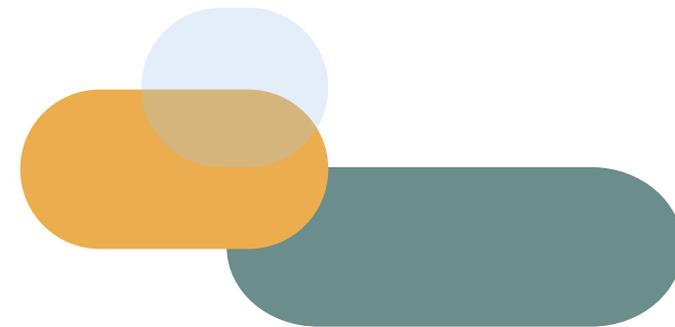


Keynote Address



Tobias Biermann

**Policy Officer at the European
Commission's Directorate General for
Defence Industry and Space (DG DEFIS)**



Copernicus

CENTAUR 2nd Workshop

25 February 2026
HaDEA

<https://copernicus.eu/>

Space



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Copernicus

COPERNICUS EVOLUTION

- **Copernicus is driven by user needs**, priority for public policy needs, adequate level of maturity, based on well-identified user needs
- **Copernicus integrates cutting-edge technologies**, all services are aiming to leverage the latest technologies such as AI, ML, and advanced satellite data from the Sentinel Next Generation and Expansion Missions to enhance their capabilities.

Snapshot 2025:

- Copernicus services evolution: managed by HaDEA Space Research, 17 projects, EUR 76M
- EO Technology: managed by HaDEA Space Research with DEFIS B2, 8 projects, EUR 19M
- Copernicus downstream: managed by EUSPA, 33 projects, EUR 66M

Strategic Research and Innovation Agenda (SRIA) 2024, R&I priorities for 2025-2027, and pave the way towards next MFF

- next SRIA 2027

Copernicus Components



Sentinels



FULL, FREE AND OPEN

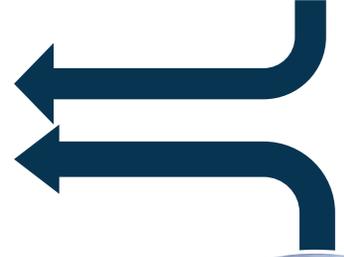
Six Copernicus Services



Value-added Services



Contributing missions



In situ data



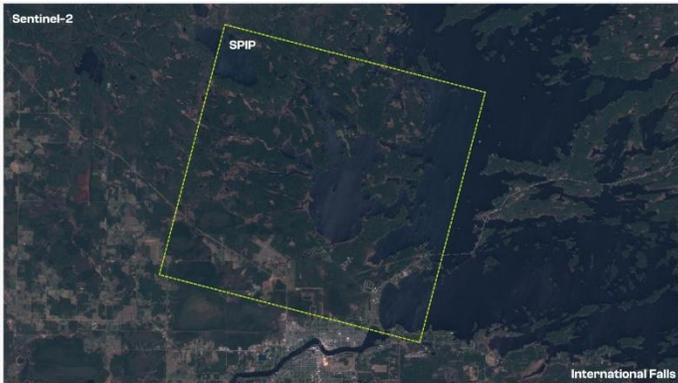
Copernicus Contributing Missions in 2026

Further evolution expected in the next few years

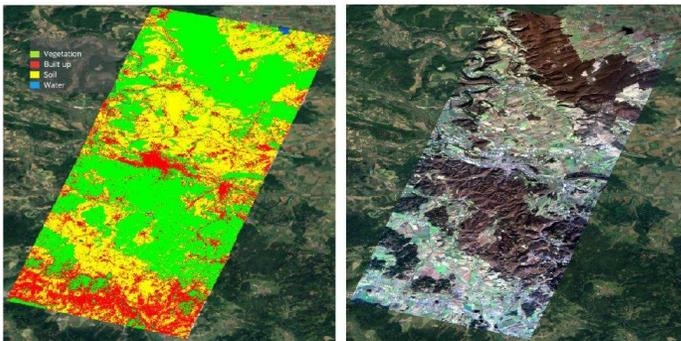
| | Emerging providers | Established providers | |
|-------------------------|---|---|---|
| | Category-1 (European Missions) | Category-2 (European Missions) | Category-3 (non-European Missions) |
| Multispectral - ≤1m |   |  |   |
| Multispectral - ≤4m |    |   |   |
| SAR | |     |  |
| Atmospheric Composition |   |  | |
| Thermal IR |     | | |
| Hyperspectral |   |  | |
| Radio Frequency |   | | |

Emerging CCM data: gradually enabling enhanced observation capacity

Multispectral

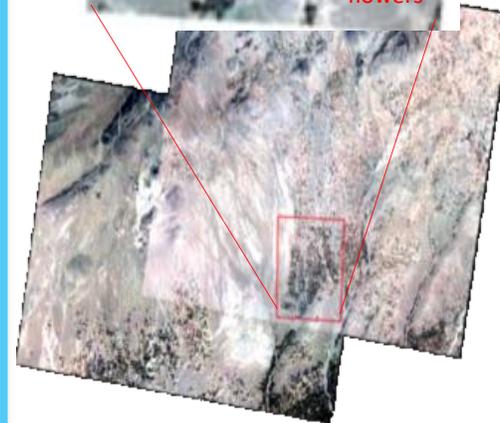


Interoperability with Sentinel-2
Image property of **Aerospacelab**



EU land-use/land-cover
Image property of **Prométhée**

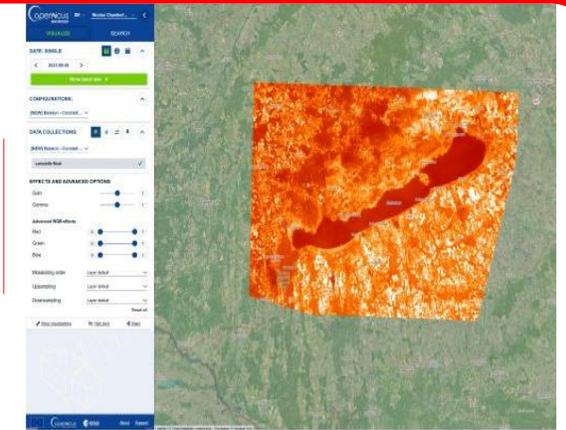
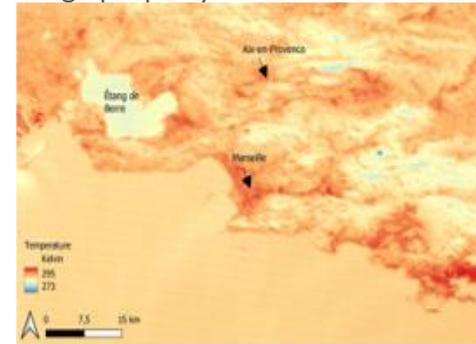
Hyperspectral



Illegal crops monitoring
Image property of **Kuva Space**

Thermal

LST collection to support the monitoring NBS within urban areas
Image property of **OroraTech**



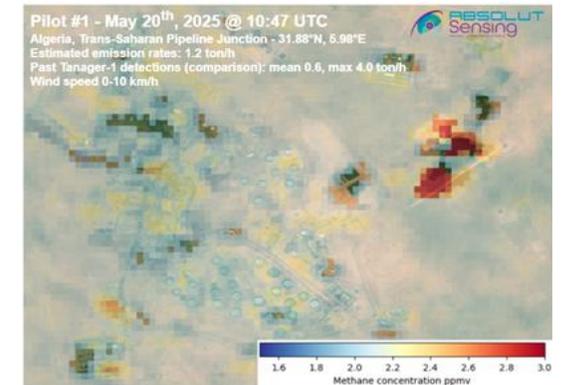
Support monitoring of Lake water temperature
Image property of **constellr**

0 methane enhancement (mol/m2) 0,5



Methane emissions Detection and Quantification in O&G industry
Image property of **SATLANTIS**

Atmosphere



Algeria, Trans-Saharan Pipeline Junction
Image property of **Absolut Sensing**

Copernicus Security Service component on Support to EU External and Security Actions (SESA)

Customised and tailored geospatial intelligence services to support EU security actions and strategic priorities

The Copernicus Service component on Support to EU External and Security Actions (SESA) is the European geospatial information service which assists the EU and its Member States in its operations and interests where security issues are at stake. The information provided contributes to improving European capacities in crisis prevention, preparedness and response.

SESA Services



GEOSPATIAL ANALYSIS

Geospatial Analysis is used to confirm any information requested by the user.



Example: Activity Report.



MAPPING FOR SITUATIONAL AWARENESS

Mapping for Situational Awareness provides up-to-date cartographic and thematic information.



Example: Reference Map.



SUPPORT TO PLANNING

Support to Planning is conceived to be used in the preparatory phase of a mission or event.



Example: Time Response Map. Support to Evacuation Plan.

SESA Application Areas

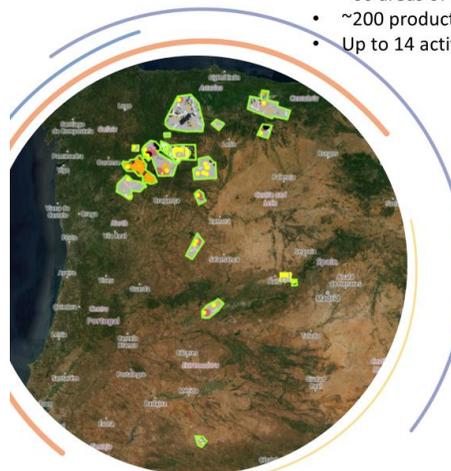
The SESA Service finds application in a number of areas related to EU policies. They are the areas where the Copernicus SESA Users operates and where SESA can provide services to support strategic decision-making and planning, as well as operations and intervention.



On-Demand Mapping

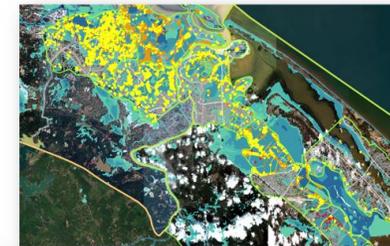
Fire season 2025

- ~30 activations: 16 in Greece, 2 Spain + others
- ~150.000 Km² analysed
- ~60 areas of Interest
- ~200 products delivered
- Up to 14 activations in parallel

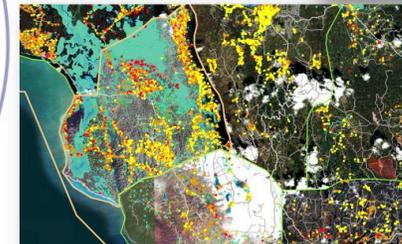


Tropical cyclones

EMSR848 Flood in Central Viet Nam

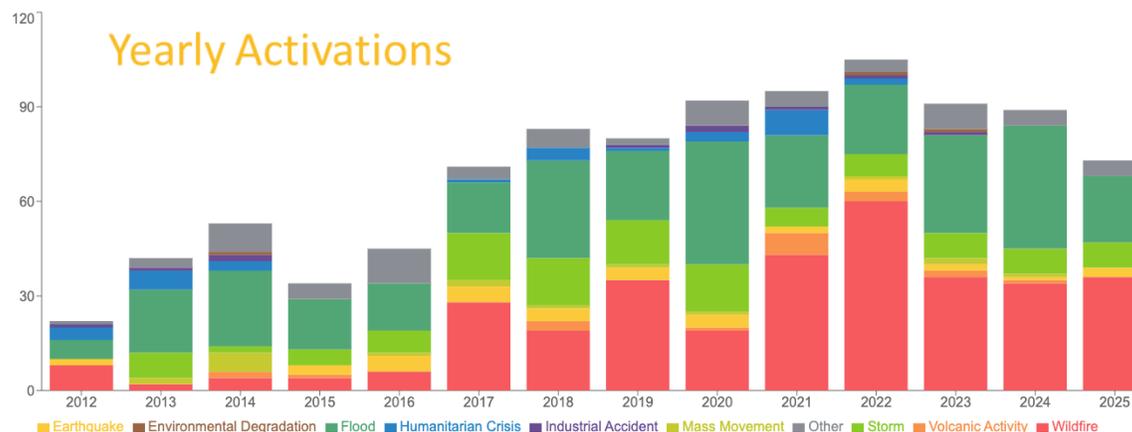


- ~300.000 Ha of flood detected, with flood depth and urban area modelling
- ~ 100.000 buildings assessed for damage grading
- More than 3 weeks of continuous support
- 50 Areas of Interest
- ~ 200 Maps produced



EMSR847 - Tropical Cyclone Melissa in the Caribbean

Yearly Activations



More than 1000 Activations

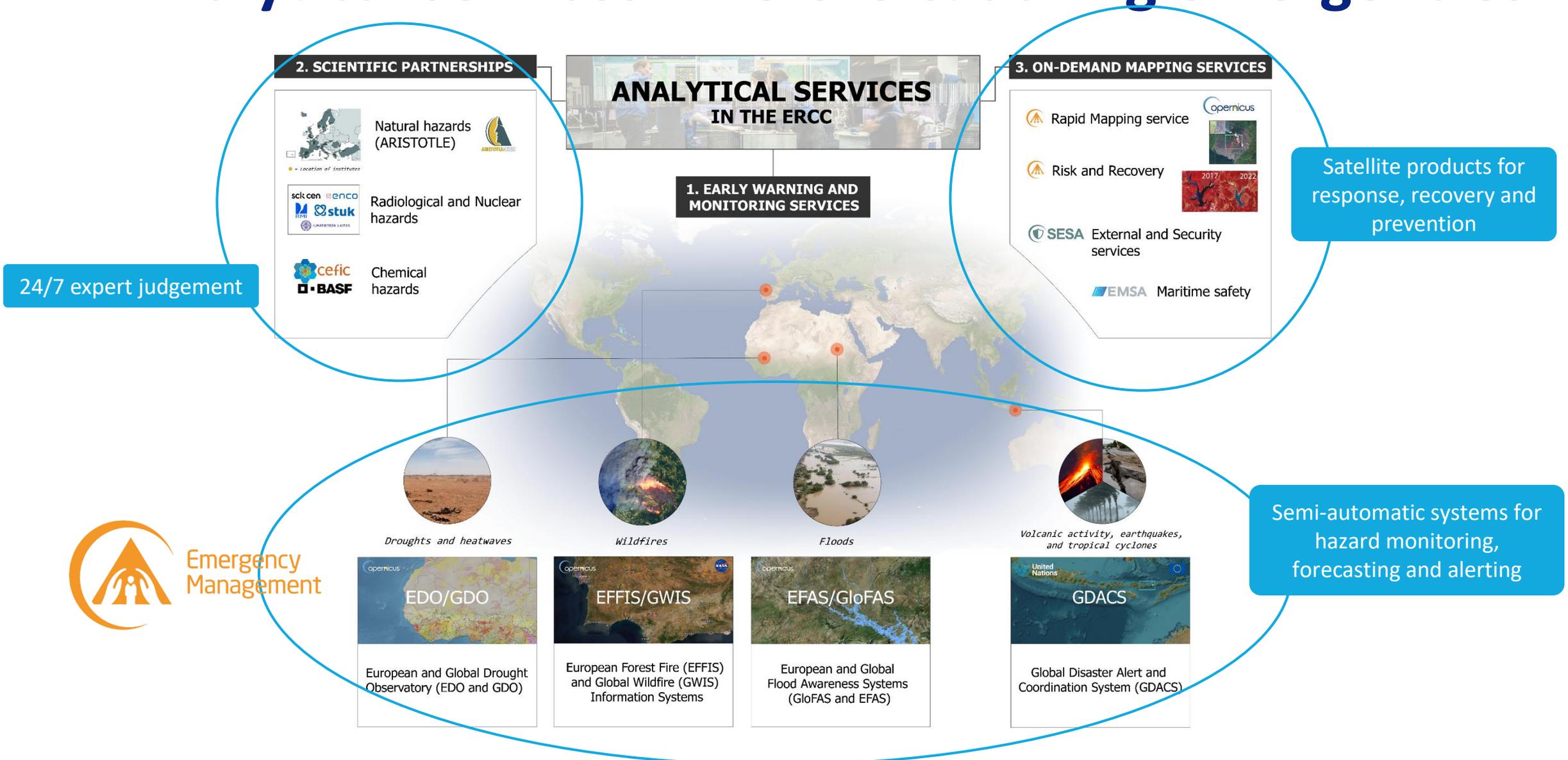
Area analysed constantly increasing

From mapping to early warning of disasters:

THE COPERNICUS EMERGENCY MANAGEMENT SERVICE



Analytical services – Before & during emergencies



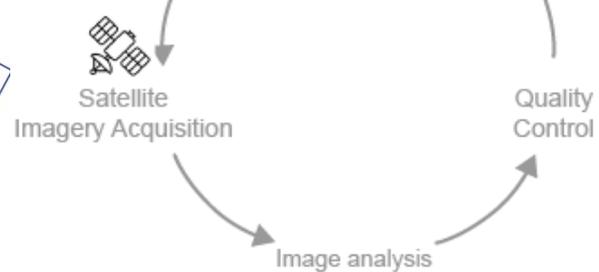


Support for Emergency Response

BEFORE ACTIVATION

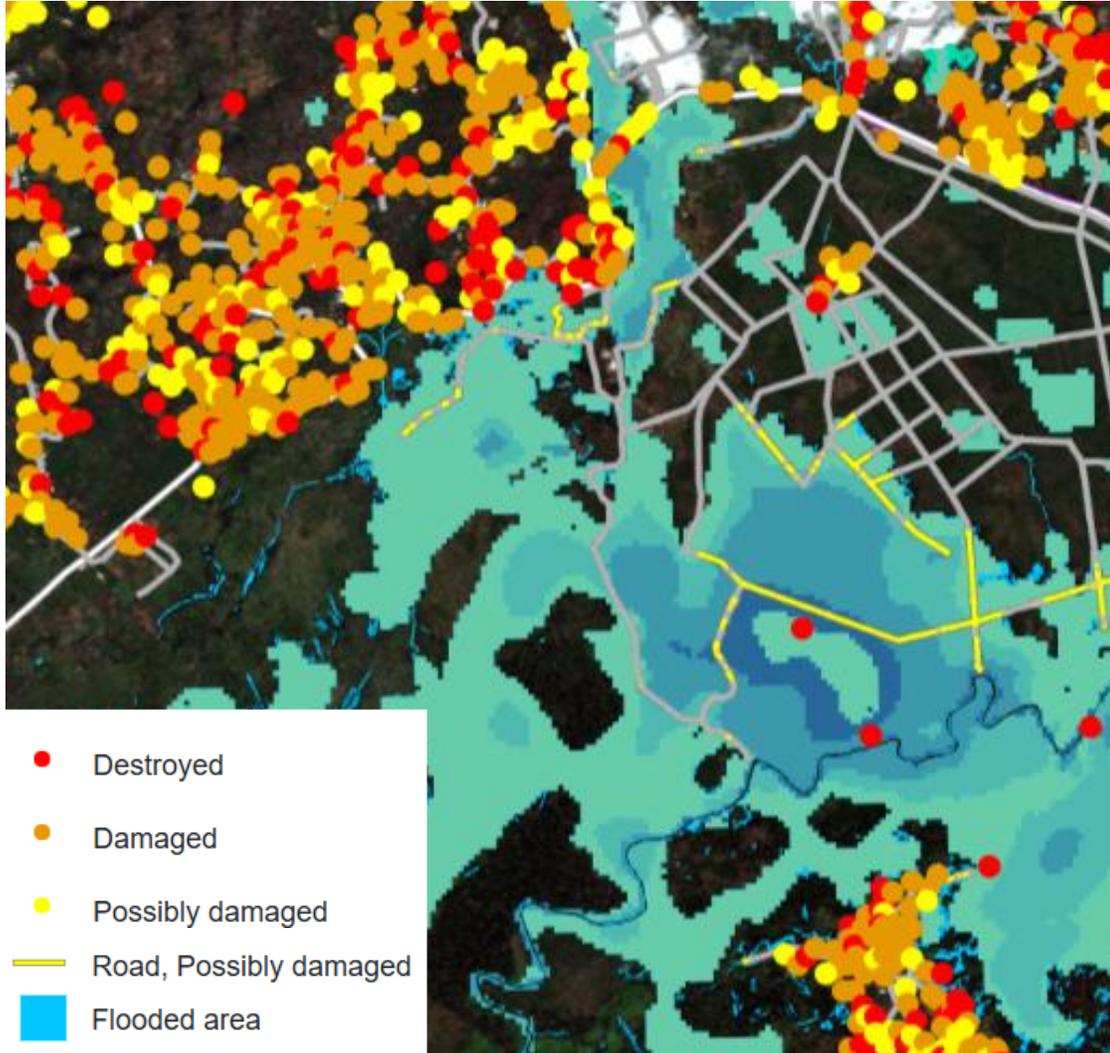
ACTIVATION

POST ACTIVATION





Tropical Cyclone Melissa (EMSR847)



EVENT TIME (UTC)

26/10/2025 afternoon

ACTIVATION TIME (UTC)

26/10/2025, 02:43



Delivery time of the first map: 26/10/2025, 21:15
(18h30 after the start of the activation)



70+ Satellite images analysed, including:

- Optical data of Very High Resolution (<1meter)
- SAR data of High Resolution (about 10 meters)



145 maps, covering 39 areas in Cuba, Haiti and Jamaica, were published on our website and are accessible free of charge



86 km²

of area detected
as flooded



206 km

of roads identified
as damaged



48.000

buildings
identified as damaged



Copernicus

Ambition and set up for R&I in next MFF

- **Copernicus services:**
 - Uptake of Sentinels/CCM/NewSpace and resilience of in-situ segments ('investment journey, competitiveness and resilience')
 - Service digitalization AI/HPC/digital twins/big data ('digital transformation')
 - AI revolution will be a step change for EO product quality, timeliness and we need to conduct pro-active R&I instead of being in reactive mode
 - Copernicus Data Space, federated with EU Data Spaces, more performance to be competitive (AI, Cloud, HPC)
 - Service uplifting/interactivity/on-demand ('policy uptake')
 - Copernicus now in many new EU legislations, expanded user needs
- **Copernicus downstream:** Copernicus mass adoption ("sustained competitiveness")
- **EOGS, the future Earth Observation Governmental Service (EOGS):** early demonstrator of use cases/pilot services (some of which as dual use with Copernicus security service) ("resilience and preparedness")
 - EOGS is a new component of Space in ECF: defence/security is a high priority



PROGRAMME OF
THE EUROPEAN UNION

Copernicus
Europe's eyes on Earth

#EUSpace
#Copernicus

THANK YOU

European Commission
DEFIS D.3 Earth Observation

CENTAUR 2nd Workshop – 25 February 2026