

What is the Copernicus Emergency Management Service (EMS) Programme?

May 21, 2024 • vajiramandravi.com



About Copernicus Emergency Management Service (EMS) Programme:

- Named after the renowned 15th-century scientist Nicolaus Copernicus, the programme is the **earth observation component of the European Union's (EU) space initiative**.
- **Copernicus** was **launched in 1998** and was earlier known as the Global Monitoring for Environment and Security Programme (GMES).
- The programme **uses global data from satellites**, and **ground-based, airborne**, and sea-borne **measurement systems** to **provide environment-related information** to researchers, policymakers, public authorities, international organisations, and commercial and private users **to address issues related to climate change, disaster management, and agriculture**, among other uses.
- The **space segment uses a group of satellites**, called the **Sentinels** and the **Contributing Missions**.
- It is complemented by a **ground segment** which **includes in-situ sensors** that **provide access to the Sentinels** and Contributing Missions data.
- Presently, the **programme is implemented by EU member states** with the **support of the European Space Agency (ESA)** for the space component and the **European Environment Agency (EEA)** for the in-situ component.
- Notably, **data** from the Copernicus programme **is freely available and accessible to all**.
- Active since 2012, the **Copernicus EMS works on two models—on-demand mapping and early warning and monitoring**—to issue warnings, risk assessments, and information on the impact of disasters

worldwide, before, during, or after a crisis.

- While on-demand mapping offers detailed information for specific emergencies, early warning provides critical geospatial data through monitoring and forecasts for floods, droughts, and forest fires.
 - **How does rapid mapping work?**
 - The Copernicus EMS on-demand rapid mapping **provides geospatial information within a few hours or days of a request** to support efforts in the immediate aftermath of an emergency or a disaster anywhere in the world.
 - It acquires, processes, and **analyses satellite images, geospatial data, and relevant social media in rapid mode** to provide information.
 - The service **offers four “products”, one pre-event reference and three post-event** (first estimate, delineation, and grading).
 - Each comprises delivery packages, including maps and a vector package of spatial data.
-

Q1: What is the European Union (EU)?

European Commission (EC) is an institution of the European Union (EU) and its constituent entities that makes up the organization's executive arm. The EC also has legislative functions, such as proposing new laws for the European Parliament, and judicial functions, such as finding legal solutions to business and trade issues between countries within the EU.

Source: [What is the Copernicus EMS rapid response service activated to trace the Iranian President? | Explained](#)

Source: <https://vajiramandravi.com/current-affairs/what-is-the-copernicus-programme/>

© Vajiram & Ravi. For personal use only.