ESA UNCLASSIFIED – Releasable to the Public

Ground Segment and Data Management Opportunities in EO Programmes

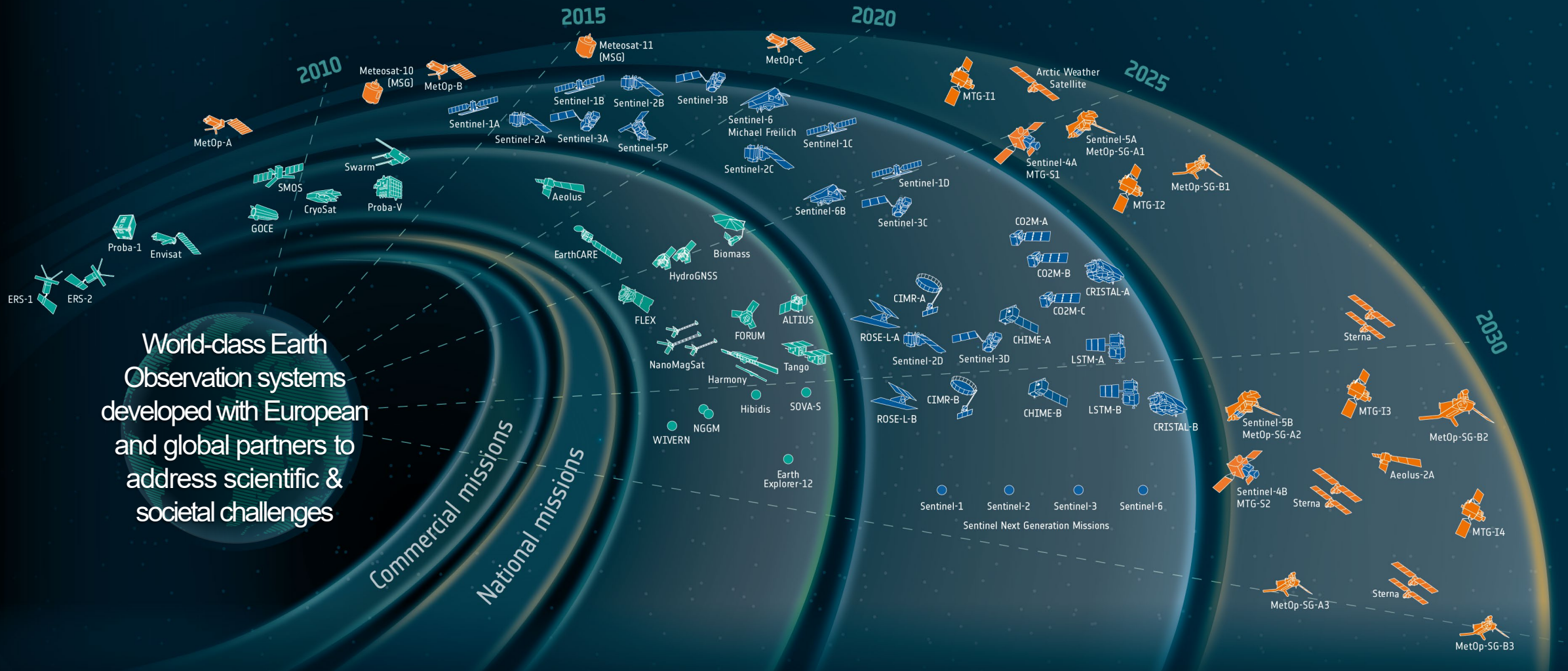
Powering Europe's EO Ecosystem

17/09/2026

EUROPEAN SPACE AGENCY

ESA's EO Missions

Satellites**: Heritage **08** / Operational **24** / Developing **38** / Preparing **39** / Total **109



ESA-supported | ESA-assisted | Science | Copernicus | Meteorology

EOF - The ESA EO Mission and Data Management Framework

COPERNICUS Missions | **DestinE / DTE** | **EO Science missions**

A coherent **ESA EO Mission and Data Management approach**
to maximise **synergies** across Programmes
delivering **high quality data** and **resilient user- and data-centric services**
fostering **Industrial competitiveness** and **innovation**

Multiple opportunities in a rich EO Programmes portfolio

FUTURE EO

Continuing to deliver world class Earth Observation systems and earth science

COPERNICUS

PROGRAMME OF THE EUROPEAN UNION

Continuing and enhancing our eyes on Europe and the World

Including activities under ESA CSC-4 and EC MFF21 and covering both Sentinel and commercial missions (CCM)

ERS-EO

Responding to resilience & security challenges

BASIC ACTIVITIES

EARTHNET and HERITAGE

DestinE is led by the European Commission and implemented by ESA with ECMWF and EUMETSAT

DestinE / DTE

Enhancing understanding, characterisation & modelling of the Earth

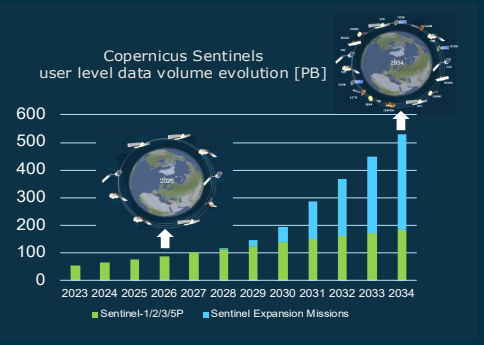
CURRENT and FUTURE CHALLENGES

ESA MANAGES ONE OF THE LARGEST EO DATA MANAGEMENT SYSTEM IN THE WORLD

~ 800,000 users registered, ~ 500 TB of daily data access

AND IS ALREADY PREPARING FOR NEW CHALLENGES IN PARTNERSHIP WITH INDUSTRY

CONTINUOUS INCREASE OF EO DATA VOLUMES



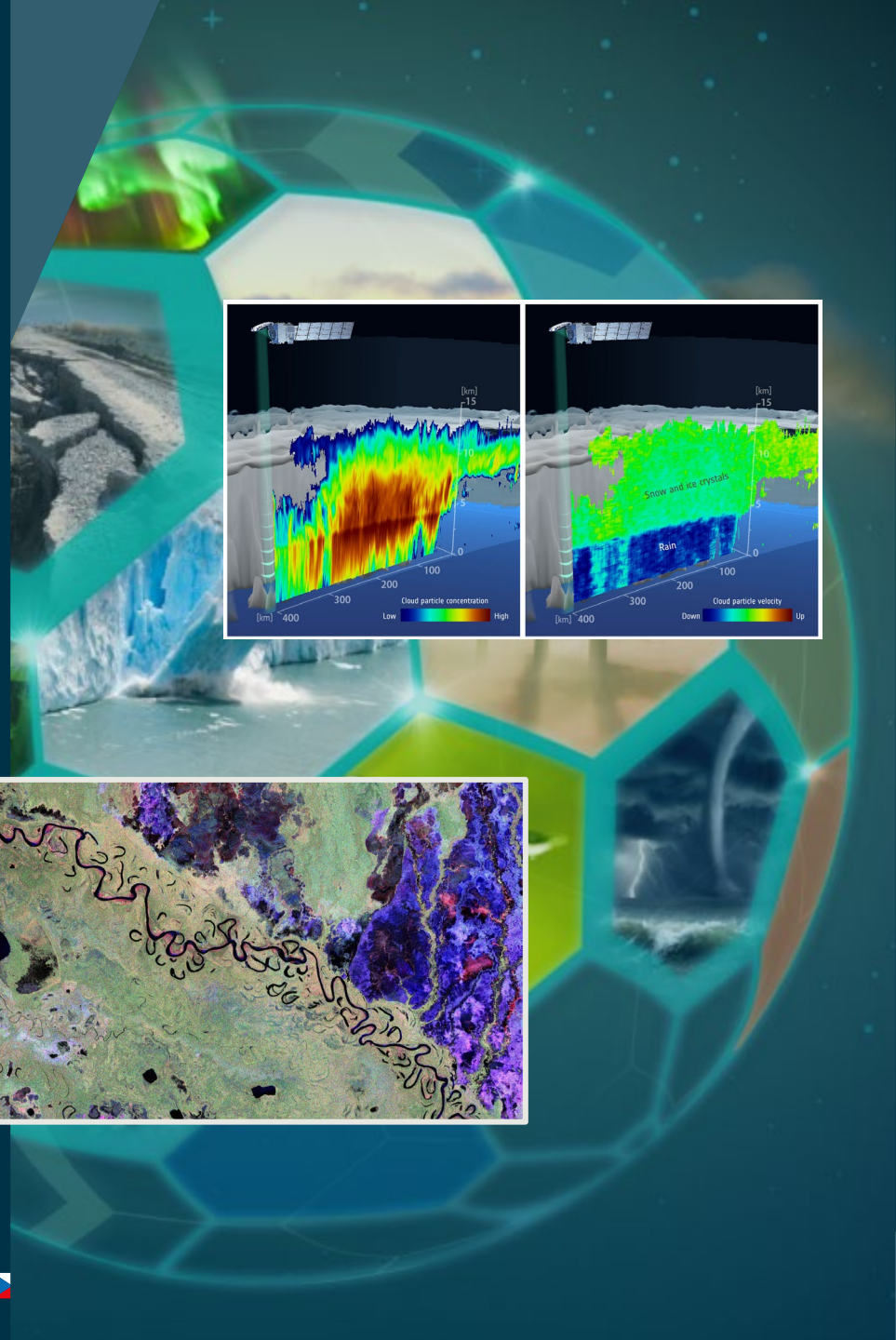
ENHANCED CAPABILITIES WITH THE EVOLUTION OF AI & EMERGING TECHNOLOGY

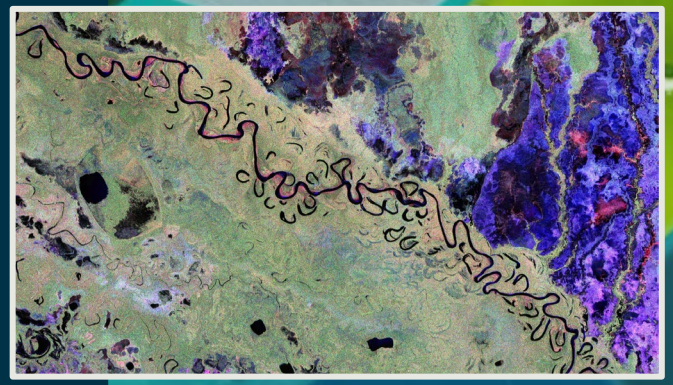
FROM TRADITIONAL EO PRODUCT ACCESS TO EFFICIENT DATA ANALYTICS

INCREASINGLY DEMANDING ROBUSTNESS and RELIABILITY

Opportunities in Future EO

(EOF-EOS)





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EOF-EOS Goals

Improve User Experience in EO Data Access

- ✓ Across-mission Data Access
- ✓ State-of-the-art technology
- ✓ Systems federation

Boost Collaborative R&D

- ✓ Configurable shared environments
- ✓ Focus on knowledge-sharing and community support

Foster Integration with EO Ecosystem

- ✓ Optimised user journey
- ✓ Exploiting service-level synergies
- ✓ Access to wider user community

Effectively address increasing complexity and Operational Challenges

- ✓ Across-mission technical baseline
- ✓ Building on existing industrial capabilities and consolidated practices
- ✓ Focus on core value added activities

Raise the offer for User: from data to workspace

- ✓ R&D-tailored tools and services
- ✓ Scalable and Secure environment
- ✓ Effective User Management and User Support

EOF-EOS Services

Security Monitoring and Operation Coordination
Monitors EOS security and coordinate security operations.

Security Governance and Engineering Support
Defines the EOS security for information and system in line with ESA security framework and EOP security objectives.

Data Access in a Collaborative Environment
Provides data access and collaborative environment for data processing and analysis.

Data Acquisition
Manages satellite data acquisition and provides raw and telemetry data.

Data Management
Ensures data preservation, traceability, and reprocessing.

Mission Planning
Plans instrument sensing, payload downlinking, and station acquisition.

Data Innovation Science Cluster
Develops and maintains data processors, ensures instrument monitoring and calibration .

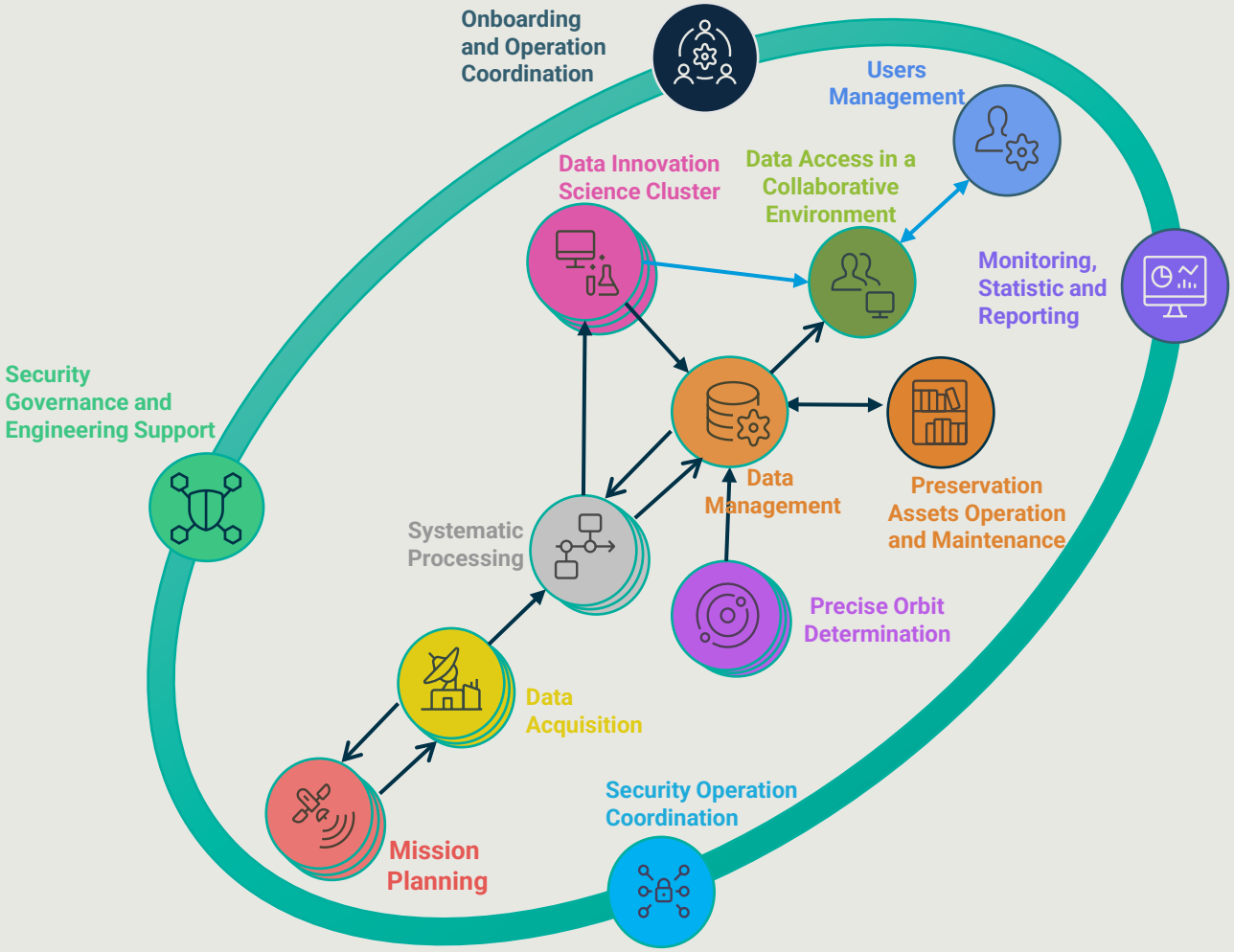
Precise Orbit Determination
Provides precise orbit determination for satellites.

Monitoring, Statistic and Reporting
Hosts and maintains monitoring and reporting tools.

Systematic Processing
Processes data systematically from raw to L2 products.

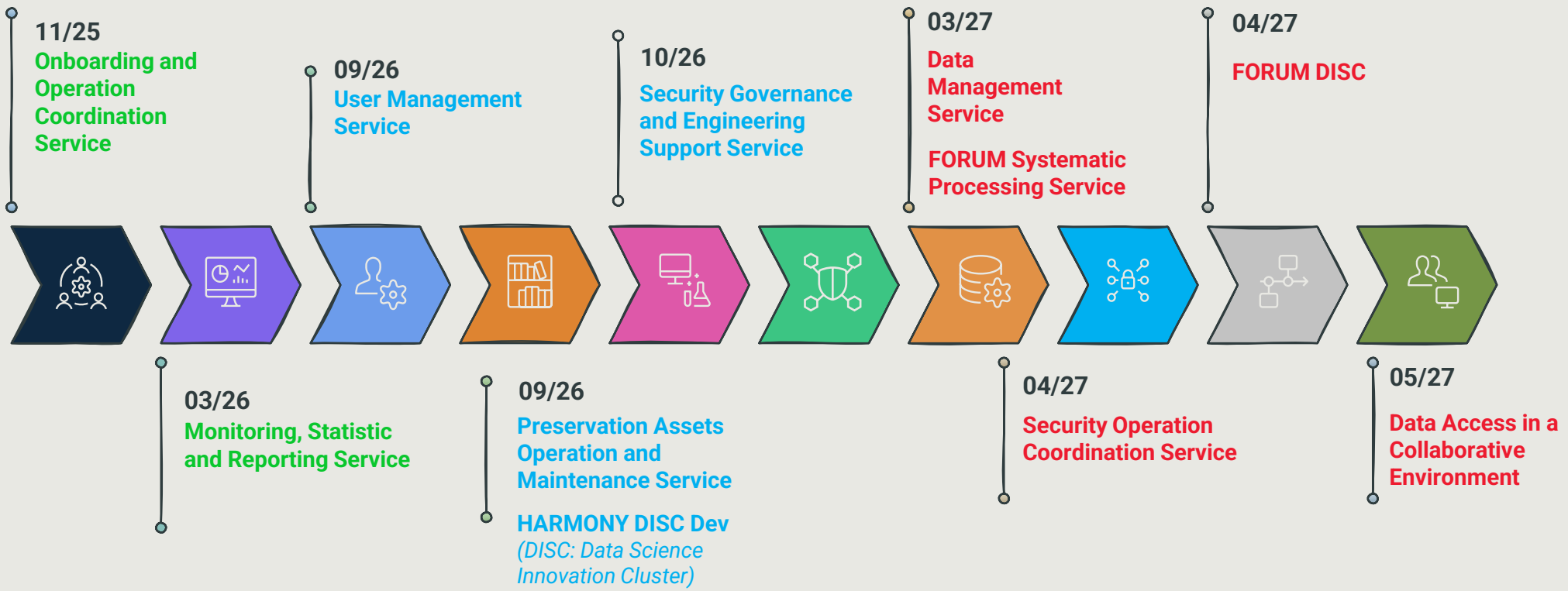
Users Management
Provides access, information and support to users.

Preservation Assets Operation and Maintenance
Maintains and operates preservation assets.



Additional information can be found at https://eoframework.esa.int/ upon registration; please contact us for assistance

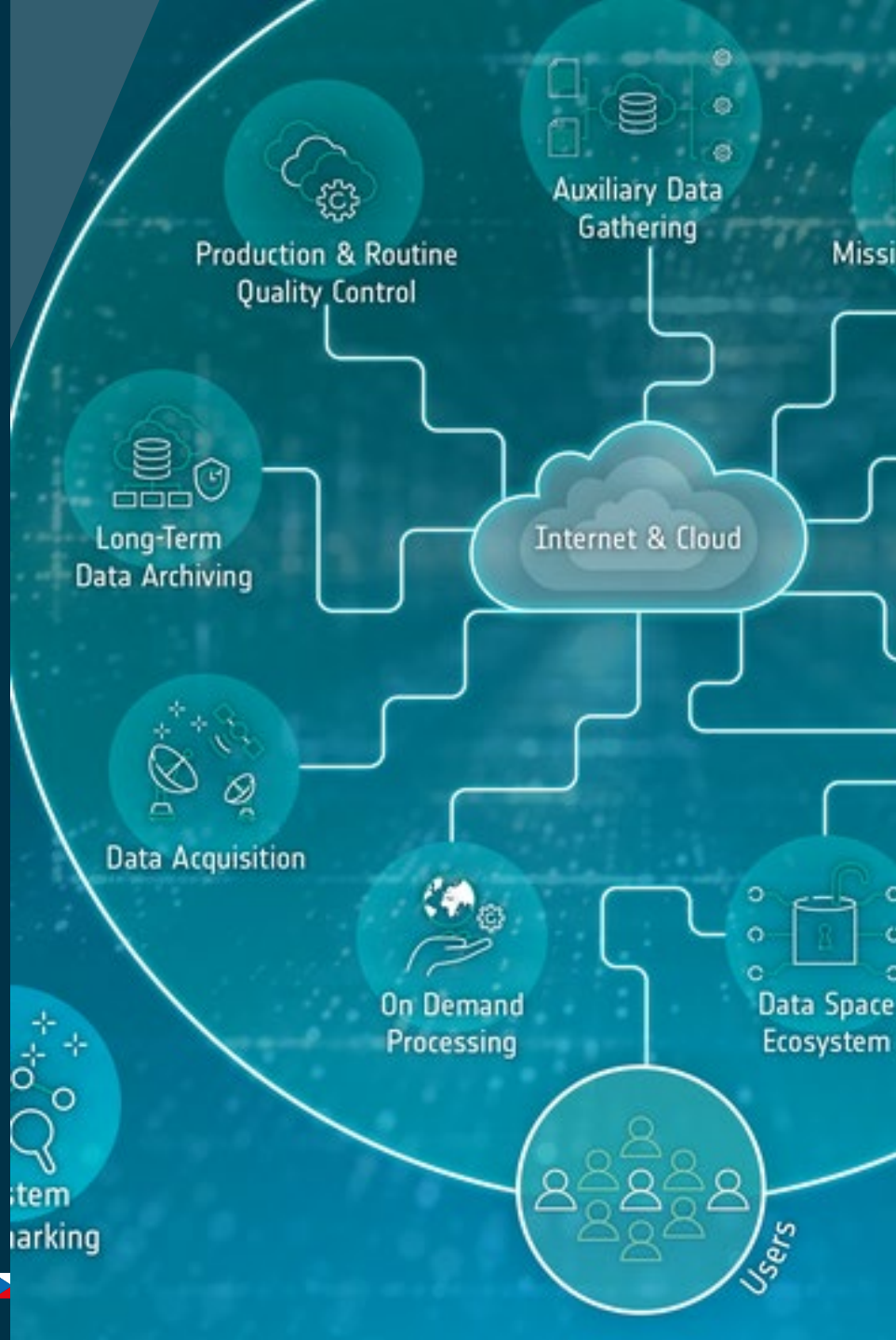
EOF-EOS Procurements Release Plan



Issued– coming soon - planned

Opportunities in CSC-4 and in Copernicus MFF21-27

(EOF-CSC)



EOF-CSC Developments and Collaborative GS (CSC-4)

CSC-4 funded opportunities for EOF-CSC are development and pre-operational activities funded by ESA for the purpose of the evolution of the EOF-CSC and the on-boarding of new Sentinel missions – all projects consider AI as integral part of the technical solutions to be offered to improve processes, performance and outcomes

- **Copernicus Expansion Mission Onboarding in EOF [Q4 2026/Q1 2027]**
- **Best Practices procurements - Mission Planning development for CIMR/LSTM/CHIME - [end 2027]**
- **Open Competitions - Copernicus Expansion Missions L0/L1 data processors developments L0/L1 for LSTM / ROSE-L / CIMR / CHIME [2027 onwards]**
- **Open Competitions - Copernicus Expansion Mission (CIMR, ROSE-L) L2 data processors developments [2026/7]**
- **ESA Earth Observation Information System pre-operational activities and development [2027]**

coming soon - Intended

Copernicus Sentinels Operations (MFF21) - 1

Open Competitions for the Copernicus Sentinels operational services, adapting to the current and future challenges of the Copernicus Programme and benefiting from the developments in the frame of CSC-4.

- **Mission Planning**
  - **ITT - S1/S2 Sentinels Mission Planning Operations & Maintenance (+ Options for Expansion Missions) [Q3 2026]**
- **Data Acquisition**
  - **CO2M /CRISTAL LEOP & TTC operations [Q3/Q42026] – CSC4 funded**
- **Flight Operations Segment**
  - **ITT – Flight Operations Support Service [Q3 2026]**

open - coming soon

Copernicus Sentinels Operations (MFF21) - 2

- Reprocessing campaigns :
  - S3 SLSTR reprocessing campaign [2027]
  - S3 SYNERGY reprocessing campaign [2027]
  - S1 reprocessing campaign [2027]
- Data Dissemination
  - Onboarding of JRC Global Surface Water and other relevant datasets to the CDSE [Q3 2026]
- Communication
  - ITT Sentinel Online renewal [2027]

Intended - coming soon

More Information

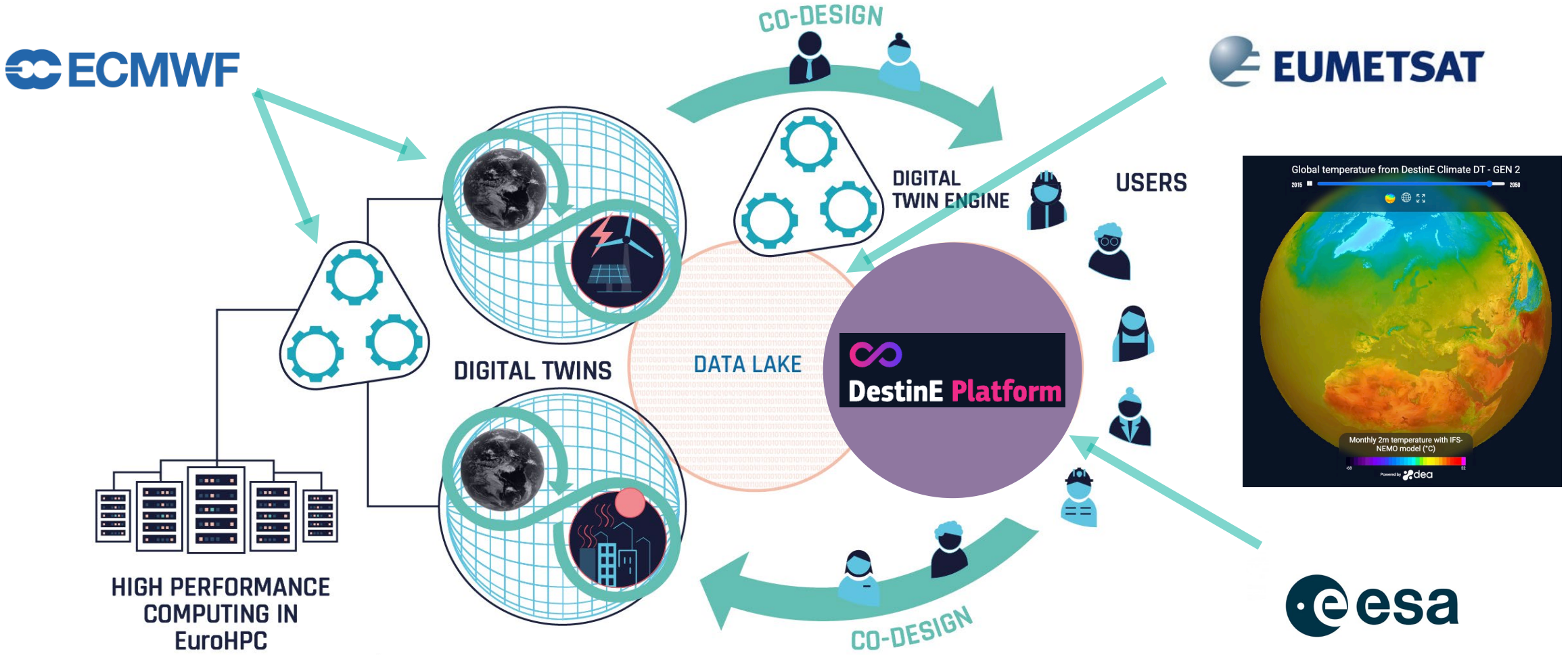
EOF

Sentinel online

Sentiboard

Opportunities in DestinE and in DTE

Destination Earth Overview

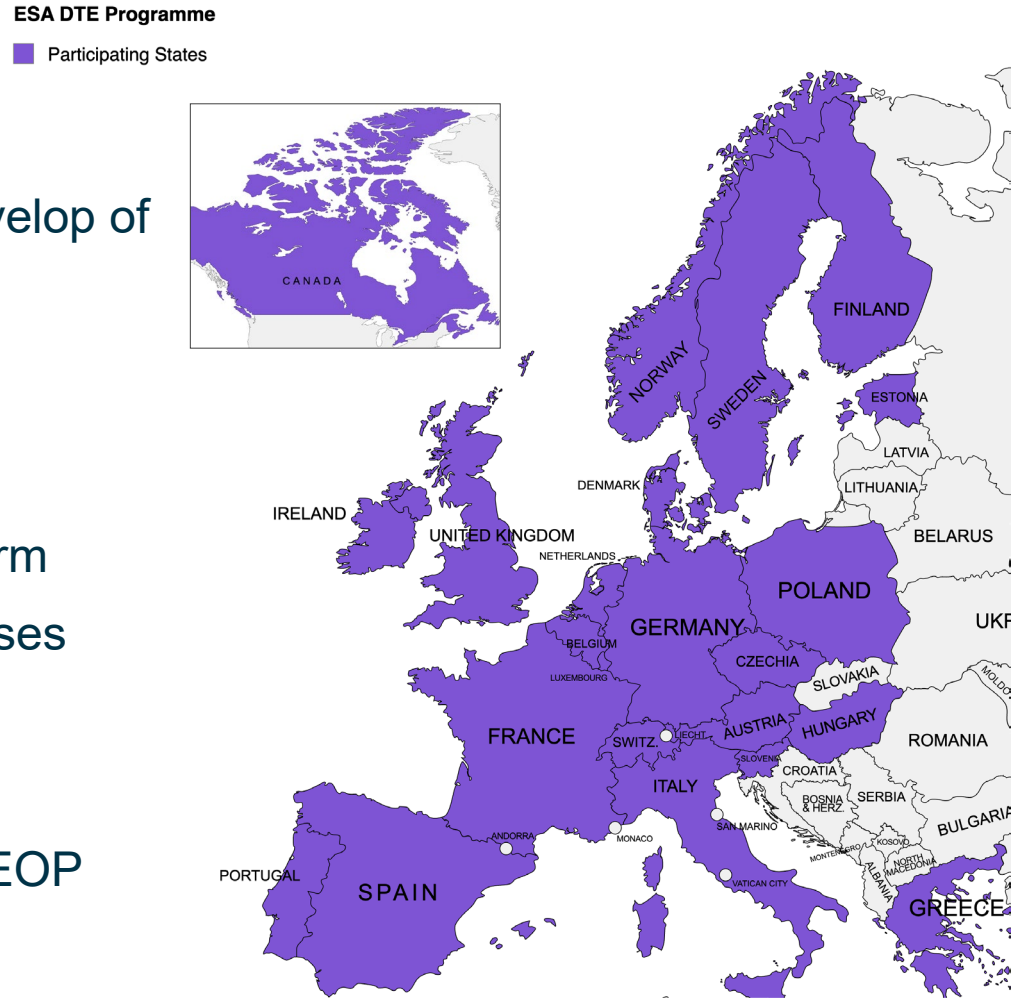


ESA Digital Twin Earth Programme (DTE)

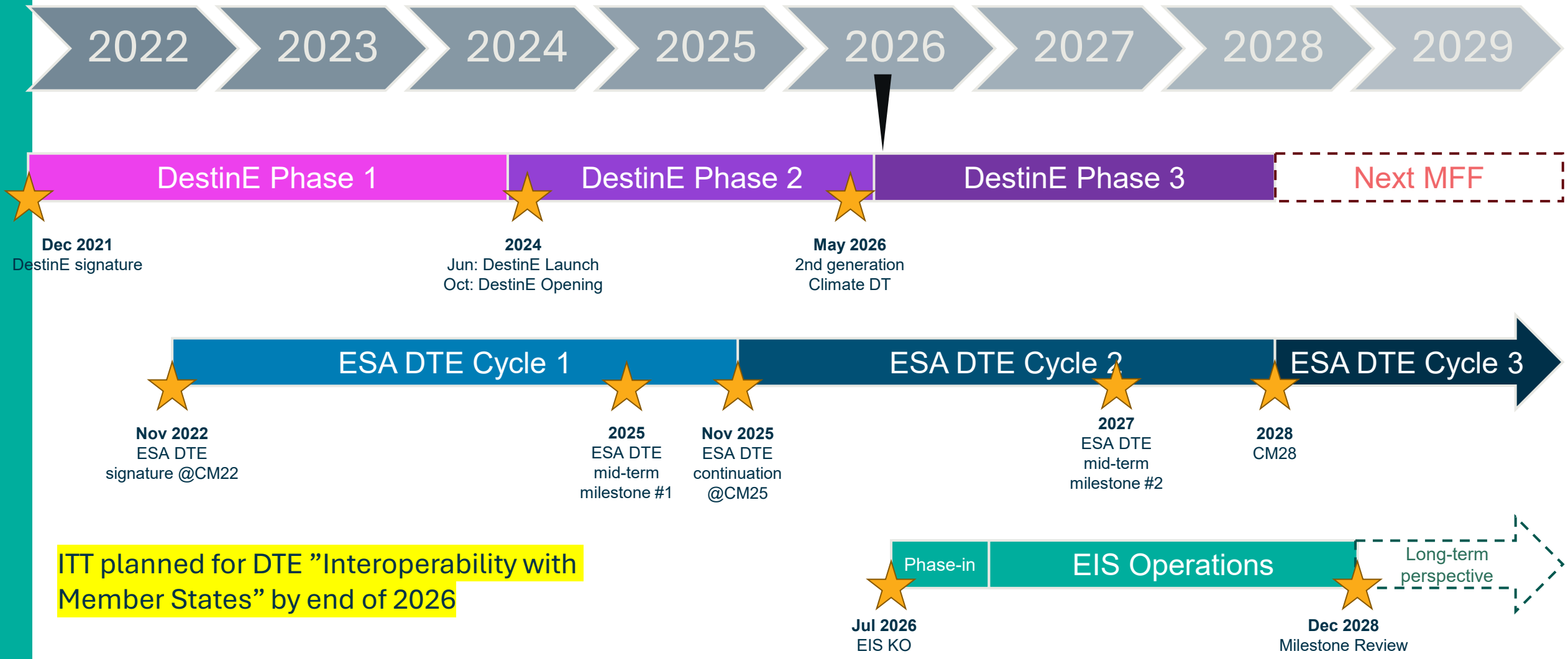
- Optional ESA Programme
- Funded by 21 ESA Member States
- Continuation confirmed at CM25 with an overall envelop of over 50 Mio. Euros

- Complements DestinE with additional Digital Twin Components that leverage novel EO assets
- Develops innovative services for the DestinE Platform
- Interoperability with MS Infrastructures and Use Cases

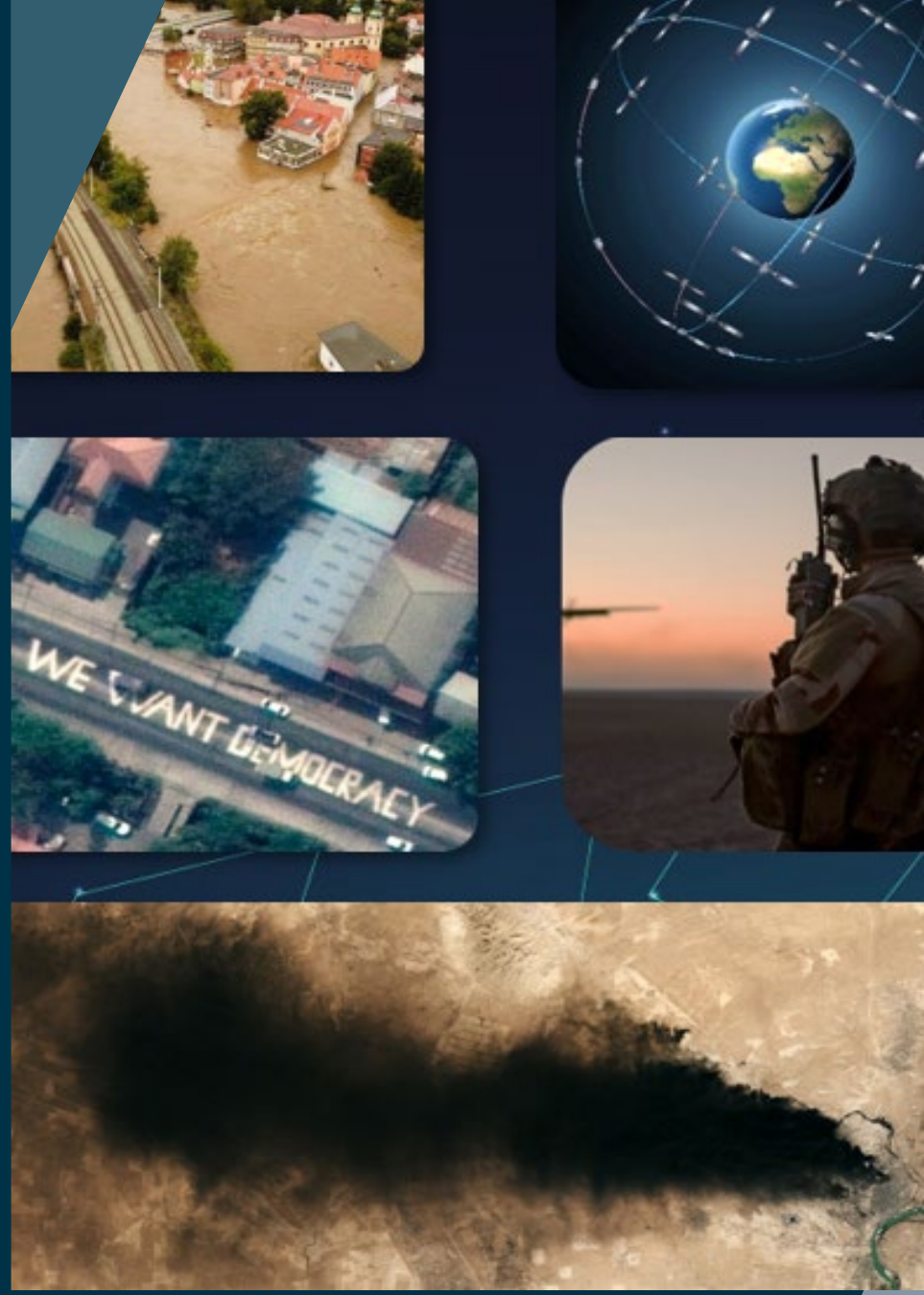
- Close coordination with Destination Earth
- One ESA team responsible at ESA with support of EOP Science Division



DestinE, ESA DTE, and EIS Timelines



Opportunities in ERS-EO



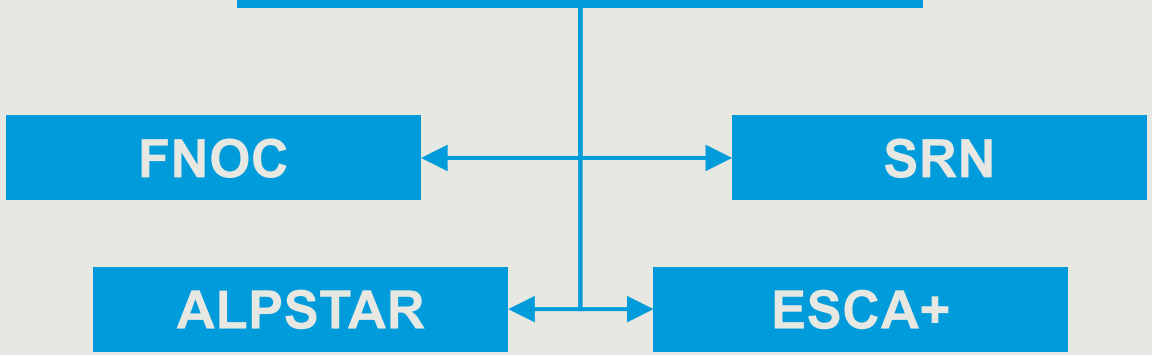
ERS-EO: Element 1 and Element 2

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



ERS-EO: Element 1 and Element 2

ERS-EO Element 1 - Ground Segment Framework Definition

- ERS-EO Ground Segment Framework (GSF) Definition Activity (I) [Q1/2027]

ERS-EO Element 1 – Applications Proof of Concept

- ERS-EO Proof of Concept to Support Enhanced Protection of Critical Infrastructure (I) [Q3 2026]
- Potential additional End-to-End Applications Proof-of-Concept (PoC) Demonstration Activities [2027]

ERS-EO Element 2 – Space Resilience Nodes

CONCLUSIONS

1. **EOP offers a wide portfolio of opportunities in the EO Ground Segment and Data Management across various Programmes**

2. **Opportunities extend far beyond the traditional EO sector, including advanced digital solutions, cybersecurity, AI, DevSecOps, etc**

3. **EOP nurtures a dynamic and competitive Industrial landscape to ensure robust and resilient operations while continuously integrating innovation to serve at best user needs**

EUROPEAN SPACE AGENCY

THANK YOU!

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