE

Polar naritine security

Arctic

Copernicus Imaging Microwave Radiometer

CO2M

Copernicus Anthropogenic Carbon Dioxide Monitoring

Change Combatting mate

Strengthening Copernicus Space Component with

Copernicus Sentinel **Expansion Missions**

ice sheets and glaciers sea-ice thickness

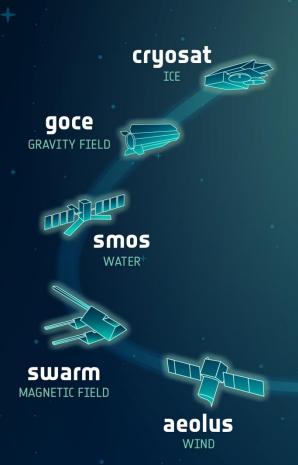
CRISTAL

Copernicus Polar Ice and Snow Topography Altimeter

→ THE EUROPEAN SPACE AGENCY

Earth Explorers

Pioneering Scientific and Technical Excellence





CCI: Development of Essential Climate Variables Products





- CCI is a response to UNFCCC's need for systematic global climate observation
- ECV datasets provide long-term empirical evidence to predict & understand key parts of the climate
- 54 defined ECVs, 36 monitored from space, 27 under development by ESA

DestinE Platform



19

Explore

Services already available



DestinE Platform

Your gateway to a sustainable future

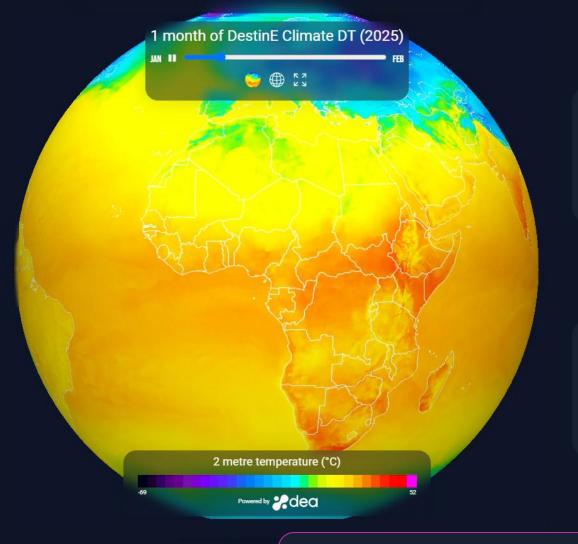
A unique ecosystem of services harnessing the power of Destination Earth.

DestinE Components

DestinE Platform Digital Twins and Digital
Twin Engine

Destination Earth
Data Lake





Services coming soon

Explore

A flexible ecosystem of services available to all DestinE users

Leveraging European Supercomputers

1

