



PROGRAMME OF
THE EUROPEAN UNION



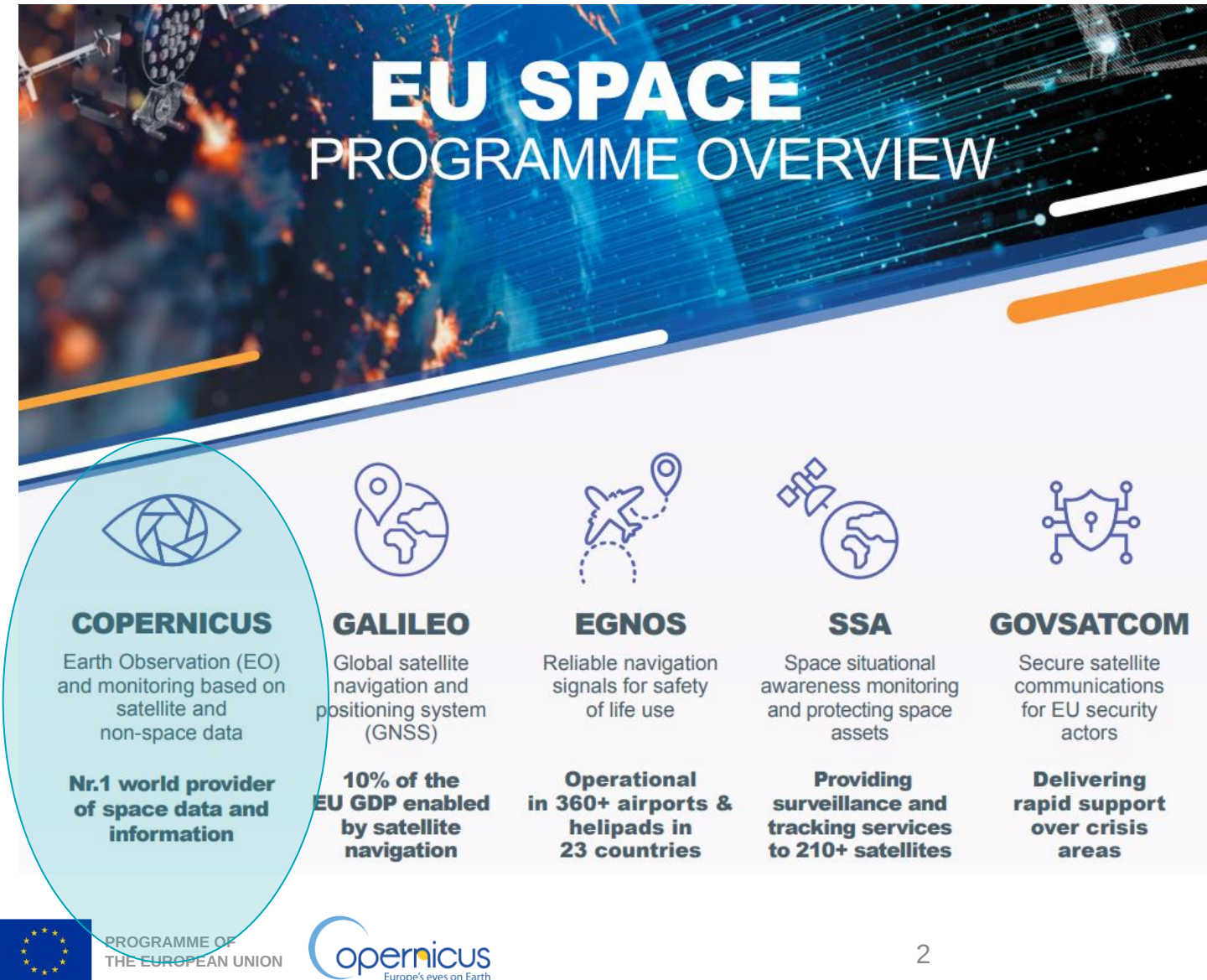
#EUSpace
#Copernicus

COPERNICUS

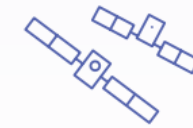
The role of geospatial in address major
challenges facing Europe
EUROGI's 30th anniversary celebration

Thursday 21th November 2024

The EU Space Programme



AN INVESTMENT IN A FUTURE READY EUROPE



Competitive edge

Completing current satellite constellations, developing and launching the next-generation of satellites



Research innovation

Ambitious research and innovation programme benefiting from Horizon Europe



Fighting Climate Change

Monitoring biodiversity, environmental compliance and CO2 emissions (Paris Agreement)

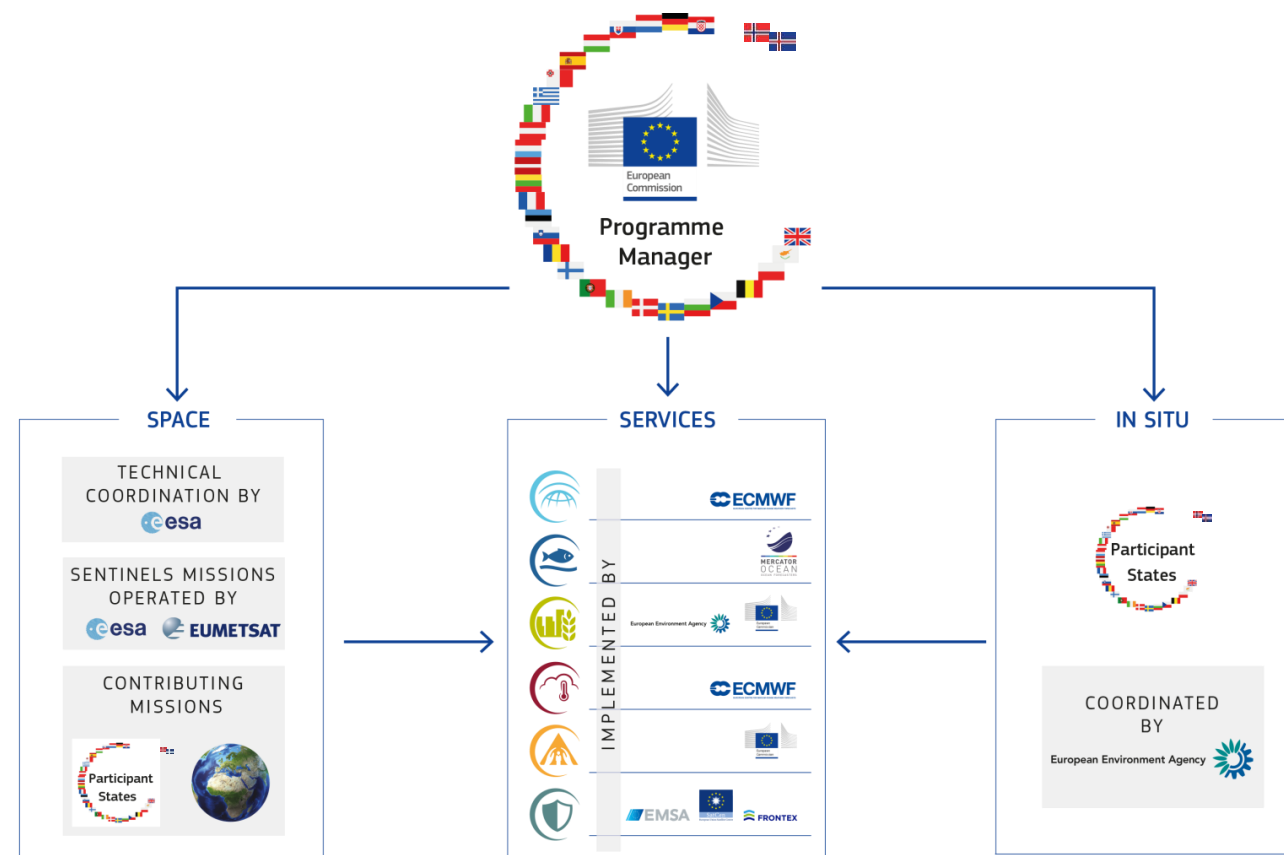


EU as a global actor

Supporting disaster relief, humanitarian assistance and security operations

Copernicus Overview

- Copernicus is the **European Union programme** aimed at developing European information services based on satellite Earth Observation and in situ data
- Copernicus is coordinated and **managed** by the **European Commission**
- Copernicus is **implemented in partnership** with the Member States, ESA, EUMETSAT, ECMWF, EEA, EC JRC, Mercator, EMSA, SatCen, Frontex
- Copernicus **Multiannual Financial Framework 2021-2027** > 5 billion €
- Copernicus data and infrastructure **guaranteed** beyond 2030



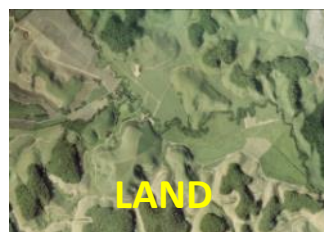
Copernicus Structure



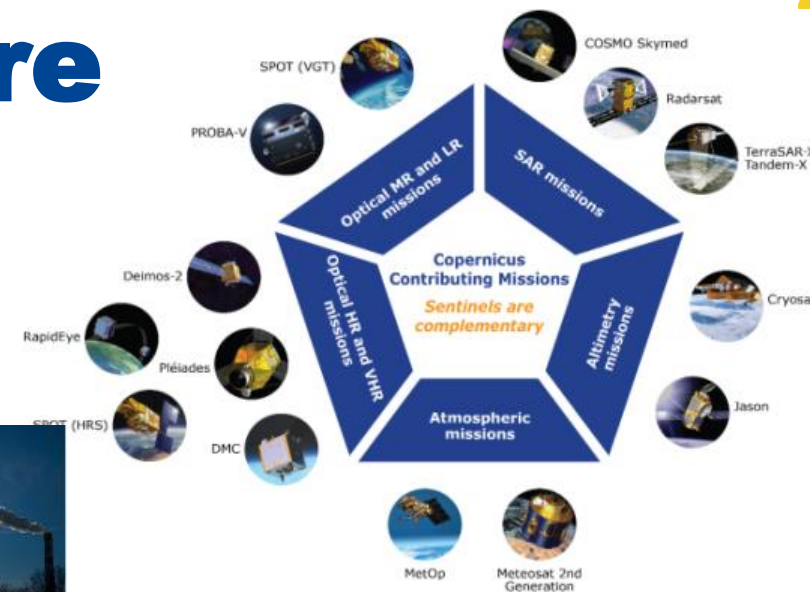
Sentinels



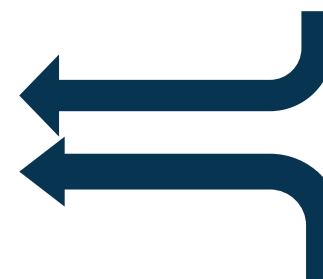
Six Copernicus Services



Value-added Services



Contributing missions



In situ data

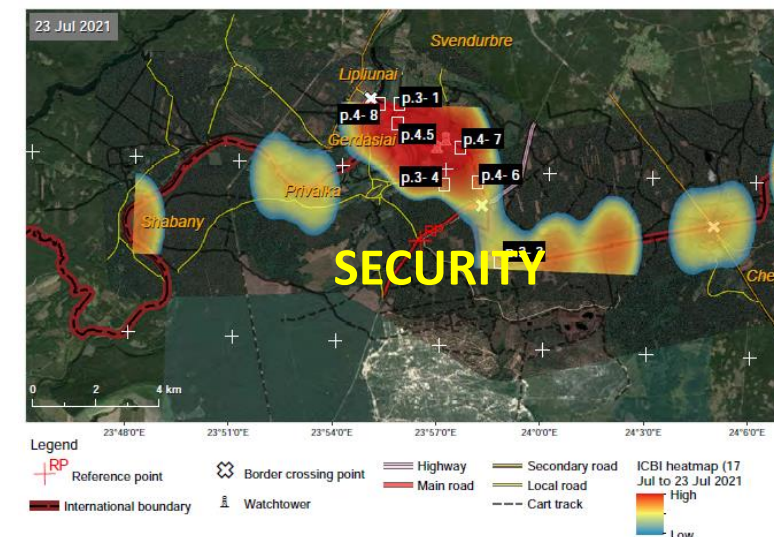
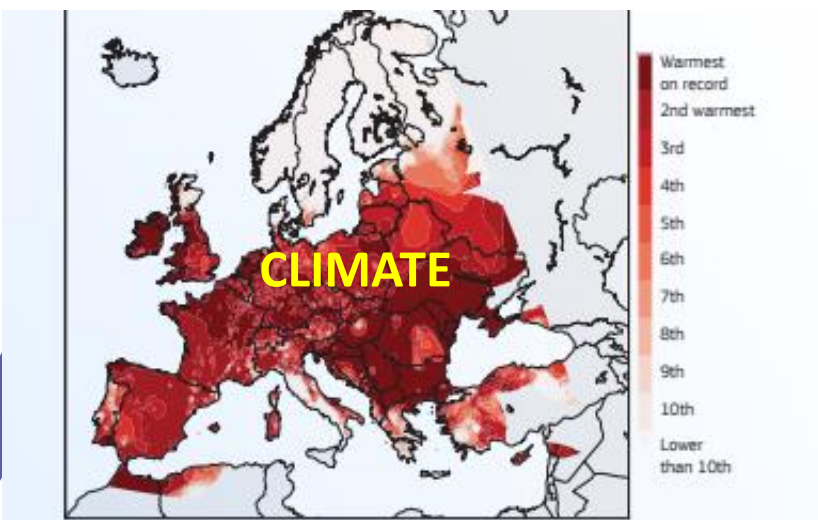
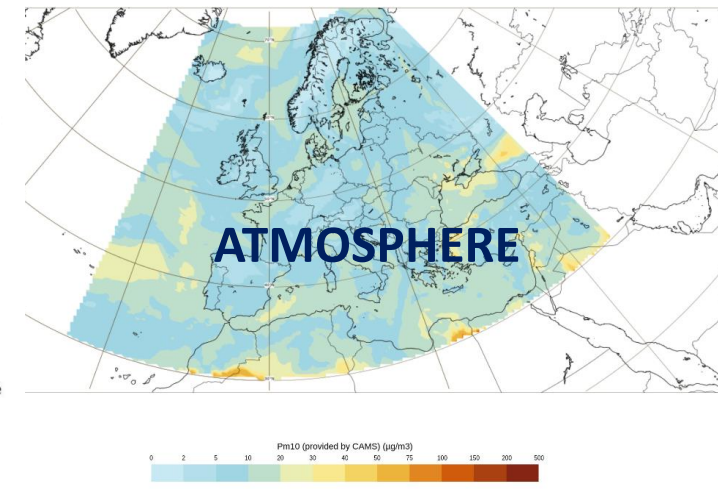
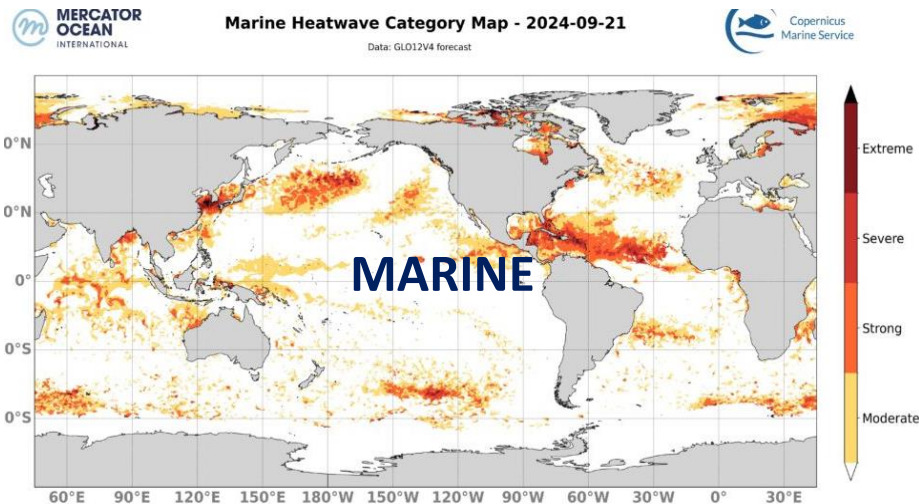
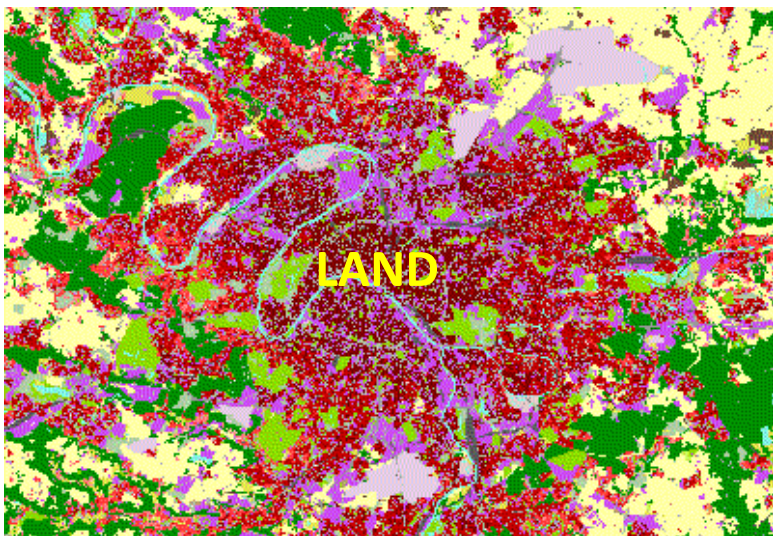
**FULL, FREE
AND OPEN**



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The Copernicus Services



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Copernicus
Europe's eyes on Earth

The Copernicus Sentinels

Copernicus: Sentinels



sentinel-1

→ RADAR VISION



sentinel-2

→ COLOUR VISION



sentinel-3

→ A BIGGER PICTURE



sentinel-4

→ EUROPEAN AIR MONITORING



sentinel-5p | sentinel-5

→ GLOBAL AIR MONITORING



sentinel-6

→ SURFING THE SEAS



Launch of Sentinel-2C

5/9/2024 Kourou

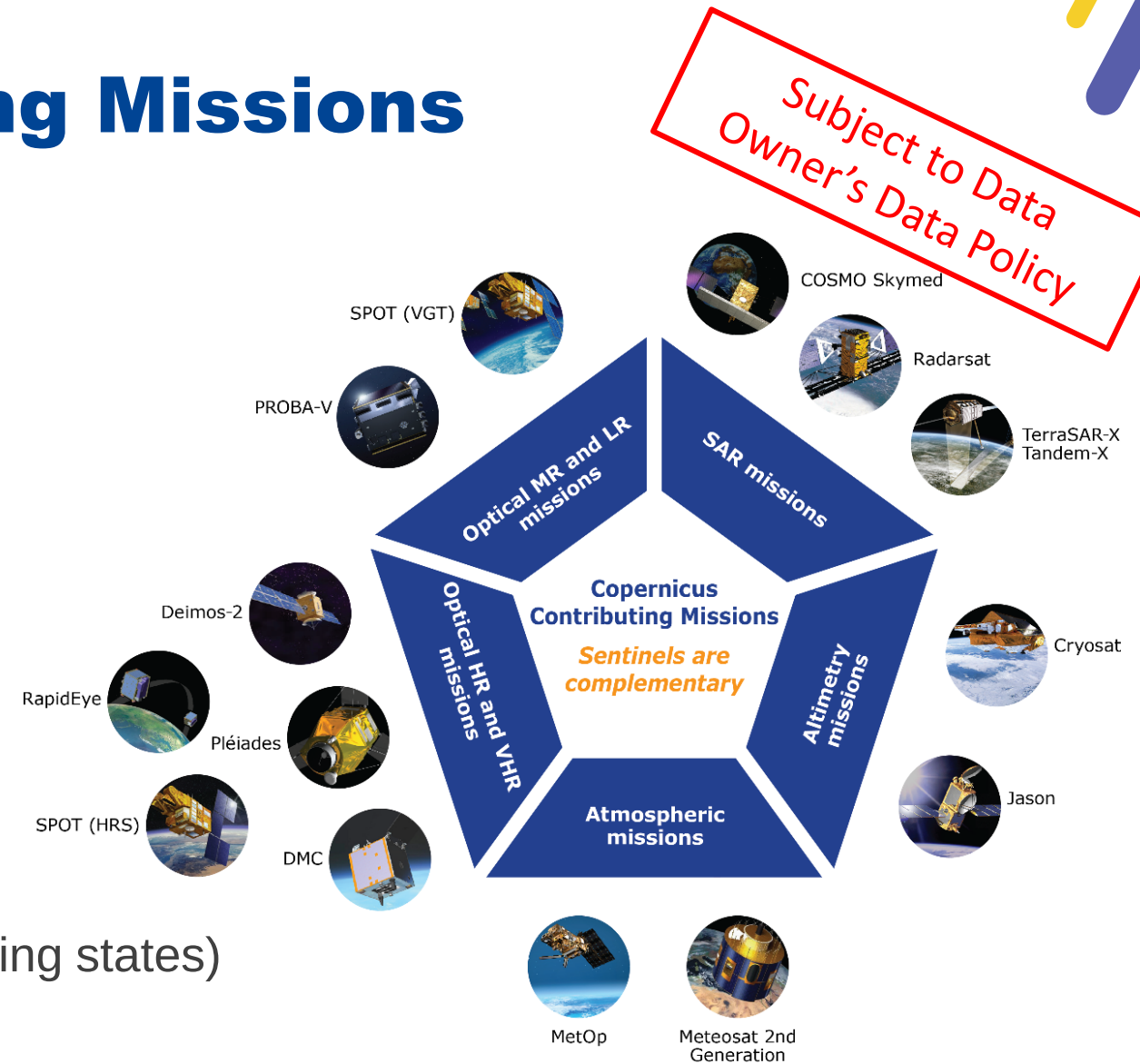


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Copernicus
Europe's eyes on Earth

Copernicus Contributing Missions

- Emerging Companies
(EU and Copernicus participating states)
- Established Companies
(EU and Copernicus participating states)
- Non-EU Companies (Copernicus cooperating states)



How to access the Copernicus data and products

Copernicus services' portals

[https://
dataspace.
copernicus
.eu](https://dataspace.copernicus.eu)

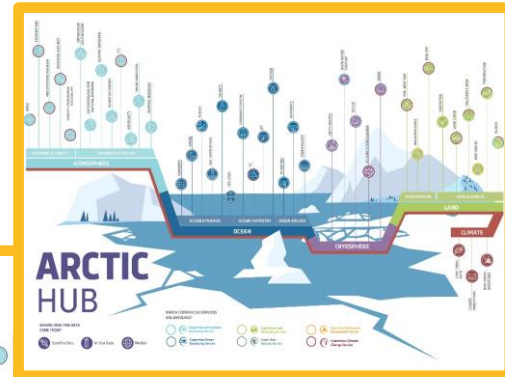
**Copernicus Space Data
Ecosystem (CDSE) Portal**

[https://
www.wekeo
.eu](https://www.wekeo.eu)

WEKEO Portal



Thematic Hubs



ENERGY HUB

A gateway to Copernicus for energy policy makers, public administrations, and industry

HEALTH HUB

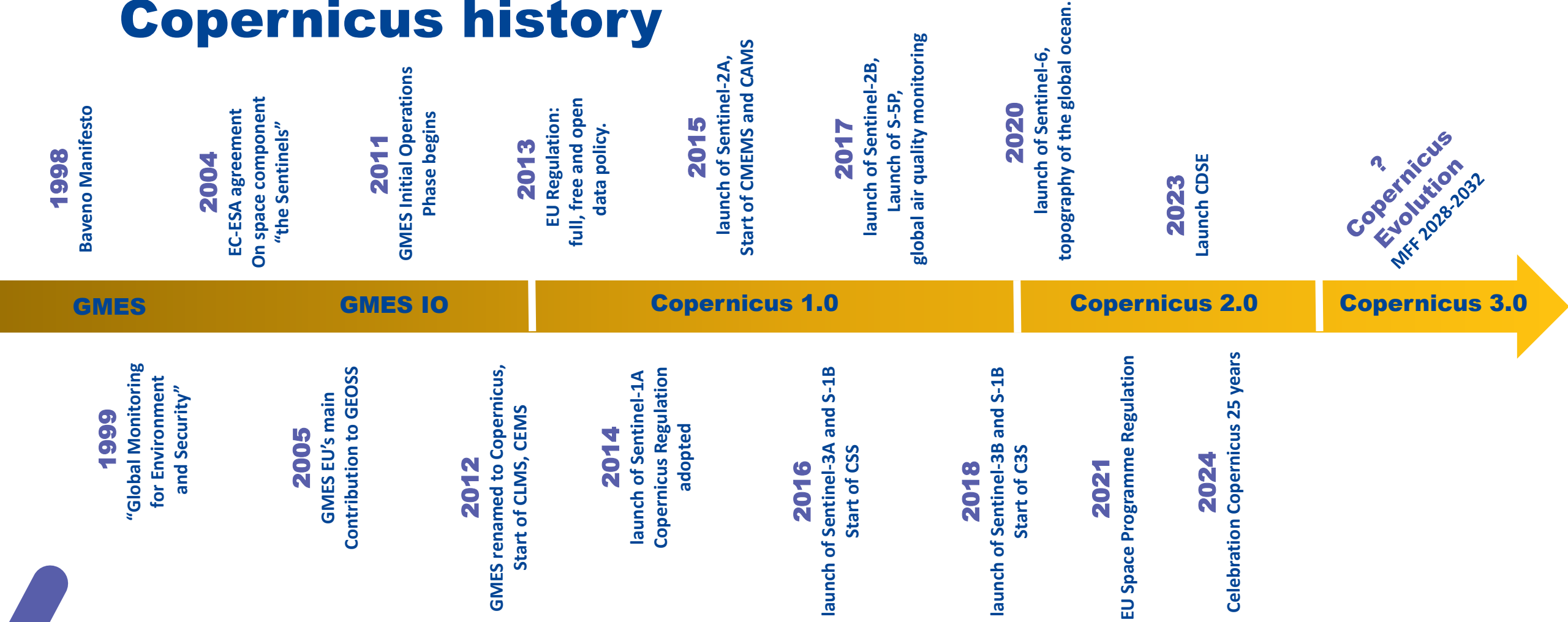
Copernicus Health Hub: the link between Earth Observation, Environmental Information and Health



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Copernicus history



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Copernicus Sentinels - Future development

CURRENT GENERATION SENTINELS

Sentinel-1 A (+ B)

C-Band Radar

Sentinel-2 A + B

High Res Optical

Sentinel-3 A + B

MR Optical + Altimeter

Sentinel-4 A

Atm. Chemistry (GEO)

Sentinel-5P

Atm. Chemistry (LEO)

Sentinel-6 A

Altimeter

Sentinel-1 C + D

C-Band Radar

Sentinel-2 C + D

High Res Optical

Sentinel-3 C + D

MR Optical + Altimeter

Sentinel-4 B

Atm. Chemistry (GEO)

Sentinel-5

Atm. Chemistry (LEO)

Sentinel-6 B + C

Altimeter

NEXT GENERATION SENTINELS

Sentinel-1 NG

C-Band Radar

Sentinel-2 NG

High Res Optical

Sentinel-3 NG-O

MR Optical (Vis + TIR)

Sentinel-3 NG-T

Inteferometer/Altimeter

EXPANSION MISSIONS

ROSE-L A + B

L-Band Radar for Arctic and Cryosphere Monitoring, Land and Emergency Mapping, Ground Motion, Soil Moisture

CO2M A + B (+ C)

Carbon Dioxide Monitoring

CRISTAL A + B

Polar Ice & Snow Topography Altim.

CHIME A + B

Hyperspectral Imaging

LSTM A + B

Land Surface Temperature

CIMR A + B

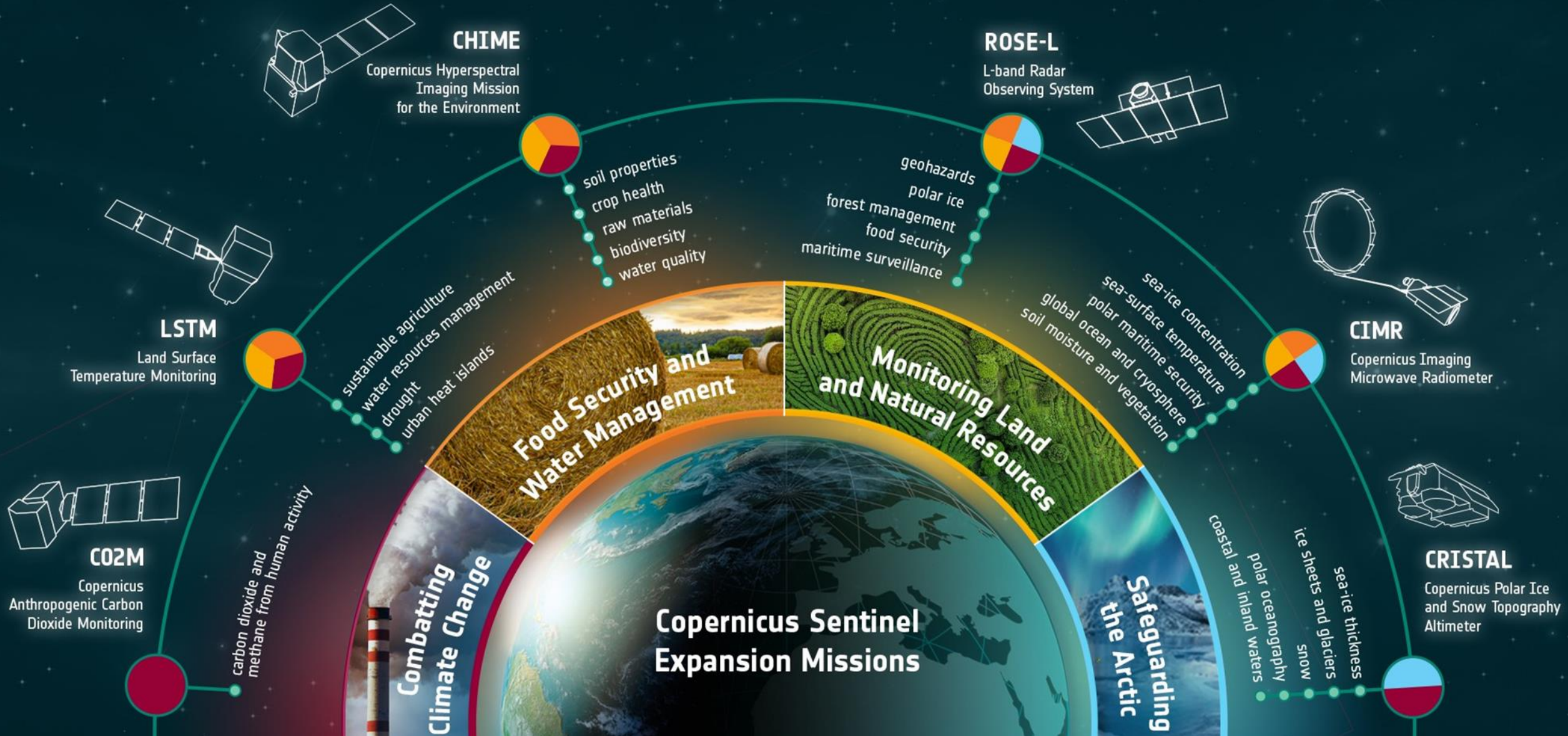
Imaging Microwave Radiometer



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Copernicus Expansion Missions





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THANK YOU

Tim Lemmens
European Commission
DEFIS C.3 Earth Observation