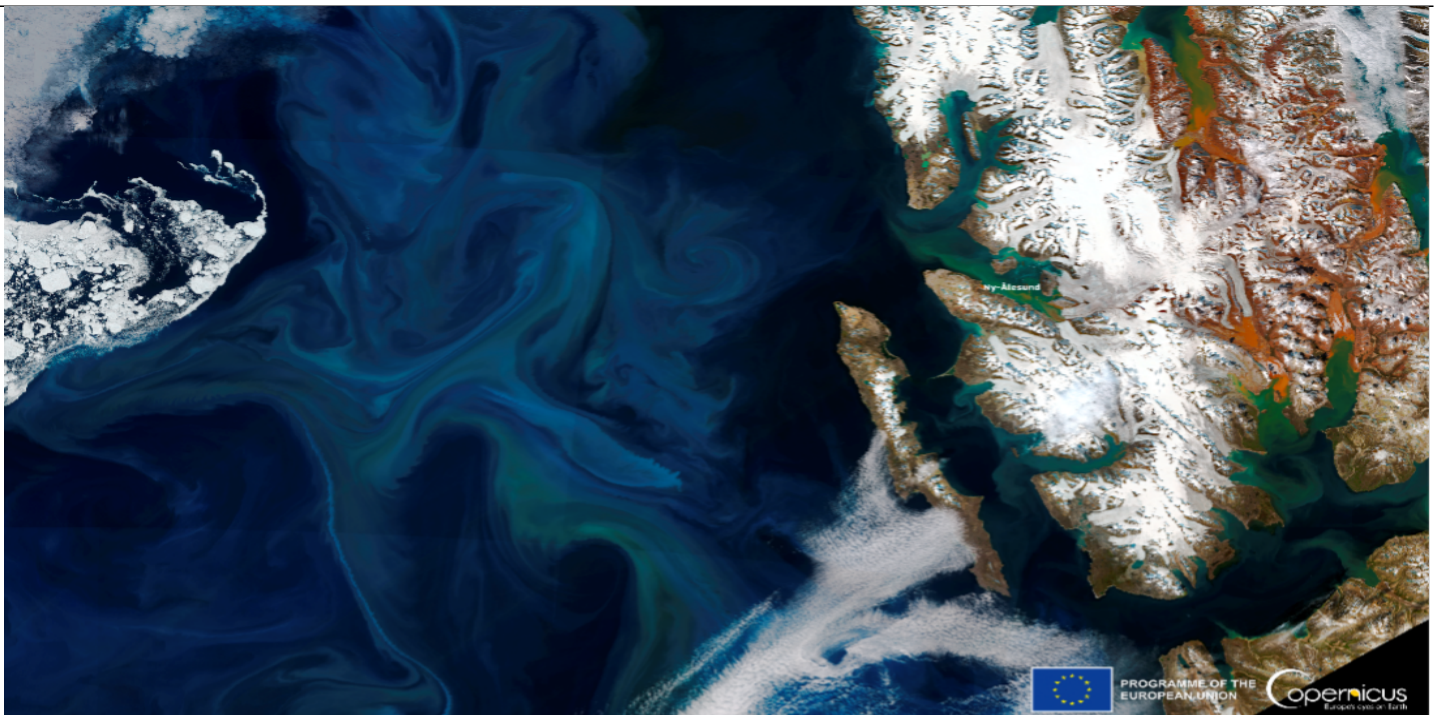
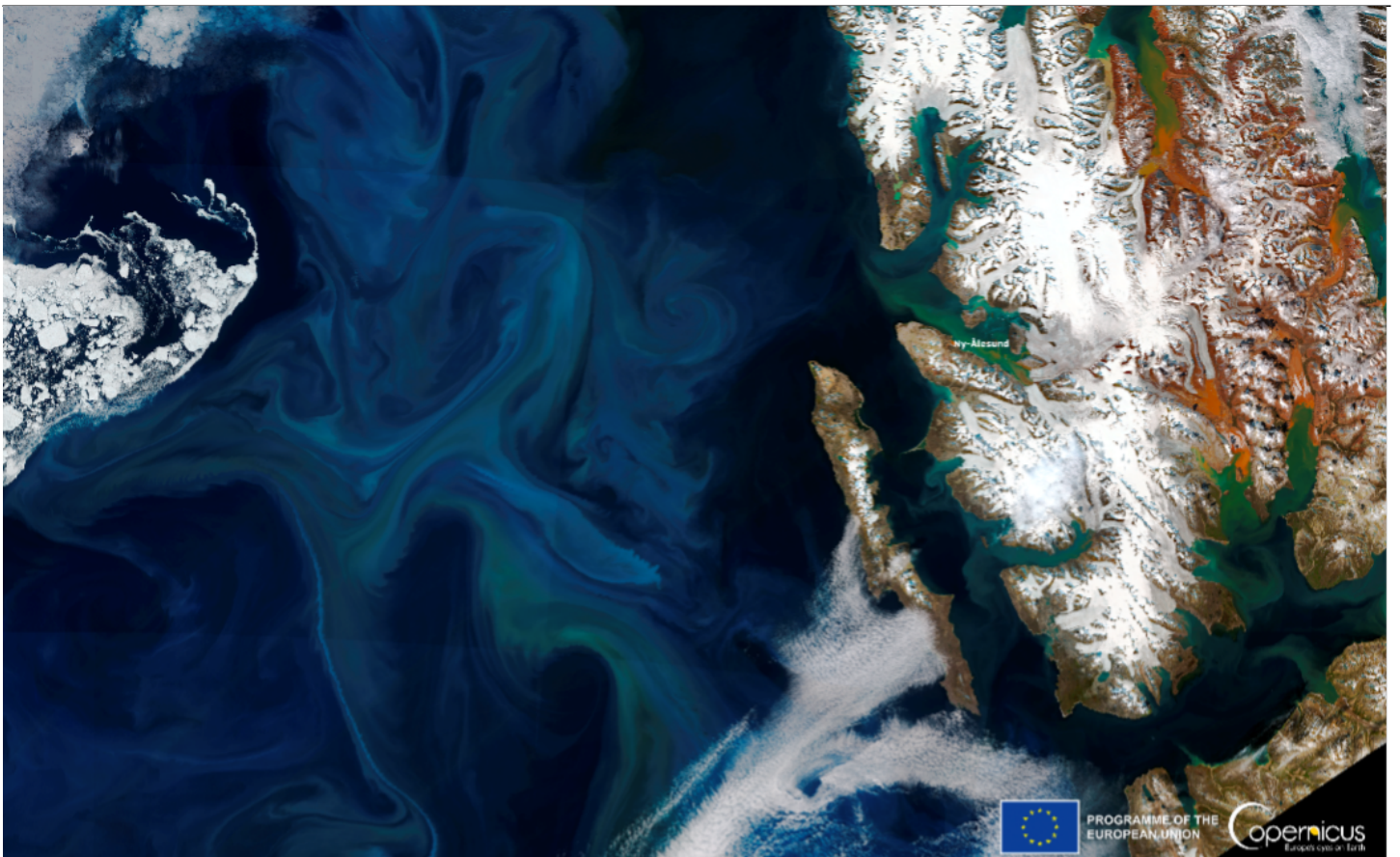




OBSERVER: Telling meaningful stories with EO data



As the saying goes, a picture is worth a thousand words, but in the world of Earth Observation (EO), it can be worth so much more. With the boom in EO satellite missions over the past few decades, and the open data deluge resulting from the full-scale deployment of the Copernicus Sentinel satellites and thematic services; the truth is that we now have far more data to study our planet than ever before. But how do we make sense of it all and tell meaningful stories that engage audiences? In today's Observer, we'll look at a new EO Data Visualisation Good Practice guide, a new tool assembled by the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), meant to help users craft and tell impactful stories.



Origins of the guide

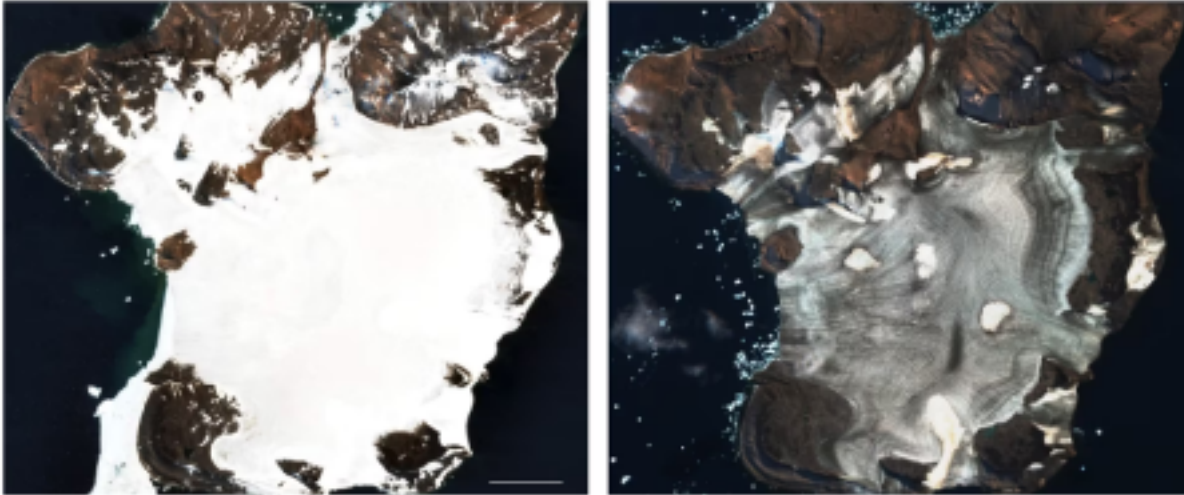
While satellite imagery has been available since the 1980s, there have been significant recent additions to the list of available sources of Earth Observation data. Copernicus has ushered in a new era of freely available EO imagery and data. In addition to the Copernicus Sentinel and EUMETSAT satellites (Meteosat and Metop), which provide a bird's-eye view of our planet, there are dedicated Copernicus services that combine remote sensing with in situ data. These services meet users' needs for marine, atmospheric, climate, emergency-related and land data.

Thus, now that we have new and comprehensive data on our planet, we can tell better stories about it. This is why EUMETSAT brought together Copernicus data visualisers and communication professionals last year in a series of workshops which then resulted in the creation of a good practice guide.

The series covered the effective strategies for visualising Copernicus data and storytelling tips. It brought together the perspectives of journalists, scientists, data visualisation experts, and remote sensing practitioners from operational agencies and industry. The series introduced attendees to the world of Earth Observation data visualisation and featured testimonials from world-class journalists who use EO imagery to tell powerful stories in their publications.

Many Antarctic glaciers are never snow-free. See how remarkably different this year is.

By [Kasha Patel](#) and [Naema Ahmed](#)
March 24, 2023 at 9:35 a.m. EDT

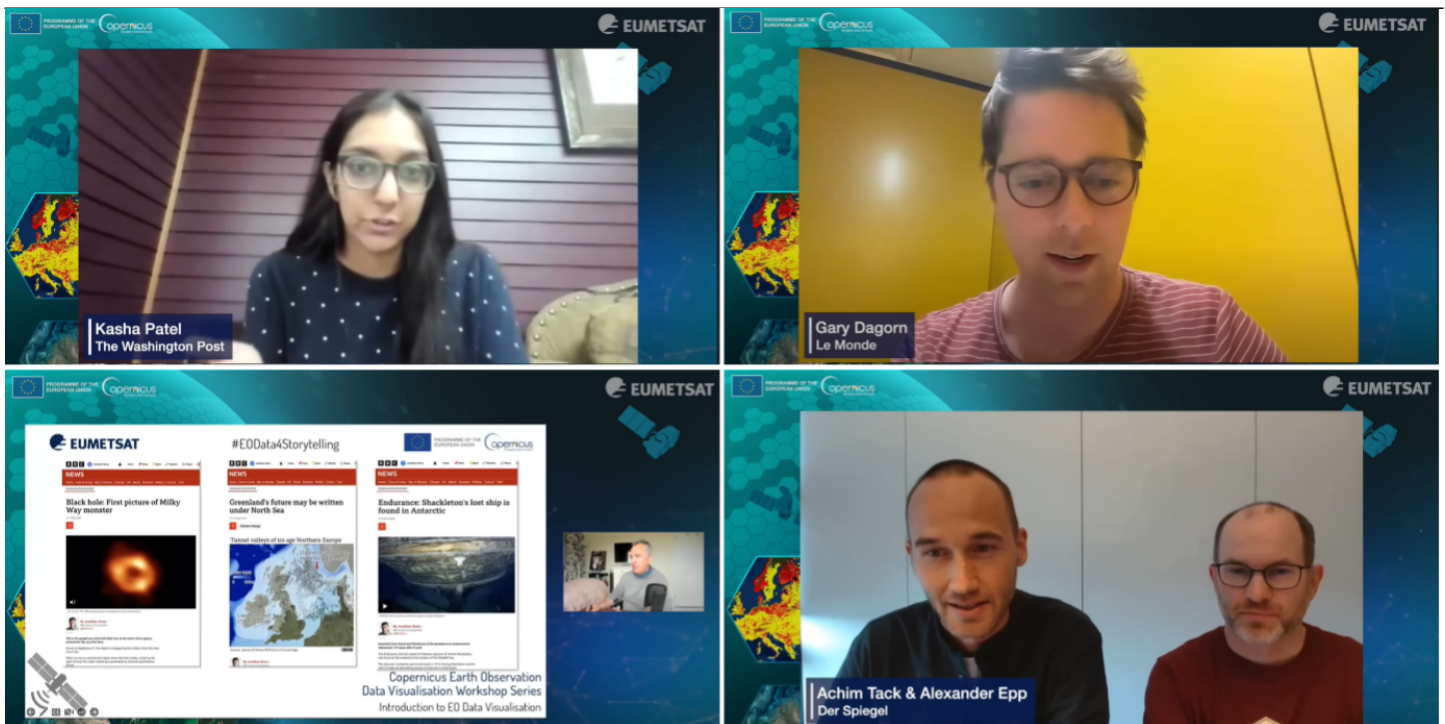


Article

published by the Washington Post using images from the Copernicus Sentinel-2 satellite mission. Newspapers and magazines are using EO imagery to connect with their audiences while telling stories about the state of our planet. Credit: Washington Post

“For me as a journalist and for a very quick turnaround, satellite imagery provides a really valuable opportunity to show the public something they can remember because it’s so visual,” said [Kasha Patel](#), who covers weather, climate change and the environment for the Washington Post, during the workshops.

The workshops also showed participants how to use EO data to communicate to the public about air quality, with a particular focus on using data from the Copernicus Atmosphere Monitoring (CAMS), Marine (CMEMS), Climate (C3S) and Emergency Management (CEMS) Services. Participants also gained a deeper understanding of how to use Copernicus data to tell stories about the oceans, sea ice and climate extremes.



Journalists Kasha Patel (Washington Post), Gary Dagorn (Le Monde), Jonathan Amos (BBC), Achim Tack and Alexander Epp (Der Spiegel) discuss their use of Copernicus imagery and data in the media outlets they work at during one of the series' workshops in May 2023. Credit: EUMETSAT

More than 1,500 people attended the sessions and users from all over the world have since viewed the recordings. Representatives from news outlets such as the BBC, The New York Times, Le Monde, Agence France-Presse (AFP) and the Financial Times talked about their use of Copernicus imagery and data, while actors from various institutions such as the European Commission's [Directorate-general Joint Research Centre \(JRC\)](#) and the USA's [National Oceanic and Atmospheric Administration \(NOAA\)](#) shared their insights during the workshops.

A living resource for EO storytellers

The ideas, tips and tricks gathered in the workshops have been summarised in a [EO Data Visualisation Good Practice guide](#). The document summarises the key points made in this series of webinars and provides examples of an effective use of storytelling with satellite data in a variety of contexts.


The guide starts with an overview of what makes a good environmental story for modern news media, with insights from those who work in traditional newspapers as well as those who tell stories through social media, and plenty of examples to inspire users who wish to tell more stories online.

Earth Observation
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Welcome to the Earth observation data visualisation good practice guide



Executive summary

The following points summarise the main messages of the guide.

- **Crafting Impactful Stories:** Earth observation data can be a powerful tool for telling compelling stories, especially for environmental issues. It's not just about presenting data; it's about weaving it into a narrative that resonates with people.
- **Versatility of Data:** Earth observation data is incredibly versatile. It can be used to monitor everything from climate change to natural disasters. The guide discusses how this data can be tailored to fit various storytelling needs.
- **Effective Data Visualization:** Successful visualisations move beyond data presentation, and focus on how to make the data understandable and engaging. This includes choosing the right kind of visualization for your audience, whether it's a simple chart for a general audience or a more complex

As a result of the workshop series, users can now browse through a guide that takes them through every step of creating a great visualisation with EO and Copernicus, while telling a story that will inspire audiences. Credit: EUMETSAT

The guide then explores what data users can look at to build good visualisations - how should users balance robust information with aesthetics? How do users choose the right colours? And how can they make it so engaging that someone will stop scrolling to check the visualisation out? The guide covers all these questions and even includes a [10-point checklist](#) users can check when creating a visualisation.

A handful of examples

To help users understand what a good EO story looks like, the guide collects a wealth of examples of visualisations that users have used to tell stories on a range of environmental topics, from air quality to wildfires to sea ice visualisations.

By scrolling through the "Climate extremes: heatwaves, changes in ice and drought visualisations" collection of examples, users can see how scientists and EO enthusiasts have used different satellite products to raise awareness of climate change issues among online audiences. Examples include data visualisation strategies to tell stories about temperature anomalies, ocean heatwaves, sediment discharge from heavy flooding and more.



This Copernicus Sentinel-2 image acquired on 4 November, 2023 shows massive amounts of sediment pouring into the Mediterranean Sea from the Adige and Po rivers.

More inspiring examples can be found on the “Air quality and wildfires visualisations” page. One that particularly gained traction in recent years was the satellite visualisation of the lava flow and ash plume from the Cumbre Vieja volcano, back in 2021. Images from space not only amplified the spread of news on the event by providing powerful imagery to accompany the story, but equally helped local authorities manage the consequences of the eruption. In this way, EO-based stories can not only inform and inspire audiences, but also help us take better care of our communities.

La Palma volcano: Satellite image shows lava flow to Atlantic Ocean



Satellites can provide multiple views of a phenomenon. This visualisation combines both visible and infrared measurements to show lava flow in the context of the surrounding region during the eruption of the Cumbre Vieja volcano in La Palma, 2021. Credit: Euronews

At the end of the guide, users are invited to re-watch the webinars, which are published on [EUMETSAT's YouTube channel](#) and review the slides of the presentations made during the workshops, which are all organised by topic and easily accessible. And while the guide is already quite detailed, users should [feel free to contribute](#) if they have opinions to share, examples to add, or constructive criticism to offer.

Telling powerful environmental and climate-related stories is critical in an era of misinformation and disinformation on subjects such as climate change, pollution and environmental health. The new EO Data Visualisation Good Practice guide serves not only as a practical resource for users, but also a concrete example of the importance of accurate and engaging communication in addressing global environmental challenges.