

→ THE EUROPEAN SPACE AGENCY

Workshop Objectives

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FESA Official Use C

Climate Action, Sustainability and Science Department

What is ESA's new EO Science Strategy?

- □ Articulates a **strategic vision** for EO **science** at ESA, as a pillar for "everything" else
- Presents cross-cutting science priorities (addressable by EO), which respond to scientific and societal challenges - and have relevance and beneficial impact
- Coherent with the 2040 horizon and identifies strategic areas of action implementable on different timescales
- Focus attention on areas where ESA's programmes and activities can address scientific challenges, assemble scientific knowledge with which to take action, and with traceable & beneficial impact
- Identifies areas of science that ESA may respond to across the value chain, from innovative missions, technology development, through scientific excellence to societal benefits
- Involves R&D and innovation, strong partnerships with national programmes and funding agencies – even beyond the space sector
- Previous ESA EO Science Strategy published in 2015 much has changed!
- 2021 Independent Science Review (of the EOEP-5/FutureEO-1 programme) recommended updating (more frequently) the EO science strategy



The European Space Agency Earth Observation Envelope Programme / FutureEO Programme

> ndependent Science Review Report 2021

ssessment of the Scientific Benefits of the IEP-5 / FutureEO-1 Segment 1 Programmes



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Earth Action – what is it?

- Leverages satellite data to inform decision-making and enable action to support urgent societal needs – especially the Earth's natural environment and climate.
- Includes mitigating and adapting to climate change and sustainable management of resources.
- □ Targets the **generation** and **delivery** to stakeholders of **actionable information** - beyond provision of data - in the most impactful manner
- □ Requires interactions beyond the "space" sector communities (and quite likely ministries!)
 - □ Aligns with partners, like IFIs, UN, EU (CLIMA, RTD, INTPA, DEFIS, ENV, AGRI, etc.)
- □ Leverages digital technology, "open" principles and commercialisation
- □ Is **bigger than ESA** and is ideally not funded by "space budgets" (or even public sector) alone
- □ A science-driven EO strategy provides the basis for improving the understanding of our evolving planet and the development of actionable products, services and solutions

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EO Science Strategy Review Workshop



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□ Objectives

- Outline programmatic considerations driving the Strategy, and process followed
- Present the public draft Strategy contents and structure
- Conduct a community townhall on its role in guiding the implementation of ESA programmes.
- Review how to best implement (and improve) the strategic priorities and monitor progress (missions, digital Innovation, open science, commercial EO, European and International partnerships)
- Collect feedback and recommendations on strategy content

Workshop Programme in a nutshell

- Presentations addressing development and content of science strategy, programmatic aspects and supporting work and tools (e.g., EO architecture)
- Community review through 4 splinter sessions aligned with strategic drivers
- Final plenary to present outcome of splinters, consolidate recommendations

Workshop Agenda (Day 1: 7 May)



7 May (13:30 – 18:00hrs) – Plenary Session (Live Streamed)

The EO Science Strategy

- Development of the new EO Science Strategy
- Establishing the Foundation for the Science Strategy
- EO Reference Architecture Blueprint

Enablers of Earth Action

- Global Cooperation and Partnerships for policies and development
- The International Climate Network
- The European Science Habitat
- Digital Innovation and Open Science
- Partner Perspectives (EUMETSAT and NASA)

Discussion Session and Look Ahead to Day 2

<u>CLOSE – 18:00hrs</u>

Icebreaker at Villa Tuscolana (Bus at 18:30hrs; return at 22:00hrs to Frascati centre)



Workshop Agenda (Day 2: 8 May)



8 May (09:00 – 16:00hrs) Splinter Sessions (09:00 – 11:00hrs) *NO LIVE STREAMING

Splinter 1, 2, 3, and 4 discussions

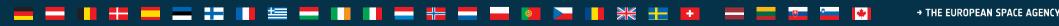
Plenary Session (Live Streamed) – 11:30hrs – 13:30hrs)

- Splinter 1 Report
- Splinter 2
- Splinter 3
- Lunch & Photo 13:30 14:45hrs
- Photo at 14:30hrs

Plenary Session (Live Streamed) - 14:45hrs - 16:00hrs)

- Splinter 4
- Next Steps

<u>CLOSE – 16:00hrs</u>



EO science strategy: what's next?

- Elaboration by Executive of draft mid Jan mid-April
- Release of draft EO Science Strategy on 23 April
- 7-8 May : ESA EO Science Strategy Review Workshop (@ESRIN) with the aim to
 - Present and discuss the EO Science Strategy, and the outcome of the Foundation Study activities to define science priorities
 - Present and discuss the implementation of the strategy
 - Discuss the strategic science drivers and their weights in defining programme activities

Introduce the Executive's initial plan for Earth Action narrative and alignment at CM-25

- 12-13 May: ACE20 Review of Workshop feedback and consultation on Final draft Science Strategy
 - Endorsement of final content by ACEO July 2024
 - Endorsement by PB-EO/public release Q3/2024





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EO Science Strategy Review Workshop



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7-8 May 2024 | ESA-ESRIN | Frascati (Rome), Italy