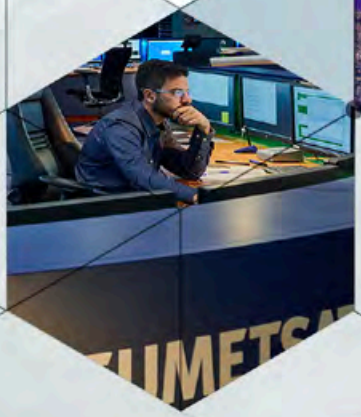
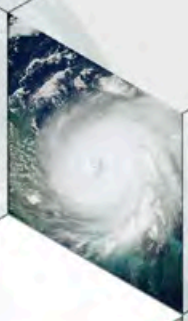
Annual report
2025





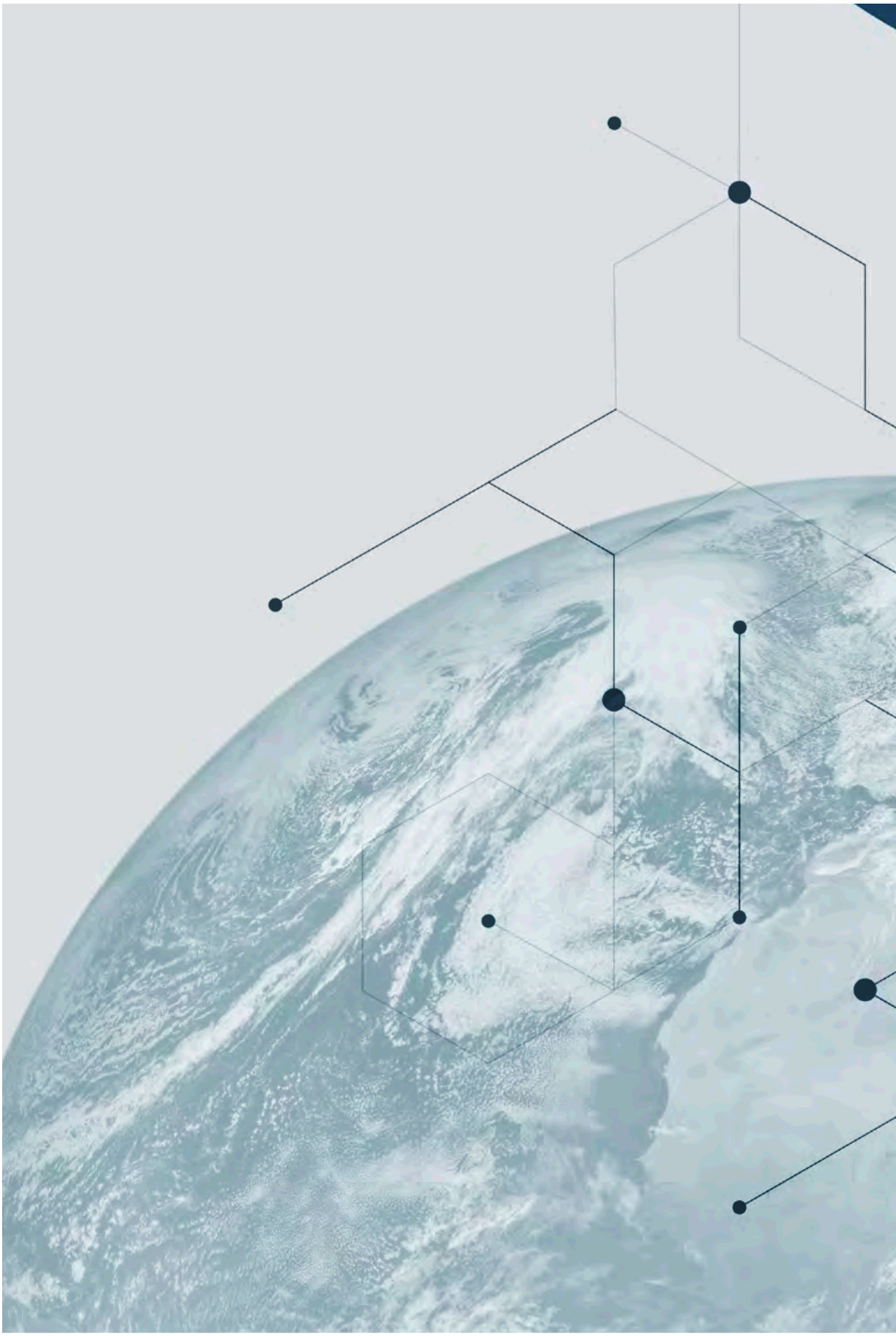


Table of contents

Director-General's foreword

I believe that everyone at EUMETSAT will look back at 2025 with a tremendous sense of satisfaction and pride, as the year's achievements are genuinely astonishing and unprecedented in the organisation's history. The most visible and high-profile of these were, of course, the successful launches of three satellites: Meteosat Third Generation Sounder 1 (MTG-S1), Metop Second Generation A1 (Metop-SGA1) and Copernicus Sentinel-6B.

The three launches represent key milestones in our long-term plan to deploy Europe's next generation of operational satellites. Their increased technological capabilities will secure and enhance the future provision of weather services and climate monitoring into the 2040s and beyond. Placing these satellites in orbit was the culmination of 15 years of concerted effort and, in the 12 months prior to launch, the management of a particularly high and demanding workload. I would therefore like to take this opportunity to commend and congratulate all the teams involved, across the entire organisation, for their dedication and incredibly hard work.

Our focus remains on serving the needs of our users with the early availability of enhanced data, and all three of the newly launched satellites were already delivering initial data by the end of the year. Each satellite promises next-level services that will benefit our Member States, global users and wider society. Comparable gains will be realised from the EUMETSAT Polar System – Sterna programme, which saw majority approval by our Member States in November.

EUMETSAT remained at the heart of European space activities throughout 2025. On behalf of the European Union (EU), we will operate three of the new Copernicus Sentinel missions that launched during the year, comprising not only Sentinel-6B but also Sentinel-4 and Sentinel-5. The latter two are instrument missions flying on MTG-S1 and Metop-SGA1 respectively. In addition, the third phase of Destination Earth was approved, with EUMETSAT playing a key part alongside the European Space Agency and the European Centre for Medium-Range Weather Forecasts in this EU initiative to build digital twins of our planet.

As an organisation, we anticipate and evolve to meet the changing needs of our Member States and users. Recent developments have highlighted the importance of operating effectively in a more complex and less predictable environment, driving us to strengthen our commitment to supporting preparedness, resilience and autonomy in our Member States. By ensuring our independence and maintaining a flexible network of partnerships, we ensure the continuity of the vital services that help address climate change, extreme weather and the protection of lives, livelihoods and infrastructure.

In June 2025, the European Commission published a proposal for an EU Space Act, a legislative initiative that aims to harmonise and develop European space activities by establishing a common framework of rules and processes for safety, security and sustainability. While the proposal was being discussed and amended by the European Parliament and the EU Council, we began evaluating its potential impact on future EUMETSAT programmes, alongside that of other EU policies related to defence and security. Weather data and Earth observation capabilities are clearly essential for military and security operations, including United Nations peacekeeping and humanitarian efforts, and EUMETSAT's meteorological infrastructure is also a crucial strategic asset for Europe.

As 2025 drew to a close, we were looking forward to 2026, an especially important year as we will be celebrating the 40th anniversary of the founding of EUMETSAT. Although the coming 12 months may bring many challenges, the overriding lesson of the last four decades is that thanks to its committed and highly skilled workforce, EUMETSAT will always rise to the occasion.

Phil Evans
Director-General

Council Chairman's foreword

Satellite data are the lifeblood of EUMETSAT. The stream of products that we deliver supports the national meteorological and hydrological services of our Member States, underpins climate and environmental science, informs policymakers and empowers a growing community of international partners and users.

From daily weather forecasts to long-term climate monitoring and early warning and emergency response, citizens and organisations in Europe and beyond depend on us to provide timely, reliable and high-quality data. Ensuring that these data flow seamlessly and deliver real benefits for society, both now and in the future, remains the central focus of EUMETSAT. I am happy to say that we have the people, skills and experience to do just that.

Indeed the landmark year of 2025 was a fitting demonstration of EUMETSAT's calibre, with the launch of three new satellites carrying leading-edge instruments that promise to be transformative for weather and climate services. Meteosat Third Generation Sounder 1 and Metop Second Generation A1 are decisively ushering in a new era in Earth observation, while Copernicus Sentinel-6B will assure continuity for the global altimetry reference mission.

It was certainly an intense year for all who were involved in preparing, launching and manoeuvring these satellites into their respective orbits, followed by the calibration and validation of their instruments. This tireless work by dedicated teams across EUMETSAT paid off, as all instruments flown on these satellites had delivered their first images by year end. I would like to extend my congratulations to everyone involved.

The year saw Meteosat-12 become EUMETSAT's primary geostationary satellite at 0° longitude. As the first Meteosat Third Generation imager satellite in orbit, Meteosat-12 delivers markedly higher resolution imagery than its predecessors and new lightning observations, significantly improving the ability to monitor high-impact weather such as rapidly developing storms.

In 2025, the EUMETSAT Council took important steps towards approving the start of another forward-looking initiative, the EUMETSAT Polar System – Sterna. This new, fully EUMETSAT-funded programme will deploy a constellation of sounder microsatellites in polar orbit to enhance short-range forecasts and numerical weather prediction. It will additionally fill critical data coverage gaps over Arctic regions.

The Arctic also featured in discussions on a potential collaborative mission with Canada – just one example of EUMETSAT continuing to strengthen its relationships with a wide range of international partners throughout 2025. Cooperation agreements and data exchanges with partners boost resilience and help to maintain a reliable and constant supply of data to meteorological services.

Satellite Application Facilities (SAFs) are specialised centres that turn EUMETSAT satellite data into tailored products for weather, climate and environmental services. EUMETSAT updated its SAF Strategy in 2025 to put stronger emphasis on aligning SAF products with the services provided by Member States and end users. The new strategy was approved by the EUMETSAT Council on 1 July 2025 and will guide the next Continuous Development and Operations Phase of SAF activities, ensuring that SAF products are monitored and rationalised to focus on key operational needs, while also fostering innovation and addressing wider European priorities.

The milestones we reached together in 2025 are truly impressive and reflect the tenacity and professionalism of everyone who works at EUMETSAT. I would like to thank all our staff and contractors for their efforts in making 2025 such a success. With our 40th anniversary on the horizon, I look forward to another exciting and productive year ahead.

Eoin Moran
Council Chairman

Our mission

EUMETSAT's mission, as an intergovernmental organisation, is to establish, maintain and exploit European systems of meteorological satellites, taking into account as far as possible the recommendations of the World Meteorological Organization (WMO). A further objective is to contribute to the operational monitoring of the climate and the detection of global climatic changes.

Our vision

EUMETSAT's vision is to be the leading user-driven operational agency in Europe for Earth observation satellite programmes that fulfil the objectives of its convention. It further aims to be a trusted global partner for those outside Europe who share these objectives. In realising this vision, EUMETSAT's first priority is to fulfil the essential requirements of its Member States in terms of observations, data and support services for operational weather as well as Earth system monitoring and forecasting for climate services. EUMETSAT will do this in the most effective manner, through its own satellite programmes. Our second priority is to establish additional, or shared, capabilities in partnership with the European Union and other satellite operators for the common benefit of EUMETSAT's Member States and partners.

Our core values

Integrity

We act ethically in every professional activity and in accordance with corporate policies.

Excellence

We all strive to ensure excellence and to provide efficient services.

Open-Mindedness

Our openness allows us to anticipate challenges and actively support change.

Collaboration

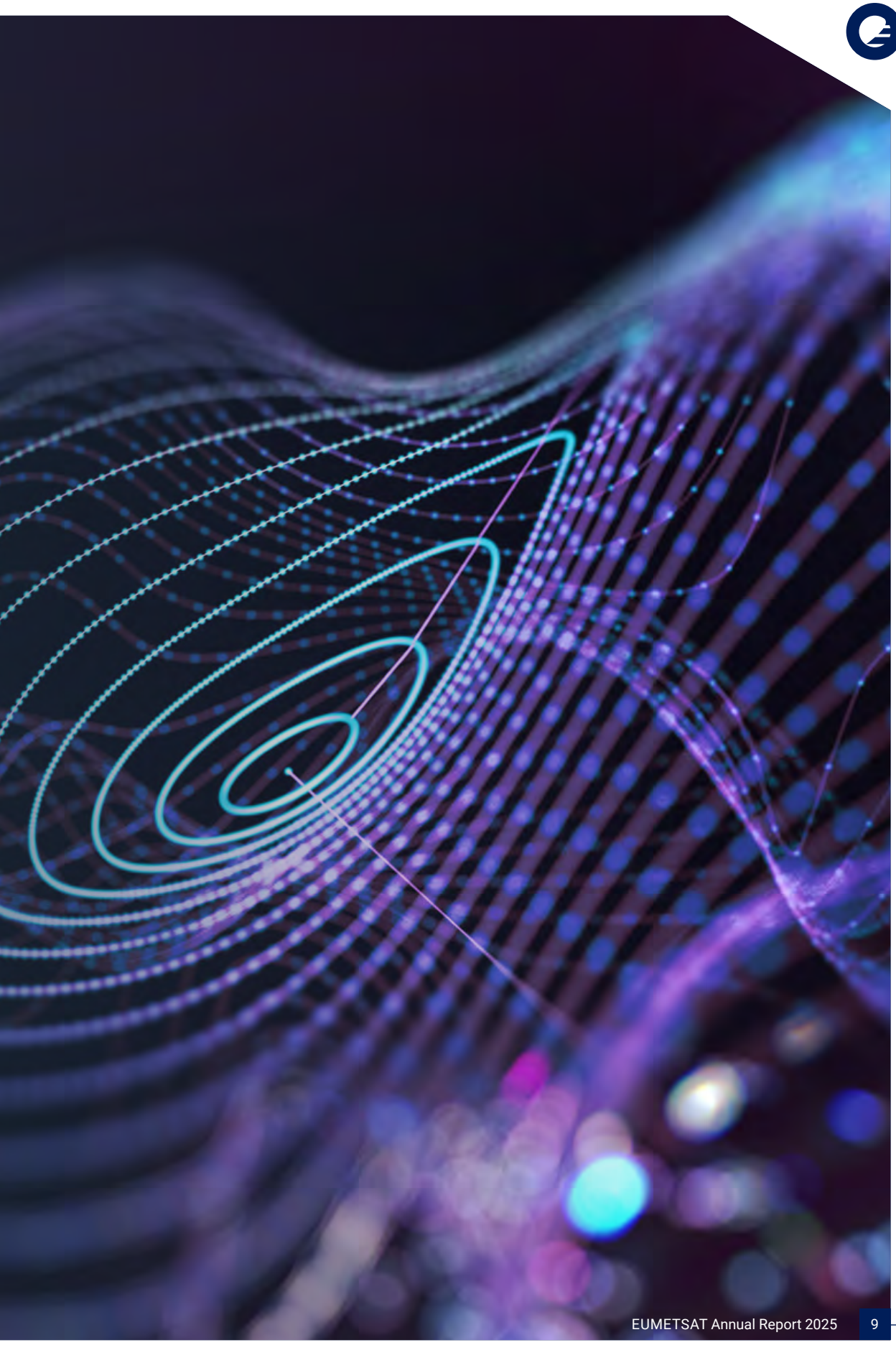
We collaborate in an environment of mutual respect.

Empowerment

We hire diverse and talented people, empower them, and foster their professional growth.

EUMETSAT's strategic objectives

1. Deploy the new Meteosat Third Generation and EUMETSAT Polar System - Second Generation satellite systems and maximise their benefits to Member States and users
2. Deliver operational services responding to evolving user requirements, based on the continuous infusion of science and cost-effective infrastructures and operations
3. Establish and exploit a federative European Weather Cloud infrastructure in partnership with the ECMWF and European national meteorological and hydrological services
4. Consolidate EUMETSAT's contribution to the realisation of the Vision 2040 of the WMO Integrated Global Observing System and plan future satellite systems
5. As a partner of the Space Strategy for Europe, deliver Copernicus ocean and atmospheric composition monitoring missions and contribute to collaborative research and innovation projects for the common benefit of EUMETSAT and EU Member States
6. Cooperate with other satellite operators and contribute to global partnerships for monitoring weather, climate and greenhouse gases from space to meet additional needs of Member States
7. Expand the user base for EUMETSAT- provided data, products and services
8. Continuously improve management and risk management processes
9. Remain an attractive employer for diverse, skilled, talented and engaged people



Milestones 2025

Signature of Launch Agreement with Arianespace, signed in Brussels on 28 January 2025 by Phil Evans, Director-General of EUMETSAT and David Cavaillolès, CEO of Arianespace.

Phil Evans, EUMETSAT Director-General, presenting a gift to Ms. Aliona Rusnac, State Secretary of the Ministry of Environment of Moldova at the Information Days in Moldova.

28 January

Arianespace launch agreement updated

EUMETSAT updated its launch service agreement with Arianespace, confirming the schedule for upcoming satellite launches. The accord brought forward the launch date for Metop Second Generation A1 (Metop-SGA1) to August 2025 and confirmed launch slots for Meteosat Third Generation Imager 2 (MTG-I2) and Metop-SGB1 in 2026. The updated agreement reinforced EUMETSAT's long-standing partnership with Arianespace, which began with Meteosat-2 in 1984.

29 January

Signing the Africa-EU space partnership agreement

EUMETSAT, together with the African Union Commission, African Space Agency, European Space Agency (ESA) and European Centre for Medium-Range Weather Forecasts (ECMWF), signed the Africa-EU Space Partnership Programme agreement. The initiative will leverage Meteosat Third Generation data to strengthen early warning systems across Africa, supporting disaster preparedness and climate resilience. The agreement continues EUMETSAT's longstanding commitment to African meteorological services.

26-27 March

Information Days event held for Eastern Europe, Caucasus and Central Asia

The first EUMETSAT Information Days in 2025 took place in Chișinău, Moldova and was attended by representatives from nine countries, alongside ECMWF and the World Meteorological Organization (WMO). The event focused on accessing new Meteosat Third Generation data and supporting the WMO's Early Warnings for All initiative. Plans were established to upgrade regional data access infrastructure.

Signature of Africa-EU space partnership agreement on 29 January 2025. From left to right: Director for Secure and Connected Space at the European Commission Catherine Kavvada, European Centre for Medium-Range Weather Forecasts Director General Florence Rabier, DG INTPA Deputy Director General at the European Commission Marjeta Jager, President of the African Space Council Tidiane Ouattara, ESA Director General Josef Aschbacher, ESA Director of Earth Observation Programmes Simonetta Cheli and EUMETSAT Director-General Phil Evans.

Pinboard of expectations created by the students visiting on Girls Day 2025.

3 April

Promoting girl power

As part of Girls' Day, school-age girls were welcomed to EUMETSAT headquarters to explore careers in science and technology. The programme included sessions on weather, climate and Earth observation, plus hands-on activities and a tour of the control centre and the satellite models around the site. The initiative aims to inspire future scientists and encourage girls to pursue scientific careers.

Phil Evans, EUMETSAT Director-General, presenting a gift to Damjan Ćulafić, Minister of Ecology, Sustainable Development and Northern Region Development of Montenegro at the information days for Western Balkans.

7-8 April

Focus on MTG data access in the Western Balkans

The biennial EUMETSAT Information Days for the Western Balkans took place in Podgorica, Montenegro, bringing together meteorological services from six countries. A key topic was using Meteosat Third Generation data to support the WMO's Early Warnings for All initiative. EUMETSAT presented the new DAWBEE-MTG reception station, designed to enhance satellite data access.

22 April

Space for Early Warning in Africa kicks off

The Space for Early Warning in Africa (SEWA) project launched, bolstering access to Meteosat Third Generation data for African meteorological services. Part of the Africa-EU Space Partnership Programme, SEWA will support the African Meteorological Satellite Application Facility to improve extreme weather monitoring and disaster readiness. The project is implemented by the African Union Commission, the ECMWF and EUMETSAT.

EU Commissioner for Defence and Space, Andrius Kubilius and Phil Evans, EUMETSAT Director-General, meeting in Brussels.

24 April

Timely discussions with EU Commissioner for Defence and Space

Director-General Phil Evans met with Andrius Kubilius, EU Commissioner for Defence and Space, in Brussels. The meeting provided an opportunity to introduce EUMETSAT's activities to the new Commissioner, appointed in December 2024, and demonstrate how the organisation supports European Commission (EC) policies. The discussion took place as the EC prepared its next Multiannual Financial Framework.

Milestones 2025

The CGMS group gathered on 3 June in Evian-les-Bains, France, for its 53rd plenary session.

5 May

Migration to new document management system complete

The migration of over one million document versions from the legacy DM Tool to M-Files was finalised. The final batch of documents was moved over in late April, marking the end of a year-long transition. All document creation, editing and approval processes now take place in M-Files. The DM Tool remained accessible in read-only mode until August.

8 May

Strengthening ties with DG CLIMA

EUMETSAT and the EC's Directorate-General for Climate Action renewed their commitment to collaborate in support of EU climate policies. In an exchange of letters, both organisations recognised the vital role of satellite data in understanding, monitoring, mitigating and adapting to climate change. EUMETSAT's datasets and contributions to Copernicus and Destination Earth support the EU's climate neutrality goal.

3-5 June

CGMS plenary hosted by EUMETSAT

The Coordination Group for Meteorological Satellites (CGMS) held its 53rd plenary session in Evian-les-Bains, France. The requirements for the WMO Integrated Global Observing System (WIGOS), Vision 2040 and the WMO Early Warnings for All initiative were discussed with space agencies. EUMETSAT, as CGMS Secretariat, coordinated a response to support the WMO strategy, and space agencies also presented updates on their satellite systems and future plans.

10 June

A technology look-ahead with industry partners

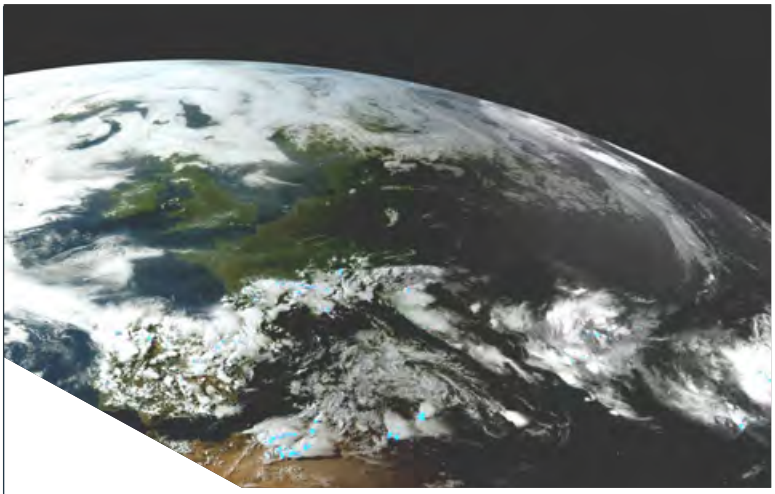
EUMETSAT welcomed industry representatives for an Information Day focusing on technology evolution and its impact on the organisation's activities. The event explored effects on operations, multi-mission ground systems maintenance and systems development and integration. Presentations on relevant technologies were followed by interactive discussions and opportunities to meet with EUMETSAT directors, fostering dialogue on future programme implementation and technological advancement.

9-13 June

Demonstrating ocean monitoring expertise at UNOC 2025

A EUMETSAT delegation attended the third United Nations Ocean Conference in Nice, France. The conference brought together UN member states and stakeholders to accelerate ocean conservation in alignment with UN Sustainable Development Goal 14. EUMETSAT presented on operational ocean monitoring and showcased use cases developed for the UN Ocean Decade in the EU Digital Ocean Pavilion.

Phil Evans, EUMETSAT Director-General, speaking at the UNOC event in Nice, France.



Meteosat-12 is the first imaging satellite in the MTG programme and now moves into its key position above the equator at 0° longitude, directly over the Gulf of Guinea.

16 June

Meteosat-12 begins prime service duty

Meteosat-12, the first Meteosat Third Generation imager, took over from Meteosat-10 as Europe's prime geostationary satellite service. Positioned at 0° longitude, Meteosat-12 scans the full Earth disc every 10 minutes with its Flexible Combined Imager and Lightning Imager. The satellite delivers enhanced detail for improving severe weather forecasting, with new capabilities including lightning detection from space – a European first.

30 June-1 July

High-level visit from NOAA

Juan Caro, Deputy Assistant Secretary for International and Space Affairs at the US National Oceanic and Atmospheric Administration (NOAA), visited EUMETSAT with a delegation. They met with EUMETSAT's Management Board and Council representatives, toured the Control Centre and Technical Infrastructure Building, and attended a dinner with the Council Chair and Heads of Delegations. The visit reinforced longstanding cooperation between EUMETSAT and NOAA.

1 July

Endorsing a future-facing SAF strategy

The updated Satellite Application Facility (SAF) strategy was approved by EUMETSAT Council, ensuring the network's continued relevance in a rapidly changing landscape. More than 25 years after it was first established, the SAF network supports Member State services by delivering high-value products from satellite data. The updated strategy emphasises measuring success through the value that products deliver to services and end users.

Meteosat Third Generation Sounder 1 (MTG-S1) satellite launches successfully from Cape Canaveral, Florida, USA.

Europe's first geostationary sounder satellite heads skywards

Meteosat Third Generation Sounder 1 (MTG-S1) successfully launched, marking a major step forward in strengthening Europe's resilience to extreme weather. Carrying the Infrared Sounder and the Copernicus Sentinel-4 mission, Europe's first geostationary meteorological sounder satellite will provide high-frequency data on atmospheric temperature, humidity and trace gases, enabling earlier and more accurate weather warnings to protect lives, property and infrastructure.

Milestones 2025

Signature of the partnership agreement with Mercator Ocean International. From left to right, Pierre Bahurel, Director-General of Mercator Ocean International, Alessandra Cacciari, Programme Officer at DG DEFIS, Elisabeth Hamdouch, Deputy Head of Unit for Earth Observation at DG DEFIS and Phil Evans, EUMETSAT Director-General at the EU Digital Ocean Pavilion in Nice, in June 2025.

2 July

Deepening engagement with Mercator Ocean International

EUMETSAT's Council ratified a partnership agreement with Mercator Ocean International to boost cooperation in ocean monitoring and forecasting. The agreement establishes a framework for closer coordination in data sharing and service development. The partnership will benefit ocean forecasting, early warning systems, climate monitoring and sustainable resource management, expanding Europe's integrated ocean science capabilities.

18 July

Taking the reins of MTG-S1

EUMETSAT assumed control of Meteosat Third Generation Sounder 1, following a successful launch and early operations phase. The satellite, carrying the Infrared Sounder and Copernicus Sentinel-4 mission, is positioned around 36,000km above the equator. Once the handover was complete, MTG-S1 then underwent intensive testing and was continuing its commissioning at the close of 2025.

26 July

Microcarb launch heralds new era of carbon monitoring

Microcarb, a carbon dioxide-tracking satellite, successfully launched aboard a Vega-C rocket from Europe's Spaceport in Kourou, French Guiana. Developed by the French Space Agency (CNES) with UK Space Agency contributions and EUMETSAT operational support, Microcarb is a forerunner to the Copernicus Anthropogenic Carbon Dioxide Monitoring mission. The satellite will observe global carbon dioxide distribution with unprecedented accuracy, reinforcing Europe's ability to track critical emissions.

Arianespace

Microcarb launches successfully launched from Europe's spaceport in Kourou.

Speakers at the special session "New Operational Programmes and Preparedness Studies" at the EUMETSAT Annual Conference 2025, together with session co-chairs and the EUMETSAT Chief Scientist Office. Louise Nuijens (TU Delft), Elody Fluck, (EUMETSAT), Philippe Chambon (Météo-France), Roland Potthast (DWD), Paolo Ruti (EUMETSAT), Rosemary Munro (EUMETSAT), Dale Durran (University of Washington/NVIDIA).

10-16 August

First EUMETSAT Summer Camp inspires budding space scientists

The first summer camp was held for children of EUMETSAT employees and contractors. The week-long event welcomed participants aged 8 to 17 and featured fun and educational activities, including launching rockets, building solar system models and conducting experiments. The initiative provided the youngsters with an engaging introduction to space exploration whilst fostering creativity, teamwork and problem-solving skills.

13 August

New-generation polar orbiter takes flight

Metop Second Generation A1 (Metop-SGA1) lifted off on an Ariane-62 rocket from Europe's Spaceport in Kourou, French Guiana. Metop-SGA1 is the first satellite of the EPS-SG programme to launch, carrying a suite of game-changing instruments that also include the Copernicus Sentinel-5 mission. Flying in a polar orbit around 800km above Earth, the satellite's high-resolution observations will provide vital data for weather forecasting.

18 August

Metop-SGA1 completes LEOP

Metop-SGA1 was handed over to EUMETSAT following successful completion of the satellite's launch and early operations (LEOP) activities. Over three days, experts from EUMETSAT, ESA, Telespazio Italy and Airbus had worked together to perform a series of complex steps and manoeuvres to guide the satellite into low-Earth orbit.

Metop-SGA1 and the European Union's Copernicus Sentinel-5 mission launch successfully, ready to take weather forecasting to new heights.

ESA/CNES/Arianespace

15-19 September

MTG-S1 and Metop-SGA1 steal the show at the EUMETSAT Conference

The EUMETSAT Annual Meteorological Conference took place in Lyon, France, centred around the theme 'From Space to Safety: Earth Observation for Future Weather and Climate Preparedness'. With 517 participants, the hot topics were MTG-S1 and Metop-SGA1, with delegates keen to work with data from these latest-generation satellites. The conference featured parallel sessions, plenary meetings, roundtable discussions and networking events.

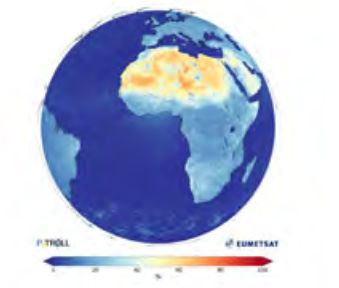
25 September

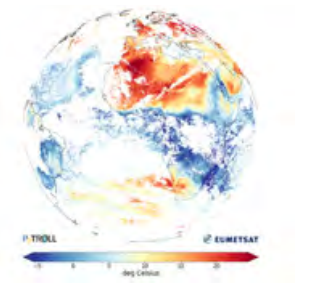
Impressive turnout for ocean sustainability webinar series

EUMETSAT concluded its series of four UN Ocean Decade webinars highlighting how data from Copernicus, EUMETSAT and other EU initiatives contribute to ocean sustainability goals. The series featured 26 speakers and attracted 1,500 registrations from 110 countries, with over 90,000 YouTube views. The webinars were organised in partnership with Mercator Ocean International, EMODnet and the UN Ocean Decade office.

Milestones 2025

The Clear-Sky Reflectance Map and Global Instability Indices, two of the first six level-2 products from the Flexible Combined Imager on board MTG-I1 to be declared operational.





20-21 October

Workshop addresses future forecasting challenges

The first EUMETSAT Foresight Workshop brought together experts to adopt a forward-looking approach to future challenges. The workshop explored the evolution from traditional weather predictions to broader, tailored services, such as impact-based forecasts covering water availability, agricultural yield and health risk. Discussions addressed improved observations and the evolution of services, tools and platforms for national meteorological services.

28-30 October

Symposium celebrates 25 years of climate services

The EUMETSAT Climate Symposium was an opportunity for policymakers, climate services, scientists and data providers to explore how satellite data can drive climate action. The event examined the value chain, from space-based measurements to climate information services and informed decision making. The year 2025 marked a quarter of a century since climate monitoring was incorporated into the EUMETSAT Convention.

11 November

First FCI level-2 products operational

The first six level-2 products from the MTG-I1 Flexible Combined Imager were declared operational, less than a year after FCI level-1C data were fully released. The products include Cloud Mask, Clear-Sky Reflectance Map, Optimal Cloud Analysis, All-Sky Radiances, Global Instability Indices and Outgoing Longwave Radiation. The level-2 datasets provide near-real-time information on the atmosphere and Earth's surface for weather model assimilation, nowcasting and research.

13-14 November

Successful ISO 9001:2015 audit

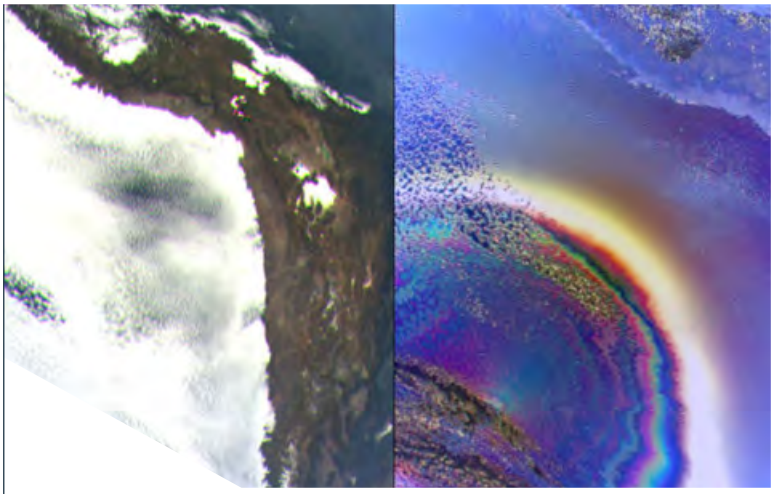
EUMETSAT passed its ISO 9001:2015 surveillance audit with very positive results. Auditors from the British Standards Institution commended the quality management system documentation, HR process digitalisation, risk management tools and the structured approach to continuous improvement. The audit identified no non-conformities or recommendations, reflecting professionalism and commitment across the organisation and a high awareness of quality management as a competitive factor.

17 November

Successful launch of Copernicus Sentinel-6B

Copernicus Sentinel-6B launched from Vandenberg Space Force Base in California. Operated by EUMETSAT for the EU's Copernicus Programme, the satellite will deliver high-precision measurements of sea level and freshwater systems. Once fully operational, Copernicus Sentinel-6B will succeed Copernicus Sentinel-6 Michael Freilich as the world's reference mission for satellite altimetry, providing critical data on ocean currents, wave height and wind speed.

Copernicus Sentinel-6B takes off from Vandenberg Space Force Base in California.



On its first day of delivering data, the Multi-Viewing, Multi-Channel, Multi-Polarisation Imager on board Metop-SGA1 shows a mesmerising cloud structure captured over Chile and Peru, revealing another benefit of observing polarised light.

20 November

Mission control at the helm for Copernicus Sentinel-6B

Three days after launch, control of Copernicus Sentinel-6B was transferred to EUMETSAT. The ocean-monitoring satellite carries the Poseidon-4 radar altimeter, which measures sea-surface height by timing radar pulses reflected off the ocean. These data reveal changes in sea level, wave height and surface wind speed, providing key inputs for weather forecasting, coastal protection and climate monitoring.

25 November

Renewal of cooperation agreements

The EUMETSAT Council approved new and renewed collaboration efforts to enrich collaboration and data exchange. Scientific cooperation agreements with the German Aerospace Centre and the UK National Centre for Earth Observation will support research in meteorology, atmospheric composition and Earth observation. A renewed memorandum of understanding with China's National Satellite Ocean Application Service will ensure continued data access.

26 November

First data received from all Metop-SGA1 instruments

The Copernicus Sentinel-5 mission, flying on board Metop Second Generation A1, delivered its first images, becoming the final instrument on the satellite to transmit data. The Sentinel-5 spectrometer's initial data revealed detailed maps of key pollutants, including wildfire emissions across Africa, elevated nitrogen dioxide over South Africa and volcanic sulphur dioxide from the Kamchatka Peninsula in Russia.

27 November

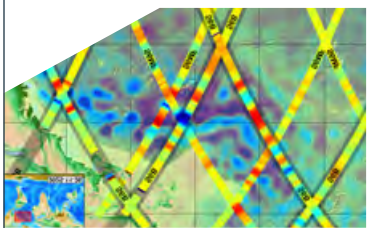
Thumbs-up for continuing DestinE work

Destination Earth (DestinE) is a major initiative of the European Commission to develop a highly accurate digital model of our planet. Implemented by EUMETSAT in conjunction with the ECMWF and ESA, EUMETSAT is responsible for the Data Lake component. The EUMETSAT Council approved the continuation of the organisation's involvement in DestinE into its third, fully operational phase, due to commence mid-2026.

16 December

Copernicus Sentinel-6B delivers first altimeter images

Copernicus Sentinel-6B released its first altimetry images, demonstrating how the mission will continue the global monitoring of oceans, coasts and inland waters. The Poseidon-4 altimeter measurements show how the satellite will track sea-level change, ocean currents and wave conditions. Sentinel-6B reached its final orbit at 1,336km and began flying 30 seconds behind Copernicus Sentinel-6 Michael Freilich for precise cross-calibration.



Ground tracks of the Copernicus altimeter missions Sentinel-6B and Sentinel-6 Michael Freilich showing the Gulf Stream current in the North Atlantic Ocean off the coast of the United States.

1

Deploy the new Meteosat Third Generation and EUMETSAT Polar System - Second Generation satellite systems and maximise their benefits to Member States and users

In the face of ever-increasing global average temperatures, EUMETSAT's Meteosat Third Generation (MTG) and the EUMETSAT Polar System – Second Generation (EPS-SG) satellite programmes are key to helping EUMETSAT's Member States address the mounting challenges of climate change and extreme weather events. Successful satellite launches from both these programmes in 2025 marked the next decisive steps in a new era of forecasting and nowcasting for Europe.

Meteosat Third Generation

EUMETSAT made major progress in rolling out its next-generation Meteosat Third Generation satellite programme in 2025. The new MTG satellites are some of the most sophisticated ever built and are set to deliver a step-change improvement in meteorological forecasting and advance warnings for severe weather. MTG will ensure the continuity of weather and climate services for Europe for the next two decades.

The MTG system is designed to operate as a three-satellite constellation, with two imaging satellites and one sounder. On 16 June 2025, the first of these, Meteosat-12, assumed a leading role, taking over from Meteosat-10 as Europe's primary weather satellite in geostationary orbit. Meteosat-12 also began making data available to EUMETSAT's MTG Africa data service on 17 July.

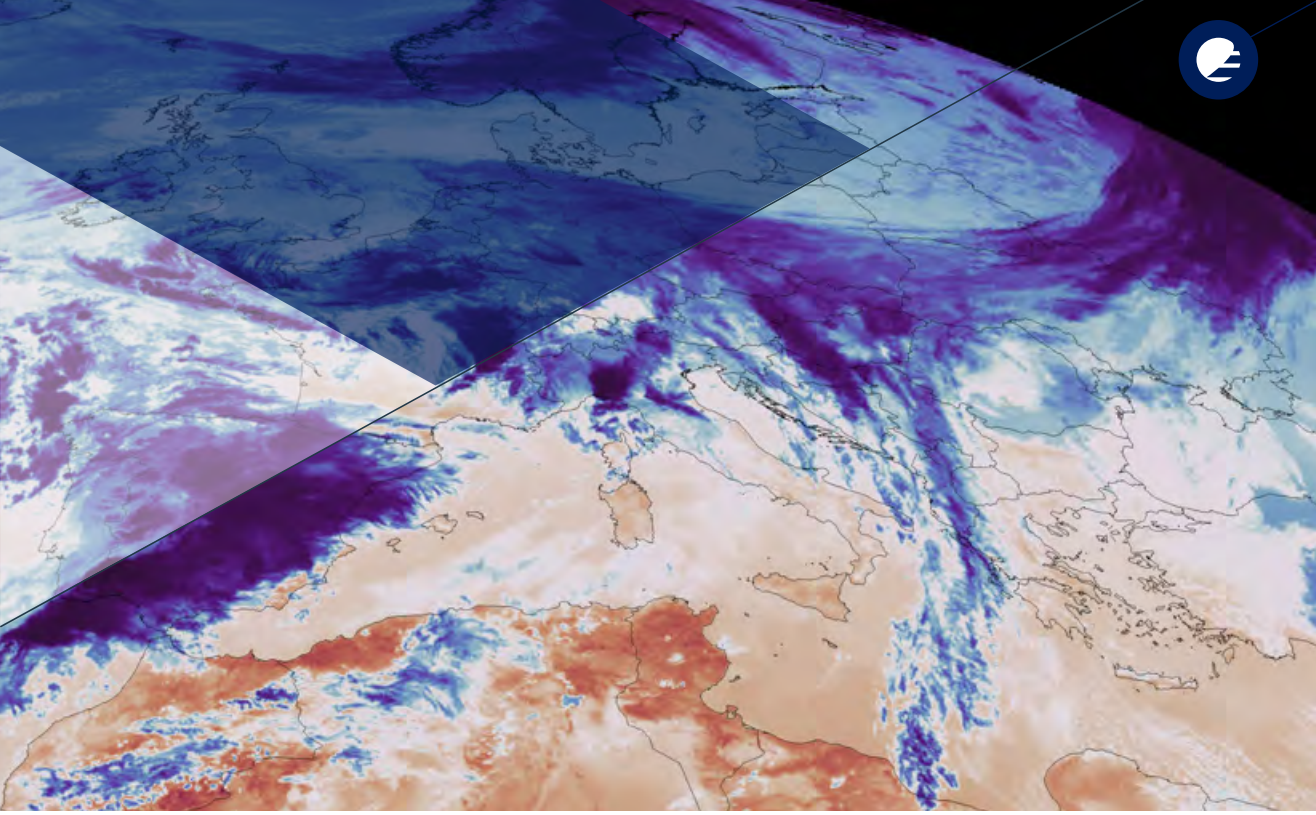
Another significant achievement celebrated by the MTG programme in 2025 was the launch of the second satellite in the series, Meteosat Third Generation Sounder 1 (MTG-S1) on 1 July. This was the culmination of months of preparation and testing throughout the first half of 2025, with EUMETSAT teams working closely with the European Space Agency (ESA) and industry partners to ensure readiness for launch and early operations.

As Europe's first operational sounder satellite in geostationary orbit, MTG-S1 attracted widespread media coverage around the world as it took flight. Its sounding instruments, the Infrared Sounder (IRS) and the Copernicus Sentinel-4 Ultraviolet Visible Near-infrared (UVN) spectrometer, build up crucial profiles of the vertical structure and composition of the atmosphere. Their data complements those of the MTG imagers, enabling users to fully monitor the full lifecycle of convective storms.

Following launch, MTG-S1 completed its initial checks and was manoeuvred into its final position in a geostationary orbit 36,000km above Earth. With the launch and early operations phase concluded, the satellite was handed over to EUMETSAT on 18 July 2025 for commissioning.

The commissioning phase, which began on 21 July, also involved months of rigorous work and testing by all the partner MTG-S1 teams to ensure the satellite and its instruments were optimised to provide near-real-time sounding data to users.

Instrument commissioning began on 8 September, when the IRS was switched on for the first time. Using infrared radiation to measure temperature, humidity and trace gases at various vertical levels of the atmosphere, this sounding instrument scans the full visible Earth disc, with Europe covered every 30 minutes. The data acquired by the IRS will offer forecasters a three-dimensional view of changes in the atmosphere as they evolve over time, enhancing short-term forecasts and enabling more rapid responses to severe weather.



One of the first images captured by the Infrared Sounder (IRS) instrument on board MTG-S1 shows a close-up of Europe in long-wave infrared showing cloud cover associated with Storm Claudia across much of the continent.

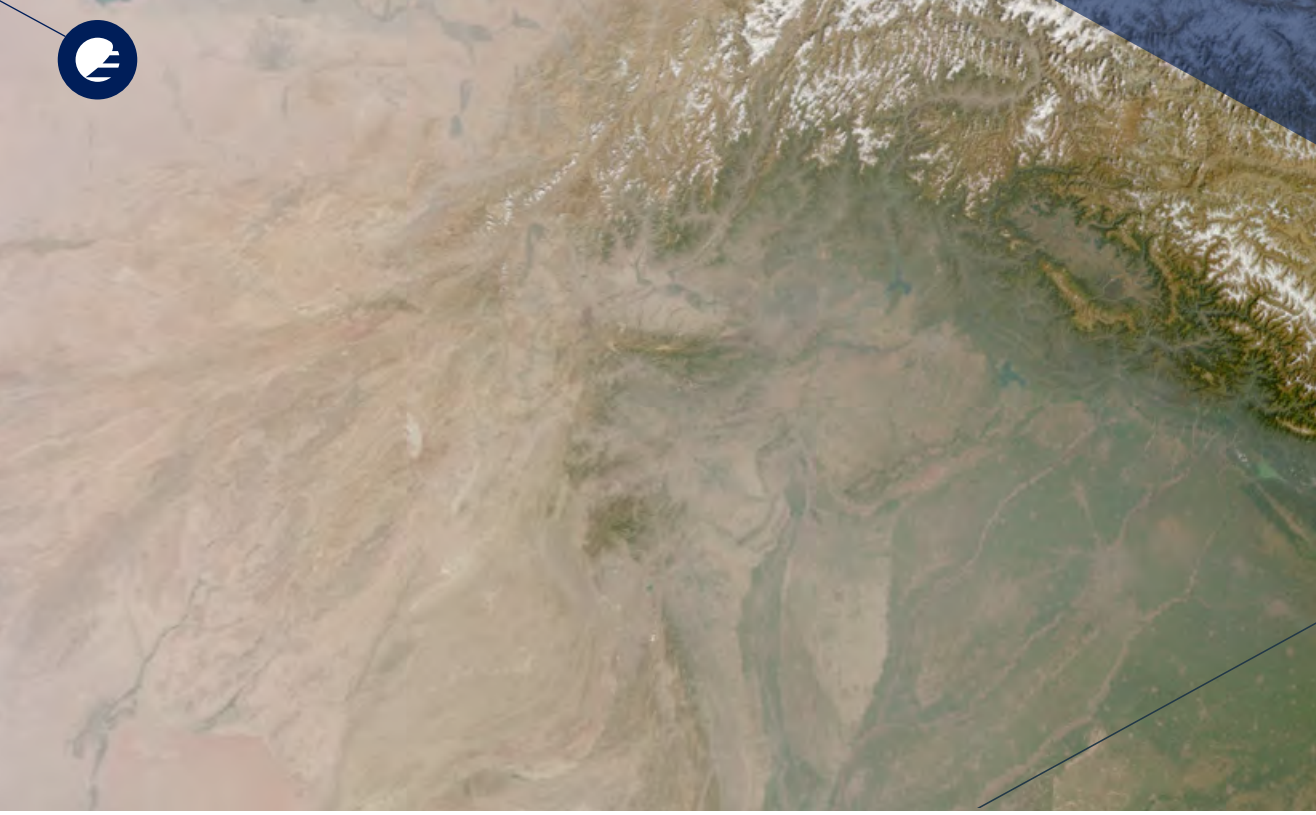
Blue shades depict clouds from the frontal system stretching from the Iberian Peninsula towards Central Europe, connected to the low-pressure centre over the Northwest Atlantic. Clouds with very cold tops appear in darker blues, indicating intense storm activity. The hottest areas are shown in red, with the land surface of the Sahara Desert dominating the southern edge of the view.

Less than two hours after switch-on, the IRS had produced its first proof-of-concept image, which was then presented at the EUMETSAT conference in Lyon just a week later on 17 September. Following these initial observations, a public release of the first high-resolution images and a 24-hour scan are planned for January 2026.

The Copernicus Sentinel-4 UVN instrument hosted by MTG-S1 commenced its commissioning in parallel, with ESA overseeing exhaustive checks on the instrument and ground processing algorithms. The spectrometer monitors air quality, including the levels of pollutants such as trace gases and aerosols that pose a risk to public health. Its first image, which highlighted concentrations of air pollutants, was published on 21 October, showcasing its ability to provide hourly air quality updates. The instrument is expected to be handed over to EUMETSAT for final system commissioning in the second half of 2026. Once fully operational, it will aid national weather services in Europe in delivering timely air pollution warnings and helping safeguard vulnerable citizens.

Exciting progress was made with MTG-I2, the third satellite of the constellation. After key thermal-vacuum chamber tests of the satellite and its Lightning Imager, the solar array and antennas were installed, completing the spacecraft. Further to an agreement with Arianespace, MTG-I2 will now launch as the sole payload on an Ariane 62 launcher, rather than the originally planned shared launch on an Ariane 64. This provides greater flexibility and higher priority for MTG-I2 in Arianespace's launch schedule.

The progress achieved in 2025 with the MTG programme continues to strengthen Europe's resilience to extreme weather. The advanced capabilities of MTG satellites are enabling weather services from EUMETSAT's Member States to better safeguard lives and livelihoods across Europe.



EUMETSAT Polar System – Second Generation

The EUMETSAT Polar System – Second Generation (EPS-SG) is a programme of weather satellites designed to complement the observations of the geostationary Meteosat satellites with data captured from low Earth orbit. While Meteosats scan one region from a fixed point, the Metop Second Generation (Metop-SG) satellites of the EPS-SG programme scan the whole globe and gather more detailed data from a polar orbit around 800km above Earth.

A series of three first-generation Metop satellites have been supplying weather and climate data to EUMETSAT's Member States since 2006. Three successive pairs of second-generation Metop-SGA and Metop-SGB satellites are now being deployed to succeed them and ensure a further two decades of service. This will secure the continuity of data resources vital for Europe's weather services as they face the challenges of disruptive weather events.

A milestone achievement for the EPS-SG programme was the successful launch of its first sounding and imaging satellite, Metop-SGA1, on 13 August 2025. Following years of development, this was a proud moment for all the teams within EUMETSAT, ESA and institutional and industrial partners, all of whom had worked incredibly hard to make it possible. The launch of the first-of-its-kind Metop-SGA1 satellite, on the second ever commercial flight of an Arianespace Ariane 6 rocket, garnered a great deal of interest across EUMETSAT's Member States and globally.

Following initial checks and manoeuvres, Metop-SGA1 was handed over to EUMETSAT's Mission Control Centre on 18 August, which started a gradual switch-on of the satellite's systems and instruments. Metop-SGA1 carries a suite of six instruments that expand and improve on the observational capabilities of its predecessors. One of its instruments is the Copernicus Sentinel-5 UVN spectrometer for measuring atmospheric composition and air quality.

Post-handover, EUMETSAT teams, supported by ESA and industry partners, started to check and prepare Metop-SGA1's sophisticated remote sensing payload. Thanks to their efforts, EUMETSAT was able to start receiving data from two of the instruments less than three weeks after launch.

The provision of initial images from Copernicus Sentinel-5 in November 2025 completed the initial in-orbit checks. The first images from all Metop-SGA1 instruments were received less than five months after lift-off – a highly commendable achievement that demonstrated the extensive collaboration between

By zooming in on METimage's first image, cloud and land surface details can be seen in intricate detail in comparison to its predecessor, with images produced at much higher resolution at 500 metres at nadir in comparison to AVHRR's one-kilometre resolution. As the instrument has more visible channels than AVHRR, it enables the creation of "true colour" red, blue, green (RGB) images.

EUMETSAT teams and multiple instrument partners. The meticulous commissioning process was ongoing at the end of 2025, with further calibration and data validation for each instrument progressing steadily and a stated goal of making the first operational data available within one year of launch.

The launch of the first Metop-SG satellite gives Europe's space-based weather and climate services a significant boost. It ensures the continuation of the work begun by the first-generation Metop satellites, while significantly upgrading their capabilities. Leading-edge technology will deliver a wider range of data with higher quality, resolution and frequency.

The next milestone step for the programme will be the launch of Metop-SGB1, the partner satellite for Metop-SGA1, which will carry a complementary array of instruments into polar orbit to complete the pair's impressive observational capabilities. Metop-SGB1 completed three rounds of pre-launch testing in 2025 and at year end was on track for launch in 2026.

More than half a billion flashes

Lightning Imager details storms like never before

On the night of 4 November 2025, a dangerous autumn storm swept toward the Iberian Peninsula. Meteorologists issued orange weather alerts across most of Portugal as an unusually intense cold front moved in from the Atlantic, bringing torrential rain, powerful winds and exceptional lightning activity: more than 30,000 flashes across Portugal alone, far exceeding typical November storm activity.

"To track lightning, forecasters have so far relied on ground-based sensors that detect radio waves from lightning discharges," said Dr Sven-Erik Enno, a remote sensing scientist who works in the Lightning Imager team at EUMETSAT in Darmstadt, Germany. "While these systems excel at observing cloud-to-ground strikes, they are less effective at detecting cloud lightning, which makes up more than three quarters of all lightning activity, as well as lightning over oceans and remote areas where ground-based systems are sparse or absent."

Since July 2024, the Lightning Imager on board Meteosat-12 has been providing an invaluable new type of data from its geostationary vantage point. In 2025 – the instrument's first full operational year – its four cameras recorded more than 608 million flashes across Europe, Africa, South America and surrounding regions.

More than 30 million flashes were observed over Europe, with the busiest day on 23 September, when the instrument recorded 464,787 flashes. Major European hotspots include the southern Alpine foothills of northern Italy, the Pyrenees, and eastern Spain. While the highest incidences within the instrument's entire field of view are over the Congo River Basin, which alone produced more than 30% of the total annual flashes detected.

Zooming in on storm and lightning structure

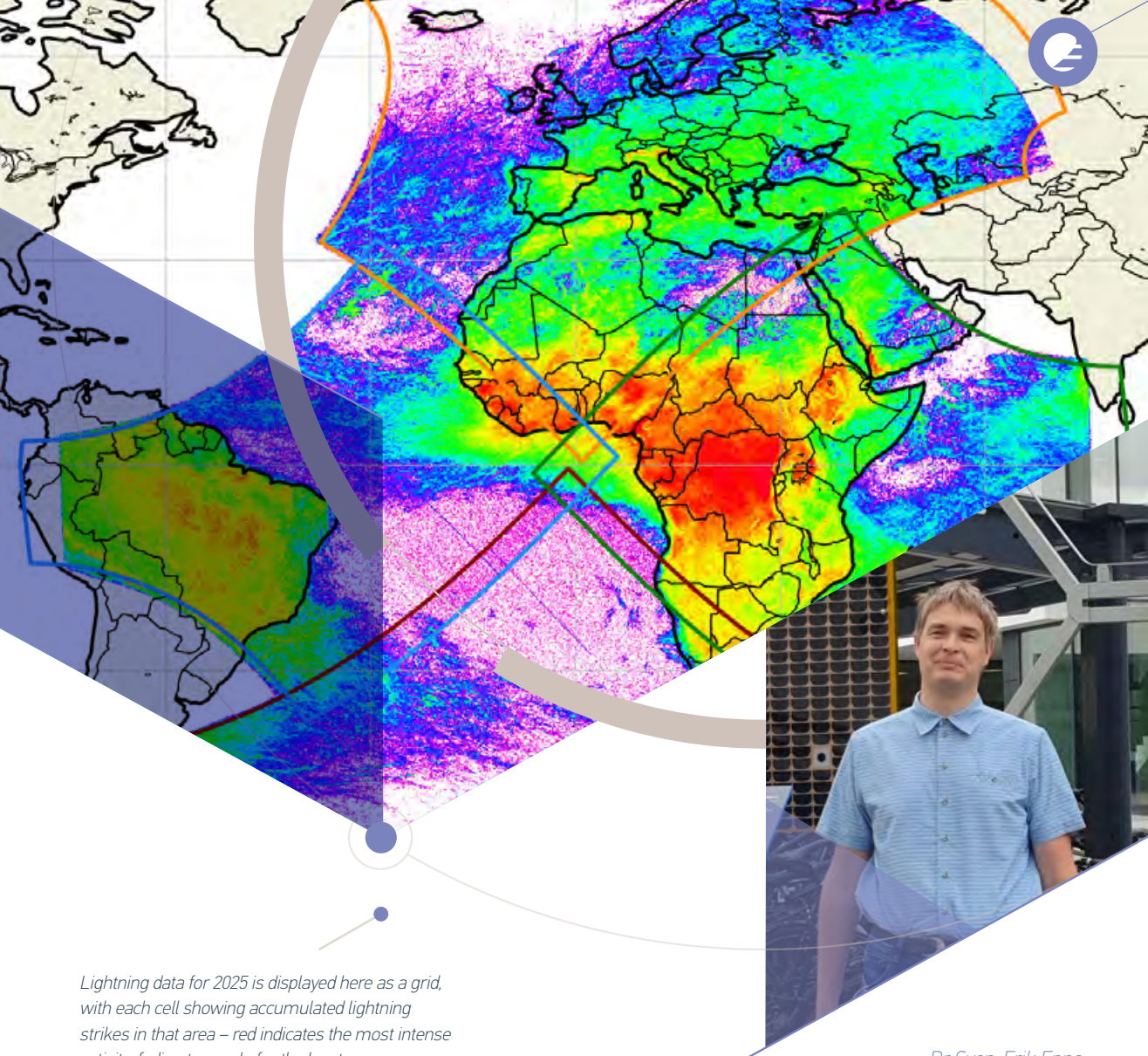
"Because it detects cloud lightning that ground networks often miss, the Lightning Imager reveals the true horizontal extent of total lightning activity in thunderstorms for the first time," Enno explained. "We are seeing that the instrument can outperform ground-based systems even beyond 60 degrees north on the edge of the Arctic Circle, with weather services widely praising the instrument's high performance.

"Lightning Imager data enable forecasters to spot lightning jumps – rapid increases in flash rates signalling that severe weather such as hail and high winds may arrive within 10 to 20 minutes. Data are provided to forecasters in 10 to 30 second chunks, so if a lightning flash occurs somewhere, they can have the data available within one minute or so.

"Having this complete picture is crucial for aviation safety: a pilot seeing reports of isolated strikes tens of kilometres apart might choose to fly, unaware those strikes are part of larger lightning flashes covering the extended area horizontally."

Combined with imagery from Meteosat-12's Flexible Combined Imager, Lightning Imager data can also reveal a storm's life stage and severity.

"When the first data came in from the Lightning Imager, it was amazing to see storm patterns over Europe and Africa that no one had observed from space before," Enno added. "I am proud to be part of an incredible team, ensuring the delivery of data that supports weather institutions in providing services that potentially benefit hundreds of millions of people."



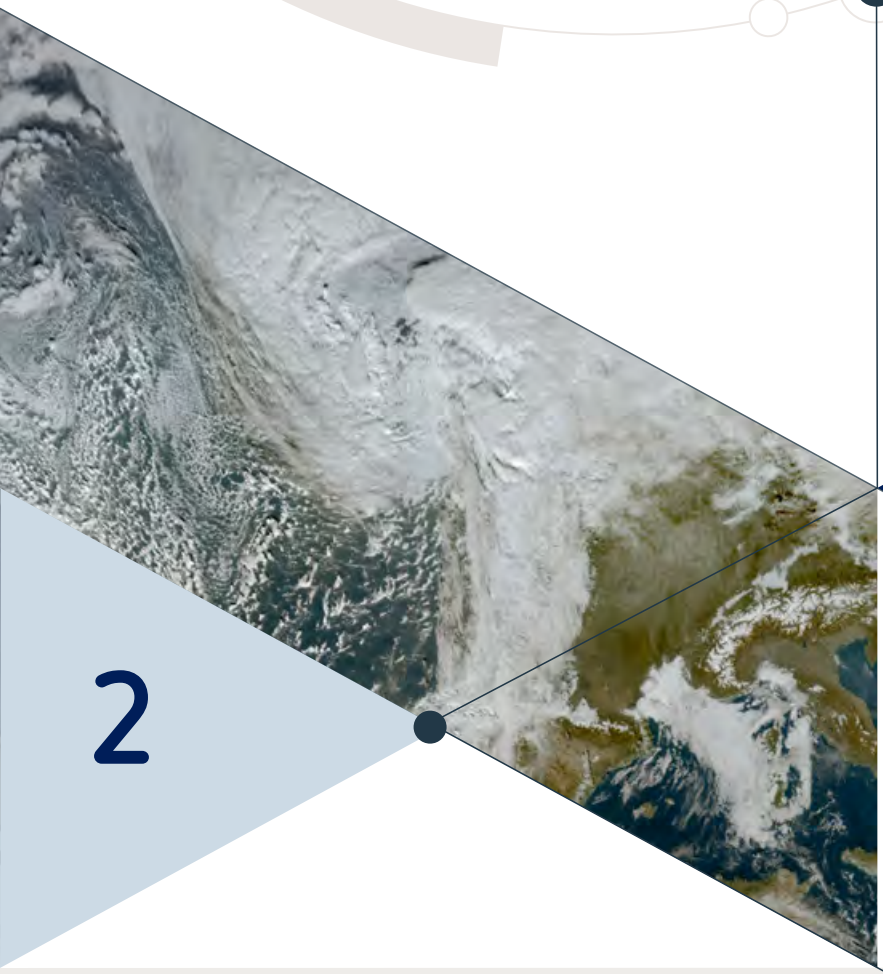
Lightning data for 2025 is displayed here as a grid, with each cell showing accumulated lightning strikes in that area – red indicates the most intense activity, fading to purple for the least.

Dr Sven-Erik Enno
Remote Sensing Scientist, EUMETSAT

> When the first data came in from the LI, it was amazing to see storm patterns over Europe and Africa that no one had observed from space before.

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/more-half-billion-flashes-lightning-detector-details-storms-never



2

Deliver operational services responding to evolving user requirements, based on the continuous infusion of science and cost-effective infrastructures and operations

Satellite operations

The meteorological and hydrological services of EUMETSAT's Member States rely on an uninterrupted stream of high-quality data from our satellites. In 2025, our operations teams celebrated Meteosat-12 – the first of the Meteosat Third Generation (MTG) fleet – becoming the series' lead satellite. The missions of all the other series owned or operated by EUMETSAT performed with exemplary attention to data continuity.

45.5° E

Meteosat-9

Indian Ocean Data Coverage (IODC)

Delivers the EUMETSAT best-effort contribution to the multi-partner IODC services.

Meteosat

Having entered service at the end of 2024, Meteosat-12 became EUMETSAT's primary geostationary satellite on 16 June 2025. It took over the 0° longitude Full Disc Scanning Service (FDSS) from Meteosat-10, while the older, second-generation satellite remained at 0° in a secondary, supporting role. In addition, following a request from the Operations Working Group of EUMETSAT's Scientific and Technical Group, the operational priorities for Meteosat-11 were amended to give the Meteosat Second Generation Full Earth Scan (FES) mission precedence over its Rapid Scan Service (RSS). This meant that, when a Meteosat-10 outage occurred on 11 November, Meteosat-11's RSS was temporarily interrupted so that it could continue the FES service, even though Meteosat-12 was operating nominally.

The phased release of new operational data products from Meteosat-12 continued throughout 2025. A milestone was reached on 16 June when the European Centre for Medium-Range Weather Forecasts (ECMWF) switched over to Meteosat-12 Atmospheric Motion Vector (AMV) products. AMVs provide key information on wind speed and direction and enable the ECMWF to improve numerical weather prediction and the accuracy of forecasts. The assimilation of the Meteosat-12 products into the ECMWF's modelling was a laudable achievement for all the EUMETSAT teams involved in developing products from Flexible Combined Imager (FCI) data.

The Fire Temperature RGB product from the FCI proved to be vital for tracking fire progression and intensity during a grave wildfire outbreak in France, Spain and Portugal in August, while in testbeds organised by EUMETSAT

and the European Severe Storms Laboratory (ESSL), the combination of FCI and Lightning Imager (LI) products was shown to be invaluable for nowcasting convective storms.

Meteosat satellites and the geostationary ground segment performed well throughout 2025, with a good availability of service and minimal outages. Meteosat-12 experienced a brief service interruption on 21 January due to a temporary anomaly with the FCI but had fully recovered by 27 January. There was also an MTG-Africa service outage caused by a planned FCI decontamination procedure from 7 to 8 July. This lasted 45 hours, plus an additional 24 hours to resume delivery of level 2 products. A further anomaly in late July led to a 43-hour lapse of level 1c and level 2 datasets. Meteosat-11's RSS had an issue on 25 July, when 17 scan cycles were lost due to an automatic server reboot. The Meteosat-10 outage on 11 November resulted in a 2.5-hour interruption of the FES before it was resumed using Meteosat-11, with a consequent RSS outage of 26 hours.

The Mission Lifetime Review (MLR) for Meteosat in 2025 confirmed the overall good health of EUMETSAT's fleet of Meteosat satellites, as was established in the conclusions of the 2024 MLR. The 2025 review confirmed the extension of Meteosat-9's operational lifetime to the end of 2028. This ensures the continuity of the Indian Ocean Data Coverage (IODC) service in the event of any delay to MTG-I2 commencing operations following its launch in 2026.

Satellite operations

SSO 98.7° inclination

Metop-C

EPS secondary mission

Delivers additional EPS services from 817km altitude.

SSO 98.7° inclination

Metop-SGA1

EPS second-generation mission

Will provide next-generation services from a sun-synchronous polar orbit at an altitude of 823-848km.

SSO 98.7° inclination

Metop-B

EPS primary mission

Delivers the primary operational EPS services from 817km altitude.

EUMETSAT Polar System

The EUMETSAT Polar System (EPS) is Europe's polar-orbiting meteorological satellite programme. It comprises two operational satellites, Metop-B as the primary and Metop-C as the backup. Metop-B downlinks data twice per orbit for low-latency data delivery.

Service availability and performance for Metop-B and Metop-C were consistently good throughout 2025. The EPS ground segment also performed nominally during the year.

To extend the operational lifetime of Metop-B, the satellite's out-of-plane inclination was successfully adjusted through a series of five manoeuvres performed once a week through September. This contributed to a slight reduction in service availability, but followed the considerations of the Metop Lifetime Review in May, which had detailed how the adjustment would extend operations from 2028 to 2030. As a result, the risk of a service gap before Metop Second Generation A1 (Metop-SGA1) and Metop-SGB1 start delivering operational products was reduced.

An additional manoeuvre to change the phasing of Metop-B relative to Metop-C and Metop-SGA1 began in October 2025. This is scheduled to be completed in 2026 and will enable optimal phasing of Metop-SGA1 to take over the role of lead EPS satellite.

Copernicus Sentinels

The Copernicus Sentinel-3 and Sentinel-6 missions, operated by EUMETSAT on behalf of the the European Union (EU), delivered another year of reliable service in 2025.

NSO 66° inclination

Jason-3

Interleaved orbit

Provides measurements of ocean surface topography and sea state from a non-synchronous, 10-day orbit at 1,336km altitude (mission shared with CNES, NOAA, NASA and the European Commission).

NSO 66° inclination

Copernicus Sentinel-6 Michael Freilich

Reference altimetry mission

Delivers measurements of ocean surface topography and sea state from a non-synchronous, 10-day repeat orbit at 1,336km altitude (mission partners are EUMETSAT, the European Commission, ESA, NASA/JPL and NOAA, with support from CNES).

SSO 98.7° inclination

Copernicus Sentinel-3A

Copernicus Sentinel-3 mission

Delivers Copernicus marine and near-real-time atmospheric data services from 814km altitude.

NSO 66° inclination

Copernicus Sentinel-6B

Altimetry mission (in commissioning)

Will deliver measurements of ocean surface topography and sea state from a non-synchronous 10-day repeat orbit at 1,336km altitude.

SSO 98.7° inclination

Copernicus Sentinel-3B

Copernicus Sentinel-3 mission

Delivers Copernicus marine and near-real-time atmospheric data services from 814km altitude.

Sentinel-3A and Sentinel-3B provided optimum service availability, with the only interruptions due to planned maintenance and two instances of radiation causing transient data anomalies, one in January and one in May. The Sentinel-3 Mission Constellation Review on 25 March concluded that both satellites were in excellent health and likely to exceed their nominal mission lifetime.

Similarly, the Sentinel-3 ground segment performed well, despite some problems in May and July associated with the late delivery of data from external ground station and data processing services. There were additional delays in March owing to a critical failure with the EUMETSAT Data Lake (see p 34).

Sentinel-6 operations ran smoothly through 2025, with service availability impacted solely by scheduled maintenance and system updates, ensuring the continuity of accurate observations of global sea level rise. Ground segment performance was also dependable. In addition, work on the EUMETSAT Mission Operation Component (MOC) was completed in March, ready to support routine operations for Sentinel-6 Michael Freilich and the launch of Sentinel-6B. This second Sentinel-6 satellite launched on 17 November and once operational will take over from Sentinel-6 Michael Freilich as the world's reference mission for satellite-based ocean altimetry.

The latest mission performance review for Sentinel-6 Michael Freilich reported that the satellite is in very good health and is anticipated to remain available for operations well beyond its five-year design lifetime. A further feasibility review on a lifetime extension will be held in the second quarter of 2026.

Satellite operations

Multi-Mission Ground System

In recent years, EUMETSAT has adopted an approach to ground segment development based on the use of Multi-Mission Elements (MMEs), progressively moving towards a multi-mission architecture for operational missions and, where appropriate, for programmes under development. This means that a range of ground system elements, such as computing and IT network infrastructure, processing facilities and core software products, are common across several operational missions and can be readily configured for use by new programmes with minimal adaptation. The benefits of a multi-mission methodology for operational systems and those under development are well recognised. By avoiding the repeated development of similar functions, overall development and operations costs and risks are reduced.

Building on the positive experience gained with MMEs, in 2022 EUMETSAT began formulating a strategic objective to move towards a Multi-Mission Ground System (MMGS) approach, beginning with its conceptual definition, the establishment of a governance structure and defining an implementation plan. EUMETSAT's three technical departments, Operations, Programme Preparation and Development and Technical and Scientific Support, supported by the Administration Department, have since worked together to implement this strategic objective. The aim is to have a solid version of the MMGS ready by the time development starts on the next generation of mandatory programmes, namely Meteosat Fourth Generation and EPS Third Generation. In parallel, the MMGS approach is gradually being adopted and tested by programmes currently in

development and will also be applied to operational missions, including MTG and EPS-SG, as part of the scheduled maintenance and re-engineering cycle.

MMGS implementation is incremental, as many common functions and elements are already in use within operational missions and those in development. In 2025, the teams worked on defining the scope and structure of the first version of the MMGS, along with establishing the implementation governance. In November, implementation roadmaps were presented to the Ground Segment Board for approval, with a response expected in June 2026.

The Multi-Mission IT Computing (MIC) platform is a shared infrastructure component of the MMGS and supports mission operations, development, validation and production environments across EUMETSAT and partner sites. Based on cloud technology, the MIC platform is being implemented in stages, with the ultimate aim of hosting all EUMETSAT ground systems. MIC was expanded to the Madrid and Fucino remote mission control centres during 2025 to improve operational resiliency.

Services to data users

Delivering timely and reliable satellite data to support the operational needs of our Member States and other users worldwide is a fundamental priority for EUMETSAT. MTG was a particular focus in 2025, with the continued release of data and products from the Flexible Combined Imager and Lightning Imager, widespread adoption of Meteosat-12 data, and efforts to increase the readiness for MTG-S1 data within the user community. Our teams also showed great dedication in resolving a severe outage of the EUMETSAT Data Lake infrastructure, minimising its impact on near-real-time data streams.

Online ‘pull’ data access services

The Data Store is a repository for EUMETSAT datasets that users access through a web portal and application programming interfaces. On 17 March 2025, the Data Store experienced a significant service disruption due to severe metadata corruption on the EUMETSAT Data Lake primary storage unit. The service was rapidly switched to its backup storage unit to restore access to near-real-time data from Meteosat, Metop and Copernicus Sentinel-3 and -6, ensuring that operational forecasting from national meteorological and hydrological services, particularly those not able to receive data via EUMETCast, continued without interruption. However, climate data records, reprocessed collections and Satellite Application Facility datasets remained temporarily unavailable, affecting users’ access to longer-term collections.

Engineering teams worked steadfastly on the issue and had resolved the metadata corruption by mid-April, while full service restoration, including climate data records, was achieved by 2 June. The use of backup storage demonstrated the effectiveness of EUMETSAT’s procedures and contingency planning in protecting operational services during critical infrastructure incidents.

EUMETView is a free online service provided by EUMETSAT to enable users to create customised visualisations from satellite data. It makes near-real-time and historical products from Meteosat, Metop and Sentinel-3 more

Attendees of 2025 the Climate Symposium in the Darmstadtium, Darmstadt, Germany, 28-30 October 2025.

accessible, helping to maximise its use for a wide range of users with diverse needs. In 2025, there was a significant increase in the use of EUMETView, more than doubling its user base over the year. There was a strong uptake of MTG data from Meteosat-12, with visualisation layers available via EUMETView derived from the satellite's FCI and LI instruments.

Preparation for MTG-S1

During 2025, EUMETSAT adapted its training support to embrace the Meteosat Third Generation Sounder 1 (MTG-S1) satellite, aiming to prepare users for the advanced capabilities of this leading-edge geostationary satellite prior to it becoming fully operational in 2026. A workshop, held in May at EUMETSAT headquarters, was jointly organised with the European Severe Storms Laboratory and focused on meteorological applications for level 2 products from the Infrared Sounder instrument (see p 76). In EUMETSAT's regular training sessions, information was provided on both the IRS and Copernicus Sentinel-4 Ultraviolet Visible Near-infrared spectrometer, and products from these instruments will be incorporated into application training once the data are available.

EUMETSAT Satellite Application Facilities

EUMETSAT delivers the data that is driving a new era in Earth observation. Fundamental to this evolution is a network of eight Satellite Application Facilities (SAFs) that are an essential part of EUMETSAT's ground segment. Each SAF is geared towards a specific user community and undertakes specialised activities supported by dedicated experts from EUMETSAT's Member States.

Following comprehensive interactions in 2024 and 2025, Member States agreed on a new strategy for SAFs that was approved by the EUMETSAT Council on 1 July 2025. The strategy confirmed the pivotal role of the SAF network within EUMETSAT's operational services and highlighted that the success of SAFs is measured by the value their products bring to services provided by Member States. It also set out additional mechanisms to maintain and extend the relevance of the SAF network.

The SAFs are led by national meteorological and hydrological services that operate and develop services according to a five-year planning and funding framework known as the Continuous Development and Operations Phase (CDOP). As well as planning continuity for everyday operations, the CDOP steers the research and development and product evolution plans of every SAF.

EUMETSAT's new SAF strategy supports preparations for the SAFs next Continuous Development and Operations Phase, CDOP 5. In October, proposals were submitted by the Leading Entities for evaluation. The approval of the CDOP 5 framework is expected to take place in summer 2026.

2025 was a landmark year for EUMETSAT's next-generation satellites and services, underscored by the release, after intense coordination with the MTG Programme teams, of the first operational SAF products based on Meteosat-12 data in July and August. Highlights of SAF product releases and updates in 2025 can be seen on p 37, while other releases can be found in the Appendix.

On 20 January and 1 July, the NWP SAF released new versions of its ATOVS and AVHRR Pre-processing Package (AAPP) for microwave sounder instruments. The AAPP upgrade added support for further meteorological sounders, including the Arctic Weather Satellite. In addition, a major update for the RTTOV radiative transfer model was issued on 10 February and a new version of the RadSim Radiance Simulator software, released on 17 July, incorporated numerous improvements and new features.

The AC SAF made a demonstration version of a new Dust Optical Depth product available on 5 February. Derived from Metop data, it provides a daily update and is disseminated in near-real time via EUMETCast. A new global one-day UV forecast was issued on 23 May. Its local forecast for hourly cloud cover and UV Index values aims to protect human health.

The OSI SAF released a new pre-operational MTG Sea Surface Temperature product once Meteosat-12 had taken over the prime FDSS service at 0° on 16 June. The product maintains continuity with its Meteosat Second Generation predecessor, but takes advantage of the FCI's higher resolution compared with SEVIRI.

The new High Resolution Solar Radiation for Europe (HANNA) dataset was released by the CM SAF as a demonstrator on 16 April. Initially covering 2019-2020, the product is especially focused on solar energy applications.

The NWC SAF released its first MTG-based product on 4 July. NWC GEO Version 2025 is a nowcasting software package for processing MTG-I data into information related to clouds, precipitation, wind, atmospheric stability and turbulence conditions.

On 22 April, the LSA SAF issued Version 3 of its Evapotranspiration and Turbulent Fluxes products, which included algorithm improvements and a data record from 2004 up to near-real time. The Meteosat-12 Land Surface Temperature and Daily Surface Albedo products, the first MTG datasets supplied by the LSA SAF, were made available to users on 14 August.

Two new operational surface soil moisture products, based on Metop scatterometer observations, were released by the H SAF in June and July. These were accompanied by three new products, the first H SAF datasets to be derived from MTG data, released on 14 August. Two were precipitation maps from FCI imagery blended with low-Earth orbit microwave measurements, while the third was an FCI snow detection mask.

Climate services

Climate data records from EUMETSAT lay the foundation for ensuring optimal support of national and European climate services, as well as for developing climate mitigation and adaptation strategies in Member States. EUMETSAT's climate activities in 2025 continued to focus on rescuing heritage data and providing data records of sensor observations and climate variables with high accuracy and minimal latency. We maintained our crucial contribution to the Copernicus Climate Change Service (C3S), implemented by the European Centre for Medium-Range Weather Forecasts on behalf of the European Commission, and our work with global climate bodies helped to maximise the impactful use of space-based observations in climate policy, services and science.

Data records

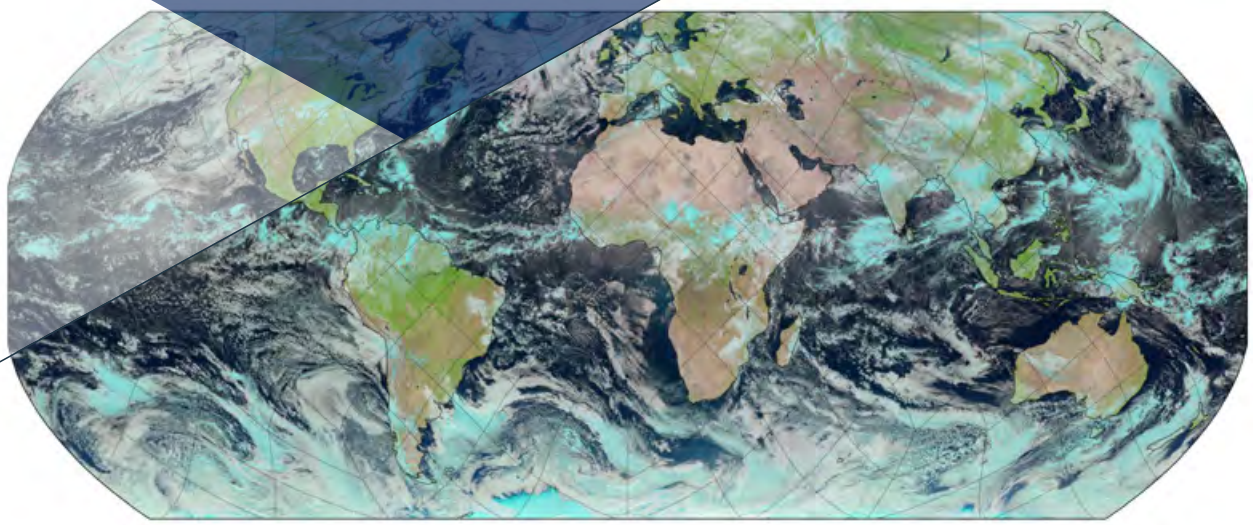
The joint EUMETSAT and US National Oceanic and Atmospheric Administration (NOAA) GEO-Ring project seeks to combine historical measurements since the mid-1970s from all geostationary satellites. The initiative made good progress in 2025 in rescuing data from early US and Indian geostationary satellites (GOES, SMS and INSAT) and also strengthened EUMETSAT's partnerships with participating agencies of the Coordination Group for Meteorological Satellites (CGMS). All components for producing the initial global GEO-Ring dataset were ready by the end of the year, and a six-year test dataset covering 2019-2024 will be released to beta users in early 2026.

During the year, EUMETSAT further enhanced the systematic and timely delivery of high-quality climate data records, utilising satellite observations now spanning up to 50 years. Teams from the headquarters and SAF network released seventeen new climate data records (see the Appendix for a full list), such as a Metop Infrared Atmospheric Sounding Interferometer record and a combined humidity record derived from the Metop Microwave Humidity Sounder and a range of US satellites.

As part of its Copernicus responsibilities, EUMETSAT reprocessed Sentinel-3 and Sentinel-6 data, including from the Poseidon-4 ocean altimeter, the Advanced Microwave Radiometer for humidity and the Ocean and Land Colour Instrument. These data help make the Copernicus State of the Climate reports more accurate and informative each year.

One of EUMETSAT's key climate activities is supporting the global reanalyses of the C3S. We delivered three data records from microwave temperature sounding observations and one from a historical infrared instrument providing temperature observations of the upper troposphere and stratosphere for a period prior to radio occultation. The ECMWF reported that the inclusion of these datasets positively impacted the results of their sixth reanalysis (ERA6). In addition, a first Atmospheric Motion Vector data record, utilising rapid-scan Meteosat Second Generation observations intended for use in future regional reanalyses, was released to the C3S.

EUMETSAT's work on developing an artificial intelligence (AI) joint feature detection working environment (see p 41) included exploring its use for detecting meteorological features such as tropical cyclones and mesoscale storms in climate data records.



An example of a GEO-Ring false-colour composite image, combining three channels from geostationary satellites operated by the USA's National Oceanic and Atmospheric Administration (GOES-16 and GOES-18), EUMETSAT (Meteosat-8 and Meteosat-12), and the Japan Meteorological Administration (Himawari-8). The data are resampled onto a common equal-area grid (HEALPix, with 5 km² cells). The dark lines illustrate the structure of this grid.

Global collaboration and user engagement

EUMETSAT once again played a key role in the CGMS and the Committee on Earth Observation Satellites (CEOS) Working Group on Climate in 2025, coordinating the availability of climate data records. We released a new version of the CEOS Climate Data Record Inventory, which provides an enhanced user experience for discovering climate data for applications, and continued to contribute to the Global Climate Observing System hosted by the World Meteorological Organization. Core projects of the World Climate Research Programme, such as the Earth System Modelling and Observations project, were also supported.

A major highlight of 2025 was the EUMETSAT Climate Symposium, 'From Space to Climate Services: Co-creation in Action', held in late October in Darmstadt, Germany. The event brought together over 160 participants from the majority of EUMETSAT Member States and beyond, and was aimed at enhancing the communication between the policy sector, climate services and the research community. Discussions centred around information and data needs, strengthening the connection between research and operations, and advancing climate computing infrastructure through AI and machine learning (ML). The outcomes of the symposium will inform EUMETSAT's updated strategy 2040, as well as future climate product evolution.

Significant progress was achieved in developing the Climate Anomaly and Normals (CAN) service in collaboration with the SAF network and C3S. A key milestone was the release of the first prototype of the CAN web tool, with a more comprehensive version planned for 2026. Throughout 2025, EUMETSAT published several climate use cases illustrating the deployment of our climate data records in applications and science. Topics covered included tracking forest growth, ocean temperature and marine cloud cover, and matching climate data with applications.

Technology infrastructure building

EUMETSAT maintains an unwavering focus on building a secure, reliable and accessible archive of meteorological data resources. To ensure continuity of these critical services to Member States, and to meet the challenges of increasing demand and ever-growing data volumes, EUMETSAT made major steps in 2025 towards augmenting its technology infrastructure and strategically increasing data storage capacity.

EUMETSAT operates its own on-site data centre at its headquarters in Darmstadt. This state-of-the-art facility, known as the Technological Infrastructure Building (TIB), was designed to bring all Darmstadt-based computing facilities together under one roof. However, EUMETSAT's data capacity requirements have since grown significantly. This has been due to expanding satellite programmes, more advanced satellite instruments capturing more frequent and higher resolution data, a growing archive of climate and meteorological records, and the additional capacity required to host artificial intelligence and machine learning tools.

In line with its forward-looking Destination 2030 strategy, EUMETSAT has been continuously monitoring storage requirements and seeking to evolve to meet growing user needs. In 2023, capacity issues were identified with the current TIB, leading to the decision to expand the digital infrastructure through the flexible and scalable solution of an external third-party data centre. In May 2025, the new Equinix Frankfurt CoLo facility space was handed over to EUMETSAT. Overseen by EUMETSAT's TIB team, work began on installing the hardware and systems, while maintaining a seamless integration with facilities at headquarters.

At the close of 2025, the standard EUMETSAT Computer and Data Technology environments were installed and fully configured for the CoLo facility. Together with the network connectivity back to Darmstadt, the full functionality of the combined CoLo and TIB datacentre environments will complete acceptance testing in the first quarter of 2026, with operational service planned for the second quarter.

Artificial intelligence and machine learning

From the outset of the AI/ML revolution, EUMETSAT has played a leading role in exploring how these new tools can advance operational meteorology and enable new and more powerful ways to derive maximum value from satellite datasets. Working closely with its European partners, EUMETSAT has put considerable effort into data curation, aiming to ensure that data from its satellites will be ready for the transformational possibilities that AI and ML afford.

In 2025, EUMETSAT continued to support EUMETNET's programme on Artificial Intelligence and Machine Learning for Weather, Climate, and Environmental Applications (E-AI). This five-year initiative launched in 2024 and brings together experts from EUMETNET, EUMETSAT and European meteorological services to collaborate on furthering the use of AI and ML for weather, climate and environmental applications.

Within the E-AI programme, EUMETSAT leads on data curation and formulating processes to create reliable AI-ready datasets from satellite observations. An additional focus for EUMETSAT in this context is establishing the infrastructure to provide users with easy access to curated training datasets. Throughout 2025, EUMETSAT experts made good progress on this crucial preparatory work, which will underpin the development of ML-powered nowcasting systems and other predictive tools.

In January, EUMETSAT made an AI-ready SEVIRI-OPERA dataset available to European Weather Cloud users. Developed in partnership with Spain's national meteorological agency AEMET, this dataset combines rapid-scan data from the Meteosat Second Generation Spinning Enhanced Visible and Infrared Imager instrument with data from Europe's weather radar network and covers the period from 2018 to 2023. In June, this dataset was updated with the addition of ground-based lightning observations and proved highly useful for ML training during the latter part of the year. An activity to curate Flexible Combined Imager, and Lightning Imager data was also initiated in 2025 and will be finalised in 2026.

In May, EUMETSAT hosted an Earth System Feature Detection workshop, bringing together around 50 participants who worked together to produce a technical and collaborative roadmap for AI-based Earth monitoring.

A number of AI-related projects were carried out in 2025 as part of EUMETSAT's work on the Destination Earth Data Lake (see p 49). For internal processes, EUMETSAT progressed AI use case studies in the areas of software coding assistants, knowledge management, operations and data exploration enhancement.

These developments align with EUMETSAT's AI/ML Roadmap (2023-2025), approved by the 101st EUMETSAT Council meeting, together with the organisation's participation in and support to EUMETNET E-AI, endorsed by the 105th Council.

EUMETSAT Fellowship Programme

Established by the EUMETSAT Council in 1989, the EUMETSAT Research Fellowship Programme supports early career scientists from its Member States in pursuing relevant research. Typical research topics include applications for satellite data, numerical weather prediction, and climate and environmental monitoring. The 2025 call for proposals followed a review and a framework update to boost Member State engagement.

The fields of meteorology, climatology and hydrology have changed significantly since 1989, necessitating a review of the EUMETSAT Fellowship Programme's framework to bring it in line with current strategic priorities and projected expertise requirements. Following a comprehensive survey among Member States, the value of the programme to EUMETSAT and the wider European meteorological community was affirmed. However, several barriers that restricted uptake were also identified.

A meeting of the EUMETSAT Science Working Group of the Scientific and Technical Group (STG-SWG) resulted in suggestions on how to improve the programme's efficiency and attractiveness. A further identified goal was to align the programme more closely with key EUMETSAT priorities, such as developing its SAF network and innovation activities, as well as building expertise in emerging fields including AI/ML. The draft proposal is scheduled to be discussed by STG-SWG in early 2026, with a view to presenting it for consideration by the EUMETSAT Council in December of the same year.

EUMETSAT Fellowship Programme Survey

How beneficial do you perceive the EUMETSAT Fellowship Programme to be for your institution and the broader community?

Very Beneficial | 11 | 55%

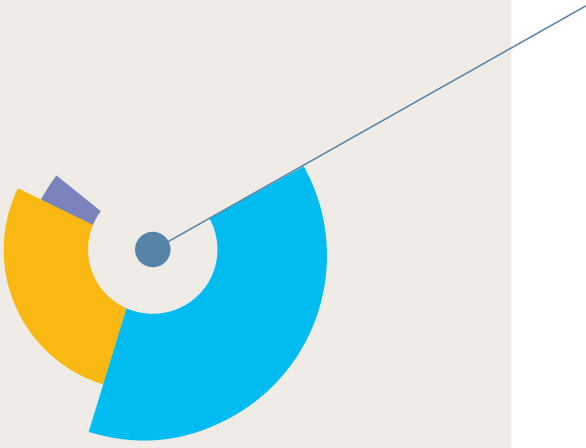
Somewhat Beneficial | 8 | 40%

Neutral | 1 | 5%

Somewhat unbeneficial | 0 | 0%

Not beneficial at all | 0 | 0%

No Answer | 0 | 0%



What are the primary barriers to effective participation in the fellowship programme?

Administrative complexities | 16 | 80%

Communication gaps | 3 | 15%

Financial constraints | 5 | 25%

Recruitment challenges | 15 | 75%

Integration issues | 1 | 5%

No Answer | 0 | 0%

Please select among the following administrative challenges the most relevant you've encountered in managing fellows?

Homogenisation with EUMETSAT regulation | 5 | 25%

The 1+2 years structure | 9 | 45%

Administrative burden at your organisation level | 11 | 55%

No Answer | 0 | 0%

Science on a mission

Dr Bojan Bojkov reflects on how science and innovation shape EUMETSAT's satellite programmes

When Iceland's Eyjafjallajökull volcano erupted in April 2010, it grounded planes across Europe. Among those stranded was Dr Bojan Bojkov.

"Meteorological satellite data were used to monitor the Eyjafjallajökull eruption and inform decisions about grounding planes, but ash clouds move quickly and can be hard to distinguish from other cloud types – especially in fast-moving weather," says Bojkov, head of EUMETSAT's Remote Sensing and Products Division. "The event underscored the need for more detailed data products to track eruptions more effectively and better support aviation safety."

The following year, researchers used Infrared Atmospheric Sounding Interferometer data from EUMETSAT's Metop satellites to track sulphur dioxide plumes from eruptions as they spread globally. "That sparked the idea to combine data from several Metop instruments to track aerosols and gases more effectively," says Bojkov. "This is a perfect example of how integrating science into operations can lead to uses beyond an instrument's original design."

Today, the resulting Polar Multi-Sensor Aerosol Optical Properties product (PMAp) is a key tool for mapping volcanic ash, dust, biomass burning and pollution, with updated products being prepared to utilise data from Metop Second Generation spacecraft.

Bojkov's team is responsible for the science at almost every stage of EUMETSAT's satellite programmes, guided by a strategic framework of product-themed roadmaps. Eleven are currently active, covering areas such as aerosols, winds, cloud products, marine applications and greenhouse gases.

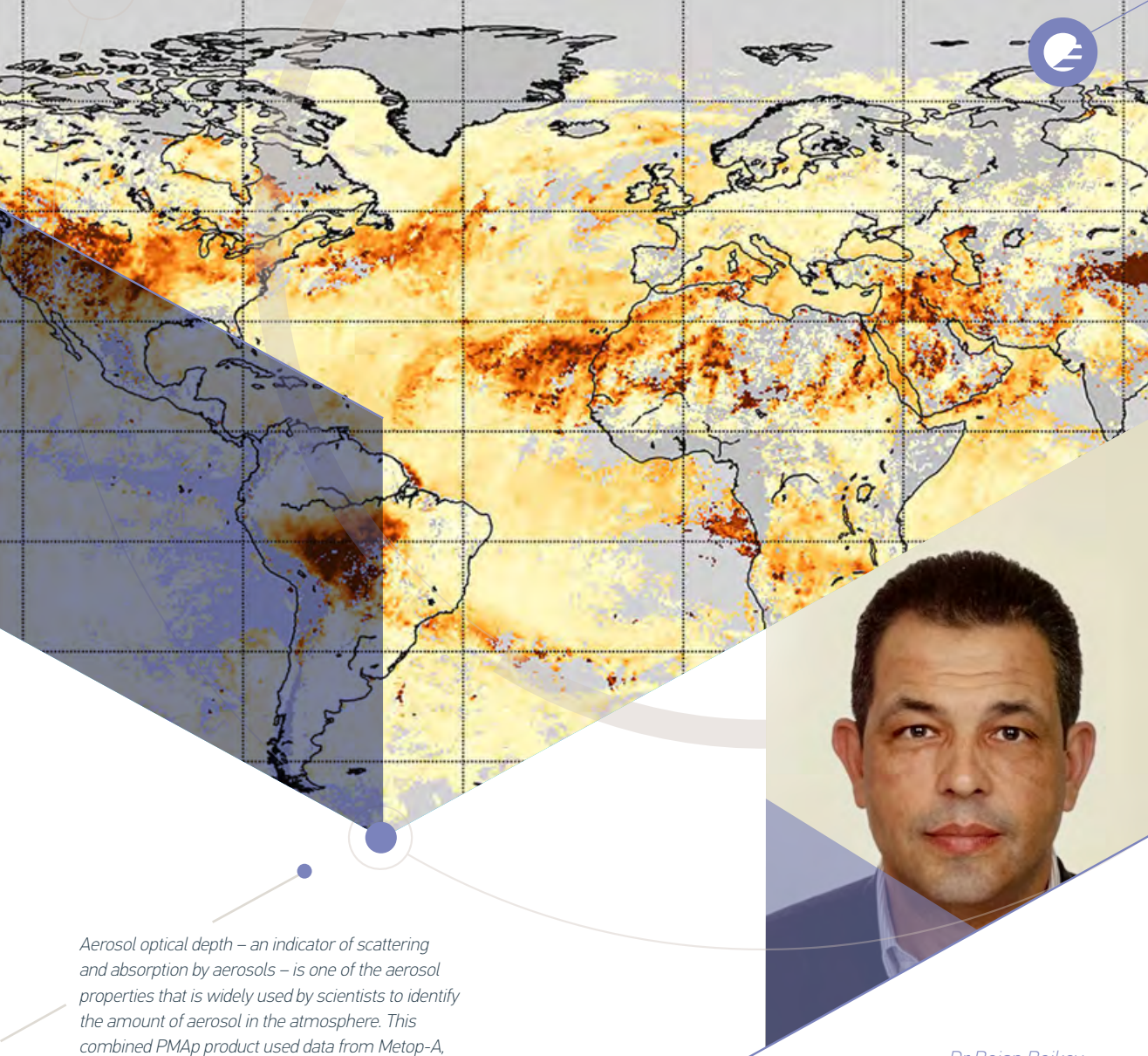
"Investing in the science that turns satellite data into tangible benefits is vital – whether that means earlier warnings of severe weather, more accurate forecasts, air quality monitoring, or tracking volcanic eruptions, dust storms and climate change," Bojkov says.

"In practice, this has led to a range of applications," he continues. "Aerosol data products that support air quality forecasts and climate modelling. Ocean products that provide wind speeds and sea surface temperatures for coastal risk assessments. Reference measurements that underpin calibration and validation. And data from microwave sensors that are used to track sea ice extent and snow depth."

The roadmaps are not just about defining priorities – they also help drive innovation, pushing satellite data into new areas of application.

"Near-real-time imagery from EUMETSAT's Meteosat satellites is essential for nowcasting severe weather," he says. "But storm tracking typically begins only once clouds have already formed. Scientists are exploring ways to detect earlier signs of instability by combining imagery with data from the upcoming Meteosat Third Generation Sounder, which will provide data relevant for measuring temperature and humidity near the surface.

"We are entering a period where we have to juggle a lot at once," Bojkov adds. "On one hand, we're ensuring the success of flagship programmes like Meteosat Third Generation and the EUMETSAT Polar System – Second Generation, while preparing for completely new programmes such as the Copernicus Anthropogenic Carbon Dioxide Monitoring mission.



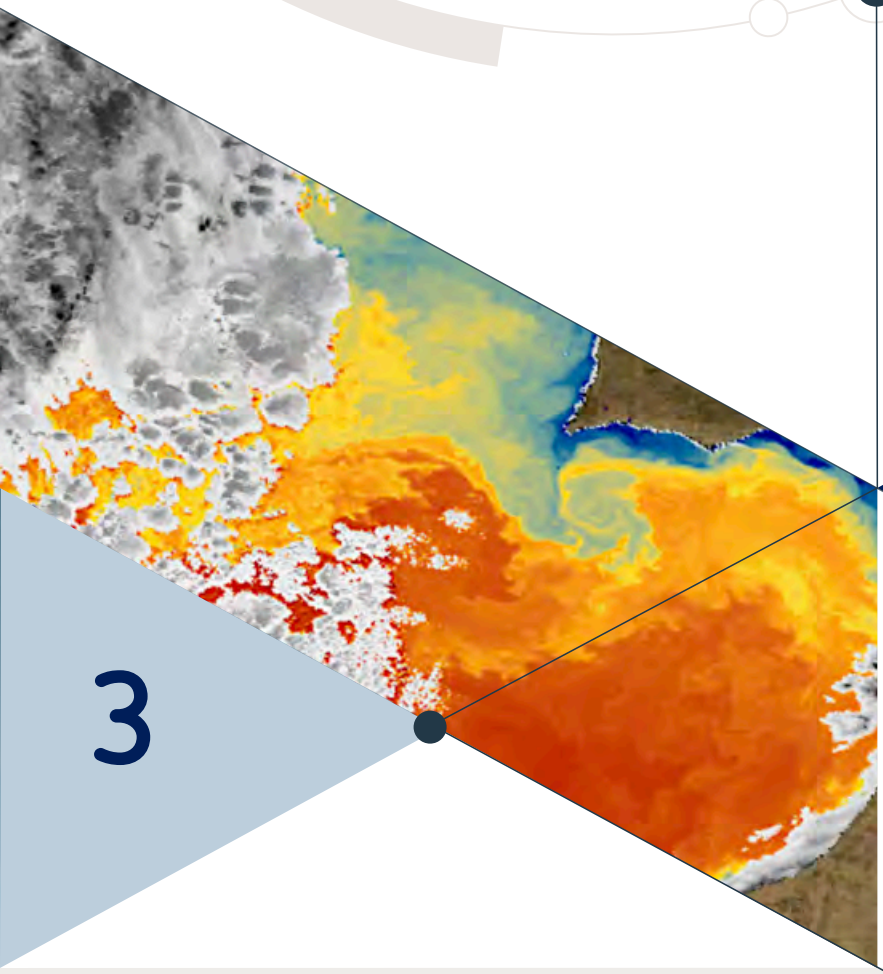
Aerosol optical depth – an indicator of scattering and absorption by aerosols – is one of the aerosol properties that is widely used by scientists to identify the amount of aerosol in the atmosphere. This combined PMAp product used data from Metop-A, B and C in September 2020, during a high dust transport event from Africa towards the Caribbean, wildfire smoke from western US reaching the North Atlantic, and Amazonia fires in Brazil.

Dr Bojan Bojkov
Head of the Remote Sensing and Products Division, EUMETSAT

> Everything we do is guided by what our users need – and then we get to figure out how to make it even better with the technology we have.

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/science-mission



3

Establish and exploit a federative European Weather Cloud infrastructure in partnership with the ECMWF and European national meteorological and hydrological services

EUMETSAT remains at the forefront of advances in cloud infrastructure and artificial-intelligence-ready data environments for meteorological applications. By collaborating with partner entities on initiatives such as the European Weather Cloud and the European Union's WEkEO and Destination Earth, EUMETSAT affirms its commitment to European programmes and delivers tangible benefits to Member States.

European Weather Cloud

The European Weather Cloud (EWC), operated jointly by EUMETSAT and the European Centre for Medium-Range Weather Forecasts (ECMWF), provides a collaborative platform for developing and operating meteorological applications across the European Meteorological Infrastructure.

Launched in 2023, the EWC saw user adoption rise to 200 active tenancies in 2025. EUMETSAT and the ECMWF accepted three EUMETNET projects – E-SOH, OPERA and MeteoGate – for implementation on the EWC, with the first tenancies successfully in place by year end. The EWC Community Hub, launched in September, fosters cooperation in research and application development.

EUMETSAT and its Member States also created a collaborative artificial-intelligence-based Earth system feature detection environment on the EWC In 2025, including tools for data preparation, annotation and visualisation, alongside a shared Earth System Feature Database. The annotation platform, Label Studio, went live, and a study on feature characterisation in climate data records was initiated to support information data records and new applications.

Capacity was extended to 5,936 cores, 46TB of RAM and 5.8PB of storage. In addition, the infrastructure comprised 371 virtual GPUs, used for artificial intelligence/machine learning (AI/ML) activities. A major upgrade was initiated, shifting to a hybrid cloud architecture to enhance resilience and flexibility, with migration planned for 2026. The upgrade will support newer GPU models and flexible AI/ML workloads whilst maintaining service continuity, including 24/7 support for time-critical applications.

WEkEO

Launched in 2018, the European Union Copernicus Data and Information Access Service for environmental data, virtual processing environments and skilled user support (WEkEO) is jointly developed by EUMETSAT, the ECMWF, the European Environment Agency and Mercator Ocean International. In 2025, WEkEO operated with around 39,000 registered users, offering federated access to over 100PB of Copernicus data. In January, a new web portal was published, improving WEkEO's visual identity as a Copernicus Data Access Service.

EUMETSAT ran three cloud-optimised machine learning use case studies, all based on Copernicus Sentinel data. The first monitored coastal water quality, focusing on harmful algal blooms, marine heatwaves and nutrient discharges, while the second detected and quantified changes in water bodies across various temporal and spatial scales. The third use case mapped wildfire occurrence and atmospheric impacts.

© Adobe Stock

Destination Earth

Destination Earth (DestinE) is the European Commission's initiative to build highly accurate digital twins of Earth. DestinE is implemented by EUMETSAT, the European Space Agency (ESA) and the ECMWF, with EUMETSAT responsible for the Data Lake. In 2025, EUMETSAT's focus moved to further enhancing Data Lake services, including AI support and related tools for Edge Service users. The Data Lake reached full production-level status, with all infrastructure, services, tools and processes deployed, user onboarding established and content aligned with the Data Portfolio.

In November, the EUMETSAT Council gave the go-ahead for the organisation's participation in Phase Three of DestinE. The main priorities for EUMETSAT in Phase Three are the continuation and maturing of Data Lake operations, reassessing and preparing for the future, and focusing on fostering institutional user uptake of DestinE. This will be complemented with further incremental enhancements of the Data Lake and its services, in particular in support of AI activities in the context of DestinE and the emerging European AI factories. The planned improvements will prepare for the further evolution of DestinE and AI-related activities, planned as part of the next EU Multiannual Financial Framework.

Digital data service strategy

Following the strategic principles approved by the EUMETSAT Council in December 2024, the organisation drafted its Digital Data Services Strategy in 2025, as an input to the updated EUMETSAT Strategy 2040, alongside discussions on a potential European Data Space for Meteorology. Progress was made through workshops co-organised with the ECMWF, EUMETNET and Member States. A September workshop discussed the evolution of EUMETSAT's data services portfolio, examining its scope, content and composition in the context of the emerging strategy. In November, a final workshop with Member States determined the draft scope, purpose and objectives of the new strategy, encompassing data services, the European Data Space for Meteorology, AI activities under the E-AI initiative and the EWC. The draft will be finalised in the first quarter of 2026 for submission to the spring EUMETSAT Policy Advisory Committee and Council.

Europe's hottest year signals deepening climate crisis

2024 European State of the Climate report warns of a continent heating much faster than global average and rising risks of extreme weather

In a year marked by stark contrasts in weather across Europe, one fact stood out: 2024 was the hottest year ever recorded, both globally and across the continent.

Unprecedented average land and ocean temperatures were accompanied by a near-record number of heat stress days and a record number of frost-free days. These findings were detailed in the European State of the Climate report, published by the European Union's Copernicus Climate Change Service (C3S) – implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF) – together with the World Meteorological Organization (WMO).

The report draws on contributions from more than a hundred scientists and organisations, including extensive satellite data from EUMETSAT's programmes and contributions from EUMETSAT's Satellite Application Facilities. These include direct observations by sensors on board EUMETSAT satellites and data records of essential climate variables and, indirectly, through their use in ECMWF reanalyses.

2024 marked the first time the global annual average temperature exceeded 1.5°C above pre-industrial levels. Europe is heating even more rapidly than the global average, with temperatures during the past five years averaging around 2.4°C above pre-industrial levels.

Ocean temperatures mirrored the extremes on land, with the Mediterranean experiencing its warmest year on record. Combined with extreme heat on land, hotter ocean temperatures contributed to accelerated ice loss and pushed global sea levels to their highest point in the modern record.

"Climate change indicators such as ocean heat and acidification, sea level rise, and sea ice loss are alarming and have major implications for every single continent – including Europe," said Professor Celeste Saulo, Secretary-General of the WMO. "Every fraction of a degree matters – in terms of risks to our economies, disruptions to our societies, damage to our ecosystems, and threats to our children and grandchildren."

The report highlighted sharp contrasts across Europe in 2024. Eastern regions experienced prolonged heat and drought, including the longest and second-most severe heatwave on record in Southeast Europe. Central and Western Europe faced storms and flash floods, including devastating flooding in Spain and widespread impacts of Storm Boris.

"It's estimated that at least 335 lives were lost in Europe last year due to storms and flooding, with over 400,000 people affected, and a further 42,000 impacted by wildfires," said Dr Samantha Burgess, Deputy Director of C3S. "These extreme events led to an estimated €18 billion of damages – 85% of which was attributed to flooding."

One positive was that the proportion of energy produced by renewable sources rose to a record 45%, while the report also discusses science policy and action.

"Impacts such as heat stress depend not only on temperature, but also other parameters like wind and humidity," said Dr Florence Rabier, Director-General of the ECMWF. "This science and data highlight the urgent need to build greater resilience and preparedness."

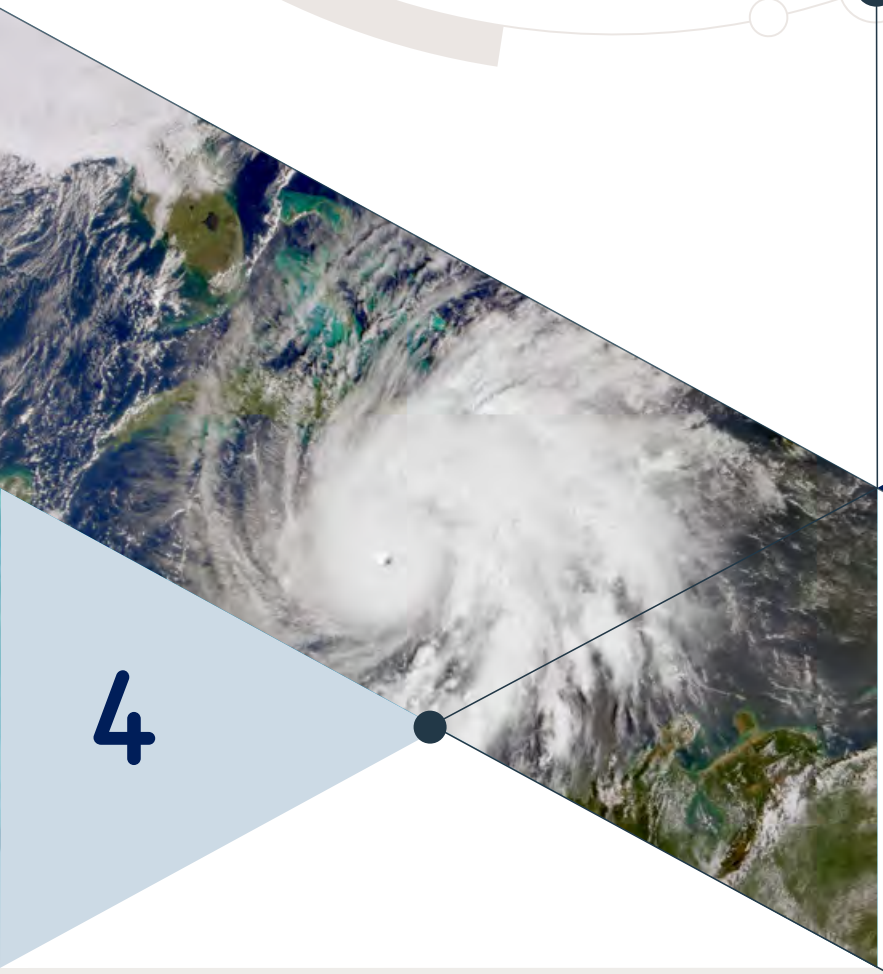
Copernicus Climate Change Service (C3S), implemented by ECMWF and World Meteorological Organization (WMO), 2025: European State of the Climate 2024, ***climate.copernicus.eu/ESOTC/2024, doi.org/10.24381/14j9-s541***

Dr Samantha Burgess
Strategic Lead for Climate, ECMWF
Photo credit: ECMWF

> These extreme events led to an estimated €18 billion of damages – 85% of which was attributed to flooding.

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/europes-hottest-year-signals-deepening-climate-crisis



4

Consolidate EUMETSAT's contribution to the realisation of the Vision 2040 of the WMO integrated Global Observing System and plan future satellite systems

EUMETSAT is committed to maximising the impact of its observational data through close alignment with the World Meteorological Organization's (WMO) Integrated Global Observing System (WIGOS) Vision 2040. This commitment drives our exploration of innovative approaches, including small satellite constellations and commercial data procurement, which enable agile development and faster delivery of capabilities to Member States. Throughout 2025, EUMETSAT progressed key programmes and partnerships that will underpin the organisation's contribution to worldwide weather and climate monitoring through to 2040 and beyond.

EUMETSAT Polar System – Sterna

The EUMETSAT Polar System – Sterna (EPS-Sterna) had secured approval from 29 of EUMETSAT's 30 Member States by the end of 2025 as a mandatory mission. EPS-Sterna will operate until 2042, with the first six polar-orbiting microsatellites of the constellation launching in 2029. Twenty satellites will launch over the programme's lifetime to maintain continuous microwave measurements of atmospheric temperature, humidity and clouds at unprecedented frequency, addressing critical gaps in the global observing system.

EPS-Sterna builds on technology demonstrated by the European Space Agency's (ESA) Arctic Weather Satellite, which has been successfully collecting data since August 2024. These data are already being assimilated by national meteorological and hydrological services in EUMETSAT Member States, confirming the anticipated benefits of this compact satellite platform.

The strategic importance of EPS-Sterna was reinforced in June 2025 when the USA ceased operations of three legacy satellites carrying microwave sounder instruments, significantly reducing the robustness of international weather and environmental monitoring.

Impact studies demonstrate that EPS-Sterna will reduce forecast error by up to 6% across EUMETSAT Member States and as much as 9% in the Arctic region. The mission will prove particularly valuable for predicting severe weather in sensitive areas such as the Mediterranean and for addressing critical data gaps over the Arctic. The northern polar region is the fastest-heating area on Earth and is where many weather systems affecting Europe originate or intensify.

EUMETSAT Polar System – Aeolus

Building on the success of ESA's Aeolus Earth Explorer mission, the EUMETSAT Polar System – Aeolus (EPS-Aeolus) would provide operational wind profile measurements from ground level to altitudes of 30-40km. The mission concept relies on an ultraviolet laser system that determines wind vectors by detecting the Doppler shift in backscattered light pulses.

In 2025, some Member States expressed concerns relating to the affordability of EPS-Aeolus. In response, EUMETSAT, with the support of ESA, will report back to Member States in 2026 with a proposed rescoped programme that seeks to maintain the performance targets and operational capabilities while reducing overall costs.

Future EUMETSAT Altimetry programme

EUMETSAT advanced preparations for its future Altimetry programme during 2025. In March, the organisation presented a comprehensive study on the benefits of altimetry for Member States, demonstrating the value of these missions for the meteorological community.

Artist's impression of the EPS-Sterna constellation in orbit.

The programme encompasses the continuation of the Sentinel-6 and Sentinel-3 Next Generation A and B Topography Copernicus missions. Together, these would extend currently operational sea level observations from Sentinel-6 and Sentinel-3 for approximately 15 years, providing unprecedented spatio-temporal observations of oceans and inland waters to facilitate new water resource monitoring applications. However, following the decision of the European Commission (EC) in December not to procure a recurrent Sentinel-6C satellite, EUMETSAT will work with ESA and the EC to propose a way forward that will reduce the risk of discontinuity of observations after Sentinel-6B. This proposal should be approved in 2026 and serve as a new basis for the EUMETSAT Altimetry programme.

Throughout 2025, Phase B activities for these next-generation Sentinel missions progressed. EUMETSAT worked towards the System Requirements Review, while ESA moved forward with procurement preparations for all satellites. At the close of the year, the EUMETSAT Secretariat was preparing a draft programme proposal for presentation to Member States in summer 2026.

New business models

During 2025, EUMETSAT continued monitoring the development of the European market for commercial Earth observation data relevant to meteorology procurement, within the context of a nascent European commercial offering. The current focus is on radio occultation, but future data on offer might also include microwave sounder, hyperspectral microwave sounder, microwave imager, scatterometer and radar observations.

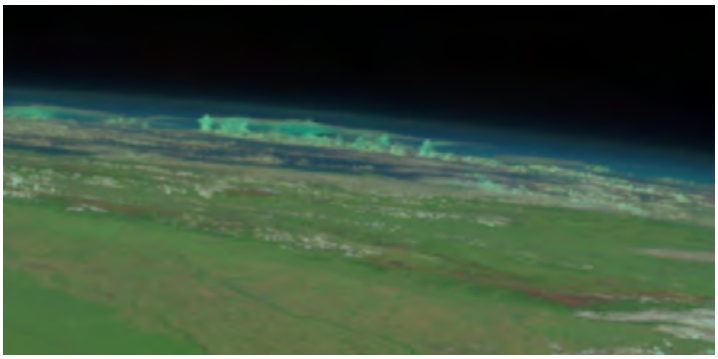
On 10 June, EUMETSAT organised its first Information Day for industry, marking a significant step in building relationships with strategic suppliers. Attracting 90 on-site participants and 40 online attendees, the event presented EUMETSAT's technology roadmap and outlook for potential procurement opportunities. The session generated substantial engagement and positive feedback from industry representatives.

Our precious atmosphere

The atmosphere sustains life in many ways. If the planet were shrunk to the size of an apple, the atmosphere would be no more than the thickness of its skin.

It is within just a sliver of this skin – the atmosphere's lowest layer – that most weather events occur. Stretching from sea level up to 10-15km above, the troposphere is also where the planet's life-sustaining gases are the densest.

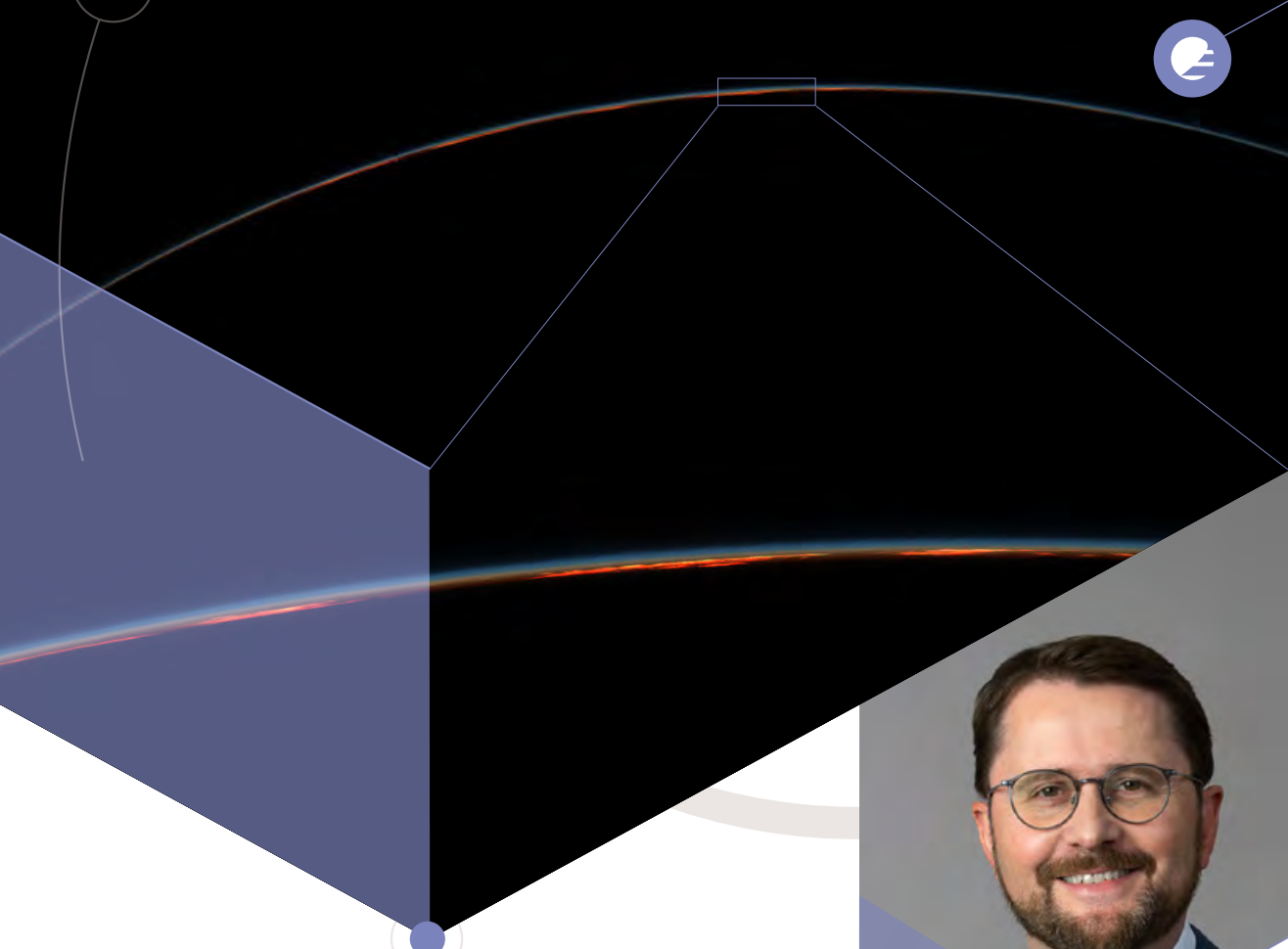
When the Flexible Combined Imager on board Meteosat-12 scans the Earth, its view of the edge of the visible disc is slanted. The raw data, not usually seen by users, captures a side view of the troposphere, illuminating features of this crucial layer of the atmosphere.



In these images from 25 January 2025, a wide, deep convective system (centre, at the edge of the Earth disc) can be seen above Costa Rica. The colours in the image on the left are a red, green, and blue composite as though seen by the naked eye.

In the middle, a different red-green-blue composite image makes it possible to distinguish clouds made from ice crystals (in cyan) from clouds composed of water droplets (in white). The top of this cloud marks the top of the troposphere, which, at 10 to 12km above the Earth's surface, is just about the maximum altitude at which weather events form.

In the bottom image the horizontal grey band depicts the ozone layer. Located in the lower stratosphere 20-25km above the surface, the ozone layer absorbs between 97-99% of the sun's damaging ultraviolet B radiation. These rays harm humans, other animals, and plants. Continued monitoring of the ozone layer is essential for identifying and stopping any further anthropogenic depletion.



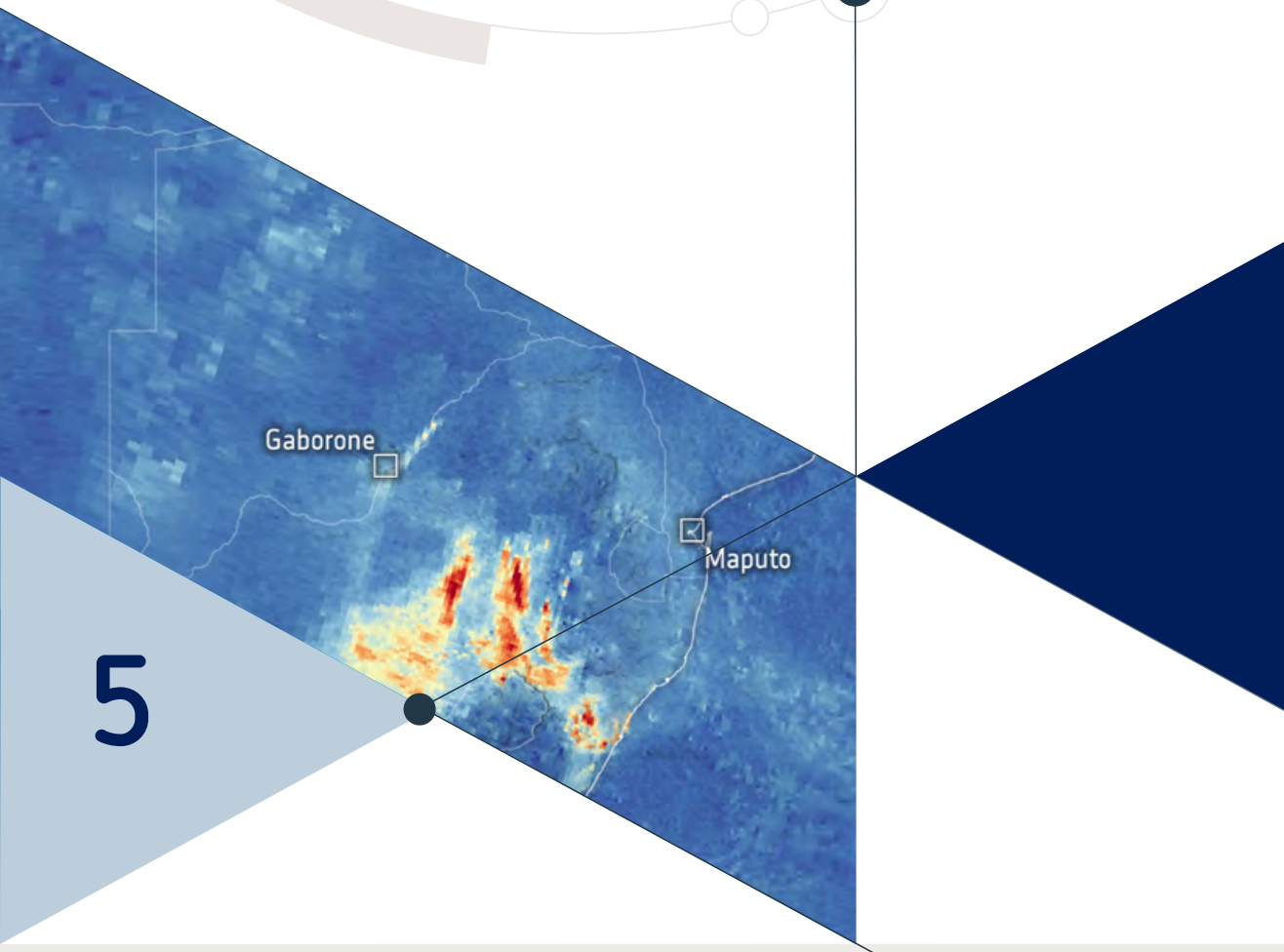
In these images from the autumnal equinox on 22 September 2024, the sun has just set behind the Earth. The beautiful sunset colours, topped with blue sky, make visible the varying density of the troposphere. Because it is densest lower down, there are more air molecules for sunlight to hit as it travels. In addition, the low angle of the sun at sunset causes light to travel further than it does when directly overhead, also contributing to it hitting more air molecules along its path. This results in the scattering of the shortest wavelength of light – blue – lower in the troposphere, leaving the longer wavelength light – red, orange, and yellow – to pass through. Higher up, the troposphere appears blue because more blue light passes through. Please note, too, the thinness of the troposphere, so essential for our existence.

Joachim Saalmüller
Head of User Support and Climate Services, EUMETSAT

"The life-sustaining atmosphere around earth is much thinner and more vulnerable than most people believe. The limb imagery is a powerful tool to raise the necessary public awareness related to protecting our atmosphere from harmful human-induced emissions."

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/our-precious-atmosphere



5

As a partner of the Space Strategy for Europe, deliver Copernicus ocean and atmospheric composition monitoring missions and contribute to collaborative research and innovation projects for the common benefit of EUMETSAT and European Union Member States

Space Strategy for Europe

EUMETSAT is at the heart of European collaboration and works to evolve new strategic priorities with our European partners to address geopolitical challenges. We promote international cooperation and foster innovation and research to develop Europe's next generation of space services.

Strategic review

EUMETSAT's strategy, Destination 2030, sets out the scope and direction of its activities, and the organisation actively reviews these future goals against the current and evolving needs of Member States and users. With an update to the EUMETSAT strategy planned for 2026, and following a survey of its Member States, EUMETSAT's Policy Advisory Committee (PAC) held a workshop on 2 April 2025 to discuss the broad outlines of the future strategy. While underlining the need to remain focused on delivering the main EUMETSAT mission, the PAC strongly encouraged the organisation to take the rapidly evolving geopolitical context into account when planning the evolution of the strategy.

Within the current geopolitical context, themes of European security, autonomy and resilience were particularly prevalent during the year. On 24 April, EUMETSAT's Director-General met with the European Commissioner for Defence and Space, Andrius Kubilius, to present EUMETSAT's activities and discuss the potential of Earth observation and meteorological data for security and defence purposes. The Director-General also presented EUMETSAT's activities to the EU Council Space Working Party and the NATO Meteorological and Oceanographic Military Committee Working Group on 22 October.

Working with the European Space Agency

Throughout 2025, EUMETSAT continued its close working relationship with the European Space Agency (ESA), with a particular focus on Copernicus, climate missions and the partnership between the two organisations in developing EPS-Sterna and EPS-Aeolus.

A number of bilateral meetings and discussions with ESA took place over the year. EUMETSAT participated in ESA Programme Board for Earth Observation meetings and closely followed the preparations and outcomes related to the ESA Council meeting at Ministerial level CM25, held on 26-27 November in Bremen, Germany. In December, discussions with ESA's European Space Operations Centre took place on progressing a planned cooperation on Space Weather for the European Commission.

EU Space Act and Horizon Europe

Following the publication of the EU Space Act proposal on 25 June 2025 by the European Commission (EC), EUMETSAT began assessing the impact of this framework on both its own programmes and EU-funded third-party activities. While the proposed legislation was being discussed and amended by the European Parliament and Council, EUMETSAT's PAC started the process of evaluating its implications at its 90th meeting, along with interacting with numerous parties including the European Commission, rapporteurs on the EU Space Act in the European Parliament, and Member States' representatives in the EU Council Space Working Party, which is tasked with discussing the act.

The ocean data webinar series proved to be a hit, with over 650 live participants from 110 countries.

Horizon Europe is the EC's main programme for funding research and innovation. In 2025, three Horizon Europe projects using next-generation EUMETSAT data commenced, comprising GreenEO, led by the Norwegian Institute for Air Research (NILU), PANORAMA, headed up by the French National Centre for Scientific Research (CNRS) and the University of Lille, and CLEAR-EO, led by Politecnico di Torino. EUMETSAT will convene a coordination meeting in February 2026 to ensure the three projects receive the required data and expertise from EUMETSAT.

Space weather

Throughout 2025, EUMETSAT continued to work closely with ESA and the EC to explore potential roles in a future European Space Weather operational service funded by the EU. At the 108th EUMETSAT Council, the basis for providing operational data in cooperation with ESA to support this initiative was approved, and a letter reflecting the common view of ESA and EUMETSAT was signed by the two organisations.

In addition, EUMETSAT's exchange of operational space weather observations with a range of international partners developed further, including the provision of a new generation of space weather products derived from instruments flown on EUMETSAT-operated satellites. Together, these developments marked steady progress in advancing the goals of EUMETSAT's space weather roadmap.

Networking and outreach activities

EUMETSAT organises a wide variety of outreach events, workshops and training sessions, affirming its central role within Europe's meteorological and climate science community.

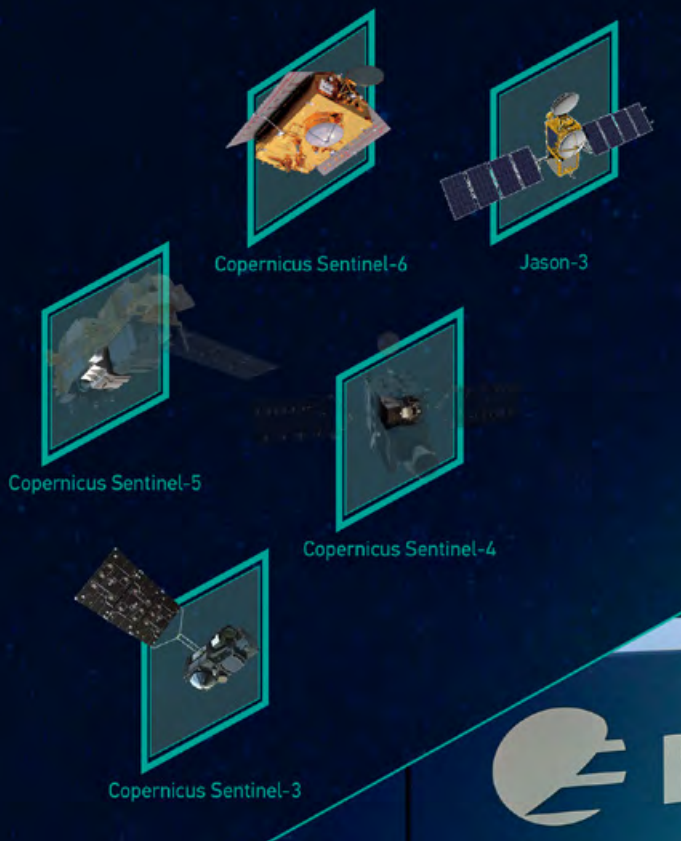
At the European Meteorological Society's conference in Ljubljana, Slovenia on 9 September 2025, EUMETSAT, the World Meteorological Organization and the European Centre for Medium-Range Weather Forecasts ran a workshop for communications professionals from national weather services. The workshop provided an international forum for sharing best practices and discussing recent communication initiatives, upcoming launches and current topics such as misinformation and the pros and cons of AI integration in meteorology.

During the same month, EUMETSAT delivered the last of four ocean data webinars on the vital role of data from Europe's Copernicus Sentinel and EUMETSAT satellites, alongside other EU initiatives, in supporting the goals of the United Nations Ocean Decade. The webinars were led by EUMETSAT and organised in partnership with Mercator Ocean International, the European Marine Observation and Data Network, the UN Ocean Decade office and the Early Career Ocean Professional network.

The ocean data webinars began the previous year and by their conclusion in 2025 had featured 26 speakers and attracted 1,500 registrations, with over 650 live participants from 110 countries. In addition, recordings of the webinars attracted more than 200,000 views on a dedicated YouTube channel. Through their feedback, attendees helped to shape the series as it progressed. The accessible online format catered for an audience with a wide range of interests and backgrounds, helping them to discover the power of European marine data – including from Copernicus Sentinel satellites operated by EUMETSAT – and learn how to access and use it effectively.

Copernicus

EUMETSAT is entrusted with operating satellites, providing support services and delivering data for the EU Copernicus programme, enabling free and open access to products for monitoring the environment, oceans and atmosphere. In 2025, EUMETSAT's role in Copernicus expanded with the start of a new era of Sentinel instrument missions flown on EUMETSAT satellites.



2025 Overview

EUMETSAT will operate three of the four Copernicus Sentinel missions launched in 2025. In addition to Sentinel-6B taking flight in November, the launch of Meteosat Third Generation Sounder 1 (MTG-S1) and Metop Second Generation A1 (Metop-SGA1), carrying the Sentinel-4 and Sentinel-5 missions respectively, marked a step change in EUMETSAT's role within Copernicus. EUMETSAT's stewardship of these instrument missions is a natural evolution of its role as a trusted long-term partner for Copernicus.

In September 2025, EUMETSAT published its 2024 Copernicus Data User Uptake Report, which provided stakeholders and the wider user community with clear metrics on the demand for Copernicus data in 2024, together with real-world examples of how those data were used.

EUMETSAT continued to work closely with ESA on preparations for three future Copernicus expansion missions: CO2M, CIMR and CRISTAL. These are being developed to address identified gaps in user needs in line with EU policy objectives.

Copernicus Sentinel-3

On 25 March 2025, the sixth Sentinel-3 Mission Constellation Review, conducted jointly by EUMETSAT and ESA, assessed the operational performance of both Sentinel-3 satellites in 2024 and concluded that they were in optimum condition and likely to exceed their expected mission lifetime. Sentinel-3A celebrated its 50,000th orbit on 23 September, having chalked up 2.25 billion kilometres since its launch in 2016. Copernicus Services commended EUMETSAT's Sentinel-3 products and highlighted their significant contribution to marine and atmospheric monitoring. Throughout 2025, preparations continued for the launch of Sentinel-3C, expected in the September to November 2026 timeframe.

Copernicus Sentinel-4 and Sentinel-5

In 2024, EUMETSAT and ESA invited the Copernicus Sentinel user community to submit calibration and validation proposals for Sentinel-4 and Sentinel-5. The call aimed to establish a joint validation team for both missions. Twenty-three proposals were accepted. The first calibration/validation workshop was held at EUMETSAT on 16-18 June. Shortly afterwards, on 1 July, MTG-S1 launched and carried Sentinel-4's Ultraviolet Visible Near-infrared spectrometer into orbit. Metop-SGA1 then launched on 13 August with the Sentinel-5 Ultraviolet Visible Near-infrared Short-wave infrared instrument on board.

Copernicus Sentinel-6

The Sentinel-6 mission is co-funded by the EU, ESA and EUMETSAT, alongside NASA and the National Oceanic and Atmospheric Administration in the US, with EUMETSAT operating the satellites and disseminating data to users.

The Copernicus Sentinel-6B satellite was successfully launched on 17 November 2025 from Vandenberg Space Force Base in California, USA. It will deliver high-precision data on oceans and inland water systems and by working in tandem with Sentinel-6 Michael Freilich will crucially ensure a seamless continuation of the worldwide sea-level data series that dates back to the early 1990s. By September, an additional ground station at Inuvik in Canada had been integrated and was ready to support dual operations for the two satellites, complementing the existing Fairbanks (Alaska, US) and Kiruna (Sweden) ground stations.

Jason-3

Jason-3, a joint ocean altimetry mission run by EUMETSAT and international partners, has been providing operational data since 2016. A mission review meeting in April 2025 confirmed the healthy status of the satellite, and was followed by unanimous agreement at the Jason-3 Joint Steering Group meeting on 18 June to extend mission operations until the end of 2027. This was subsequently formalised through an amendment of the existing Memorandum of Understanding in December.

Copernicus CO2M and Microcarb

The EU's future Copernicus Anthropogenic Carbon Dioxide Monitoring (CO2M) programme is a three-satellite constellation for measuring anthropogenic carbon dioxide. Microcarb, its precursor Copernicus Contributing Mission led by the French space agency CNES, launched on 26 July 2025. EUMETSAT's role with Microcarb is to process, store and distribute data products to users, which will provide valuable experience for CO2M calibration/validation and operations.

The CO2M system and ground segment passed critical design reviews in January and then moved into the Integration, Verification and Validation phase. The first satellite system validation test was also conducted in January.

CIMR and CRISTAL

Further progress was seen in 2025 on the Copernicus Imaging Microwave Radiometer (CIMR) and Copernicus Polar Ice and Snow Topography Altimeter (CRISTAL) missions. Having agreed the framework for developing these two Copernicus expansion missions with ESA the previous year, EUMETSAT's focus now moved on to consolidating the design of the ground segment. A project review, primarily covering CRISTAL, began on 21 October, while a review of aspects specific to the CIMR ground segment is scheduled for early 2026.

Behind the data: monitoring rising seas

On the night of 28 February 2010, towering waves from Cyclone Xynthia burst through a sea wall outside the coastal commune of L'Aiguillon-Sur-Mer in France. In the end, the storm took nearly 60 lives and devastated areas along the coast of Western Europe.

Severe storms like Xynthia underscore the vulnerability of coastal communities to flooding, which is exacerbated by sea level rise. It is essential to continue to monitor the global mean sea level, which is not only rising but this rise is accelerating.

Vinca Rosmorduc, an altimetry expert from Collecte Localisation Satellites (CLS) and the EUMETSAT Copernicus Marine Training Service, highlights the key points in a recent case study that demonstrates how satellite altimeters can be used to observe sea level rise.

Rising areas

"In the image below, you can see the variations in sea level from 1993 to 2023. Nearly everything is light red, indicating a rise of about two to four millimetres per year, so about 11 to 12 centimetres over that thirty-year period, with some patches of darker red where there is even higher sea level rise. Other places are nearly white, which are spots where there has been practically no rise. And then there are a few places, such as west of South America, that are blue, indicating a decrease in sea level.

"The data show that the sea level is rising, and we have further evidence that indicates that this is driven by human activity."

The rise accelerates

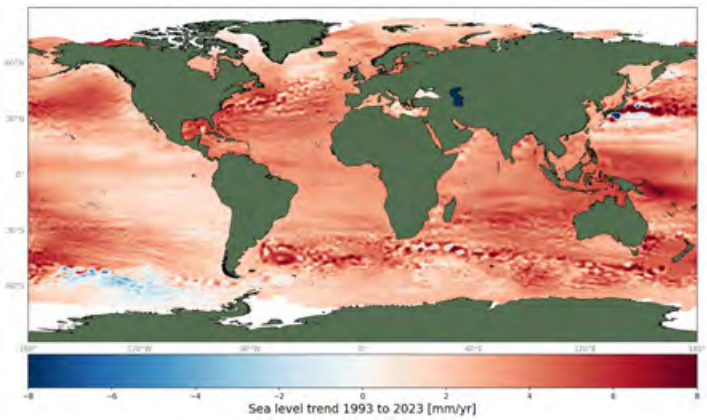
Data from satellite altimeters – instruments that measure sea level height – allow experts to detail global mean sea level over decadal timescales. EUMETSAT operates the Copernicus Sentinel-6, Copernicus Sentinel-3 and Jason series satellites, all of which carry ocean altimeters.

"For a long time, global sea level rise seemed to follow a straight line, but this is not the case anymore. The mean sea level is not just continuing to rise at the same rate, but it is rising faster than before," said Rosmorduc.

"When people hear that the sea level is rising just a few millimetres per year, some do not think much of it. But looking back at sea level rise over the past 30 years, it amounts to something like 10 centimetres. And because sea level is not just rising steadily but actually accelerating, we might have an additional 10 centimetres of rise in the next 15 years.

"Even if these increases still sound small, they put more areas at risk of severe coastal flooding. Even if we were to stop emitting every kind of greenhouse gas right now, the sea level would continue to rise for many more years.

"This is why it is really important to keep monitoring the sea level using satellite instruments, which will extend the valuable climate data records of sea level well into the future."



This map of the variation in sea level from 1993 to 2023 shows, in general, a global rise. Produced in September 2024, the map contains data from the Copernicus Marine Service.

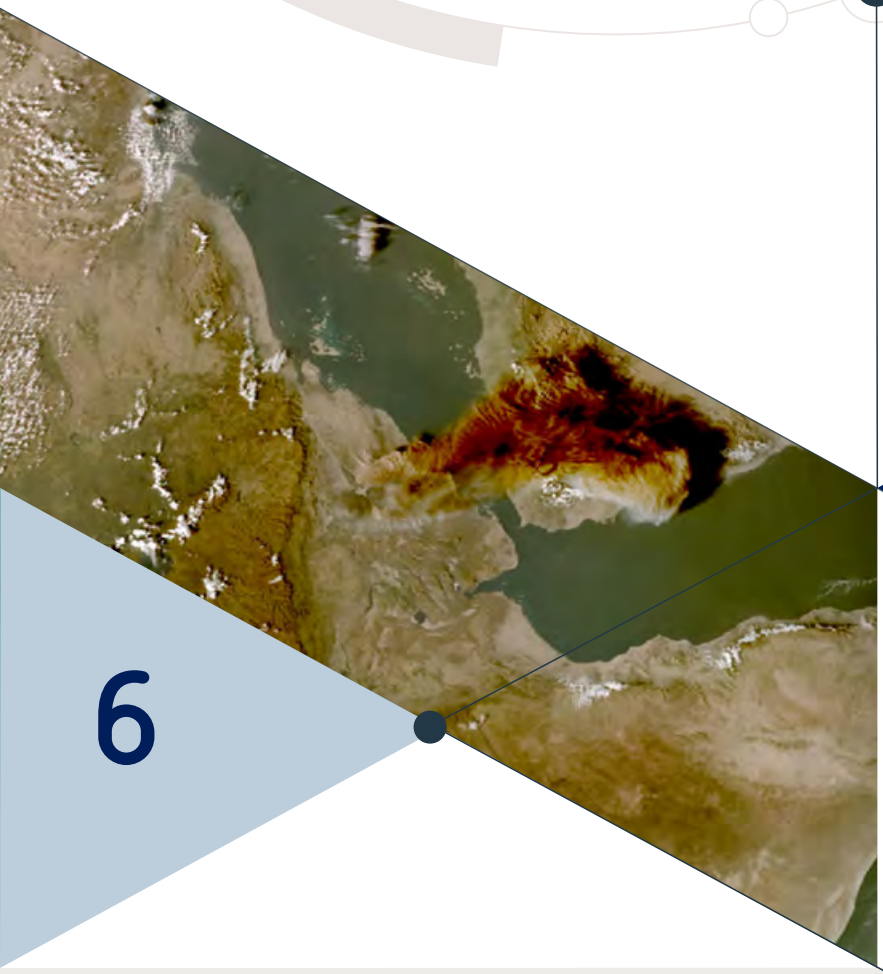
Vinca Rosmorduc
Altimetry expert, CLS (Collecte Localisation Satellites)

“The data show that the sea level is rising, and we have further evidence that indicates that this is driven by human activity.”

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/behind-data-monitoring-rising-seas


CLIMATE
SYMPOSIUM



6

Cooperate with other satellite operators and contribute to global partnerships for monitoring weather, climate and greenhouse gases from space to meet additional needs of Member States

Sustained global cooperation is vital to address global challenges, such as providing more accurate weather forecasts, more timely severe weather warnings, and to understand climate change. EUMETSAT supports the objectives of the World Meteorological Organization and fosters a portfolio of partnerships with agencies worldwide to exchange data, share expertise and build resilience to safeguard services.

USA

Regular activities for long-standing US partnerships continued through 2025. In February, EUMETSAT and NOAA held their annual high-level working group meeting in Washington. This provided a valuable opportunity to meet the new management for NESDIS, including Juan Caro, the newly appointed Deputy Assistant Secretary for International and Space Affairs. A follow-up visit was made by a high-level NOAA delegation led by Juan Caro, with the group attending the EUMETSAT Council on 30 June. The visit reaffirmed the importance that NOAA places on its enduring cooperation with EUMETSAT.

In addition, discussions with NOAA progressed regarding extending the Joint Polar System (JPS) agreement and on access to the six new Copernicus expansion missions being developed for the EU.

EUMETSAT continued to work closely with NASA across multiple scientific and research and development activities, including the validation of ocean products from space and joint airborne campaigns to assess new meteorological instrument technologies for future space missions.

Canada

EUMETSAT's discussions with the ECCC regarding a proposed international Arctic Observing Mission moved forward, including meetings with the Assistant Deputy Minister of the Meteorological Service of Canada. The ECCC will seek approval for the mission from the Canadian government in autumn 2026.

EUMETSAT cooperated with NRC on various activities in 2025, including airborne campaigns to improve wildfire detection and the development of satellite products for monitoring ice formation in lakes to detect hazards and enhance local forecasts. We also jointly delivered workshops on satellite instrument calibration.

CMA	China Meteorological Administration
CNSA	China National Space Administration
ECCC	Environment and Climate Change Canada
IMD	India Meteorological Department
ISRO	Indian Space Research Organisation
JAXA	Japan Aerospace Exploration Agency
KMA	Korea Meteorological Administration
NASA	National Aeronautics and Space Administration (USA)
NESDIS	National Environmental Satellite, Data, and Information Service (part of NOAA, USA)
NIES	National Institute for Environmental Studies (Japan)
NOAA	National Oceanic and Atmospheric Administration (USA)
NRC	National Research Council Canada
NSOAS	National Satellite Ocean Application Service (China)
WMO	World Meteorological Organization

China

In 2025, there were numerous interactions with Chinese partners from meteorological, oceanographic and space agencies, strengthening and extending cooperations and data exchanges in areas of common interest. Discussions included the coordination and planning of future satellite programmes and the procurement of commercial data.

Key cooperations with CMA, CNSA and NSOAS continued to function well and deliver significant benefits to EUMETSAT's Member States. In March, EUMETSAT met with CMA, which was hosting the Coordination Group for Meteorological Satellites (CGMS) working group in China, to discuss new collaboration opportunities. EUMETSAT's Director-General subsequently met the CMA Administrator at the WMO Executive Council meeting in June.

EUMETSAT then attended the FENGYUN Satellite User Conference and the Asia-Oceania Meteorological Satellite Users' Conference, both hosted by CMA in Qingdao, China, at the end of October.

India

EUMETSAT and ISRO deepened their scientific cooperation in 2025, concentrating on the development of new satellite instruments and enhancing meteorological and severe-weather products for tropical regions. When severe thunderstorms struck Bangladesh and eastern India in April, EUMETSAT provided 15-minute Meteosat-9 data to support nowcasting and enable warnings for affected areas.

EUMETSAT also concluded an exchange of letters with IMD to access archived pre-1998 INSAT and KALPANA satellite data. This filled part of a data gap over the Indian Ocean and supported the establishment of a Fundamental Climate Data Record as part of the GEO-Ring project.

Japan

A cooperation to advance global greenhouse gas monitoring with NIES made progress in 2025. The EC agreed that EUMETSAT can exchange CO2M and Microcarb data for greenhouse gas data from the TANSO-3 instrument on Japan's GOSAT-GW satellite.

JAXA and EUMETSAT continued to cooperate on the TANSO-3 precursor instruments flown on GOSAT and GOSAT-2. In 2026, this formal cooperation is due for renewal for another five years.

South Korea

In 2025, KMA planned technical exchanges with EUMETSAT to support preparations for the Korean GEO-KOMPSAT-5 satellite and ground segment. This mission is primarily designed for operational meteorology, but will also make a significant contribution to space weather monitoring.

World Meteorological Organization

Throughout 2025, EUMETSAT continued its work with the World Meteorological Organization (WMO) and participated in a wide range of meetings and workshops to support WMO objectives and programmes. Of note were activities related to the WMO's Integrated Global Observing System (WIGOS) and the Commission for Observation, Infrastructure and Information Systems (INFCOM), along with its Space Programme.

EUMETSAT also hosted a WMO Rolling Review of Requirements workshop at its headquarters on 22-24 September to evaluate and update Earth system application needs.

Coordination Group for Meteorological Satellites

EUMETSAT serves as the permanent secretariat of the Coordination Group for Meteorological Satellites (CGMS). On 3-5 June, EUMETSAT hosted the 53rd CGMS plenary session in Evian-les-Bains, France. A major focus was on coordinating inputs on a draft update of the WMO strategy 'Vision for WIGOS in 2050', which is aimed at anticipating evolving user needs for observational data over the next 25 years, as well as the systems and infrastructure required to meet them. Following valuable stakeholder feedback from workshops, user community surveys and meetings, a final CGMS document will be submitted to INFCOM in July 2026.

CEOS and GEO

On 7-11 April, EUMETSAT attended the Committee on Earth Observation Satellites (CEOS) Strategic Implementation Team (SIT) meeting in Japan, where greenhouse gas and climate coordination topics were discussed, including updating the greenhouse gas roadmap of the CEOS-CGMS Joint Working Group on Climate.

EUMETSAT hosted a subsequent CEOS SIT meeting at its headquarters on behalf of the Japan Aerospace Exploration Agency on 10-12 September. Discussions covered agriculture, forestry and other land use, together with atmospheric observations and the quality, cross-platform interoperability and impact of Earth observation (EO) data. In November, EUMETSAT's Director-General attended the 39th CEOS Plenary in Bath, United Kingdom.

On 5-9 May, EUMETSAT participated in the inaugural Group on Earth Observations (GEO) Forum in Rome, marking 20 years of GEO and EUMETSAT's involvement through its GEONETCast data dissemination network. A new GEO work programme was adopted.

EUMETSAT also attended the EuroGEO Workshop in The Hague on 13-15 October, covering downstream applications, innovation, EuroGEO's interface with Europe's EO community, and the future EuroGEO Secretariat.

Participants at the 53rd CGMS plenary session Evian-les-Bains, France.

International Relationships

EUMETSAT navigated a rapidly evolving global space landscape in 2025, in which economic interests, geopolitical dynamics and the need for resilience and sovereignty became increasingly prominent. In this context, it became even clearer that maintaining an independent and autonomous European space infrastructure for weather forecasting and climate monitoring – one founded on balanced, reciprocal cooperation – is essential for securing the needs of its Member States.

To support this, EUMETSAT continued to expand its network of balanced bilateral agreements with key international satellite operators. These partnerships are a strategic asset, enabling EUMETSAT to better fulfil the observational requirements of its Member States and extend its user base beyond Europe. Such reciprocal relationships enhance the global observing system's capacity and coverage and strengthen its resilience.

When storms hit Eastern India, a phone call set more vital satellite data flowing

How improvements in Meteosat-9 data availability helped Indian authorities to save lives

In mid-April 2025, violent pre-monsoon thunderstorms swept across eastern India. These fast-moving storms, fuelled by warm moist air drawn from the Bay of Bengal, brought gale-force winds, hail, and intense lightning. Several communities were affected by storms and heavy rain, and forecasters warned that conditions were set to deteriorate further.

With severe weather expected to continue, the Indian Space Research Organisation (ISRO) moved to strengthen its support for the crisis response. ISRO's Earth Observation directorate, closely monitoring the fast-evolving storms, identified that more frequent satellite imagery could complement India's existing observations.

They contacted EUMETSAT and asked for their existing feed from Meteosat-9, a EUMETSAT-operated weather satellite in geostationary orbit over the Indian Ocean as part of the Indian Ocean Data Coverage service, to be reconfigured to deliver at 15-minute intervals rather than hourly.

The bilateral cooperation agreement between the two organisations already permitted this, and teams on both sides mobilised immediately: at EUMETSAT in Darmstadt, staff from operations, data policy, and legal worked to verify access rights, secure approval, and configure the data stream. In Ahmedabad, ISRO's Satellite Application Centre prepared to integrate the feed. They were in constant touch with Bihar State Meteorological Centre (Bihar Mausam Seva Kendra) who were working round the clock to provide reliable warnings to the public. By that evening, 15-minute Meteosat-9 imagery was flowing.

Dr JV Thomas of ISRO described the data flow as "a very timely intervention," noting that the higher-frequency imagery was immediately enhancing nowcasting of severe thunderstorms in the eastern state of Bihar, with more timely bulletins being issued for areas at risk. "For a tropical country where thunderstorms are among the major meteorological hazards – and where communities face severe difficulties during the storm seasons – this will make a real difference to disaster management," he said.

"When ISRO's Earth Observation directorate called us that Saturday, they knew exactly what they needed – 15-minute imagery instead of hourly – and our job was to make it happen as fast as possible," said Anne Taube, International Relations Officer at EUMETSAT, who took the initial call from ISRO and coordinated the response across EUMETSAT. "What matters most is that Indian forecasters were then able to turn that data into warnings for communities at risk, and the enhanced data feed has remained in place ever since."

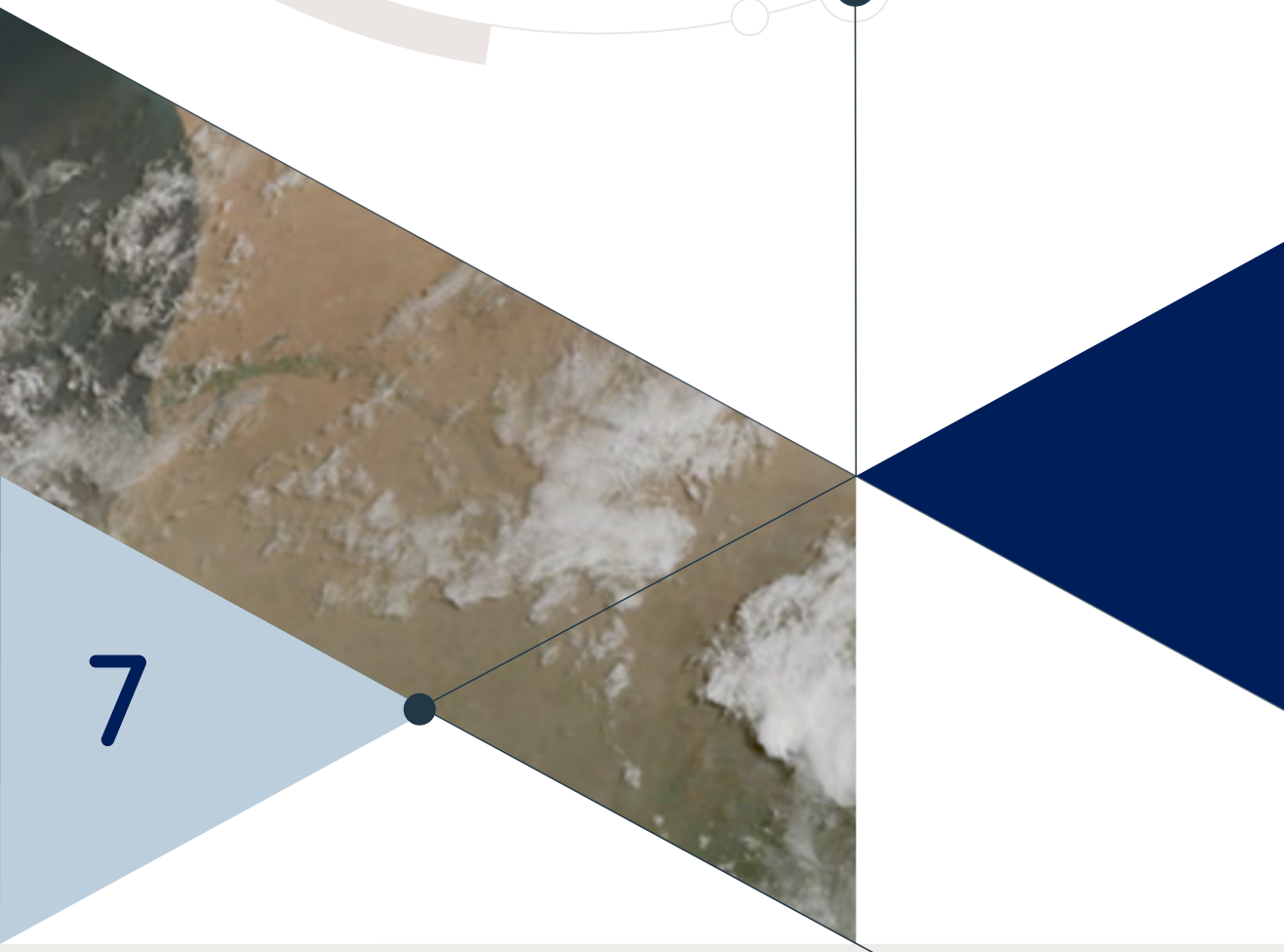
Across India, thunderstorms and lightning are among the deadliest weather hazards, many of them in fast-developing systems that can turn deadly within minutes. With more frequent Meteosat-9 data, forecasters can track rapidly evolving storm cells and warn communities of approaching danger sooner.

During the European Union – India Space Dialogue, which took place in Brussels on 13 November 2025, the Indian Ministry of Foreign Affairs formally thanked EUMETSAT for the prompt reaction and improvement in data availability, which helped Indian authorities to save lives.

Meteosat-9 Tropical Airmass RGB imagery of the storms hitting the states of Bihar and Uttar Pradesh, 10 April 2025.

Anne Taube
International Relations Officer, EUMETSAT

> When ISRO called us that Saturday, they knew exactly what they needed and our job was to make it happen as fast as possible.



7

Expand the user base for EUMETSAT-provided data, products and services

EUMETSAT strives to provide national meteorological and hydrological services (NMHS) with the products and training they need, thereby enabling Member States to protect their citizens and economies through improved forecasting. We continued to expand the use and application of EUMETSAT data and services in 2025, with particular focus on preparing users for our next-generation satellite systems and on harnessing value from long time series of satellite-based climate data records. We also made progress in strengthening engagement with meteorological services in regions beyond our Member States.

User Portal, EUMETView and Data Store

Featuring enhanced functionality for its users, a new version of the EUMETSAT User Portal was released on 26 February. The updated platform allows users to access data through various services, easily manage their data licences and subscribe to service notifications to keep abreast of changes and outages. The new version replaced the decommissioned Earth Observation Portal (EO Portal), and all previous EO Portal users were successfully migrated. With additional layers of Meteosat-12-based imagery from both the Flexible Combined Imager (FCI) and Lightning Imager (LI), the EUMETView service saw a massive increase in uptake in 2025, more than doubling to more than 12,300 individual users per day. Even though it became a high-traffic web service, excellent service availability was maintained.

A Data Store service disruption in March led to a temporary interruption in access to longer-term collections, but the use of backup storage meant that NMHS operational forecasting was not affected.

User engagement and training

EUMETSAT delivered over 65 training courses to more than 2,500 participants in 2025, with Meteosat Third Generation (MTG) applications as the primary focus. In addition to regular sub-regional courses in Europe, EUMETSAT continued its series of aviation and severe storm testbeds and supported the first courses in Africa featuring MTG-Africa products.

In April, EUMETSAT supported the fifth international RGB Workshop, a series that began in 2007. Participants updated the standard recipes for RGB composites derived from multispectral imagers in geostationary orbit, such as the FCI, for use by forecasters, trainers and visualisation system manufacturers, with recognition from the World Meteorological Organization (WMO). The group discussed RGB applications and use cases and explored visualisation tools and expert exchange on optical imagery. The WMO subsequently published the workshop report.

EUMETSAT and the European Severe Storms Laboratory (ESSL) jointly organised the first MTG Infrared Sounder (IRS) level 2 expert application workshop in May, preparing users for IRS products aimed at nowcasting and short-range forecasting of severe storms. The workshop reviewed the current use of infrared-based forecasting products (temperature and humidity profiles, instability indices and winds), explored application scenarios for IRS level 2 data and outlined forecaster training needs. Key topics included uncertainty representation in cloudy conditions, forecast-blended versus forecast-free datasets, broader forecasting applications beyond convection, and integration with other data sources such as FCI-derived

EUMETView image of FCI natural colour with added LI layer (lightning discharges shown in yellow).

moisture products. International participants shared experiences with using infrared sounding data from the Geostationary Interferometric Infrared Sounder-2 aboard China's FengYun-4B satellite, along with US systems.

ESSL and EUMETSAT collaborated again at the 12th European Conference on Severe Storms in November. The event gathered scientists and specialists from academia, NMHS and private enterprises to discuss the latest developments in severe weather research and applications. Considerable time was devoted to EUMETSAT constellations and products, with a full day on MTG that included research needs, the role of artificial intelligence and initial user experiences of FCI and LI data, followed by an MTG forecaster workshop on the final day.

A joint FCI and LI Meteorological Applications Group and champion user workshop was held in June to address outstanding data quality issues with FCI level 1c and LI level 2 data, and to update relevant user documentation.

The 2025 edition of the EUMETSAT Climate Symposium took place in October and achieved substantial engagement. The Climate Anomaly and Normals Service contract also commenced in the autumn. A task team composed of Climate Data Record experts from EUMETSAT and the Satellite Application Facilities met regularly to discuss and agree on details regarding the calculation of climate anomalies and climate normals from EUMETSAT Interim Climate Data Records and Climate Data Records, as well as the data model to be used in the service. The Copernicus Climate Change Service has been represented in the group since May 2024 to ensure close collaboration and the creation of synergies where possible.

Engagement with WMO RA-VI non-members of EUMETSAT

EUMETSAT continued its engagement with NMHS that are not EUMETSAT Member States through WMO Regional Association VI (RA-VI; Europe), focusing on the Western Balkans, Eastern Europe and Caucasus regions.

In March and April, EUMETSAT held Information Days events in Moldova and Montenegro. The events, part of a series that began with the first EUMETSAT forum for Eastern Europe in 1996, brought together representatives from the meteorological offices of 15 countries in the Balkans, Eastern Europe, the Caucasus and Central Asia. The 2025 focus was on using satellite data, particularly from MTG and the Meteosat Second Generation Indian Ocean Data Coverage service, to support the WMO's Early Warnings for All initiative for safeguarding communities in the region. A key highlight of the Montenegro gathering was a discussion on the transition of NMHS to the MTG era, supported by the deployment of new DAWBEE-MTG reception stations in the region.

In December, EUMETSAT hosted a three-day DAWBEE-MTG Expert workshop for representatives from the NMHS of Georgia, Moldova, Montenegro and Ukraine.

The workshop familiarised participants with the new software included in the DAWBEE-MTG EUMETCast reception station through hands-on practice. Experts worked with EUMETSAT colleagues to identify pathways for station deployment in 2026, as well as installation and training needs in their respective countries, marking an important step in ensuring continued access to vital satellite data for weather forecasting and climate monitoring in the region.

Supporting Africa

The inauguration of the African Space Agency on 22 April 2025 was a momentous milestone for the continent's space ambitions, signalling an important advance in harnessing space science and technology for Africa's socio-economic development. The new agency is headquartered in Egypt and brings together the 55 member countries of the African Union to coordinate and implement Africa's space strategy.

On the same day, the Space for Early Warning in Africa (SEWA) project was officially announced, having kicked off on 1 January as part of the Africa-EU Space Partnership Programme under the EU's Global Gateway initiative. Implemented by the African Union

The new African Space Agency headquarter building at the Egypt Space City in Cairo, Egypt. The facility was inaugurated and launched into operation in April 2025.

Commission, the ECMWF and EUMETSAT, SEWA will strengthen access to and use of MTG data in African countries and foster the establishment of the African Meteorological Satellite Application Facility (AMSAF).

The SEWA project addresses the continent's priority of enhancing warnings for severe weather events. Under SEWA, AMSAF's initial focus will be on nowcasting-related activities. Four AMSAF hubs will be hosted in the regional centres responsible for nowcasting in Dakar (Western Africa), Nairobi (Eastern Africa), Pretoria (Southern Africa) and Yaoundé (Central Africa), with the African Centre of Meteorological Applications for Development serving as continental coordinator. This project builds on the success of previous EU-funded initiatives, including Preparation for Use of Meteosat in Africa (PUMA), African Monitoring of the Environment for Sustainable Development (AMESD), Monitoring of Environment and Security in Africa (MESA), Global Monitoring for Environment and Security and Africa (GMES & Africa), and Intra-ACP Climate Services and Related Applications (ClimSA), all of which laid the groundwork for the use of Earth observation data in Africa.

Access to MTG data in sub-Saharan Africa advanced on several fronts during 2025. The MTG-Africa tailored data service via EUMETCast-Africa started dissemination in February and became operational in July. PUMA-2025 deployment progressed significantly, with 44 of 59 stations installed by the end of the year, enabling many NMHS to begin using the MTG-Africa service. Regular training on MTG and PUMA-2025 continued throughout the year, responding directly to the priorities of WMO RA I (Africa) and the African Ministerial Conference on Meteorology for the transition from Meteosat Second to Third Generation.

EUMETSAT participated in the joint ClimSA-SEWA Forum in late June 2025, engaging with multiple stakeholders and holding bilateral meetings. Early user feedback from African meteorological services on the MTG-Africa data service was shared with the WMO RA-I Regional Association Instrument Data Expert Group, with a fuller assessment planned for early 2026 ahead of discussions at the 17th EUMETSAT User Forum in Africa.

Climate services for all

Climate scientists across the globe are developing valuable interactive climate services that anyone can use – from generating heat and electricity through photovoltaic systems, to tools to track and predict the health impacts of heat and cold stress, to issuing early drought warnings.

Untapped energy

Dr Reto Stöckli, a former MeteoSwiss climate researcher, and Dr Anke Tetzlaff collaborated with the Swiss Federal Office for Energy to create Sonnendach (sun roof), a web service for determining the amount of electricity and heat that could be produced if photovoltaic panels were placed on roofs or the sides of buildings in Switzerland.

Behind this service are data from the Surface Solar Radiation Data Set – Heliosat, which includes data from the Meteosat Visible Infra-Red Imager and Spinning Enhanced Visible and Infrared Imager on board EUMETSAT-operated Meteosat First and Second Generation satellites, respectively.

"Before you spend the money on a precise estimate, you can use the Sonnendach service to get an initial rough estimate for free," said Tetzlaff, senior satellite expert at MeteoSwiss and EUMETSAT's Satellite Application Facility for Climate Monitoring.

Health impacts beyond temperature

Given that climate change is expected to cause more frequent and intense heatwaves, Dr Rebecca Emerton and her team created Thermal Trace, a web-based climate service that enables people to easily access free climate data on thermal stress.

"Thermal stress is the umbrella term for heat and cold stress, which refers to the negative impacts on the body caused by exposure to extreme thermal conditions," said Emerton, Senior Climate Scientist at the Copernicus Climate Change Service, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF) on behalf of the European Commission.

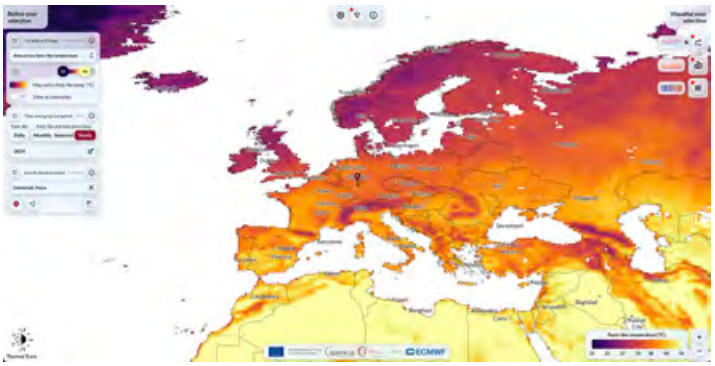
"I think there are a lot of different questions Thermal Trace can answer to really help people understand how the weather and climate are affecting them."

Drought's memory

In an attempt to better inform people in Switzerland about impending drought, Dr Tetzlaff and Dr Vincent Humphrey, drought expert at MeteoSwiss, collaborated with Swiss federal agencies to create the National Drought Platform.

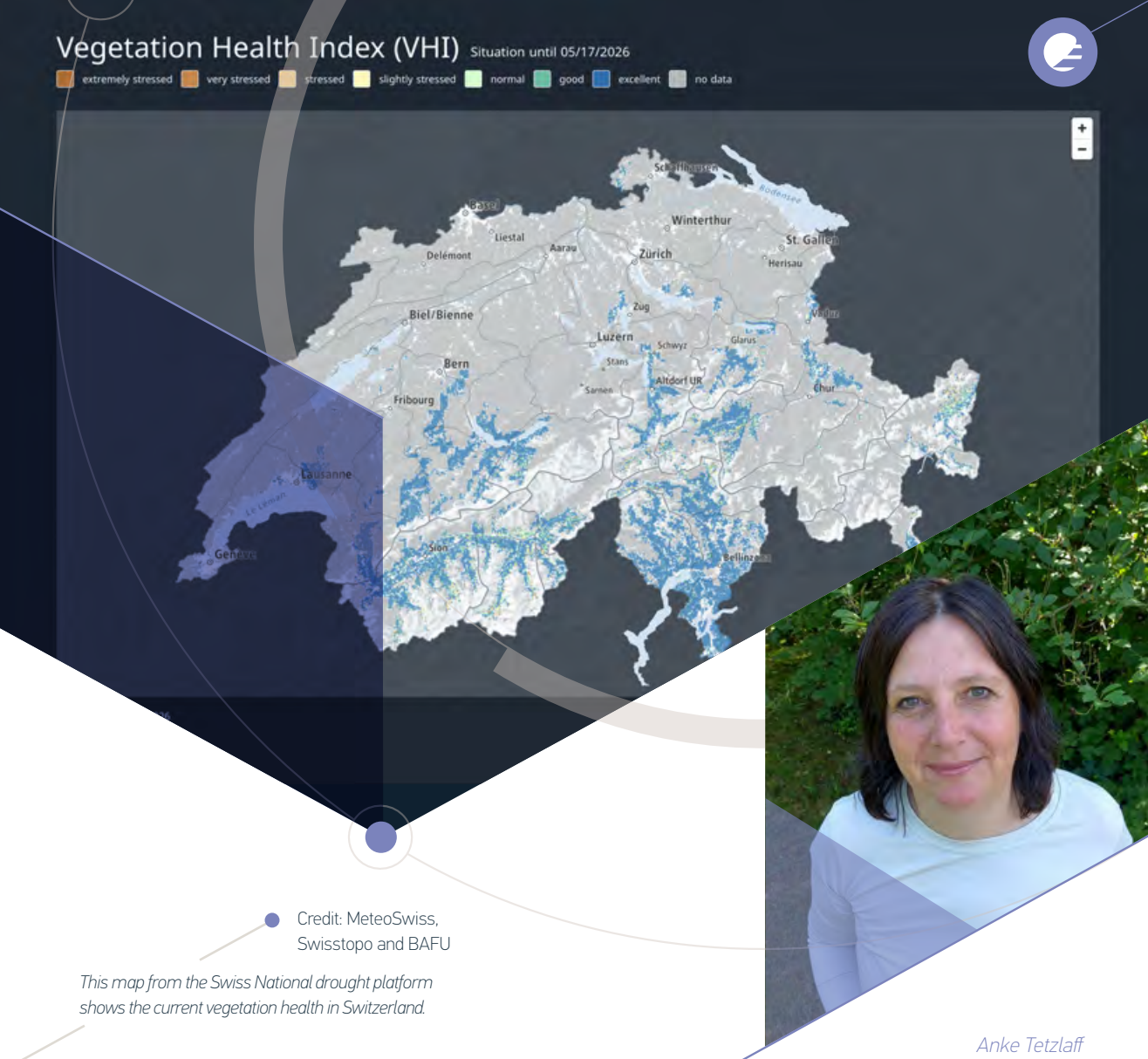
An interactive map provides users with a ranking for each region on a scale ranging from not dry to extremely dry. It incorporates a wide range of data, including precipitation, snow cover, the water level of rivers and lakes, the volume of groundwater, soil moisture, and vegetation.

Data from EUMETSAT satellites play a key role in the National Drought Platform through a vegetation health index, a combination of both vegetation and heat observations, which complement observations from the Copernicus Sentinel satellites operated by the European Space Agency.



Thermal Trace shows the maximum feels-like temperature experienced in 2024 across Europe, with a pin located at Darmstadt, Germany. The application relies on data from the fifth generation of ECMWF's reanalysis (ERA5), which contains a substantial portion of data from EUMETSAT, including the Satellite Application Facilities.

Credit: C3S/ECMWF



Credit: MeteoSwiss, Swisstopo and BAFU

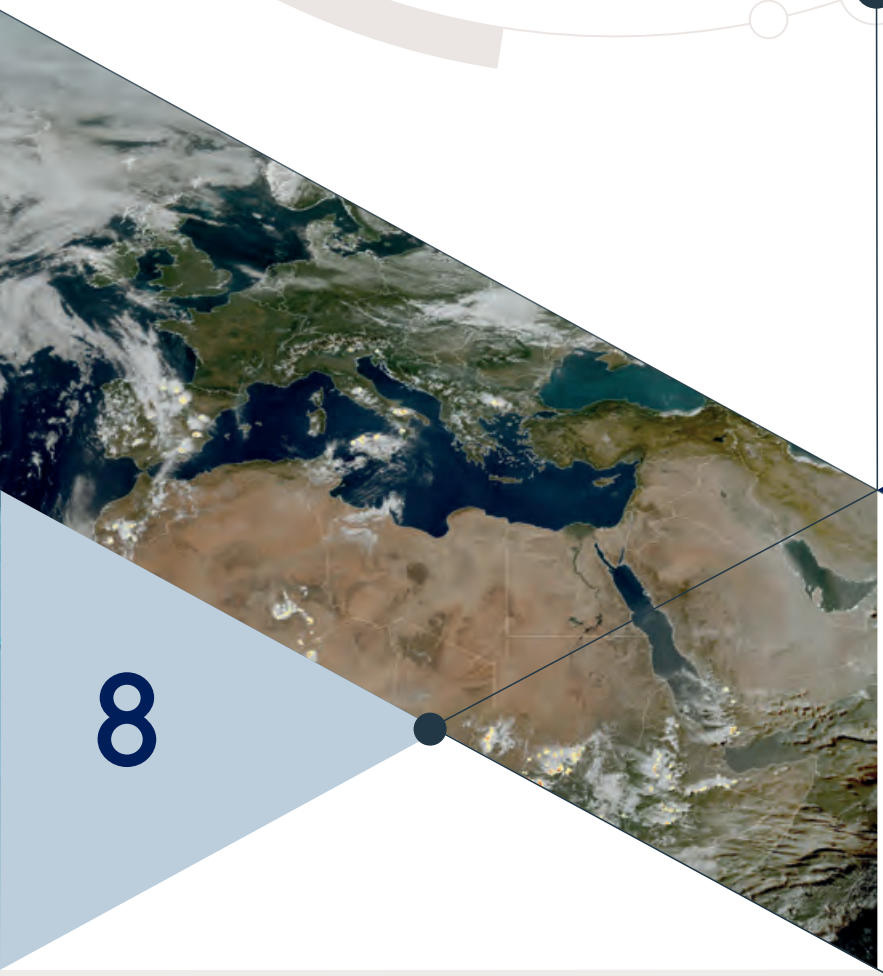
This map from the Swiss National drought platform shows the current vegetation health in Switzerland.

Anke Tetzlaff
Senior satellite expert, MeteoSwiss

"For the land surface temperature, it was important to have hourly measurements stretching back to 1991, which we were able to retrieve from Meteosat satellites."

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/climate-services-all



8

Continuously improve management and risk management processes

Assuring the smooth running of the organisation helps to deliver value for EUMETSAT's Member States, partners and user community. In 2025, we continued to strengthen our management and risk processes, successfully completing an ISO 9001 audit and enhancing administrative and financial management. Technical plant replacements and planned further photovoltaic installations will enable energy savings and a further reduction in carbon footprint, while new initiatives such as the generative artificial intelligence (AI) pilot stand us in good stead for ongoing improvement.

Quality Management

The EUMETSAT Management System (EMS) governs the organisation's business processes, and in November 2025 the British Standards Institution assessed the EMS against the ISO 9001 quality management standard. This was the second surveillance audit since ISO 9001 recertification in 2023 and the outcome was excellent, with no non-conformities or recommendations raised. The auditors acknowledged significant strengths, including quality management system documentation, HR process digitalisation, risk management tools, detailed process reviews, decreasing anomaly trends and high organisational awareness of the quality management system as a competitive factor.

Implementation of the Quality Management Roadmap, launched in 2025 to modernise EUMETSAT's quality management in response to organisational changes, proceeded according to plan. The first two initiatives evaluated the EMS and process landscape against intended and actual impacts.

Administrative process development

Several initiatives to improve financial management progressed in 2025. The budget process was reviewed and updated to strengthen links to organisational strategy and financial planning levels. Key improvements included technical evolution roadmaps for the Multi-Mission Ground System and Multi-Mission Elements, developed through a cross-organisational approach and aligned with EUMETSAT's strategic roadmap and annual objectives.

The planning and project control function update included a review of the work breakdown structure for future programmes to ensure harmonisation and facilitate cost monitoring. A cost allocation project was initiated to establish an improved methodology for the assignment of indirect costs by leveraging a function in the SAP S/4HANA enterprise resource planning system.

A sustainable campus

EUMETSAT continued strengthening its environmental sustainability commitment in 2025. In the main building's South Wing, the chiller units for cooling offices and IT infrastructure were successfully replaced, with the new system featuring high-efficiency, intelligently controlled motors and pumps, significantly enhancing energy performance.

Following approval of the General Budget for 2026-2030, planning commenced for further photovoltaic panel installations within the approved cost envelope, including integration with the proposed new parking garage.

EUMETSAT headquarters, Darmstadt, Germany

Fostering knowledge exchange

During 2025, EUMETSAT completed the analysis, design and development of an integrated Knowledge Management Framework. Its purpose is to ensure that know-how is systematically captured, optimised and protected in order to strengthen capabilities and long-term resilience. The framework supports coordinated and intentional action towards managing knowledge, provides tools and methods and helps to create a shared mindset that is aligned with EUMETSAT's core values.

The procurement lessons-learned exercise for Meteosat Third Generation (MTG) and EUMETSAT Polar System – Second Generation (EPS-SG) data processing facilities continued in 2025. Interviews with 47 stakeholders on the MTG Instrument Data Processing Facility were completed in 39 sessions, while sessions on the EPS-SG Data Processing Facility continued until the end of the year. The final report on the lessons learned will be submitted to the delegate bodies in 2026.

Over the summer, EUMETSAT launched a project to explore how generative AI tools can support collaboration and information management. The pilot, which ran from late August to early November across the organisation, tested Aino within the M-Files document management system, together with Microsoft M365 Copilot. Participants received training and guidance, helped identify relevant use cases and provided feedback on their experience. The pilot will inform decisions on the broader rollout of generative AI at EUMETSAT.

Business continuity

Progress continued in 2025 on maintaining resilient infrastructures and business continuity. In March, EUMETSAT's cybersecurity management system was tested when the organisation experienced a data security incident. The affected systems were isolated, and working with industry experts, the security team safely restored the service with no impact on operations.

Tracking storms here and now

How forecasters at the Finnish Meteorological Institute put data from EUMETSAT programmes into action

On the weekend of 5-6 August 2023, while people in Finland were basking in a short stretch of hot weather, specialists at the Finnish Meteorological Institute (FMI) in Helsinki were bracing for a major storm.

Weather forecasts indicated a weather system, later named Storm Hans by meteorologists in Sweden, that could bring destructive winds and heavy rain to the Scandinavian peninsula. Some models even suggested it might be the largest convective storm – as it first looked like – to strike in a generation.

"When a storm like Hans first appears in the weather models, two feelings hit me at once: terror and excitement," said Sini Jääskeläinen, an operational forecaster at the FMI, who worked eight consecutive days as Storm Hans approached Scandinavia.

"We saw in the forecast models that hot, humid weather systems over southern and central Europe were on a collision course with cooler air masses over Scandinavia. These interactions of energy and humidity often create the perfect conditions for severe convective weather.

"With rare or complex systems, like Hans, uncertainty can persist right up until the hours before the storm strikes."

Severe weather warnings were issued across Finland. In Norway and Sweden, Hans forced the evacuation of thousands due to severe flooding, with some rivers reaching their highest levels in 50 years. However, as the storm crossed the Gulf of Finland, its intensity subsided.

"While the storm didn't materialise as we initially feared in Finland, satellite and radar data still showed risks of high winds, heavy downpours, large hail, and localised flooding. Given the uncertainties, it was critical to keep the warnings in place."

Towards better nowcasting

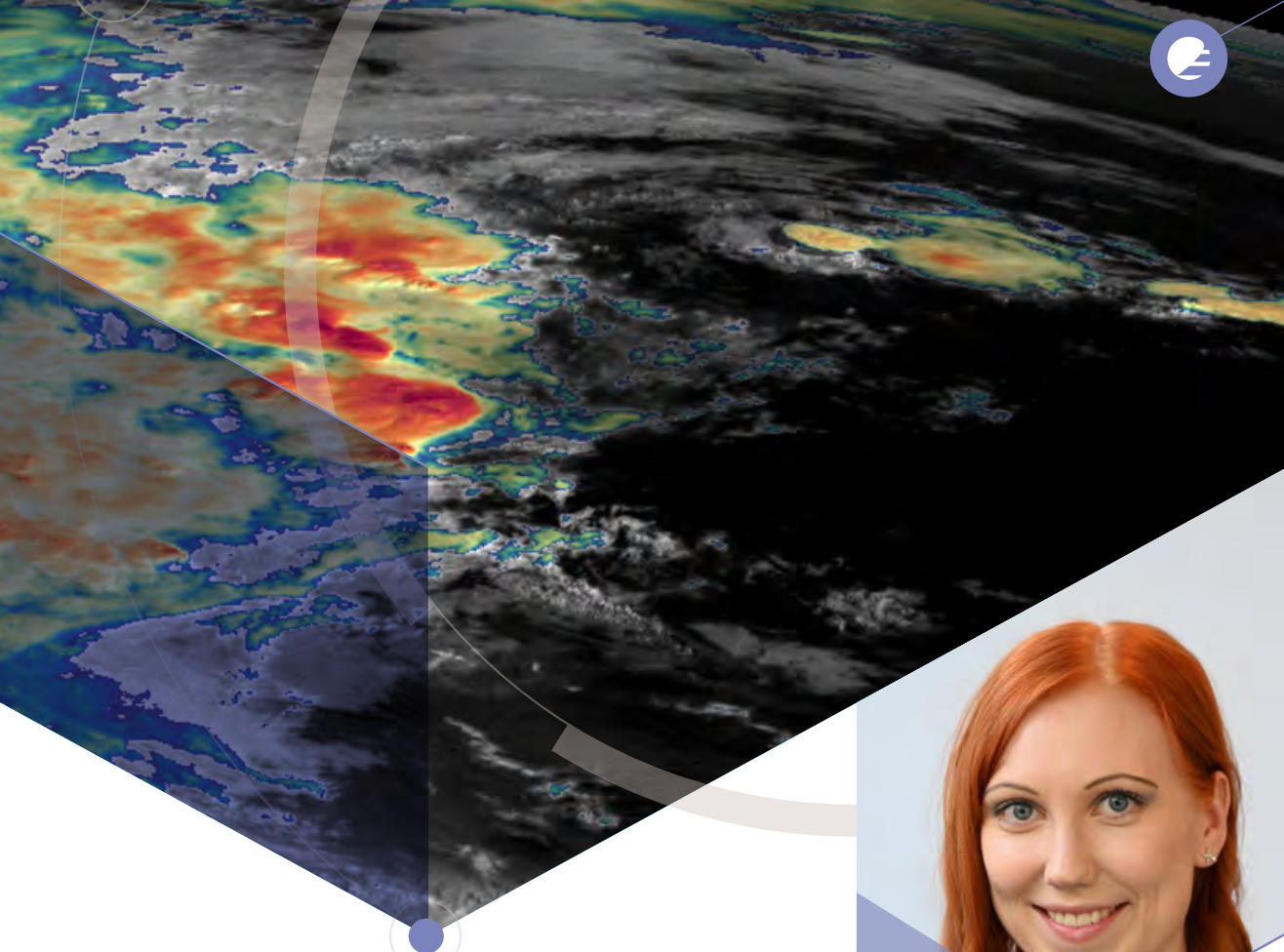
"Predicting the severity and impacts of extreme weather can be exceptionally challenging, and one key method used to support decision making is nowcasting – very short-term forecasts that combine numerical weather prediction models with direct observations of atmospheric conditions," said Jääskeläinen.

"On every satellite image, I overlay data such as high-resolution red-green-blue composites of cloud formations from Meteosat Third Generation's Flexible Combined Imager, and the remarkable observations provided by the programme's Lightning Imager.

"These observations will soon be supplemented by data from the Meteosat Third Generation Sounder 1 satellite, which will deliver crucial observations relevant for identifying early convective changes in the atmosphere."

Jääskeläinen has attended two specialist training courses aimed at maximising the use of EUMETSAT's next-generation satellite data, organised by EUMETSAT and the European Severe Storms Laboratory and said data provided by new programmes will address key gaps in direct atmospheric observations.

"Before attending these training courses, I think I underestimated the power of satellite data in forecasting," she added. "Now, it's central to my work. When dealing with something as challenging as storm forecasting, every new stream of data helps narrow down uncertainties."



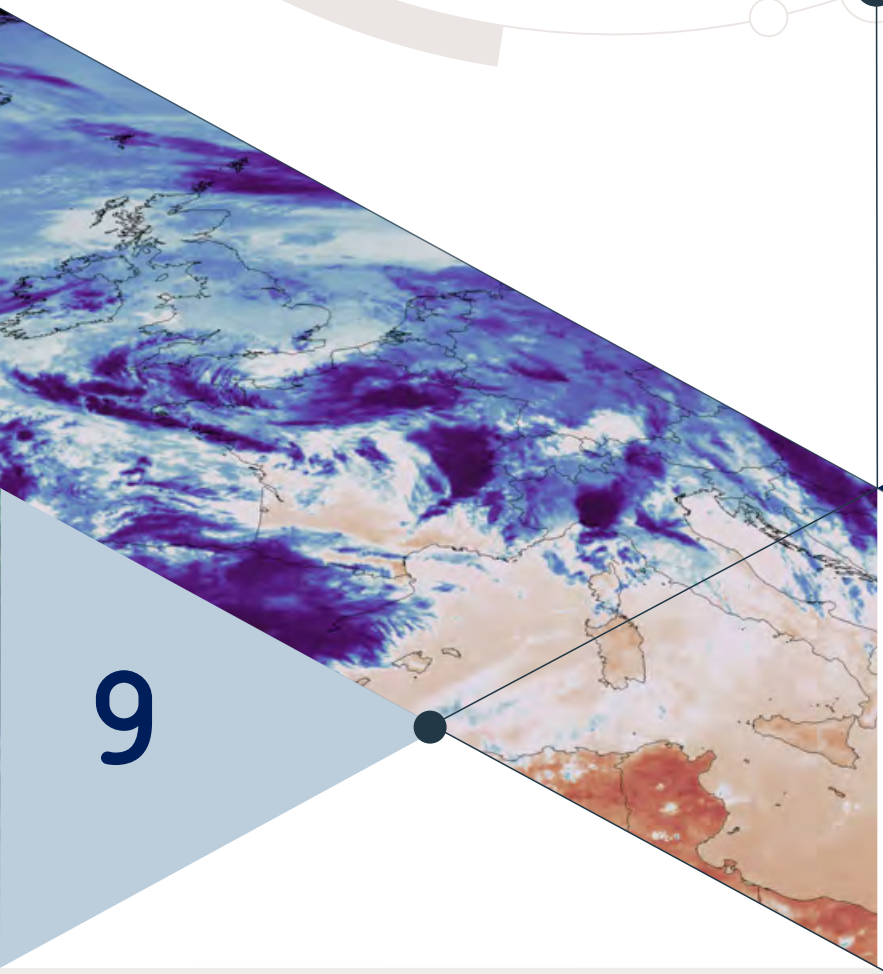
"Sandwich" visualisation produced using observations from Meteosat-12's Flexible Combined Imager (FCI) on 7 August 2023 at 08:00 UTC. This type of "sandwich" visualisation shows the difference in cloud temperatures: from red for colder parts to blue for warmer parts. It is particularly useful for observing and nowcasting storms and severe weather events as it clearly visualises varying cloud tops that can give information about the storm's dynamics.

Sini Jääskeläinen
Operational Forecaster at the Finnish Meteorological Institute

"When a storm like Hans first appears in the weather models, two feelings hit me at once: terror and excitement."

For more information, read the case study on the EUMETSAT website

https://www.eumetsat.int/features/tracking-storms-here-and-now



9

Remain an attractive employer for diverse, skilled, talented and engaged people

EUMETSAT places considerable emphasis on providing exciting and unique opportunities in a fascinating sector. The achievements and milestones of 2025 placed huge demands on everyone at EUMETSAT, making the need for a motivated and high performing workforce even more vital. The year saw a number of advances in leadership and organisational development, process digitalisation and help for families, while the latest addition to our campus buildings became home to further teams of colleagues.

Working at EUMETSAT

Following a review completed in 2024, the organisation implemented a revised annual appraisal process that balances the three areas of evaluation of individual objectives, staff development, and behavioural competencies aligned with EUMETSAT's core values. This was complemented by updated staff instructions reflecting a revised delegation of authority policy, enabling personnel decisions at more appropriate levels whilst ensuring organisational consistency and adherence to due process.

The design and development of a new Leadership and Management Development Programme moved forward throughout the year, following an offsite workshop in June with the Management Board, Division Heads and an external consultant. The pilot programme is scheduled to launch in early 2026.

As part of the 2023 Human Resources Strategy, during 2025 EUMETSAT conducted a make-or-buy analysis of its workforce composition. This work also entailed a thorough review of the evolution of the workforce, in view of the fact that EUMETSAT reached its anticipated workload peak during the year. A comprehensive proposal will be presented to delegates in 2026.

The implementation of a Talent Management System to digitalise the onboarding, learning and development, and annual performance appraisal processes started in January, with the first two modules going live in December. A review of the HR planning process was initiated, and a working practice on health and safety was set up and communicated to the workforce.

The EUMETSAT Council gave the go-ahead for updating the organisation's maternity, paternity and parental leave regulations to meet the needs of families and EUMETSAT's commitment to diversity and inclusivity.

The LittleOrbiters Childcare Centre continued to operate at full capacity with waiting lists in place for both childcare and kindergarten places. A comprehensive review of the service, its occupation rates and the overall cost profile was carried out, leading to the EUMETSAT Council also approving the final contract extension for an additional two years, after which the service will be retendered.

To strengthen the organisation's open ethos and speak-up culture, EUMETSAT had already planned to develop a Code of Business Ethics and Conduct in 2025. A suitable consultant was identified to support the design and roll-out during the year, and work on the code was initiated.

The East Building extension on the EUMETSAT Campus was inaugurated in June 2024, and the first occupants moved in in December of that year. In 2025, any remaining teething issues were resolved and further staff and contractors were relocated, enabling them to gain from the extension's enhanced facilities.


DESTINATION

The people behind the missions

In 2025, we shone a spotlight on some of the experts who are making Meteosat Third Generation, EUMETSAT Polar System – Second Generation, and Copernicus Sentinel-6 a success.

Gary Fowler
Meteosat Third Generation Instrument Systems Manager

The instrument whisperer

As Meteosat Third Generation Instrument Systems Manager, Gary Fowler leads the team that ensures the instruments on board the MTG satellites provide quality data to meet user expectations. For MTG, this began with the first user consultation workshop back in 2001.

After helping to translate the needs expressed by the users into requirements that can be used by industry, Fowler's team continues to follow the instruments through many iterations and years of development, to ensure that they perform as well as they should.

> We will continue to be involved all the way through to the final testing of the MTG-Imager 4 satellite, which will be some time in the 2030s. So, in a way, my team provides a link in the MTG programme between the past and the future.

Dr Rosemary Munro
EUMETSAT Polar System – Second Generation Programme Scientist

An information playground

As EUMETSAT Polar System – Second Generation (EPS-SG) Programme Scientist, Dr Rosemary Munro is responsible for overseeing all of the programme's scientific activities. This entails being responsible for representing the large team of scientists who work on the programme, liaising between them and the system and instrument teams, and providing scientific support to the programme management when needed.

> It's a massively exciting platform. There's a diverse range of instruments, including a mix of brand-new elements and very nice evolutions of heritage instruments that will provide big steps forward from what has been done before.
> With the amount and variety of data that will be available to our users it will be like opening the door to a treasure trove of information.

Moving in the same direction

As EUMETSAT Altimetry Programme Manager, Julia Figa Saldaña contributes to a better understanding of the ocean. Figa Saldaña has been busy leading a team of engineers to ensure that EUMETSAT's role in the Copernicus Sentinel-6 mission is fulfilled.

She is responsible for the ground segment, which consists of the infrastructure required to monitor and control the satellite, to acquire the scientific data from the instruments on board, and to process and disseminate data products to people who use them.

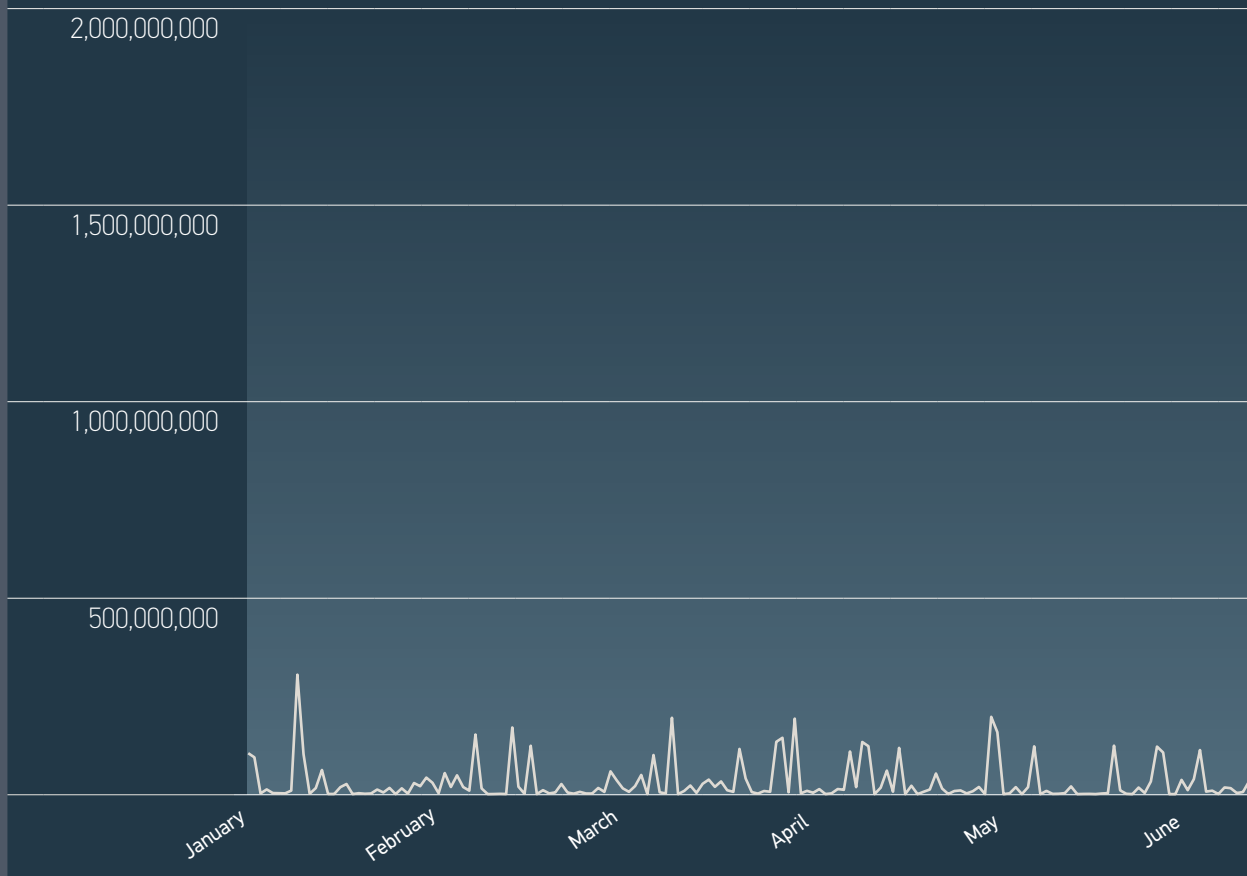
The successful launch of the series' second satellite marks an important step forward in the continuity of the Sentinel-6 mission, which plays a crucial role as the high-precision reference altimetry mission, against which other satellite altimeters are calibrated.

> The main reason for altimetry missions, and this reference mission in particular, is to continue a very important record of global mean sea level started in 1992 by TOPEX-Poseidon, the first oceanographic altimetry mission.

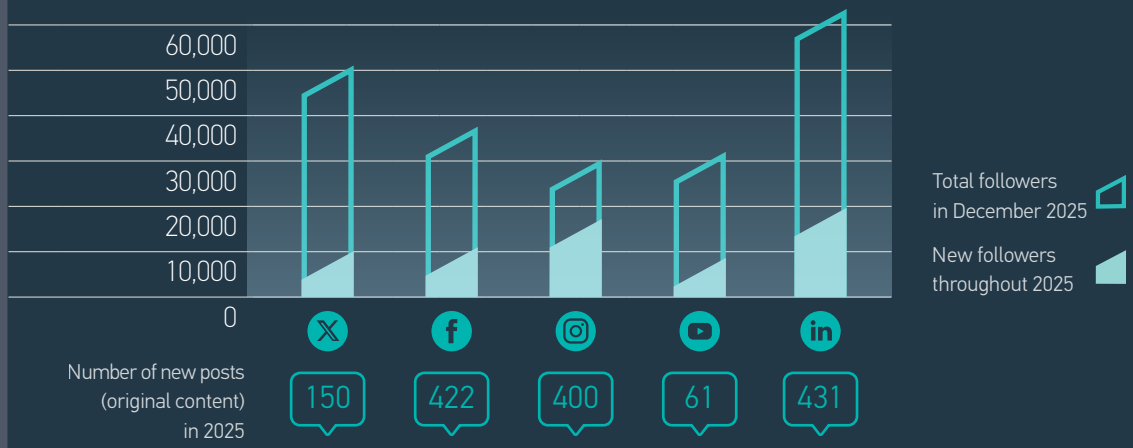
Julia Figa Saldaña
Ocean Altimetry Programme Manager

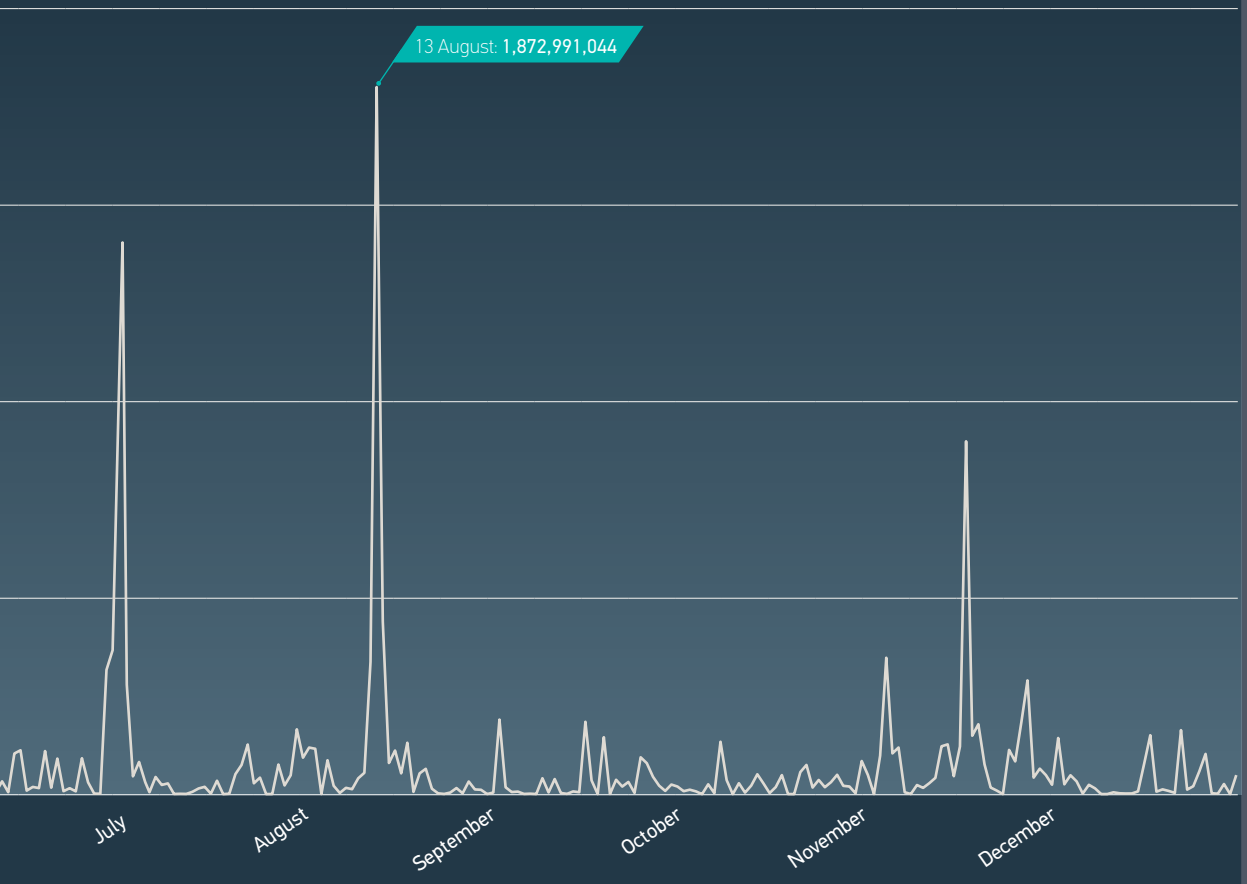
How many people saw EUMETSAT in the media, in 2025

Estimates provided by media outlets



How many people are following us on social media, in 2025





125,172

Average number of visitors to the website per month in 2025

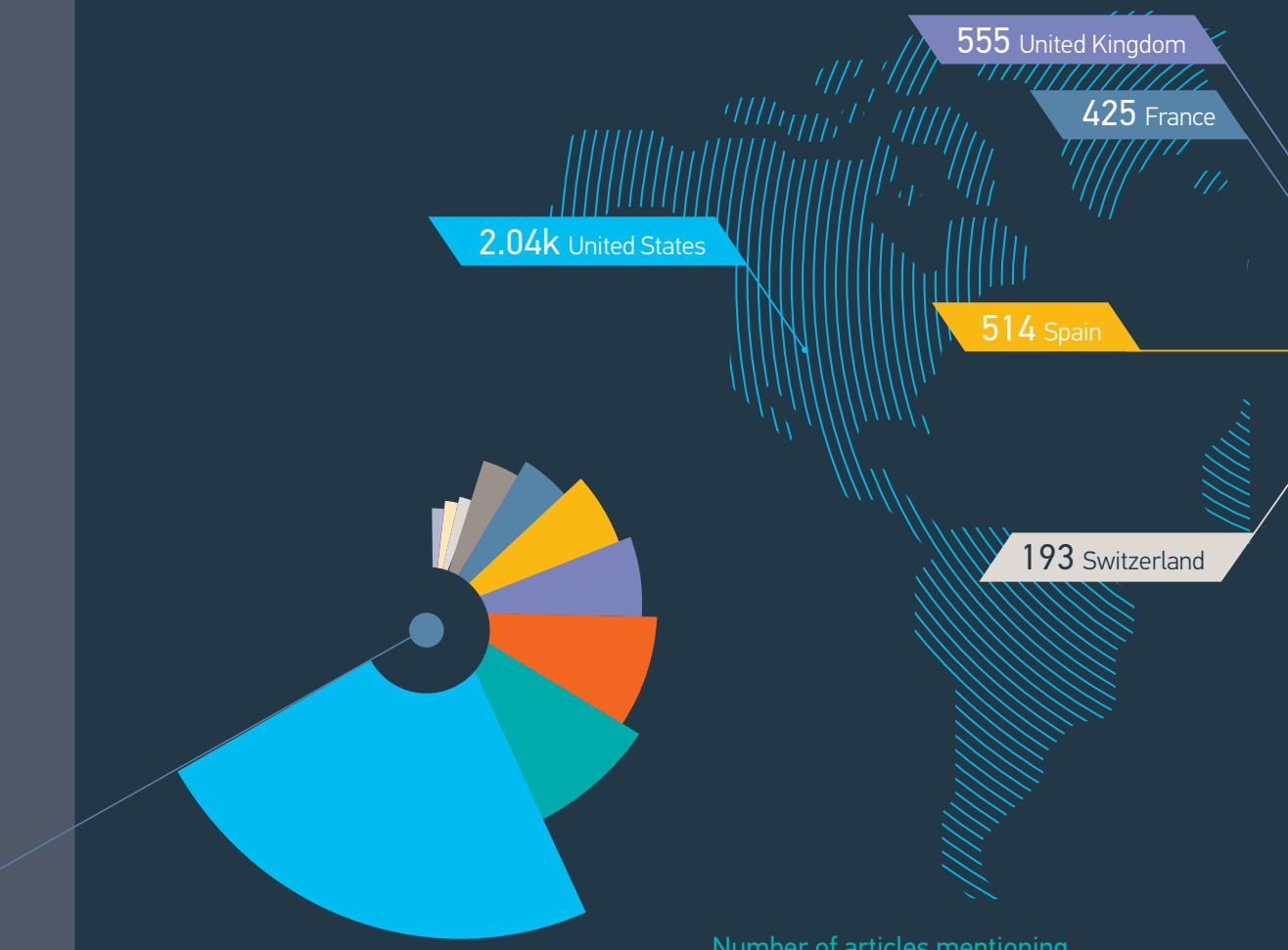
21

Total number of press releases published in 2025

7,700

Total number of articles published in the media mentioning EUMETSAT in 2025

The ten countries where EUMETSAT was most visible in the media in 2025



Number of articles mentioning EUMETSAT and proportion of the total number per country, published in 2025

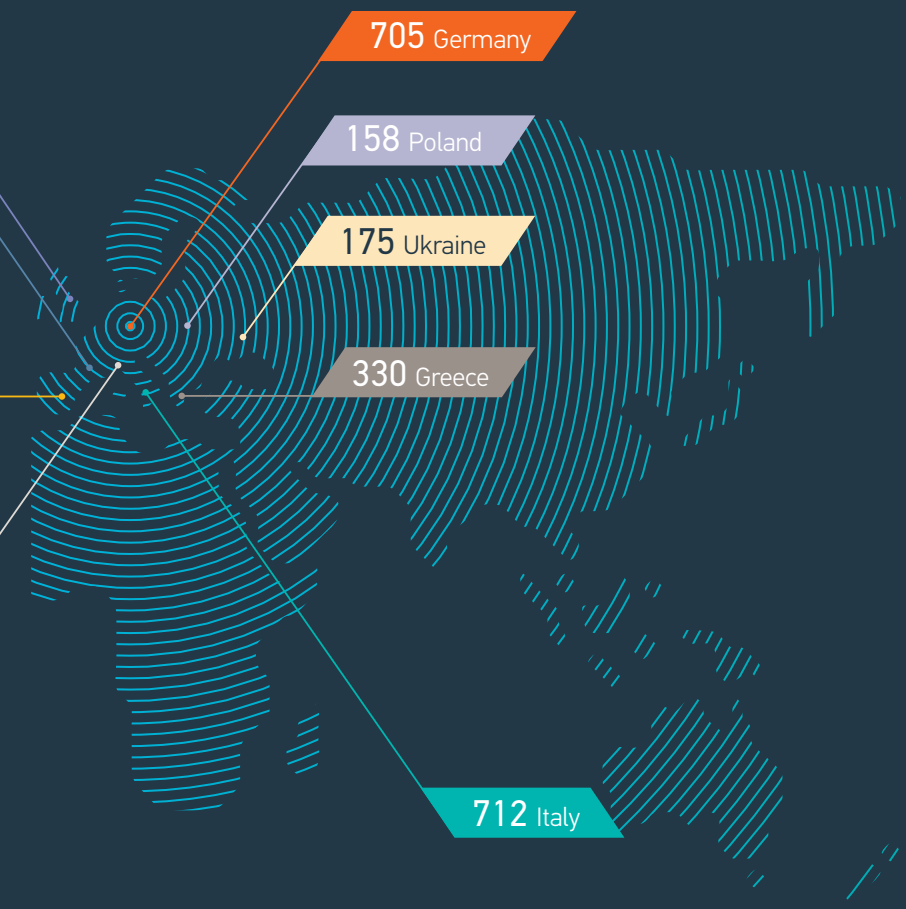
US **United States** | 2.04k | 26.5%

IT **Italy** | 712 | 9.2%

DE **Germany** | 705 | 9.2%

GB **United Kingdom** | 555 | 7.2%

ES **Spain** | 514 | 6.7%



FR **France** | 425 | 5.5%

GR **Greece** | 330 | 4.3%

CH **Switzerland** | 193 | 2.5%

UA **Ukraine** | 175 | 2.3%

PL **Poland** | 158 | 2.1%

Human resources

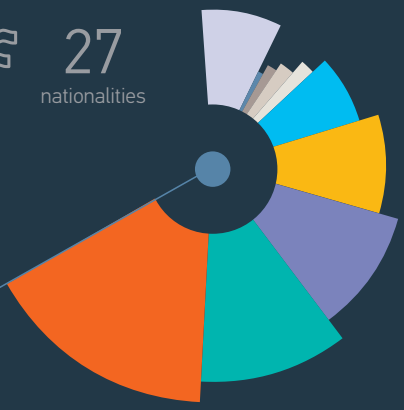
669
staff in post

Staff in post

At the end of December 2025 there were 669 staff in post. Across 2025, there were 53 starters and 21 leavers.

- Administration | 166
- Engineering | 395
- Science | 103
- Senior management | 5

27
nationalities



Staff nationalities

- German | 160
- Italian | 105
- Spanish | 101
- British | 89
- French | 69
- Turkish | 21
- Portuguese | 18
- Romanian | 12
- Irish | 11
- Other | 83

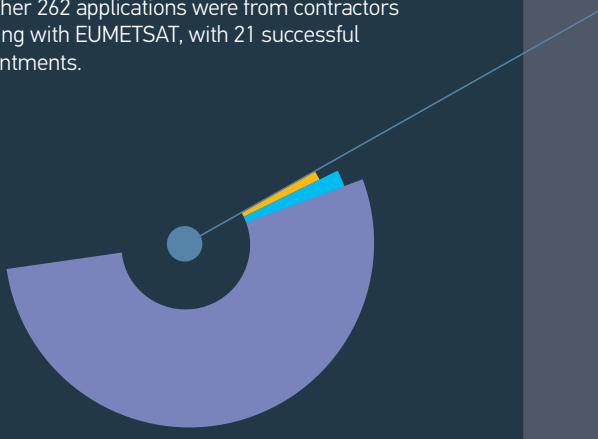
Other

Belgian 10, Greek 10, Dutch 9, Polish 8, Finnish 6, Hungarian 5, Swedish 5, Bulgarian 4, Croatian 4, Slovakian 4, Swiss 4, Austrian 3, Lithuanian 3, Danish 2, Norwegian 2, Slovenian 2, Czech 1, Estonian 1

Recruitment and gender balance

8,771 applications were received for vacancies filled in 2025, of which 32.1% were from women.

A total of 102 applications were from EUMETSAT staff, with 19 successful internal appointments. A further 262 applications were from contractors working with EUMETSAT, with 21 successful appointments.



Recruitment 2025

Staff applications | 102

Contractor applications | 262

External applications | 8,407

% of female candidates 2025

B grade posts

Applications | 52%

Shortlisted | 76%

Suitable | 84%

Appointed | 82%

A1 grade posts

Applications | 41%

Shortlisted | 47%

Suitable | 42%

Appointed | 33%

A2-A4 grade (incl. A3-A4)

Applications | 24%

Shortlisted | 28%

Suitable | 30%

Appointed | 39%

A4-A5 grade posts

Applications | 16%

Shortlisted | 8%

Suitable | 6%

Appointed | 0%

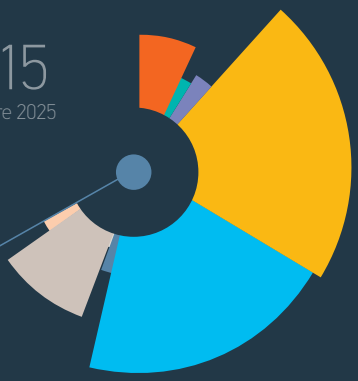
Financial information

The Financial Statements are extracted from the EUMETSAT Annual Accounts 2025 that have been audited by the Turkish Court of Accounts (TCA) with an unmodified opinion and approved by the 111th Council on 1 July 2026.

Expenditure Budgets 2025

M€ 815

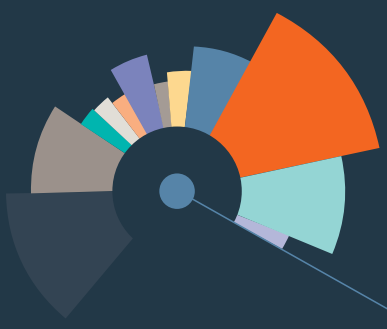
Total expenditure 2025



General Budget (GB)	M€ 86,8
Meteosat Second Generation (MSG)	M€ 23,3
EUMETSAT Polar System (EPS)	M€ 34.2
Meteosat Third Generation (MTG)	M€ 265.2
EPS - Second Generation (EPS-SG)	M€ 245
EPS-Sterna	M€ 21.1
Jason-CS	M€ 2.5
Copernicus 2.0	M€ 114.6
Destination Earth (DestinE)	M€ 22.3
Total	**M€ 815**

Member State contributions 2025

	KEUR
Austria	11,086
Belgium	13,525
Bulgaria	1,694
Croatia	1,538
Czechia	6,002
Denmark	9,293
Estonia	793
Finland	6,884
France	69,200
Germany	101,033
Greece	4,901
Hungary	3,967
Iceland	590
Ireland	8,208
Italy	49,579
Latvia	870
Lithuania	1,391
Luxembourg	1,280
Netherlands	22,880
Norway	10,616
Poland	14,544
Portugal	5,775
Romania	6,179
Slovakia	2,639
Slovenia	1,357
Spain	33,343
Sweden	14,481
Switzerland	17,908
Türkiye	18,337
United Kingdom	67,995
Total member state contributions	**507,888**



M€ 507.888

Total Member State contributions 2025

EUMETSAT statement of the financial position

		EUR		EUR
Assets		**31 December 2025**		**31 December 2024**
Current assets				
Cash and cash equivalents		359,645,030.68		327,625,290.20
Receivable from non-exchange transactions		518,645,898.89		516,668,956.71
Receivable contributions	483,222,000.00		487,058,000.00	
Receivable MRM/launch delay contingency	18,900,000.00		12,800,000.00	
Receivable VAT/taxes	16,523,898.89		16,810,956.71	
Receivable from exchange transactions		206,490,139.14		295,494,475.34
Accounts receivable	4,137,831.64		4,157,295.38	
Advance payment and accrued income	201,523,837.28		289,951,203.32	
Receivable Interest	828,470.22		1,385,976.64	
Other assets		35,935,638.68		31,590,899.24
Assets held for sale		0.00		3,583.23
Non-current assets				
Financial assets		315,025,660.03		277,550,498.57
Other tangible fixed assets		1,186,578.92		1,138,207.36
Land, heritage assets and buildings		81,008,708.57		81,512,448.49
Technical equipment		191,392,577.10		225,753,016.39
Satellites		4,899,836,074.42		3,341,878,898.74
Intangible assets		98,024,540.55		97,228,199.15
TOTAL ASSETS		**6,707,190,846.98**		**5,196,444,473.42**
Liabilities		**31 December 2025**		**31 December 2024**
Current liabilities				
Payable under non-exchange transactions		669,141,981.16		677,355,886.83
WCF payable	181,345,935.98		171,702,307.92	
Incurred surplus unpaid	4,574,045.18		18,595,578.91	
Deferred contributions	483,222,000.00		487,058,000.00	
Payable under exchange transactions		121,891,883.05		105,976,060.76
Accounts payable	39,736,734.55		10,648,556.16	
Accruals and deferred income	82,155,148.50		95,327,504.60	
Other financial liabilities		88,308,719.88		55,287,475.49
Employee benefits		9,090,919.81		7,877,361.82
Other provisions		41,437.50		53,300.00
Non-current liabilities				
Employee benefits		659,855,176.69		744,773,082.28
Other financial liabilities		669,620.00		592,466.00
TOTAL LIABILITIES		**1,548,999,738.09**		**1,591,915,633.18**
Net Assets		**5,158,191,108.89**		**3,604,528,840.24**
Surpluses/net assets/equity				
Reserves		5,126,157,986.18		3,577,622,741.70
Assets	5,271,448,479.56		3,747,514,353.36	
Budget carry forward	11,008,918.33		11,769,618.26	
Reserve advance payments	182,222,374.10		280,686,294.68	
Employee benefits	-349,241,984.88		-468,119,569.85	
Deferred	10,720,199.07		5,772,045.25	
Net result of the year		32,033,122.71		26,906,098.54
TOTAL NET ASSETS		**5,158,191,108.89**		**3,604,528,840.24**

Financial information

EUMETSAT statement of the financial performance

	EUR 2025	EUR 2024
Operating revenue		
Contributions	650,016,613.56	643,107,984.41
Pension Revenue	21,534,755.61	24,249,403.28
Sales Revenue	1,496,333.33	1,454,333.32
Other Revenue	76,314,820.07	24,161,492.41
Revenue from Assets	19,116,678.45	19,885,025.18
Transfers without a binding arrangement	1,446,726,677.79	10,152,252.00
Total Operating Revenue	**2,215,205,878.81**	723,010,490.60
Operating Expenses		
Costs for Human Resources	284,792,799.22	257,308,423.48
Other Operating Expenses	20,598,463.60	18,583,342.26
Satellite related costs	117,225,317.82	177,563,906.31
SAF. Prospective Activities. Research Fellows	14,122,285.94	13,912,121.81
Depreciation and Losses from Disposal of Assets	332,745,430.66	229,348,653.55
Total Operating Expenses	**769,484,297.24**	696,716,447.41
NET SURPLUS/DEFICIT FROM OPERATING ACTIVITIES	**1,445,721,581.57**	26,294,043.19
Financial operations revenue	**6,414,940.78**	9,280,680.47
Financial Operations Expenses	**14,059.16**	13,008.28
NET SURPLUS/DEFICIT FROM ORDINARY ACTIVITIES	**1,452,122,463.19**	35,561,715.38
Extraordinary Items		
NET SURPLUS/DEFICIT FROM THE PERIOD	**1,452,122,463.19**	35,561,715.38
Attributable to :		
Incurred Surplus unpaid	**-4,574,045.18**	-18,595,578.91
Net result of the year	**-32,033,122.71**	-26,906,098.54
Result Allocated to Reserves	**-1,415,515,295.30**	9,939,962.07

EUMETSAT statement of the cash flow

	EUR 2025	EUR 2024
Cash Flows from Operating Activities		
Surplus / (Deficit) from ordinary activities	1,445,908,736.71	26,627,297.65
Cash inflows from interest	6,213,726.48	8,934,417.73
Non-Cash Movements		
Depreciation. net	332,739,994.70	229,348,532.55
(Gains) losses on property. plant and equipment	-1,465,843,356.24	-30,037,277.18
(Gains) losses on property. plant and equipment	5,435.96	121.00
Receivable contributions	3,836,000.00	19,581,927.27
Receivable mrm/launch delay	-6,100,000.00	-12,800,000.00
Accrued income/deferred expenditure	-9,309,896.05	-2,461,888.97
Accounts receivable and prepayments	74,268,089.13	37,653,456.36
Receivable interest	557,506.42	108,012.26
Receivable vat/taxes	287,057.82	-265,651.51
Other assets	-4,344,739.44	-3,986,864.97
Vendor payables	29,971,070.50	-13,519,261.90
Staff payables	501,491.32	393,195.59
Deferred income/accrued expenditure	2,939,352.76	7,407,196.25
Accruals/provisions	-16,034,554.86	23,560,169.29
Increase/ (decrease) in health insurance and unemployment reserves	-25,583,222.03	-13,946,060.00
Other financial liabilities	33,021,244.39	-15,234,948.25
Net cash flow from operating activities	**403,033,937.57**	261,362,373.17
Cash flows from investing activities		
Increase / (decrease) in fixed asset	-390,836,200.62	-221,825,865.47
Increase / (decrease) in financial assets - pension budget	-4,202,981.66	-9,438,270.87
Increase / (decrease) in reserve fund	35,668,215.20	12,596,070.13
Net cash flow from investing activities	**-359,370,967.08**	-218,668,066.21
Cash flows from financing activities		
Wcf's payable	9,643,628.06	25,346,986.59
Incurred surplus unpaid	-14,021,533.73	2,102,213.41
Deferred contribution	-3,836,000.00	-18,979,000.00
Advance payments	23,488,636.70	-10,201,196.76
Provisions	-11,862.50	0.00
Surplus previous year(s) to be distributed	-26,906,098.54	-30,155,433.86
Net cash flow from financing activities	**-11,643,230.01**	-31,886,430.62
Net increase / (decrease) in cash and cash equivalents	**32,019,740.48**	10,807,876.34
Cash and cash equivalents at beginning of period	**327,625,290.20**	316,817,413.86
Cash and cash equivalents at end of period	**359,645,030.68**	327,625,290.20

Financial information

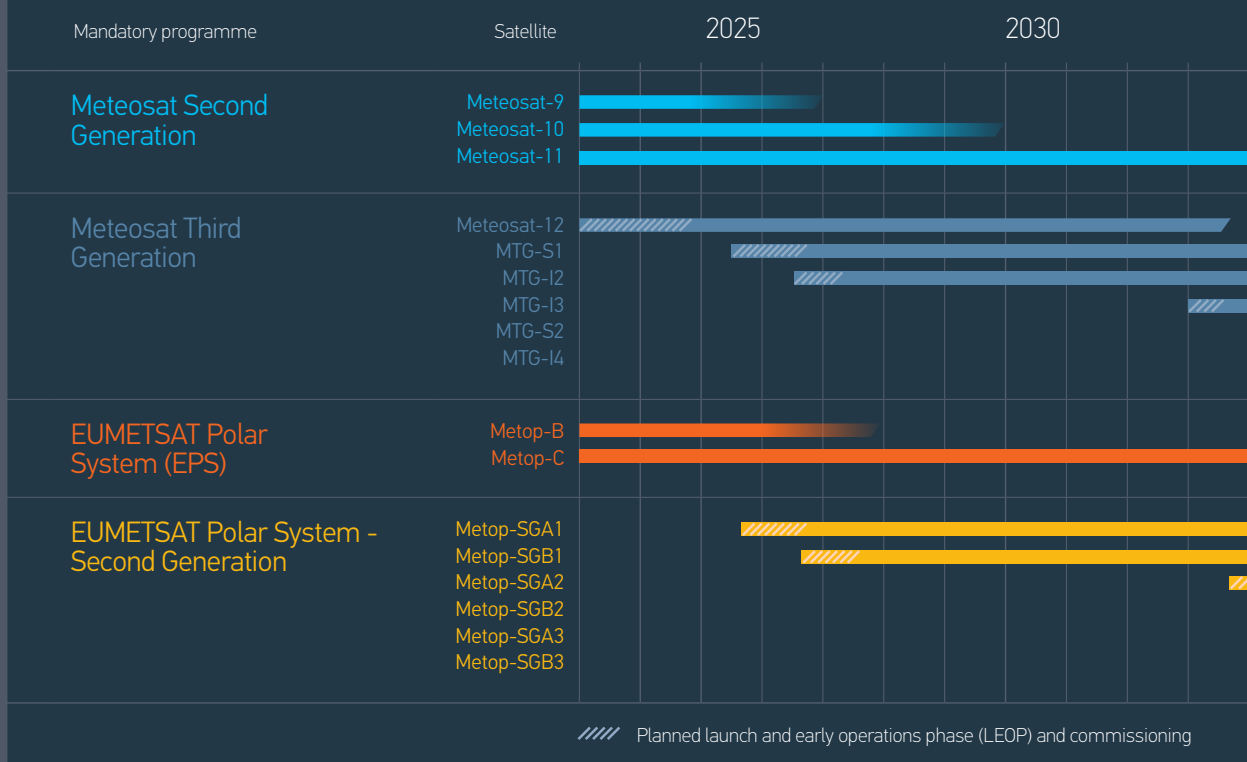
EUMETSAT statement of the changes in net assets

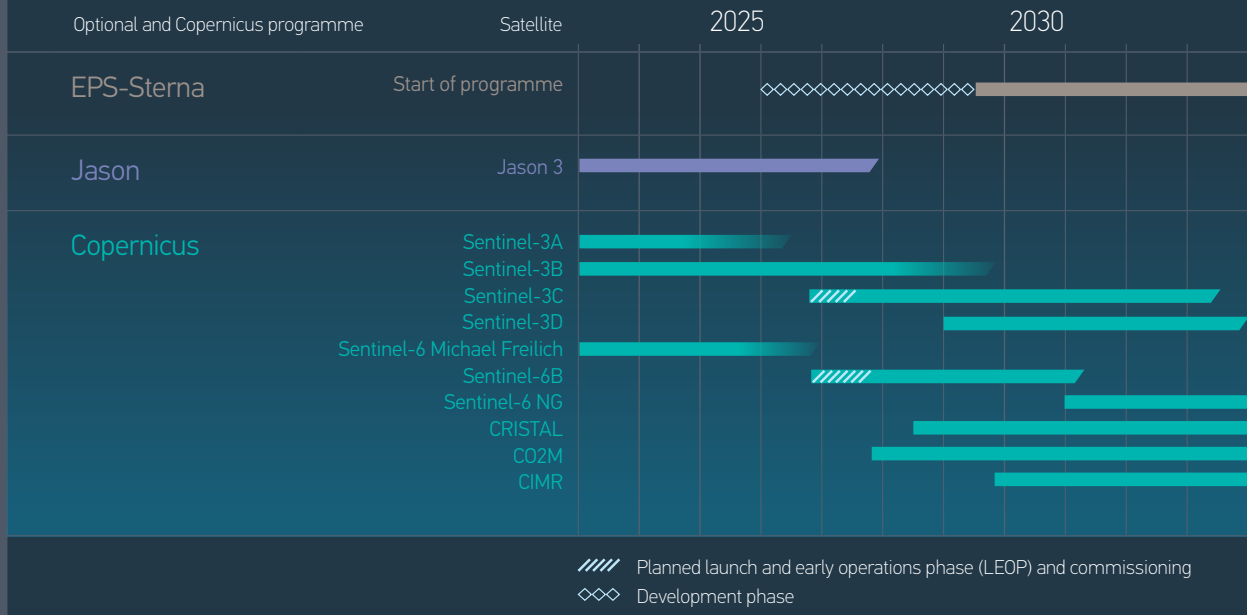
	Asset Reserve	Reserve for accrual/ deferral of expenses	Advance payments reserve
Balance on 31 December 2023	**3,725,047,799.23**	**4,565,021.80**	**306,957,259.56**
Net revenue recognised directly in net assets/ equity	-47,934.97		
Surplus / (Deficit) for the period	22,514,489.10	1,207,023.45	-26,270,964.88
Total recognised revenue and expense for the period	22,466,554.13	1,207,023.45	-26,270,964.88
Distribution to Member States			0.00
Balance on 31 December 2024	**3,747,514,353.36**	**5,772,045.25**	**280,686,294.68**
Net revenue recognised directly in net assets/ equity	0.00		
Surplus / (Deficit) for the period	1,523,934,126.20	4,948,153.82	-98,463,920.58
Total recognised revenue and expense for the period	1,523,934,126.20	4,948,153.82	-98,463,920.58
Distribution to Member States			0.00
Balance on 31 December 2025	**5,271,448,479.56**	**10,720,199.07**	**182,222,374.10**

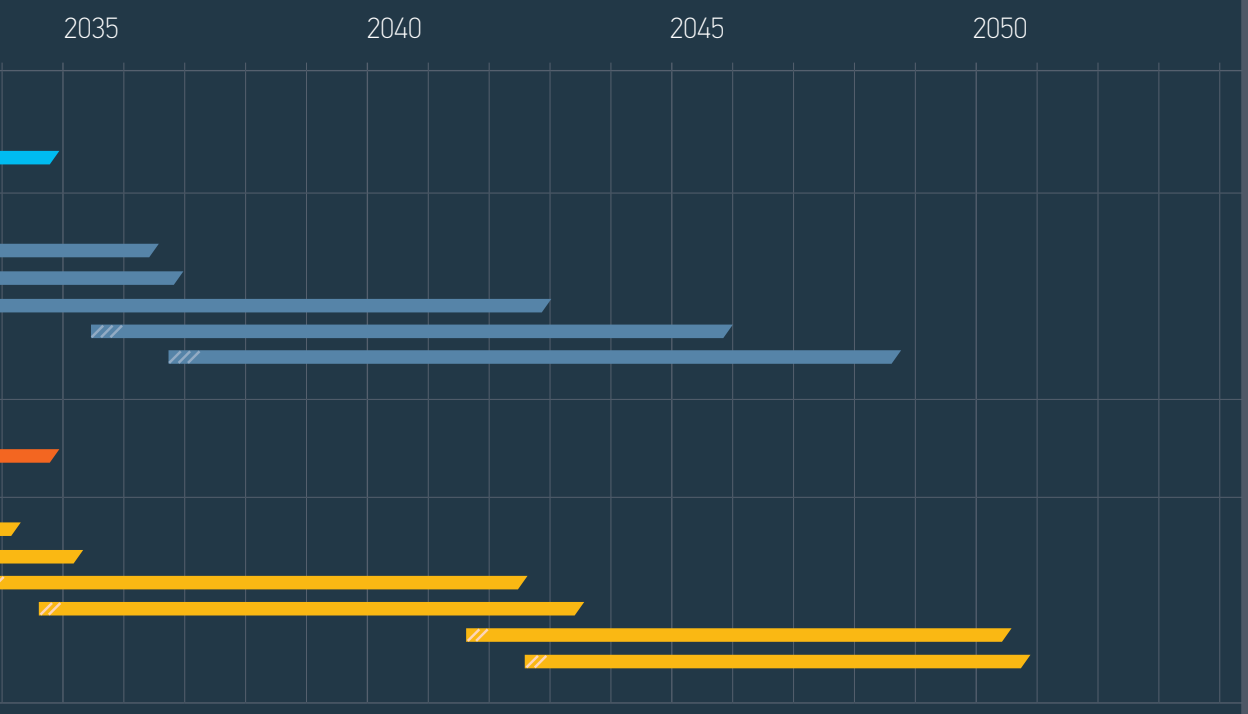
Employee benefits reserve	Budget carry forward	Surplus distributed to Member States	Total net assets 2025
-499,198,293.83	**13,490,100.06**	**30,155,433.86**	**3,581,017,320.68**
59,808,495.67			59,760,560.70
-5,670,027.94	-1,720,481.80	45,501,677.45	35,561,715.38
54,138,467.73	-1,720,481.80	45,501,677.45	95,322,276.08
-23,059,743.75	0.00	-48,751,012.77	-71,810,756.52
-468,119,569.85	**11,769,618.26**	**26,906,098.54**	**3,604,528,840.24**
150,295,110.64			150,295,110.64
-14,142,364.21	-760,699.93	36,607,167.89	1,452,122,463.19
136,152,746.43	-760,699.93	36,607,167.89	1,602,417,573.83
-17,275,161.46	0.00	-31,480,143.72	-48,755,305.18
-349,241,984.88	**11,008,918.33**	**32,033,122.71**	**5,158,191,108.89**

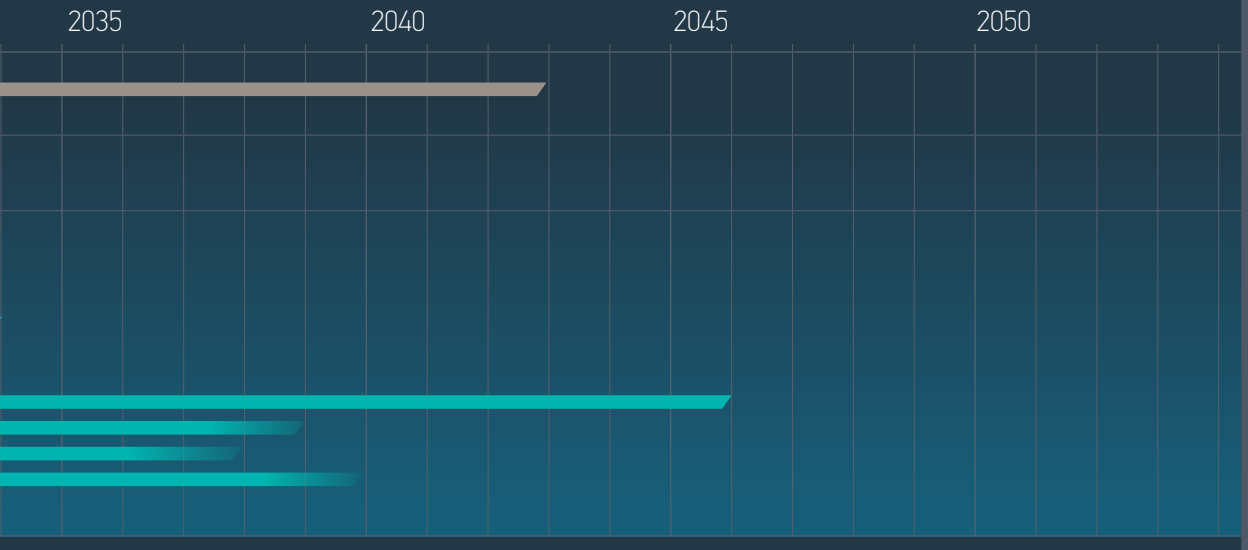
Mission planning

31 December 2025

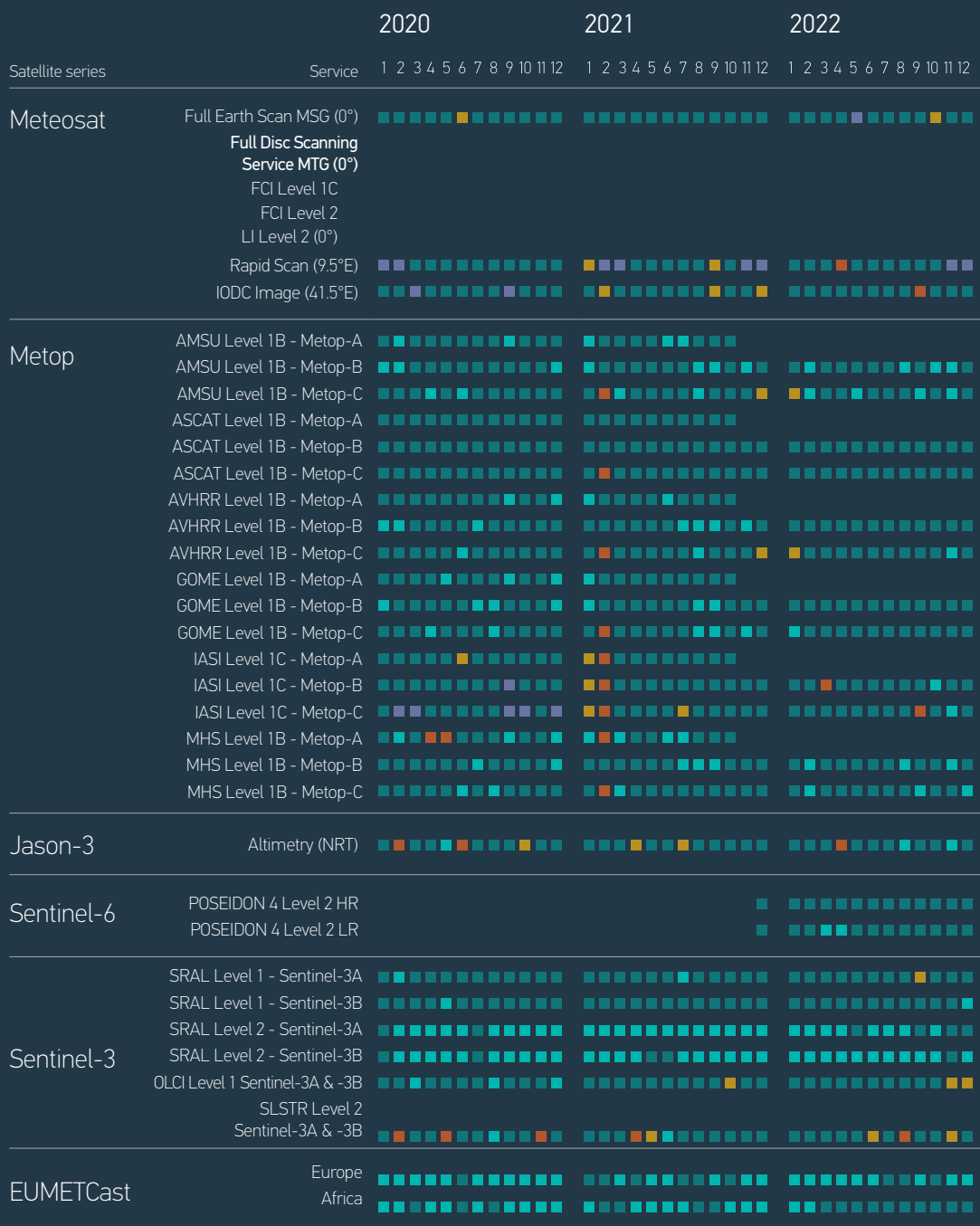





2035
2040
2045
2050


2035
2040
2045
2050

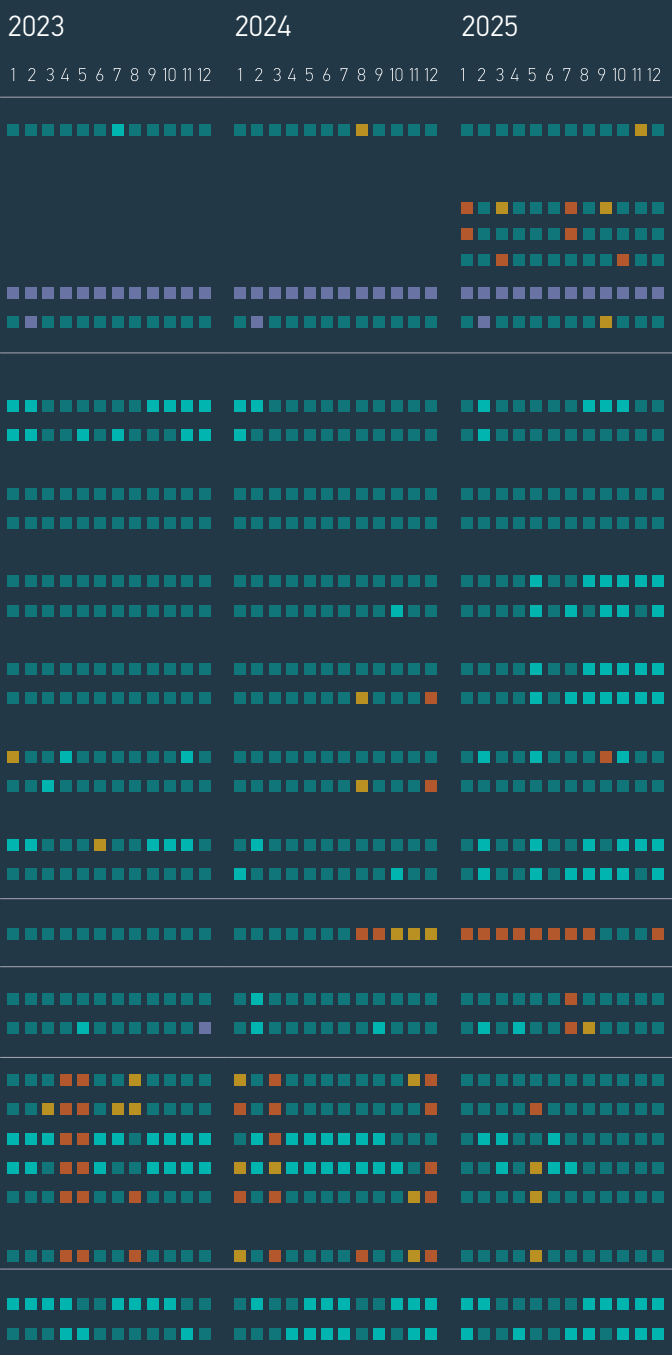
Operational performance



Service availability to users

▲ Above target ■ 100% availability ■ exceeded target

▼ Below target ■ within 1% of reaching target ■ more than 1% below target ■ below target due to planned service interruption



EUMETSAT user base

3,289
enquiries

User enquiries

3,289 user enquiries were processed in 2025, with 67% from EUMETSAT Member States.

Member States | 2,204

Others | 1,085

5,091
registered
EUMETCast
stations

EUMETCast

At the end of December 2025, there were 5,091 registered EUMETCast stations exploited by 3,345 registered users.

2025 | 5,091

2024 | 4,961

2023 | 5,004

2022 | 4,913

2021 | 4,762

2020 | 4,616

2019 | 4,389

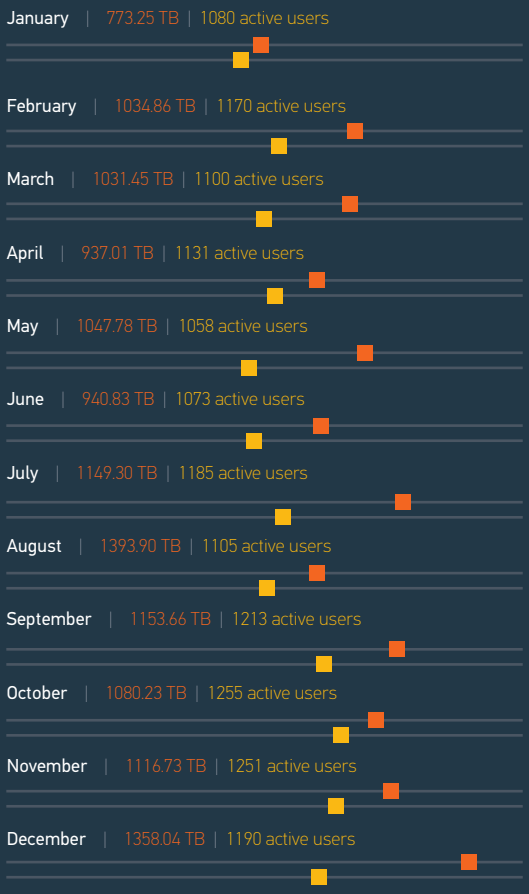
2018 | 4,132

2017 | 4,041

2016 | 3,972

Data store

In 2025 a total volume of 13,017.10 terabytes (TB) was delivered, with an average of 1,151 unique users per month.



Total delivery volume in TB per month for the Data Store

Total number of unique active users per month for the Data Store

EUMETView

EUMETView attracted more than 12,355 individual users per day on average. They generated an average 42.25 million visualisations each month.

Total individual users per month for EUMETView

Total Visualisation Requests per month for EUMETView

EUMETSAT delegate body chairs 2025

Council

Chair	Vice-Chair
Mr E. Moran *Met Éireann*	*Ms M. Vendel Thyrring* *Danmarks Meteorologiske Institut*

Policy Advisory Committee (PAC)

Chair	Vice-Chair
Mr P. Rottiers *Belgian Space Policy Office (BELSPO)*	*Dr D. Biron* *Aeronautica Militare*

Scientific and Technical Group (STG)

Chair	Vice-Chair
Dr I. Trigo *Instituto Português do Mar e da Atmosfera*	*Mr I. Pelajić* *Državni hidrometeorološki zavod*

STG Operations Working Group (STG-OWG)

from 1 September 2025

Chair	Vice-Chair
Mr L. Clementi *Federal Office of Meteorology and Climatology MeteoSwiss*	*Ms Szofia Kocsis* *Országos Meteorológiai Szolgálat*

until 31 August 2025

Chair	Vice-Chair
Mr P. de Valk *Royal Netherlands Meteorological Institute (KNMI)*	*Dr S. Keogh* *Met Office*

STG Science Working Group (STG-SWG)

Chair	Vice-Chair
Dr K. Lauritsen *Danmarks Meteorologiske Institut*	*Dr B. Lapeta* *Instytut Meteorologii i Gospodarki Wodnej Państwowy Instytut Badawczy*

Administrative and Finance Group (AFG)

Chair

Ms J. Prendergast
Met Éireann

Vice-Chair

Mr J. Trzosowski
Instytut Meteorologii i Gospodarki Wodnej Państwowy Instytut Badawczy

AFG Audit Committee

Chair

Ms J. Prendergast
Met Éireann

Vice-Chair

Mr J. Trzosowski
Instytut Meteorologii i Gospodarki Wodnej Państwowy Instytut Badawczy

Data Policy Group (DPG)

from 22 October 2025

Chair

Dr C. Lukasczyk
Federal Office of Meteorology and Climatology MeteoSwiss

until 21 October 2025

Chair

Mr S. Ulatowski
Instytut Meteorologii i Gospodarki Wodnej Państwowy Instytut Badawczy

Vice-Chair

Dr C. Lukasczyk
Federal Office of Meteorology and Climatology MeteoSwiss

Organisation chart

Official EUMETSAT organigramme
1 January 2026

Sean Burns

Director of Operations and Services to Users

Copernicus Programme and Service Management Office

Lieven Bydekerke

Flight Operations

Gareth Williams

Real Time Services and System Operations

Jenny Rourke

User Support and Climate Services

Joachim Saalmüller

Eleni Katsampani

Director of Administration

Contracts

Simon Philips

Finance

Per Collin

General Services

Bernd Kaufmann

Human Resources

Raffael Clerici

Legal Affairs

Mechtild Lauth

Graziano Mori

Director of Technical and Scientific Support

Digital Solutions and SAF

Lothar Wolf

Infrastructure for IT and Data

Andy Phelps

Information and Communication Technology

Okan Gümrah

Process Assurance and Management Support

Andrea Duflaut

Remote Sensing and Products

Bojan Bojkov

Satellite System Ground Segments

Óscar Pérez Navarro

EUMETSAT Council delegates and advisors

Austria

• **Mr A. Schaffhauser**	GeoSphere Austria
Dr G. Wotawa	GeoSphere Austria
Mr L-A. Berset	Austrian Research Promotion Agency Aeronautics and Space Agency (FFG-ALR)

Belgium

• **Dr D. Gellens**	Royal Meteorological Institute of Belgium (KMI)
Mr P. Rottiers	Belgian Science Policy Office, Space Department (BELSPO)

Bulgaria

• **Prof. Dr. T. Marinova**	National Institute of Meteorology and Hydrology
Prof. Dr. C. Georgiev	National Institute of Meteorology and Hydrology

Croatia

• **Dr I. Guettler**	Croatian Meteorological and Hydrological Service (DHMZ)
Ms I. Grljak	Croatian Meteorological and Hydrological Service (DHMZ)
Mr I. Pelajic	Croatian Meteorological and Hydrological Service (DHMZ)

Czechia

• **Mag. M. Rieder**	Czech Hydrometeorological Institute (CHMI)
Dr M. Setvák	Czech Hydrometeorological Institute (CHMI)
Dr J. Stastka	Czech Hydrometeorological Institute (CHMI)

Denmark

• **Ms M. Thyrring**	Danmarks Meteorologiske Institut (DMI)
Mr T. Kjellberg Christensen	Danmarks Meteorologiske Institut (DMI)

Estonia

• **Mr T. Ala**	Estonian Environment Agency
Ms K. Rosin	Estonian Environment Agency

Finland

• **Prof. P. Taalas**	Finnish Meteorological Institute
Ms M. Haarala	Finnish Meteorological Institute
Prof. A.-M. Harri	Finnish Meteorological Institute
Mr J. Pulliainen	Finnish Meteorological Institute

France

• **Mr A. Soulan**	Météo France
Ms P. Joyeux	Météo France
Ms A. Magnouloux	Météo France
Ms M. Chiricao	Ministry of Higher Education and Research
Ms M. Lafaye	Centre National d'Etudes Spatiales (CNES)

Germany

• **Prof. Dr S. Jones**	Deutscher Wetterdienst (DWD)
Mr M. Rohn	Deutscher Wetterdienst (DWD)
Dr G. Seuffert	Bundesministerium für Digitales und Verkehr Referat DK22 (BMVI)
Dr M. Uphoff	Bundesministerium für Digitales und Verkehr Referat DK22 (BMVI)
Dr M. Nyenhuis	German Aerospace Center (DLR)

Greece

↘ **Col. I. Patsiouras**	Hellenic National Meteorological Service (HNMS)
↖ **Brig. Gen. K. Marousos**	Hellenic National Meteorological Service (HNMS)
Col. K. Kolokythas	Hellenic National Meteorological Service (HNMS)
Capt. A. Paraskevas	Hellenic National Meteorological Service (HNMS)
Col. V. Tsopanas	Hellenic National Meteorological Service (HNMS)

Hungary

• **Mr G. G. Szanka**	HungaroMet
Dr M. Diószeghy	HungaroMet
Dr E. Lábó-Szappanos	HungaroMet

Iceland

• **Ms H. Thorsteinsson**	Icelandic Meteorological Office
Mr I. Kristinsson	Icelandic Meteorological Office

Ireland

• **Mr E. Moran**	Met Éireann
• **Ms J. Prendergast**	Met Éireann
Dr S. O'Reilly	Met Éireann

Italy

↘ **Brig. Gen. G. Addesa**	Aeronautica Militare SMA-AVIAMM
↖ **Brig. Gen. L. Baione**	Aeronautica Militare SMA-AVIAMM
Lt. Col. D. Biron	Aeronautica Militare SMA-AVIAMM
Ms P. Sacco	Italian Space Agency (ASI)

Latvia

• **Ms S. Skapare**	State Ltd Latvian Environment, Geology and Meteorology Centre
Mr A. Viksna	State Ltd Latvian Environment, Geology and Meteorology Centre

• *Head of Delegation* ↖ *Outgoing Head of Delegation* ↘ *Incoming Head of Delegation* • *Chairperson*

Lithuania

• **Mr R. Valanciauskas**	Lithuanian Hydrometeorological Service under the Ministry of Environment

Luxembourg

• **Ms M. Reckwerth**	MeteoLux, Administration de la navigation aérienne

Netherlands

• **Prof. Dr. M. van Aalst**	Royal Netherlands Meteorological Institute (KNMI)
Dr F. Helmich	Royal Netherlands Meteorological Institute (KNMI)
Dr G. Verner	Royal Netherlands Meteorological Institute (KNMI)

Norway

• **Mr R. Skålin**	Norwegian Meteorological Institute
Mr L.A. Breivik	Norwegian Meteorological Institute
Mr S. Rasmussen	Norwegian Meteorological Institute
Dr J. Tradowsky	Norwegian Meteorological Institute

Poland

• **Prof. Dr R. Czerniawski**	Institute of Meteorology and Water Management (NRI)
Dr A. Rutkowski	Institute of Meteorology and Water Management (NRI)
Mr J. Trzosowski	Institute of Meteorology and Water Management (NRI)
Mr S. Ulatowski	Institute of Meteorology and Water Management (NRI)

Portugal

• **Prof. J. A. Guerreiro da Silva**	Instituto Português do Mar e da Atmosfera
Mr T. Alves de Carvalho	Instituto Português do Mar e da Atmosfera
Ms I. Trigo	Instituto Português do Mar e da Atmosfera

Romania

• **Dr E. Mateescu**	National Meteorological Administration
Dr F. Georgescu	National Meteorological Administration
Dr A. Irimescu	National Meteorological Administration
Dr G. Stancalie	National Meteorological Administration

Slovakia

• **Mr V. Cisar**	Slovak Hydrometeorological Institute (SHMU)
• **Mr V. Rak**	Slovak Hydrometeorological Institute (SHMU)
Dr J. Kaňák	Slovak Hydrometeorological Institute (SHMU)
Mr P. Kaňák	Slovak Hydrometeorological Institute (SHMU)

Slovenia

• **Ms M. Dolinar**	Slovenian Environment Agency
Mr J. Jerman	Slovenian Environment Agency
Dr M. Savli	Slovenian Environment Agency

Spain

• **Ms M.J. Rallo del Olmo**	State Meteorological Agency (AEMET)
Ms A. Grande Royo-Villanova	State Meteorological Agency (AEMET)
Ms M. R. Pons Reynés	State Meteorological Agency (AEMET)
Mr R. Squella de la Torre	State Meteorological Agency (AEMET)
Mr J. Rey Vidaurrázaga	State Meteorological Agency (AEMET)
Mr R. Díaz-Delgado	AEE - Agencia Espacial Española
Mr N. Martín Martín	AEE - Agencia Espacial Española

Sweden

• **Mr H. Wirtén**	Swedish Meteorological and Hydrological Institute (SMHI)
Ms B. Aarhus Andrae	Swedish Meteorological and Hydrological Institute (SMHI)
Dr A. Devasthale	Swedish Meteorological and Hydrological Institute (SMHI)

Switzerland

• **Prof. Dr C. Appenzeller**	Federal Office of Meteorology and Climatology MeteoSwiss
Dr F. Fontana	Federal Office of Meteorology and Climatology MeteoSwiss
Mr M. Keller	Federal Office of Meteorology and Climatology MeteoSwiss
Mr C. Lukasczyk	Federal Office of Meteorology and Climatology MeteoSwiss

Türkiye

• **Mr V. Mutlu Coskun**	Turkish State Meteorological Service (TSMS)
Mr M. Altinyollar (Interpreter)	Turkish State Meteorological Service (TSMS)
Ms L. Cinar	Turkish State Meteorological Service (TSMS)
Dr K. Öztürk	Turkish State Meteorological Service (TSMS)
Ms N. Sogutcuklu	Turkish State Meteorological Service (TSMS)

United Kingdom

• **Mr S. Brown**	Met Office
Mr S. Green	Met Office
Ms S. Jackson	Met Office
Ms Z. McGrail	Met Office
Mr S. Turner	Met Office

Observers

European Centre for Medium-Range Weather Forecasts

European Space Agency

EUMETNET

European Commission

National Oceanic and Atmospheric Administration

World Meteorological Organization

EUMETSAT participation in major events in 2025

17th European Space Conference	Brussels, Belgium	28-29 January
ESA Programme Board of Earth Observation meeting	Saariselkä, Finland	4-5 February
NOAA-EUMETSAT high-level working group meeting	Washington, USA	12-13 February
Second Radio Occultation Modelling Experiment workshop	Darmstadt, Germany*	25-27 February
7th CGMS WGIII risk assessment workshop	Darmstadt, Germany*	25-27 February
CGMS-53 Working Groups meetings	Xi'an, China	24-28 March
Information Days for Eastern Europe, Caucasus and Central Asia	Chișinău, Moldova	26-27 March
Information Day for Western Balkans	Podgorica, Montenegro	7-8 April
CEOS-SIT 40	Fukuoka, Japan	8-10 April
International Ocean Vector Winds Science Team meeting	Darmstadt, Germany*	5-8 May
ECMWF-EUMETSAT bilateral meeting	Online	7 May
ESA Programme Board of Earth Observation meeting	Online	21-22 May
18th International Conference on Space Operations (SpaceOps)	Montreal, Canada	26-30 May
ESA-EUMETSAT bilateral meeting	Online	23 May
CGMS-53 Plenary session	Evian, France	3-5 June
Third United Nations Ocean Conference	Nice, France	9-13 June
EUMETSAT Information Day for Industry	Darmstadt, Germany*	10 June
Opportunity Workshop for Sentinel-4 and -5	Darmstadt, Germany*	16-18 June
WMO Executive Council (EC-79)	Geneva, Switzerland	16-18 June
Living Planet Symposium	Vienna, Austria	23-27 June
Hessenfest	Berlin, Germany	9 July
CEOS-SIT technical workshop	Darmstadt, Germany*	8-12 September
13th US-EU Space Dialogue	Washington, USA	8-9 September
EUMETSAT user conference	Lyon, France	15-19 September
WMO Rolling Review of Requirements Process workshop	Darmstadt, Germany*	22-24 September
ESA Programme Board of Earth Observation meeting	Paris, France	23-24 September
WMO WIGOS vision update drafting group workshop	Darmstadt, Germany*	25-26 September
Meteorological Technology World Expo	Vienna, Austria	14-16 October
First Foresight Workshop	Darmstadt, Germany*	20-21 October
Extraordinary session of WMO Congress	Geneva, Switzerland	20-24 October
EUMETSAT Climate Symposium	Darmstadt, Germany	28-30 October
39th CEOS Plenary meeting	Bath, UK	4-7 November
3rd GNSS Polarimetric Radio Occultations workshop	Darmstadt, Germany*	10-12 November
SEWA workshop on RARS-Africa	Pretoria, South Africa	10-12 November
ESA Council Meeting at Ministerial Level	Bremen, Germany	25-27 November
Sixth International Ocean Colour Science Meeting	Darmstadt, Germany	1-4 December
ESOC-EUMETSAT bilateral meeting	Darmstadt, Germany	8 December
37th ESA-EUMETSAT bilateral meeting	Paris, France	9 December
ESA Programme Board of Earth Observation meeting	Paris, France	10-11 December
DAWBEE-MTG Expert Workshop	Darmstadt, Germany*	17-19 December

*Hosted by EUMETSAT

Published data records in 2025

SAF data records

	DOI
IASI L2 ozone profile and total ozone climate data record	10.15770/EUM_SAF_AC_0051
Directional lambertian-equivalent reflectivity data record v4.1	10.15770/EUM_SAF_AC_0050
Metop ASCAT Surface Soil Moisture – climate data record v8 + extension 12.5km sampling	10.15770/EUM_SAF_H_0011
Metop ASCAT Surface Soil Moisture – climate data record v1 + extension 6.25km sampling	10.15770/EUM_SAF_H_0012
Sea Ice Concentration CDR v3.1	10.15770/EUM_SAF_OSI_0023

Copernicus climate change service (C3S) data records

Published data records from the CSDP in 2025

	DOI
R2 - IASI L1C	10.15770/EUM_SEC_CLM_0064

Published data records in 2025

Copernicus climate change service (C3S) data records

Published data records reprocessed Copernicus Sentinel-3 and Sentinel-6 data in 2025

	DOI
Poseidon-4 Altimetry Level 1A High Resolution (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0111
Poseidon-4 Altimetry Level 1B High Resolution (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0112
Poseidon-4 Altimetry Level 1B Low Resolution (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0113
Poseidon-4 Altimetry Level 2 High Resolution (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0114
Poseidon-4 Altimetry Level 2 Low Resolution (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0115
Advanced Microwave Radiometer for Climate Level 2 Products (baseline version G01) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0116
Poseidon-4 Level 3 Altimetry Low Resolution (baseline DT2024) - Sentinel-6 - Reprocessed	10.15770/EUM_SEC_CLM_0123

Published data records for C3S in 2025

	DOI
R1 - MSG AMV (rapid scan)	10.15770/EUM_SEC_CLM_0108

Published data records from the SAFs in 2025

	DOI
DR GOME-2 Merged LER surface albedo for GOME-2 (Metop-A/B/C)	10.15770/EUM_SAF_AC_0050
CDR IASI Reprocessed total O3	10.15770/EUM_SAF_AC_0051
DR IASI ozone profile	10.15770/EUM_SAF_AC_0051
CDR IASI Reprocessed O3 profile	10.15770/EUM_SAF_AC_0051
Metop ASCAT SSM CDR v8 12.5 km sampling	10.15770/EUM_SAF_H_0011
Metop ASCAT Surface Soil Moisture Data Record v1 6.25 km sampling	10.15770/EUM_SAF_H_0012
Global Sea Ice Concentration Climate Data Record, release 3.1	10.15770/EUM_SAF_OSI_0023
MSG Evapotranspiration CDR (LSA-350)	10.15770/EUM_SAF_LSA_0014
MSG DailyEvapotranspiration CDR (LSA-351)	10.15770/EUM_SAF_LSA_0014
Latent heat flux CDR (LSA-353)	10.15770/EUM_SAF_LSA_0014

New products released in 2025

Product	Release date
AC SAF Daily IASI dust optical depth*	5 February 2025
NWP SAF RTTOV v14.0	10 February 2025
NWC SAF NWC/PPS v2021.5 PPS Software	10 March 2025
CM SAF High Resolution Solar Radiation for Europe (HANNA)*	16 April 2025
LSA SAF Evapotranspiration and turbulent fluxes NRT products v3	22 April 2025
LSA SAF Evapotranspiration and turbulent fluxes data records v3	22 April 2025
AC SAF Global 1-day UV index forecast	13 May 2025
H SAF Metop ASCAT Surface Soil Moisture NRT 6.25km	23 June 2025
NWP SAF ATOVS and AVHRR Pre-processing Package (AAPP) v8.15	1 July 2025
H SAF Disaggregated Surface Soil Moisture NRT v2 0.5km	2 July 2025
NWC SAF NWC/GEO v2025 MTG Software	4 July 2025
NWP SAF Radiance Simulator (RadSim) v4.0	17 July 2025
OSI SAF MTG Sea Surface Temperature**	25 July 2025
H SAF Blended FCI / LEO MW precipitation	14 August 2025
H SAF Accumulated precipitation at ground by blended MW and IR (MTG)	14 August 2025
H SAF Snow detection (snow mask) MTG/FCI by VIS/IR radiometry	14 August 2025
LSA SAF MTG Daily Surface Albedo**	14 August 2025
LSA SAF MTG Land Surface Temperature**	14 August 2025
H SAF Metop ASCAT Surface Soil Moisture NRT 12.5km sampling product	1 September 2025
LSA SAF MTG Fire Radiative Power*	1 October 2025
NWP SAF 1D-Var package v2.1	28 November 2025

* Released as demonstrational ** Released as pre-operational

Scientific and technical publications 2025

Amini, A., B. Voosoghi, M. Khalili, D. Di Martire, **S. Roohi** and M. Pirooznia. 2025. "Generalized Logistic Function: A Retracker to Improve the Accuracy of Water Level Time Series in Coastal Areas and Lakes." *Remote Sens.* 17 (3): 533.

Antony, R., A. Kottayil, **V. John**, K. Satheesan and P. Xavier. 2025. "Observational Evidence of Increasing Intensity and Frequency of Deep Convective Clouds During the Indian Summer Monsoon Season." *Geophys. Res. Lett.* 52 (4): e2024GL111394.

Asensio-Ramos, M., A. Pardo Cofrades, M. Burton, A. La Spina, P. Allard, J. Barrancos, **C. Hayer**, et al. 2025. "Insights into Magma Dynamics from Daily OP-FTIR Gas Compositions throughout the 2021 Tajogaite Eruption, La Palma, Canary Islands." *Chem. Geol.* 676: 122605.

Ayala, A., A. Merle, F. Pereda and **O. Perez Navarro**. "EUMETSAT Data Processing as Services: Preparing for the Future Missions." *18th Int. Conf. on Space Operations (SpaceOps2025),* Montreal, Canada. 2025.

Benas, N., J. Fokke Meirink, **R. Roebeling** and M. Stengel. 2025. "Analysis of Ship Emission Effects on Clouds over the Southeastern Atlantic Using Geostationary Satellite Observations." *Atmos. Chem. Phys.* 25 (13): 6957–73.

Boynard, A., C. Wespes, J. Hadji-Lazaro, S. Sinnathamby, D. Hurtmans, P. Coheur, **M. Doutriaux-Boucher, J. Onderwaater**, et al. 2025. "Assessment of 16-Year Tropospheric Ozone Trends from the IASI Climate Data Record." *Atmos. Chem. Phys.* 25 (19): 11719–55.

Bracher, A., A. Banks, H. Xi, **D. Desailly, J. Gossn**, C. Lebreton, R. Röttgers, **E. Kwiatkowska**, et al. 2025. "Assessment of OLCI Absorption Coefficients for Non-Water Components across All Optical Water Classes." *Front. Remote Sens.* 6.

Buchhaupt, C., A. Egido, **S. Dinardo**, et al. 2025. "Impact of the Antenna Characteristics on Sea Surface Parameters Estimated from Low- and High-Resolution Satellite Altimetry." *Adv. Space Res.* 75 (8): 6140-6157.

Casanovas, V., A. Canestri, **G. Karsli Demirbas** and **P. Colucci**. "Use of Recursive Model for EPS-Sterna Constellation Design." *18th Int. Conf. on Space Operations (SpaceOps2025),* Montreal, Canada. 2025.

Casonato, G., R. Britton and **L. Garegnani**. "EUMETSAT Machine Learning Framework System and AI/ML Applications." *18th Int. Conf. on Space Operations (SpaceOps2025),* Montreal, Canada. 2025.

Castelli, E., S. Casadio, E. Papandrea, P. Pettinari, M. Valeri, A. Achilli, **B. Bojkov**, et al. 2025. " AIRWAVE-SLSTR—An Algorithm to Estimate the Total Column of Water Vapour from SLSTR Measurements over Liquid Surfaces." *Remote Sens.* 17 (7): 1205.

Chieffi, A., S. Courtin, R. deBoer, R. Depalo, A. Dias-Torres, A. Di Leva, **T. Dumont**, et al. 2025. "The Status of 12C+12C Fusion Process." *Europ. Phys.* J. A 61 (12): 280.

Chimot, J., **E. Martins**, **J. Onderwaater**, **B. Fougnie**, P. Litvinov and O. Dubovik. "Towards Advanced Sentinel-3 Near Real Time (NRT) L2 Synergy Aerosols Capabilities - On-Going Day 2 & Day 3 Developments." *EGU General Assembly 2025*, Vienna, Austria & online. 2025.

Colapicchioni, **A., J. Rodriguez Guerra**, **C. Bergeron** and **G. Aubert**. "Retrieve, transform, deliver: integrating preservation and performance in the EUMETSAT data lake." *2025 Big Data in Space (BiDS'25)*, Riga, Latvia. 2025.

D'Alimonte, D., T. Kajiyama, J. Pitarch, V. Brando, M. Talone, C. Mazeran, M. Twardowski, S. Kolluru, A. Tonizzo, **E. Kwiatkowska**, **D. Dessailly** and **J. Gossn**. 2025. "Comparison of Correction Methods for Bidirectional Effects in Ocean Colour Remote Sensing." *Remote Sens. Environ.* 321: 114606.

Delbrel, J., M. Burton, S. Engwell, B. Esse and **C. Hayer**. 2025. "An Investigation of Changes to Commercial Aircraft Flight Paths during Volcanic Eruptions." *J. Appl. Volcanol.* 14 (1): 2.

Devika, M., A. Kottayil, **A. Lattanzio**, **V. John** and **M. Doutriaux-Boucher**. 2025. "Assessing the Quality of Atmospheric Motion Vectors Using Wind Profiler Radar Observations over Cochin (10.04°N, 76.33°E)." *Int. J. Remote Sens.* 46 (8): 3162-3178.

Scientific and technical publications 2025

Diekmann, C., M. Schneider, P. Knippertz, et al. 2025. "Water Vapour Isotopes over West Africa as Observed from Space: Which Processes Control Tropospheric H2 O/HDO Pair Distributions?" *Atmos. Chem. Phys.* 25 (11): 5409–31.

Edwards, T., **A. Nanni** and **D. Lee**. 2025. "Don't Fear the DevOps – We Already Do It." *18th Int. Conf. on Space Operations (SpaceOps2025),* Montreal, Canada. 2025.

Eriksson, P., A. Emrich, K. Kempe, J. Riesbeck, A. Aljarosha, O. Auriacombe, J. Kugelberg, E, Hekma, R. Albers, A. Murk, S. Møller Pedersen, L. John, J. Stake, P. McEvoy, B. Rydberg, A. Dybbroe, A. Thoss, **A. Canestri**, **C. Accadia**, **P. Colucci**, D. Gherardi and V. Kangas. 2025. "The Arctic Weather Satellite Radiometer." *Atmos. Meas. Tech.* 18 (18): 4709–29.

Esse, B., M. Burton, **C. Hayer**, et al. 2025. "Forecasting the Evolution of the 2021 Tajogaite Eruption, La Palma, with TROPOMI/PlumeTraj-Derived SO2 Emission Rates." *Bull. Volcanol* 87 (3): 20.

Euclid Collaboration, ... **C. Lee**, et al. 2025. "Euclid IV. The NISP Calibration Unit." *Astron. Astrophys.* 697: A4.

Feiteirinha, J., **D. Vicente** and **L. Palladino**. 2025. "A Scalable Architecture for Integrating AI and Non-AI Agents in Space Mission Control Applications." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Fischer, J., ... **S. Bojinski**, et al. 2025. "Invited Perspectives: Thunderstorm Intensification from Mountains to Plains." *Nat. Hazards Earth Syst.Sci.* 25 (8): 2629–56.

Francisco, T., **I. Rourich, L. Ventimiglia**, **A. Johnstone** and **E. Trollope**. "Loosening the Reins on Sentinel-3 on-Board Automation." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Georgeot, A., X. Ceamanos, J. Attié, D. Juncu, **J. Gasteiger** and M. Compiègne. 2025. "Towards Improved Retrieval of Aerosol Properties from the Geostationary Orbit with the New Meteosat Third Generation-Imager Satellite." *Atmos. Meas. Techn.* 18 (18): 4665–93.

Groß, S., V. Freudenthaler, M. Haarig, A. Ansmann, C. Toledano, D. Mateos, P. Seibert, R. Mamouri, A. Nisantzi, **J. Gasteiger**, et al. 2025. "Characterization of Aerosol over the Eastern Mediterranean by Polarization-Sensitive Raman Lidar Measurements during A-LIFE – Aerosol Type Classification and Type Separation." *Atmos. Chem. Phys.* 25 (5): 3191–211.

Hao, N., **R. Lindstrot**, **P. Köhler**, **C. Diekmann**, **Y. Wang**, **M. Gu**, **G. Poli**, **V. Kumar**, **C. Hayer**, **F. Rüthrich**, **S. Gimeno Garcia**, **C. Lee**, **R. Munro** and **B. Bojkov**. "The Path to Sentinel-5/UVNS Operations: Products, Calibration and Validation, Monitoring, and Data Processing Systems." *EGU General Assembly 2025*, Vienna, Austria & online. 2025.

Holmlund, K., **P. Counet**, **F. Martinez Fadrique**, **A. Schmid**, **B. Bojkov**, **R. Munro**, **J. Grandell** and **E. Obligis**. 2025. "The EUMETSAT Satellite Programmes and Data Services." *J. Europ. Meteorol.* Soc. 2: 100005.

Houdroge, R. and **J. De Juana Gamo**. "Elevating Operations: Centralized Flight Dynamics Monitoring for EUMETSAT's Growing Fleet." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Innorta, D., **G. Fowler**, **J. Grandell**, **A. Burini**, **A. Mousivand**, **C. Straif**, **S. Stock**, **M. Lekouara**, **R. Episcopo** and A. Palacios. "Meteosat Third Generation: A System Change to Bring MTG-I1 in Routine Operations." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Jafariserajehlou, S. and **B. Fougnie**. "Multi-Sensor Aerosol Product from EPS-SG Consideration for the Operational Aerosol Product." *EGU General Assembly 2025*, Vienna, Austria & online. 2025.

Jafariserajehlou, S. and **B. Fougnie**. "New Space-Borne Remote Sensing Capabilities Based on Polarimetry and the Implication in Term of Aerosol Chemical Components and the Needs for in-Situ Measurements." *EGU General Assembly 2025,* Vienna, Austria & online. 2025.

Le Menn, M., **A. O'Carroll**, E. Woolliams, M. Lucas, C. Garcia Izquierdo and A. Merlone. "The Measurement Model of Copernicus TRUSTED Fiducial Reference Measurement Drifting Buoys for Sea Surface Temperature." *J. Atmos. Ocean.* Technol. 42 (10): 1349-1362.

Lee, D. and **M. Schick**. "Unlocking the Future of Data Access at EUMETSAT Meeting the Needs of a Growing and Diverse User Community." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Lee, D. and **M. Schick**. "Cloud-native data services at EUMETSAT: a portfolio approach for scalable user access for a diverse user community." *2025 Big Data in Space (BiDS'25)*, Riga, Latvia. 2025.

Legendre, M., S. Langlois, A. Palacios, **G. Fowler**, E. Barbagallo, P. Martin and F. Parinaud. "Overcoming Adversity – Operational Concept Changes to Ensure Europe's next Prime GEO Imaging Instrument Mission." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Li, D., J. Chen, G. Duveiller, C. Frankenberg, **P. Köhler** and K. Yu. 2025. "A More Precise Retrieval of Sun-Induced Chlorophyll Fluorescence from Satellite Data Using Artificial Neural Networks." *Remote Sens. Environ.* 330: 114987.

Luo, Y., ... **B. Husemann**, et al. 2025. "Measuring the Interstellar Medium Content of Nearby, Luminous, Type 1 and Type 2 QSOs through CO and [C II]." *Astrophys. J.* 981 (2): 194.

Maria, T., A. Kottayil, P. Xavier and **V. John**. 2025. "Deciphering the Relationship Between Moisture Flux and Monsoon Extreme Rainfall Over the West Coast of India." *Int. J. Climatol.* 45 (5): e8756.

Mousivand, A., **C. Straif**, **A. Burini**, **M. Lekouara, V**. **Debaecker**, **T. Hewison**, **S. Stock** and **B. Bojkov**. 2025. "In-Flight Calibration of Geostationary Meteorological Imagers Using Alternative Methods: MTG-I1 FCI Case Study." *Remote Sens.* 17 (14): 2369.

Munro, R., **B. Bojkov**, **F. Fadrique**, **C. Accadia, T. Flament**, **A. Canestri** and **R. Chalex**. "EUMETSAT Polar System - Second Generation (EPS-SG) and Potential Expansion Missions." *105th Annual Meeting of the American Meteorological Society*, New Orleans, United States. 2025.

Padovan, **S.**, **A. Von Engeln**, **S. Paolella**, **Y. Andres**, C. Galley, **R. Notarpietro**, **V. Rivas Boscan**, **F. Sancho**, **F. Martin Alemany**, **N. Morew** and **C. Marquardt**. 2025. "Observed Impact of the GNSS Clock Data Rate on Radio Occultation Bending Angles for Sentinel-6A and COSMIC-2." *Atmos. Meas. Tech.* 18 (13): 3217–28.

Paolella, S., **A. Von Engeln**, **S. Padovan**, **R. Notarpietro**, **C. Marquardt**, **F. Sancho**, **V. Ricas Boscan**, **N. Morew** and **F. Martin Alemany**. 2025. "Assessment of Operational Non-Time-Critical Sentinel-6A Michael Freilich Radio Occultation Data: Insights into Tropospheric GNSS Signal Cut-off Strategies and Processor Improvements." *Atmos. Meas. Tech.* 18 (13): 2825–46.

Park, K., H. Woo, S. Picart, **A. O'Carroll**, et al. 2025. "Validation of Sea Surface Temperature from GK-2A Geostationary Satellite and Error Reduction Considering Impact of Satellite Zenith Angle." *IEEE J. Sel. Top. Appl. Earth Obs. Remote Sens.* 18: 12024 - 12041.

Perez Lopez, F., **G. Casonato**, **J. Weber**, **S. Carosi**, **E. Sanchez Suarez**, **R. Del Pino**, **I. Oliva**, **A. Accardo**, **A. Holmes**, **D. Landmann** and **H. Wilson**. "Re-Engineering A Ground Segment – Preparing Sentinel-3 for the Future." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Peterson, M., R. Albrecht, **S. Enno**, et al. 2025. "A New WMO-Certified Single Megaflash Lightning Record Distance: 829Km (515 Mi) Occurring on 22 October 2017." *Bull. Am. Met. Soc.* 106 (9): 627–31.

Pilloni, N. and **V. Sierra Uruena**. "Leveraging Artificial Intelligence and Automatization to Improve Service and System Monitoring at EUMETSAT." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Scientific and technical publications 2025

Pitarch, J., V. Brando, M. Talone, D. D'Alimonte, T. Kajiyama, **E. Kwiatkowska**, **D. Dessailly** and **J. Gossn**. 2025. "Analytical Modeling and Correction of the Ocean Colour Bidirectional Reflectance across Water Types." *Remote Sens. Environ.* 329: 114920.

Ratta, R., S. Mantovani, M. Houël, S. Beccarini, S. Schifano and **F. Fierli**. 2025. "Leveraging Deep Learning for Downscaling GOME-2 Atmospheric Data Using TROPOMI Observations." *EGU General Assembly 2025*, Vienna, Austria & online. 2025.

Reuter, M., M. Hilker, S. Noël, A. Di Noia, M. Weimer, O. Schneising, M. Buchwitz, H. Bovensmann, J. Burrows, H. Bösch and **R. Lang**. 2025. "Retrieving the Atmospheric Concentrations of Carbon Dioxide and Methane from the European Copernicus CO2M Satellite Mission Using Artificial Neural Networks." *Atmos. Meas. Tech.* 18 (1): 241–64.

Righetti, P. and **A. Monham**. 2025. "Debris Management in the Frame of Long-Term Space Sustainability Activities at EUMETSAT." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Roebeling, R., **S. Bojinski**, **P. Poli**, **V. John** and **J. Schulz**. "On the Determination of GCOS ECV Product Requirements for Climate Applications." *Bull. Am. Met. Soc.* 106 (5): E868–93.

Sent, G., C. Antunes, E. Spyrakos, **T. Jackson**, E. Atwood and A. Brito. 2025. "What Time Is the Tide? The Importance of Tides for Ocean Colour Applications to Estuaries." *Remote Sens. Appl.: Soc. Environ.* 37: 101425.

Sent, G., E. Spyrakos, **T. Jackson**, et al. 2025. "Can Optical Water Types Be Used as Ecological Indicators? Insights from a Temperate Estuary." *Int. J. Appl. Earth Obs. Geoinform.* 144: 104880.

Shao, H., U. Foelsche, A. Mannucci, I. Azeem, N. Bowler, J. Braun, K. Lonitz, **C. Marquardt**, A. Steiner, B, Ruston and P. Vergados. 2025. "Advances in GNSS-Based Remote Sensing for Weather, Climate, and Space Weather: Missions, Applications, and Emerging Techniques." *Bull. Am. Met. Soc.* 106 (7): E1471–77.

Shenolikar, J., **P. Ruti**, **D. Lee**, **S. Thonipparambil**, **R. Tervo**, **F. Fierli**, **E. Obligis**, **A. Cacciari**, M. Raspaud, V. Bouchet, X. Abellan, T. McNally, K. Bessho, S. Boukabara, L. Brocca, S. Puca, N. Pinardi, **J. Schulz**, **J. Saalmüller** and **B. Bojkov**. 2025. "The State of Earth Observing System Today: Updates Compiled from Recent EUMETSAT Meteorological Satellite Conferences." *Bull. Am. Met. Soc.* 106 (2): E217–41.

Sierra Uruena, V. and **T. Edwards**. 2025. "Challenges and Lessons Learnt from the Migration of Multi Mission Platforms." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Silpamol, D., A. Kottayil, **V. John** and P. Xavier. 2025. "Characteristics of Mesoscale Convective Systems during Monsoon Extreme Rainfall Events: Case Studies from the Southwest Coast of India." *Nat. Hazards* 121: 16897–16913.

Silva, J., **D. Vicente** and **P. Flach**. "Enhancing SIMULUS-Based Spacecraft Simulators." *Workshop on Simulation for European Space Programmes* (SESP25), Noordwijk, The Netherlands. 2025.

Sundström, A., **M. Doutriaux-Boucher**, **S. Jafariserajehlou**, **D. Leskow-Czyzewska**, S. Mantovani, N. Fazzini, **B. Fougnie** and **F. Fierli**. 2025. "Evaluation of the Dust-Dominated Total AOD Extracted from the PMAp Satellite Climate Data Record." *Atmos. Meas. Tech.* 18 (23): 7267–95.

Teri, M., **J. Gasteiger**, K. Heimerl, et al. 2025. "Pollution Affects Arabian and Saharan Dust Optical Properties in the Eastern Mediterranean." *Atmos. Chem. Phys.* 25 (13): 6633–62.

Tilstone, G., T. Jordan, D. Aurin, A. Deru, A. Ramsay, M. Hieronymi, G. Dall'Olmo, M. Ligi, C. Kovach, I. Ansko, M. Ondrusek. V. Vabson, G. Zibordi, **J. Gossn**, **E. Kwiatkowska** and R. Vendt. 2025. "Radiometric Field Inter-Comparison of Fiducial Reference Measurements Using an Open Source Community Processor." *Opt. Express* 33 (7): 15756.

Torres, B., L. Blarel, P. Goloub, G. Dubois, M. Sanchez-Barrero, I. Popovici, F. Maupin, E. Lind, A. Smirnov, I. Slutsker, **J. Chimot**, R. Gonzalez, M. Sicard, J. Metzger and P. Tulet. 2025. "Adaptation of the CIMEL-318T to Shipborne Use: 3 Years of Automated AERONET-Compatible Aerosol Measurements on Board the Research Vessel Marion Dufresne." *Atmos. Meas. Tech.* 18 (18): 4809–38.

Tosi, N., F. Schulz, M. Walterová and **S. Padovan**. 2025. "The Influence of Spin–Orbit Resonances on the Evolution of Mercury's Mantle and Crust." *Icarus* 439: 116630.

Trapon, D., H. Baars, A. Floutsi, S. Bley, M. Haarig, A. Lacour, **T. Flament**, A. Dabas, A. Nehrir, F. Ehlers and D. Huber. 2025. "Cross-Validations of the Aeolus Aerosol Products and New Developments with Airborne High-Spectral-Resolution Lidar Measurements above the Tropical Atlantic during JATAC." *Atmos. Meas. Tech.* 18 (15): 3873–96.

Trollope, E., A. Van Der Steichel, **A. Ahmad**, **H. Kraemer** and **G. Casonato**. "Enhancing Machine Learning Analysis of Satellite HKTM through the Application of Domain Specific Knowledge." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Tzamali, M., J. Palacios, A. Glover, F. Da Dalt, H. Laurens, **A. Monham**, R. Broughton, H. Evans, R. Keil and J. Luntama. "May 2024 Space Weather Events and Their Impact on Spacecraft Operations." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Ünalan, Ö., **A. Rudolph** and **O. Hinojo Comellas**. "Improving Systems Engineering through AI Assistance." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Valido Cabrera, **E., F. Di Loreto**, **N. Larrea**, **K. Davies**, **A. Loretucci**, **M. Pantaleoni**, **C. Putignano** and **S. Tarquini**. "Preparation for Routine File-Based Operations Using CFDP for the Copernicus CO2 Monitoring Mission." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Varley, R., A. Ratier, **P. Counet** and **P. Ruti**. 2025. "The Social and Economic Benefits of EPS-Aeolus and EPS-Sterna." *J. Europ. Met. Soc.* 2 : 100008.

Vicente, D., **J. Silva**, **J. Feiteirinha** and **L. Palladino**. "Maintenance Lifecycle of Mission Control Applications: Can AI Help?" *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Weber, J., **F. Perez Lopez**, **A. Alvarez Pascual**, **F. Luque**, **S. Carosi**, **R. Del Pino**, **M. Pantaleoni**, **A. Baker**, **A. Accardo**, **I. Oliva**, **A. Rudolph** and **D. Landmann**. "A Model-Based Systems Engineering Metamodel – Moving an Organisation to Common System Modelling." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Weimer, M., M. Hilker, S. Noël, M. Reuter, M. Buchwitz, B. Fuentes Andrade, **R. Lang**, **B. Sierk**, Y. Meijer, H. Bovensmann, J. Burrows and H. Bösch. 2025. "A Study of Measurement Scenarios for the Future CO2M Mission: Avoidance of Detector Saturation and the Impact on XCO2 Retrievals." *Atmos. Meas. Tech.* 18 (14): 3321–40.

Weiss, M. and **A. Ayala**. "CI/CD Approach at EUMETSAT: Transforming Scientific Algorithms into Products That May Save Your Life." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Winkel, N., V. Bennert, R. Remigio, T. Treu, K. Jahnke, V. U, A. Barth, M. Malkan, **B. Husemann**, X. Ding and S. Birrer. 2025. "Combining Direct Black Hole Mass Measurements and Spatially Resolved Stellar Kinematics to Calibrate the MBH–σ* Relation of Active Galaxies." *Astrophys. J.* 978 (1): 115.

Wodnicka, K., **S. Carosi**, **J. Weber**, **A. Marshall**, **F. Perez Lope**z, **A. Rudolph**, **A. Accardo**, **A. Holmes** and **H. Wilson**. "Enhancing Verification Processes: Leveraging DOORS VERDI in the Sentinel-3 Ground Segment Re-Engineering Project." *18th Int. Conf. on Space Operations (SpaceOps2025)*, Montreal, Canada. 2025.

Zibordi, G., B. Johnson, **E. Kwiatkowska**, et al. 2025. "System Vicarious Calibration for Climate and Global Long-Term Operational Ocean Color Applications." *Bull. Am. Met. Soc.* 106 (2): E394–407.

EUMETSAT

Published by EUMETSAT - Europe's meteorological satellite organisation.

Produced by the Strategy, Communication and International Relations Division.

For further information about EUMETSAT, its programmes and activities, please contact:

EUMETSAT
Eumetsat Allee 1
64295 Darmstadt
Germany

Tel. : +49 6151 807 3660/3770
Email: press@eumetsat.int
Web: www.eumetsat.int

 EUM.AR.38

ISSN 1013-3410 ISBN 978-92-9110-118-4

Eumetsat Allee 1
64295 Darmstadt
Germany

Telephone: +49 6151 807 3660/3770
Email: press@eumetsat.int
Web: www.eumetsat.int

Member States

EUM AR.38, © EUMETSAT, 2026
ISSN: 1013-3410
ISBN: 978-92-9110-118-4