

Sovereign Space and Geospatial Infrastructure for National and Regional Security

GWF, Amsterdam

29-April-2026

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EUROPEAN SPACE AGENCY ELEVATING THE FUTURE OF EUROPE IN SPACE

THROUGH EUROPEAN COOPERATION
AND WITH INTERNATIONAL PARTNERS

23 MEMBER STATES **4** associate members
1 cooperating state

6500 ESA WORKFORCE

IMPLEMENTS **60%** OF THE EUROPEAN SPACE BUDGET
150+ missions delivered
30+ missions upcoming

2026 BUDGET **€8.26B** €15 per European





About 85% of ESA's budget is spent on contracts with European industry.

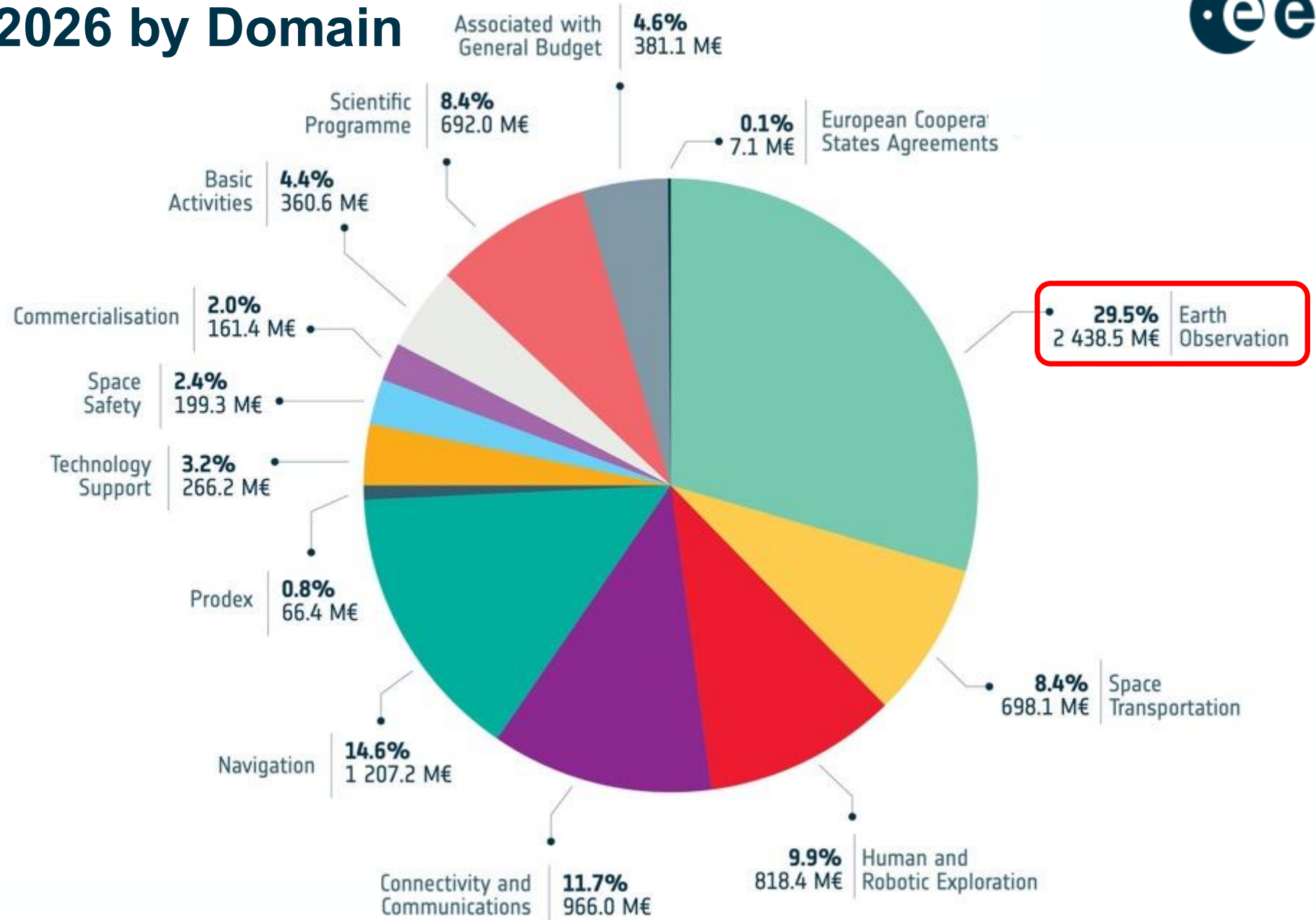
ESA's industrial policy:

- Ensures that Member States get a fair return on their investment;
- Improves competitiveness of European industry;
- Maintains and develops space technology;
- Exploits the advantages of free competitive bidding.

ESA Budget for 2026 by Domain

(~30% for EOP)

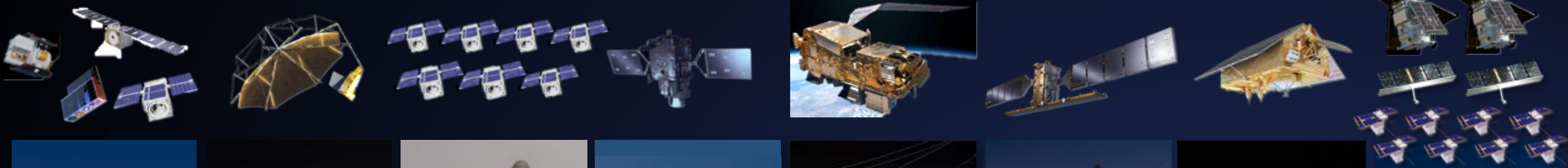
TOTAL
8.26 B€



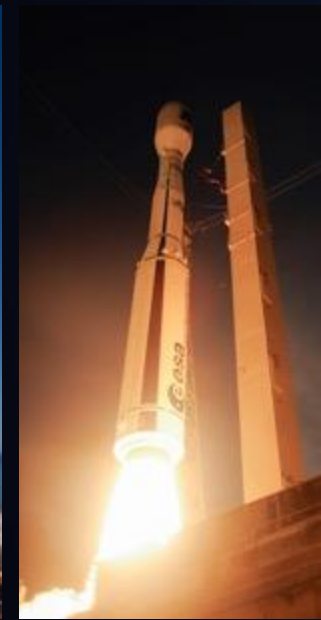
* Includes activities implemented for other institutional partners



2025 - A Year of Successful Launches



AIX, Hive, Forest-3
(InCubed supported)
+ HEO Pathfinder
(Iride precursor)
15 January



Biomass
29 April



7 HEO
(IRIDE first constellation)
23 June



MTG-S1
incl. Sentinel-4
1 July



MetOp-SG A1
incl. Sentinel-5
12 August



Sentinel-1D
4 November



Sentinel-6B
17 November



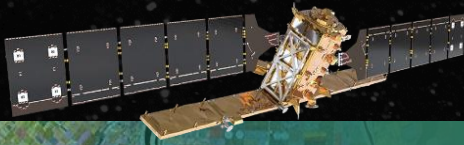
2 HydroGNSS
(Scout)
+ 8 Eaglet (IRIDE)
+ 2 Iceye (GR nat. pr.)
+ IPERLITE (BELSPO)
28 November



The Copernicus Space Component | Sentinels



Sentinel-1



All-weather, day-and-night radar imaging mission for land and ocean services

2014 / 2016 / 2024 ●●●●

Sentinel-2



Multispectral high-resolution imaging mission for land monitoring

2015 / 2014 / 2024 ●●●○

Sentinel-3



Multi-instrument mission for sea-surface topography, sea/land-surface temp. and ocean/land colour

2014 / 2018 ●●○○

- operational
- inactive
- To be launched

The largest producer of EO data in the world with full, free & open data policy*

> 475.000

Registered Users

20 TB

of daily data production

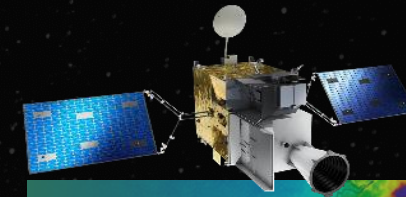
920+ PB

of products disseminated for services to society

Supporting 6 operational services



land atmosphere climate ocean disaster security



Sentinel-4

Geostationary atmospheric monitoring

●○ 2025

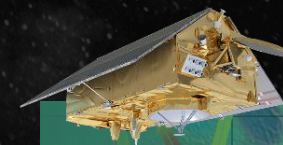
Sentinel-5/5p



●○○ 2025

Polar orbit atmospheric monitoring

● 2017



Sentinel-6

Altimeter for global sea-surface height

●● 2020 / 2025/

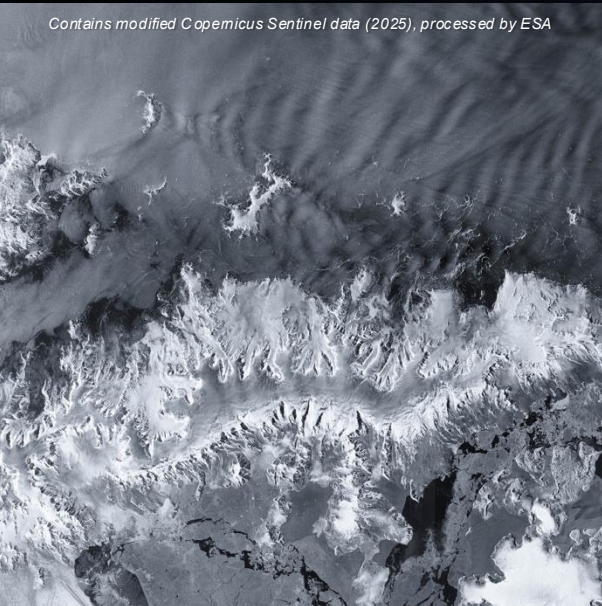


*Esa Sentinel Data Policy (Sep 2013) and EU Delegates Act on Copernicus Data and Information Policy (Dec 2013)

Sentinel First Generation – Excellent First data of S1D, -4A & -5A -6B

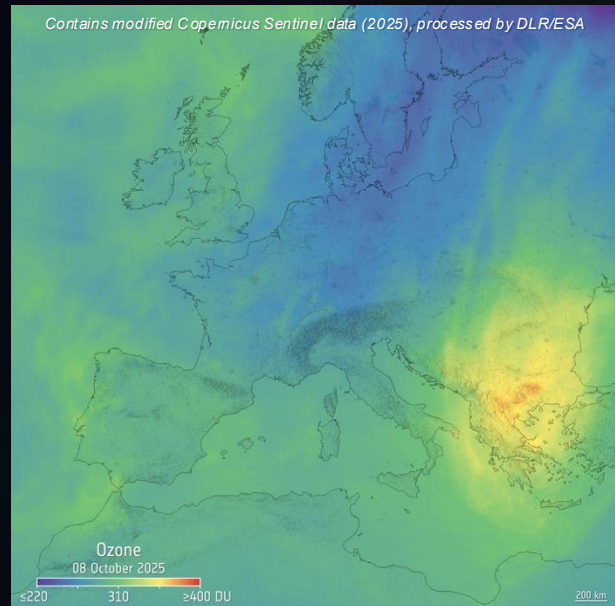


Sentinel-1D



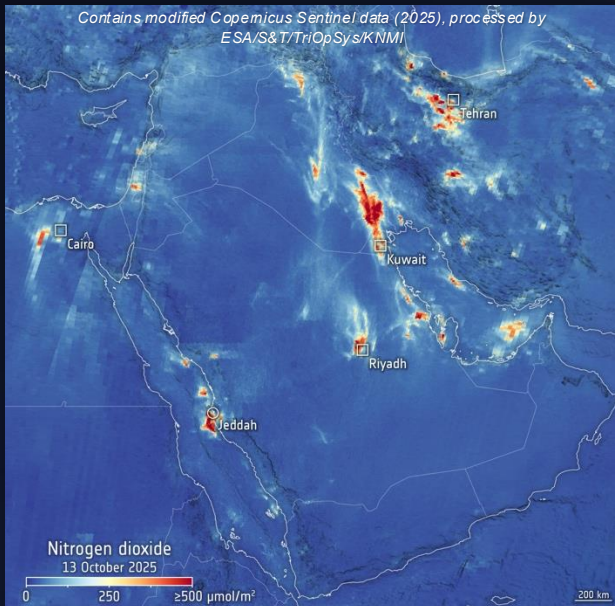
Black and White radar image of Antarctic Peninsula captured on 6 November 2025

Sentinel-4A



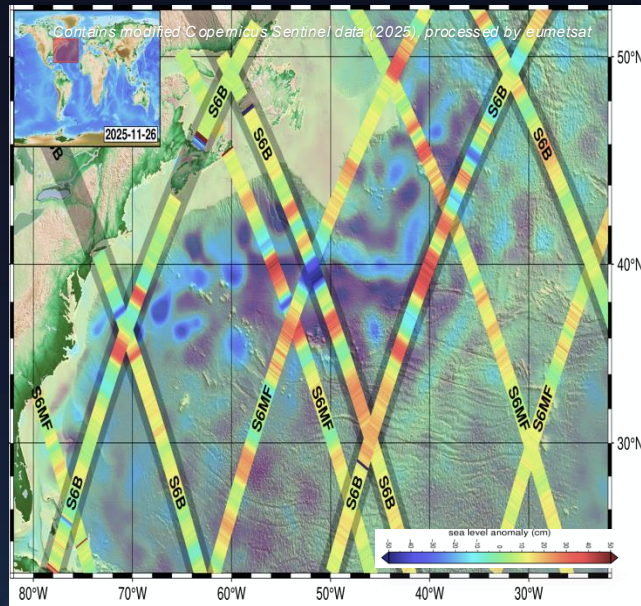
Vertical column of ozone over Europe, captured on 8 October 2025

Sentinel-5A



Vertical column density of nitrogen dioxide over the Middle East, captured on 13 October 2025

Sentinel-6B



Altimeter ground tracks of Sentinel-6B and MF showing the Gulf Stream current in the North Atlantic Ocean

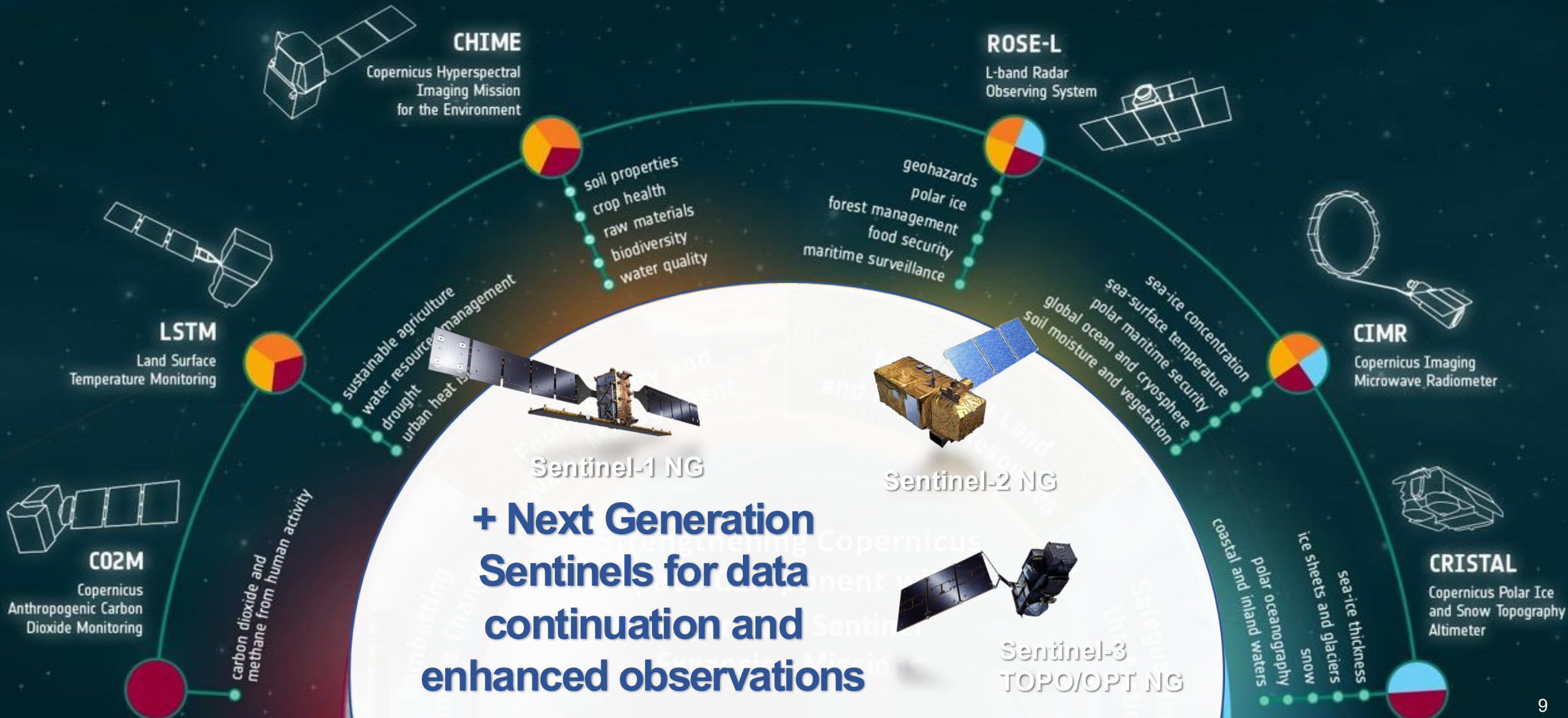


Copernicus Space Evolution



PROGRAMME OF THE
EUROPEAN UNION

co-funded with



DestinE Platform




DestinE Platform

Your gateway to a sustainable future
 A unique ecosystem of services harnessing the power of Destination Earth.



DestinE Components

DestinE Platform

Digital Twins and Digital Twin Engine

Destination Earth Data Lake



5.020

Registered Users

[Join us](#)

30

Services already available

[Discover](#)

Data available from

2

DestinE Digital Twins

A flexible ecosystem of services available to all DestinE users
Leveraging European Supercomputers



10



The European Space Agency has driven the European space economy for fifty years and will continue, for decades to come.



THE 5 GOALS WE AIM TO REACH BY 2040

01.
PROTECT
OUR PLANET
AND CLIMATE

02.
EXPLORE
AND DISCOVER

03.
STRENGTHEN
EUROPEAN
AUTONOMY AND
RESILIENCE

04.
BOOST EUROPEAN
GROWTH AND
COMPETITIVENESS

05.
INSPIRE
EUROPE



ESA's EO Programmes

FUTURE EO

Continuing to deliver world class Earth Observation systems and earth science

COPERNICUS

Continuing and enhancing our eyes on Europe and the World

ERS-EO

Responding to resilience & security challenges

INCUBED

Supporting industrial innovation

DIGITAL TWIN EARTH

Enhancing understanding, characterisation & modelling of the Earth

How to generate European Resilience and Autonomy

Data Management Functions:

- Acquisition
- Production/Processing
- Access & Access Services
- Dissemination
- Archiving
- Authentication
- Quality
- Security
- etc.



→ ESA/EU EO Satellites – Institutional/Commercial EO Satellites

→ Framework/Ecosystem Services rather than vertical Ground Segment functions for specific missions/satellites

→ Industrial Agility and Innovation – ESA contracts are based on demonstrated business competitiveness gains

→ Artificial Intelligence & Security/Robustness integration !

→ de-centralised System of Systems of fully integrated European components !

Earth Observation in ERS (ERS-EO)

Enhanced situational awareness of EU & Member States:

- Early detection of crisis,
- Intelligence, Surveillance, Reconnaissance,
- Geospatial support



Contributes to preparedness, supports decision-making and action for security and defence

- **Earth-Observation sensors:** VHR optical & radar, possibly advanced sensors
- **Fast revisit capability:** large EO constellations
- **Guaranteed, secure and fast access to data:** Global, Reactive, Reliable
- **Meeting both civil & military needs**



ERS-EO PROGRAMME

Element 1
Prepare & accelerate the EU's EO Governmental Services (EOGS), based on user needs & security requirements defined by the EC

Element 2
Federated system of national and multi-lateral resources for a scalable & adaptable solution tailored to diverse user needs & operational contexts

Federation

Cluster 1 Alpstar

Cluster 2 ECSA+

Space Resilience Nodes

Further Integration is needed and possible for:

- Earth Observation and Geospatial data
- Infrastructures and Industrial Engagement
- Development of Applications
- Increased Data Management Expertise
- Programmatic Coordination

→ Strengthening of Sovereign Capabilities

Elevating the future of Europe

www.esa.int