

# COPERNICUS EARTH OBSERVATION

## DATA VISUALISATION WORKSHOP SERIES



PROGRAMME OF THE  
EUROPEAN UNION



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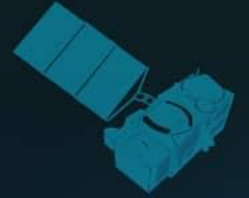
## Climate Extremes: Heatwaves, Changes in Ice, Drought, Floods

### Climate Extremes In The Media

Letizia Davoli – TV2000



- FLOODS IN ROMAGNA – MAY 2023
- FLOODS IN MARCHE 2022
- DROUGHT NORTHERN ITALY 2022



← Tweet


 Copernicus EU  
@CopernicusEU

#Drought continues to affect northern #Italy 🇮🇹

In Piacenza, the Po river has reached its lowest level since records started


The effects of water scarcity on Isola Serafini are visible when comparing #Copernicus #Sentinel2 🇪🇺 🌐 images of 10 July 2021 & 30 July 2022

#siccità  
Traduci il Tweet



9:41 AM · 31 lug 2022

← Tweet

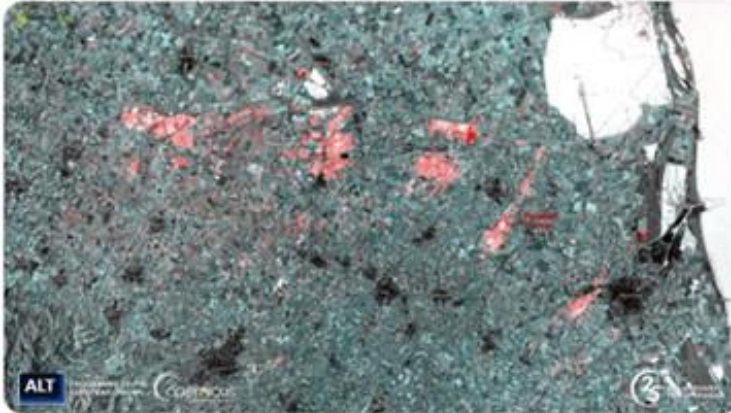
 Copernicus EU  
@CopernicusEU




Copernicus for #flood monitoring

Yesterday, 22 May, the radar of our #Sentinel1 🇪🇺 🌐 acquired this image over #EmiliaRomagna, in #Italy 🇮🇹

Flooded areas, one week after the start of the torrential rains on 16 May, are visualised in red tones


Traduci il Tweet



 European Commission e altri 9

← Tweet


 Cropway  
@cropway\_in

Severe #weather & #climatechange hinder #socioeconomic growth & #foodsecurity. It is critical to create early warning systems. As seen from #copernicus #Sentinel3 on Sep 15, 2022, catastrophic #floods induced by several hours of torrential rain ravaged central #Italy. #GIS @esa

Traduci il Tweet

CROPWAY

CROPWAY



5:39 AM · 12 ott 2022

3 Retweet 3 Mi piace



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**Copernicus**  
Europe's eyes on Earth

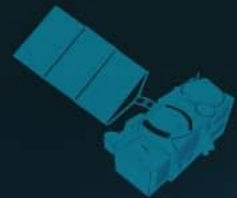


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# WHAT I USUALLY USE



← **Copernicus EU**  
11.651 foto e video



**Copernicus EU**  
@CopernicusEU · Ti segue

The Earth Observation component of the EU Space Programme  
[Traduci bio](#)

📍 Brussels 🌐 [copernicus.eu](#) 📅 Iscrizione: novembre 2012

2.250 following 120.536 follower

👤 Seguito da Romina Golfam Batebi, miriam D'Alfonso e altri 525 che segui


Tweet Risposte **Contenuti multimediali** Mi piace

**Copernicus EU** @CopernicusEU · 30min  
#EarthObservation meets fashion 🌍

Our upcoming webinar is all about how #Copernicus data can contribute to #SustainableFashion 🌱

📅 Wednesday, 21 June 2023 | 16:00 CEST

← **Copernicus EMS**  
36.629 Tweet



**Copernicus EMS**  
@CopernicusEMS

Copernicus Emergency Management Service provides mapping products based on satellite imagery as well as #ForestFires #Flood and #Drought early warning products.  
[Traduci bio](#)

📍 European Commission 🌐 [emergency.copernicus.eu](#)  
📅 Iscrizione: novembre 2013


1.569 following 62.749 follower

👤 Seguito da Simonetta Cheli, Decarb Space Systems e altri 259 che segui

Tweet Risposte **Contenuti multimediali** Mi piace

Tweet fissato  
**Copernicus EMS** @CopernicusEMS · 8 giu  
#Drought in Europe

← **EUMETSAT**  
15.271 Tweet



**EUMETSAT**  
@eumetsat

European Organisation for the Exploitation of Meteorological Satellites. Observing weather and climate from space since 1986. Monitored Mon-Fri 09:00-18:00 CET.

📍 Darmstadt, Germany 🌐 [eumetsat.int](#) 📅 Iscrizione: aprile 2011

1.559 following 38.249 follower

👤 Seguito da CNR-IREA, Simonetta Cheli e altri 351 che segui

Tweet Risposte **Contenuti multimediali** Mi piace

Tweet fissato  
**EUMETSAT** @eumetsat · 8 giu  
A big Happy Birthday 🎉 to @CopernicusEU - 25 years today #OpenData #Copernicus25



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A severe [#flooding](#) episode has recently affected thousands of people in the [#EmiliaRomagna](#) region in [#Italy](#)

The activities of [#CEMS](#) in support of emergency responders are detailed in a new Information Bulletin

[e.copernicus.eu/CEMS\\_IB167](https://emergency.copernicus.eu/mapping/ems/information-bulletin-167-copernicus-ems)

[#EMSR664](#)


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UE in Italia e altri 9

https://emergency.copernicus.eu/mapping/ems/information-bulletin-167-copernicus-ems

(8) Home / Twitter In Lunar Orbit | NASA ESA - What is Esprit? ESA - What is Inter... Gateway | NASA NASA Artemis Exploring the "cool..." Altri preferiti

 **COPERNICUS**  
Emergency Management Service - Mapping

Home | What is Copernicus? | What is CEMS - Mapping? | Link to Early Warning Systems | News

LATEST NEWS - 2023-05-04 | [EMSR148] Forest fire impact assessment of the Natura 2000 site Balsa del Pulguer, Spain

**EMS - MAPPING**

- Who can use the service
- How to use the service
- Portfolio: Rapid Mapping
- Portfolio: Risk and Recovery
- Quality control
- User Guide

**RAPID MAPPING**

- List of Activations
- Map of Activations
- GeoRSS Feed
- Online Manual

**RISK AND RECOVERY**

- List of Activations
- Map of Activations
- GeoRSS Feed
- Online Manual

**OTHER**

**Information Bulletin 167 - The Copernicus Emergency Management Service activities following the latest floods in Emilia Romagna**

Date: Monday, June 5, 2023

The Emilia Romagna region has been struck once again by severe weather, aggravating the situation in the areas already affected by the floods which caused casualties at the beginning of May 2023. The persistent rainfall caused a series of landslides in the middle Apennines mountain range, forcing the evacuation of several hundred residents.

On 14 May 2023, flood forecasts by the European Flood Awareness System (EFAS) of the Copernicus Emergency Management Service started indicating an increased probability of flooding although with a high uncertainty for the Secchia and Panaro rivers (tributaries to the Po river), the Reno river basin and the Lamone, Montone, Ronco, and Savio rivers in the Emilia Romagna region in Italy. The subsequent forecasts confirmed the increased probability of flooding for the above-mentioned rivers but the uncertainty in particular regarding the magnitude of the event and the exact location remained very high also due to the small catchment size of some of the rivers.

On 16 May 2023, the rainfall caused a significant surge in the level of the Idice, Samoggia, Savio, Marzeno, Voltre, Marecchia, Pisciatello, Ausa, and Montone rivers.

On the same day, the Italian Civil Protection activated the Copernicus EMS Rapid Mapping component to provide an assessment of the extent and impact of the flooding and landslides.

**CEMS Rapid Mapping Activation EMSR664: timeline and products**



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# FROM SOCIAL MEDIA TO IMAGES ON GROUND



LAMONE MOUTH RIVER - Courtesy: LOCALTEAM



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Copernicus  
Europe's eyes on Earth



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The activities of [#CEMS](#) in support of emergency responders are detailed in a new Information Bulletin

[e.copernicus.eu/CEMS\\_IB167](https://e.copernicus.eu/CEMS_IB167)

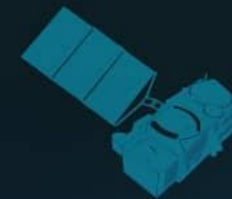
[#EMSR664](#)

[Traduci il Tweet](#)



UE in Italia e altri 9

- COPERNICUS EMERGENCY SERVICE:** provides information for emergency response in relation to different types of disasters, including meteorological hazards, geophysical hazards, deliberate and accidental man-made disasters and other humanitarian disasters, as well as prevention, preparedness, response and recovery activities.



Courtesy: LOCALTEAM



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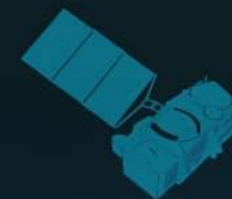
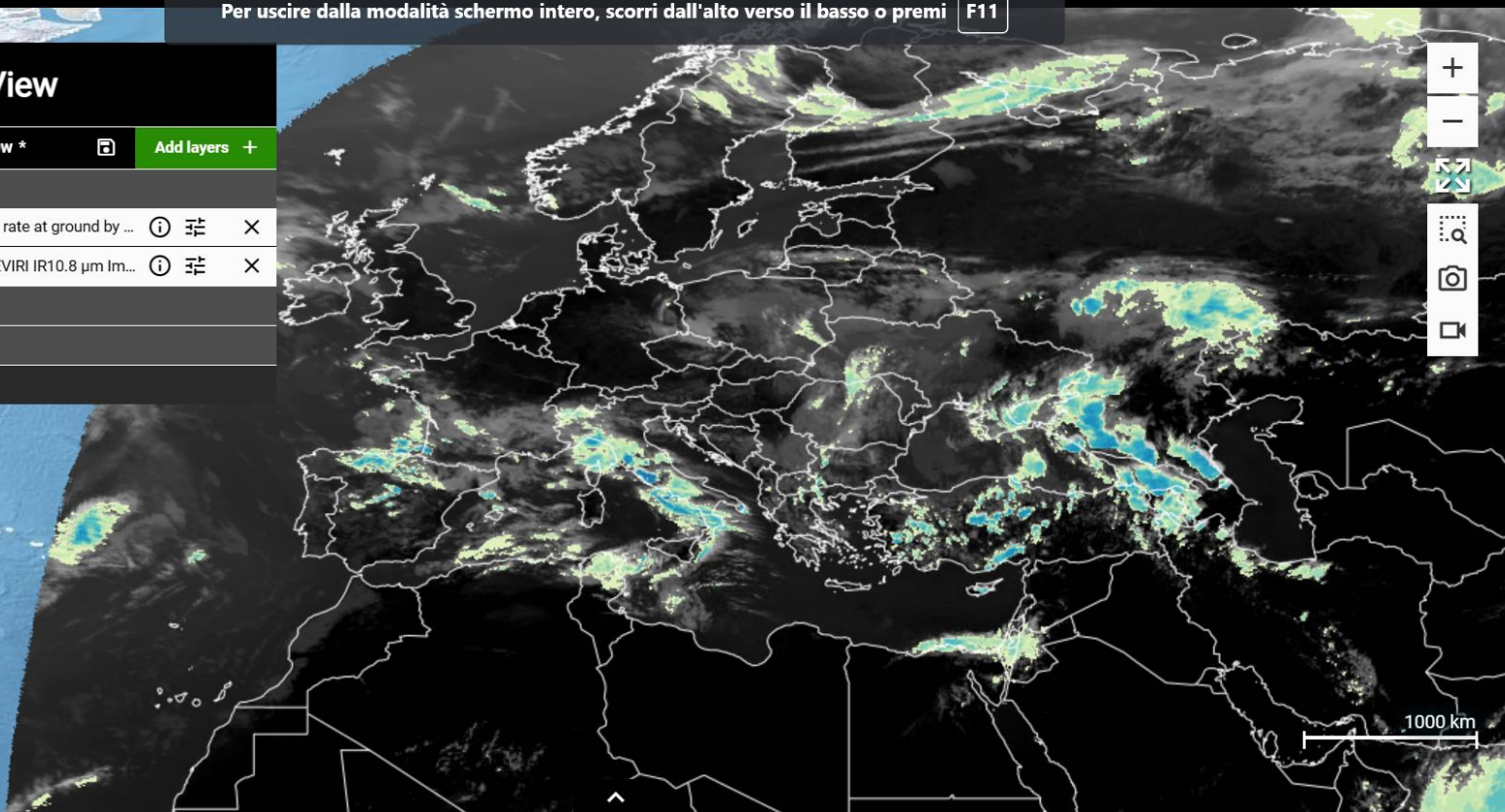




Per uscire dalla modalità schermo intero, scorri dall'alto verso il basso o premi F11

## EUMETView

- ▼ Eumetsat View \* 📄 Add layers +
- ▼ Layers
  - 📊 👁 🕒 Precipitation rate at ground by ... 📄 🔍 ✕
  - 📊 👁 🕒 High Rate SEVIRI IR10.8  $\mu$ m Im... 📄 🔍 ✕
- > Overlays
- > Basemap
- > Projection



CLIMATE IS NOT  
WEATHER



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# CHALLENGES



MAP & DATA  
EXPLANATIONS



TIME TO FIND  
INFORMATIONS



INTERVIEW



MORE WORKSHOPS FOR  
MEDIA

Copernicus Earth Observation  
Data Visualisation Workshop Series

Climate Extremes: Heatwaves,  
Changes in Ice, Drought, Floods







# THANK YOU FOR YOUR ATTENTION



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