

ESA DIRECTORATE OF SCIENCE

BRIEFING MEETING

11th of December
2024

Call for Medium and Fast missions
Exploratory Call for mini-Fast
proposals
in the ESA Science Programme

Protocol for the Briefing meeting

- The session is being **recorded** and will be available in the coming days
- Due to the size of the audience, the attendee **cameras** and **microphones** will be **turned off**
- Questions: Please ask your questions in the **Q&A window**. Due to the expected number of questions, the moderators may combine several questions into one
- An FAQ will be published with the call

Programme

Moderators: *Lisa Lacroix, Ricarda Leske*

14:00-14:15 – Introduction (*Luigi Colangeli*)

14:15-15:00 – Context, clarifications, and expectations (*Frederic Sifa*)

- Call for Medium-class mission opportunity (M8)
- Call for Fast-class mission opportunity (F3)
- Exploratory Call for mini-Fast proposals

15:00-15:15 – Scientific Assessment (*Paul McNamara*)

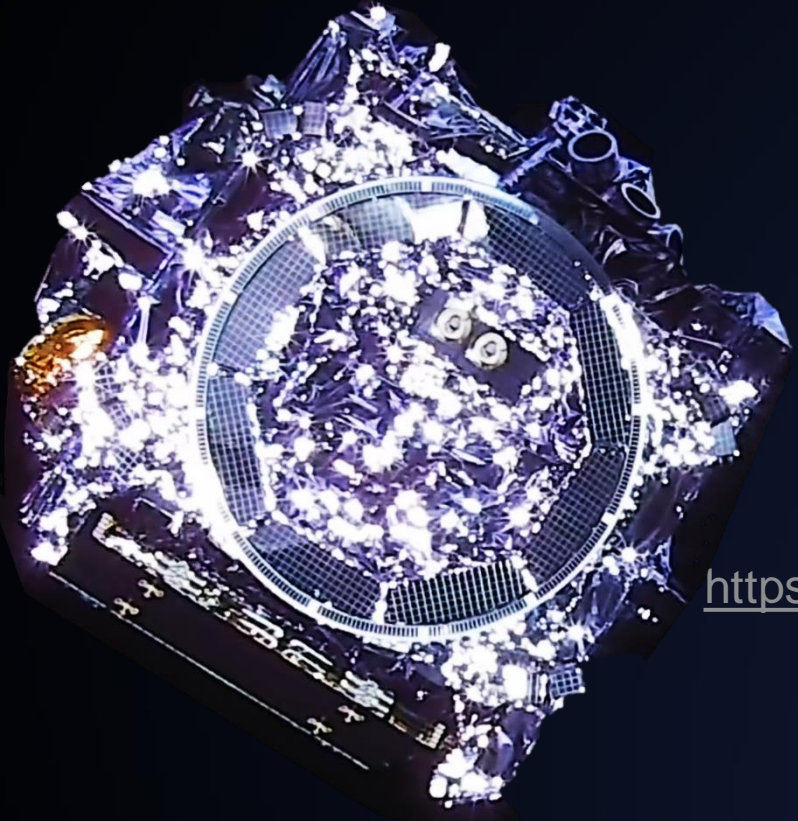
15:15- 17:00 – Questions and Answers

Briefing meeting

Call for Medium and Fast missions and
Exploratory Call for mini-Fast proposals

in the ESA Science Programme

<https://www.cosmos.esa.int/web/call-for-missions-2025/briefing-meeting>



Dr. Luigi Colangeli

Director and Programme Strategy Support Office

Directorate of Science

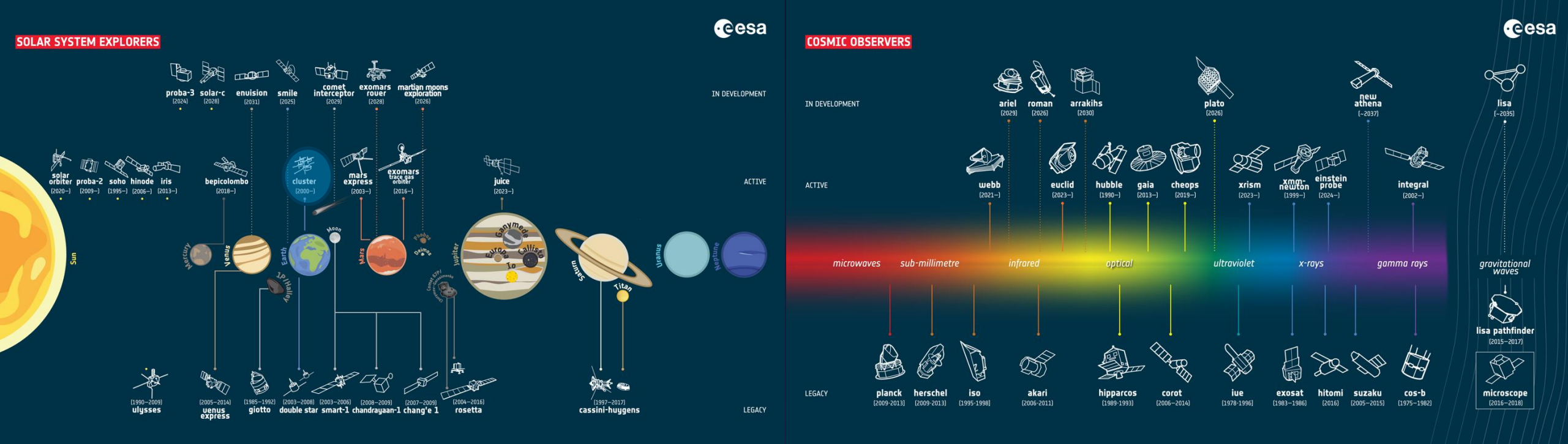
Briefing meeting

Goal:

to inform the community of the upcoming calls and provide information on structure and content

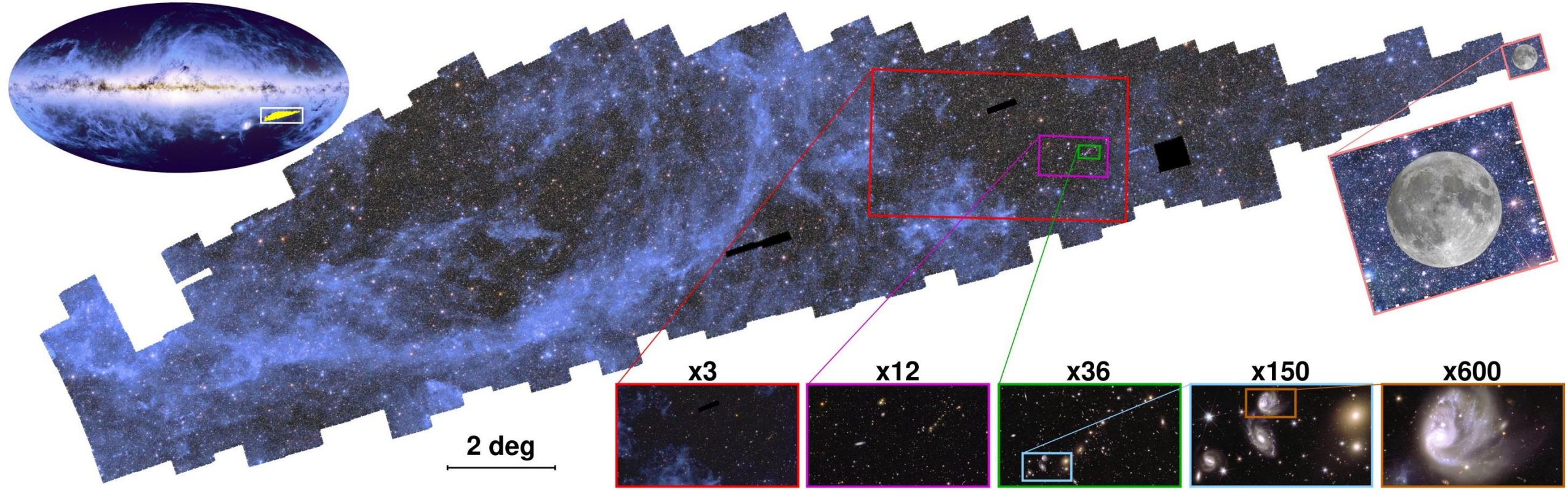


ESA Scientific Programme Fleet

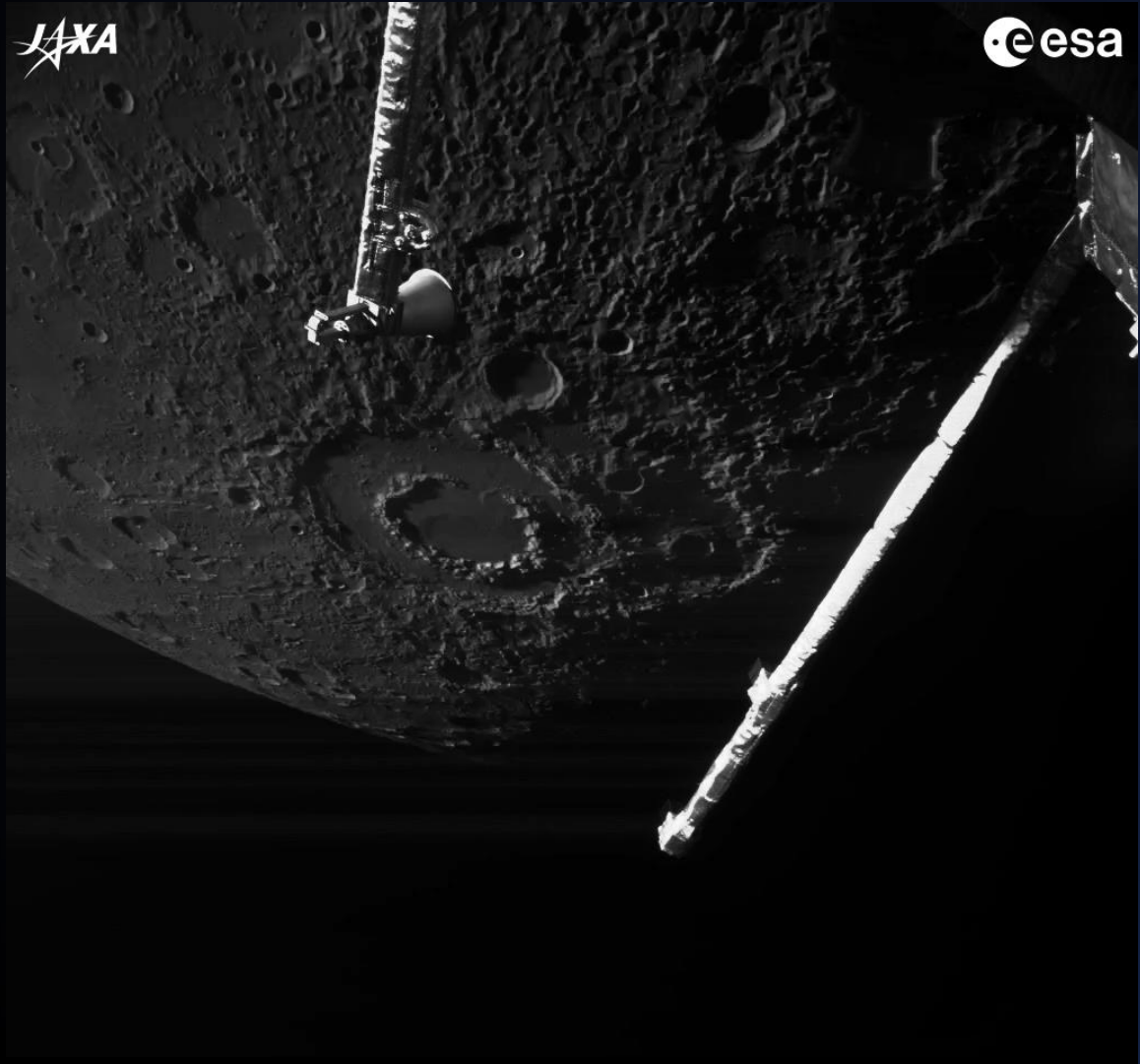


18 missions in operation; 13 missions in preparation; 23 in legacy phase
 ... standing on the shoulders of giants! ...
 Several missions done in international cooperation

The present of ESA's Science Programme ESA's Euclid new results delivered



BepiColombo completes 4th and 5th Mercury flybys with closest approaches 165 km and 37 626 km above the surface on 4 September & 1 December 2024



BepiColombo, Monitoring Camera 2

4 September 2024, 23:53 CEST

Mercury in mid-infrared light
 first measurement by the MERTIS instrument
*MERTIS/DLR/University of Münster & NASA/Johns Hopkins University
 Applied Physics Laboratory/Carnegie Institution of Washington*

BepiColombo, Monitoring Camera 2

1 December 2024, 11:46 CET

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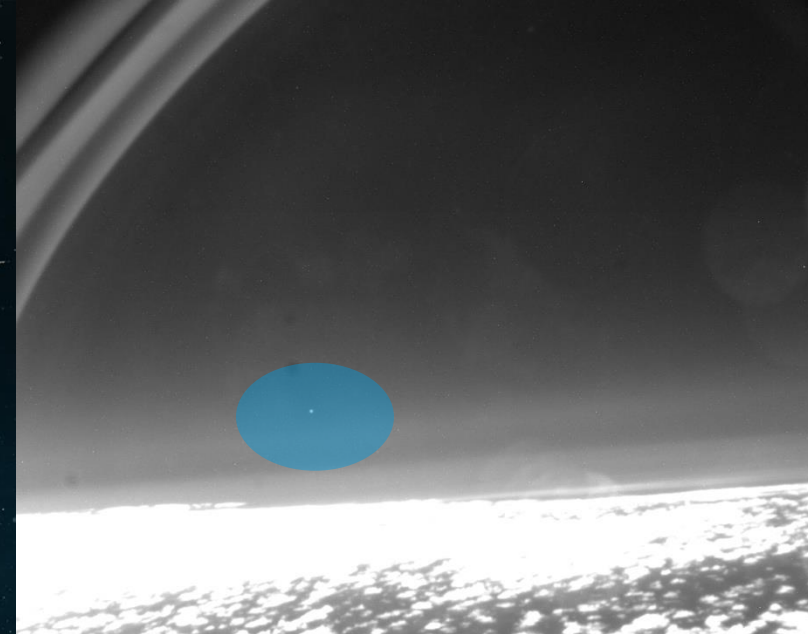
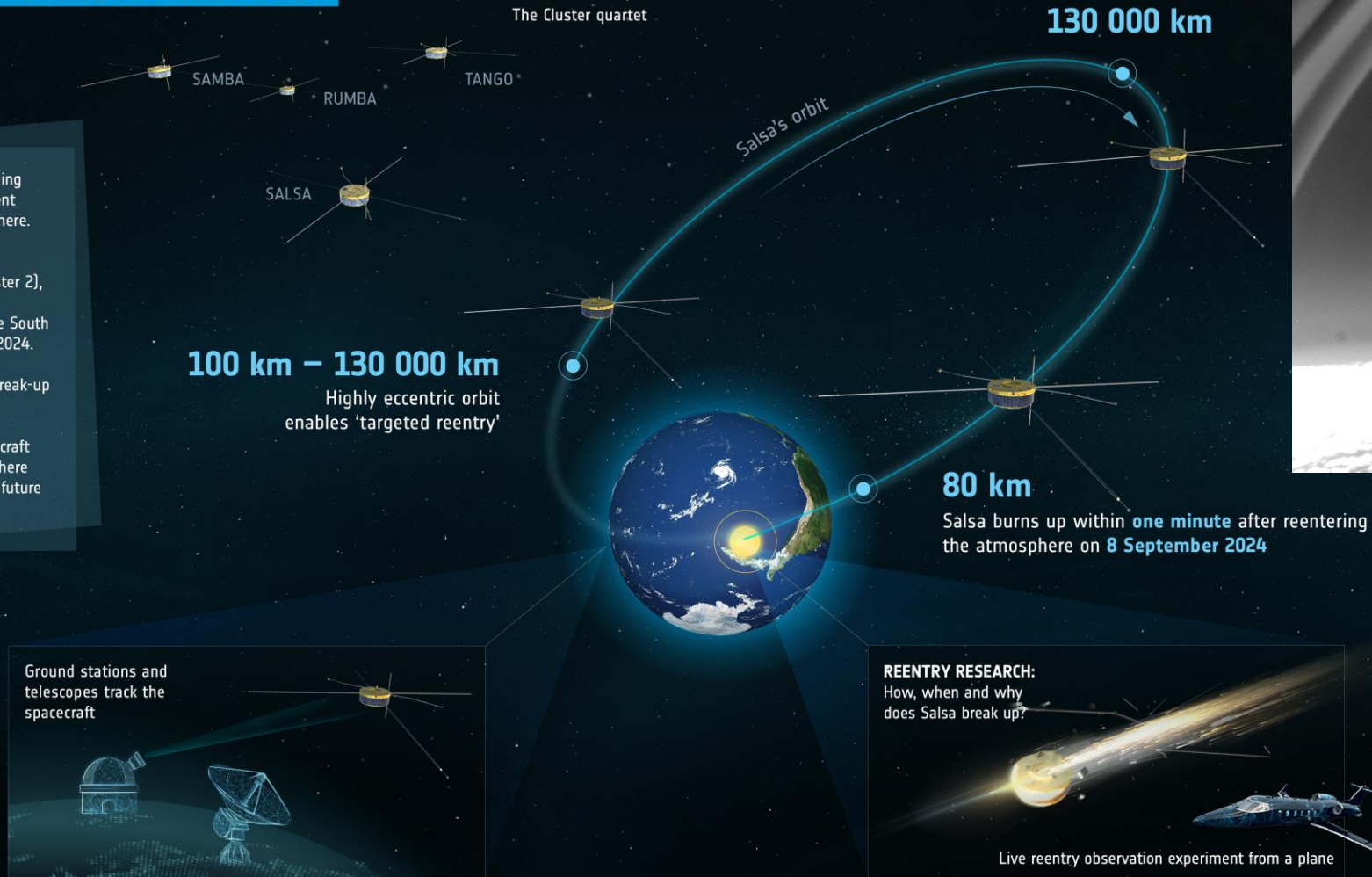
Cluster completes on 8 September its 24 years long mission with a secure Earth atmosphere re-entry

CLUSTER'S SALSA REENTRY

ESA's Cluster mission is coming to an end after 24 years spent studying Earth's magnetosphere.

The first of the four Cluster satellites, named Salsa (Cluster 2), will undergo a targeted atmospheric reentry over the South Pacific Ocean in September 2024.

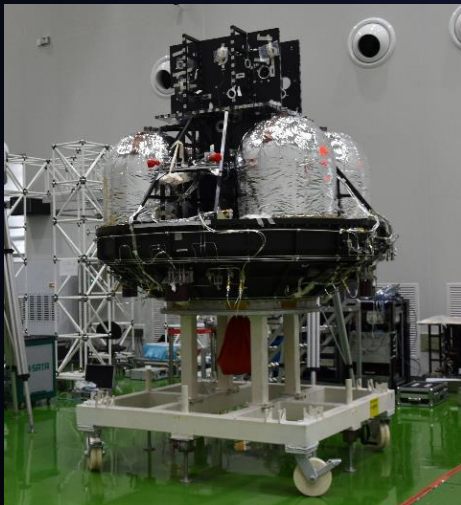
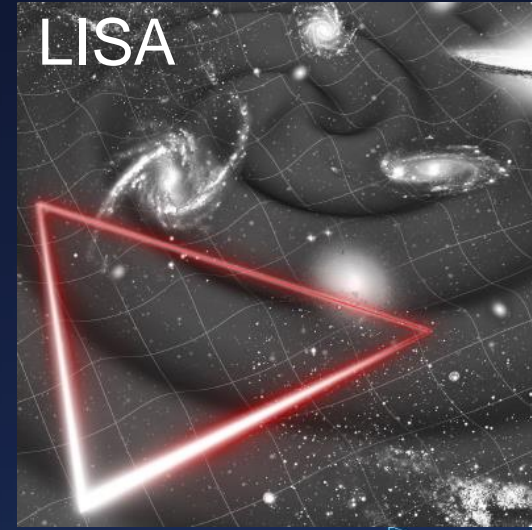
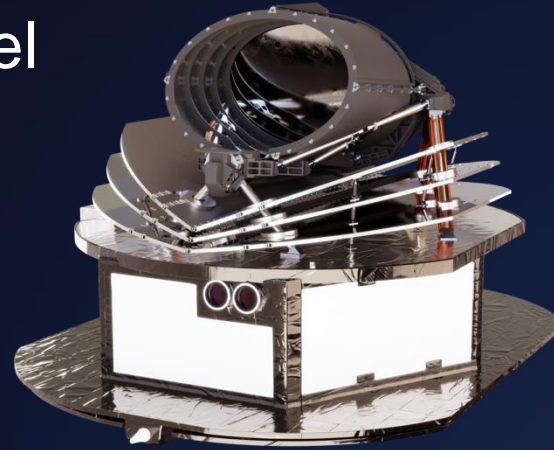
Observing the reentry and break-up of the four identical Cluster satellites will improve our understanding of how spacecraft behave in the lower atmosphere and help with the design of future 'zero-debris' satellites.



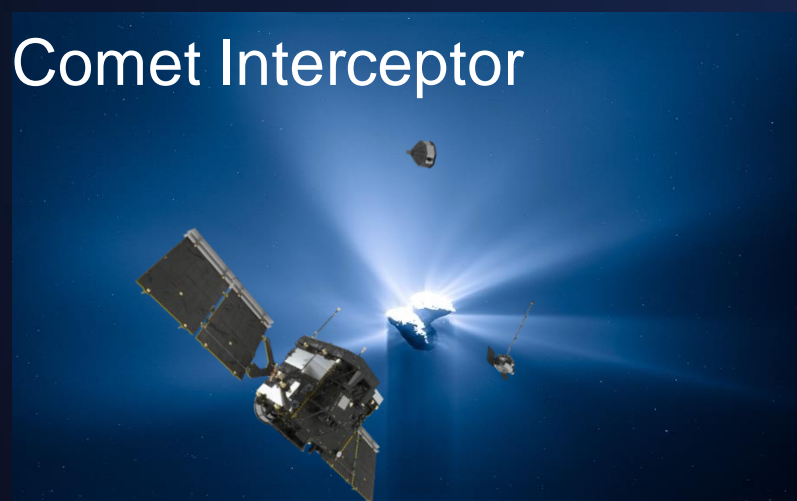
Projects in Development



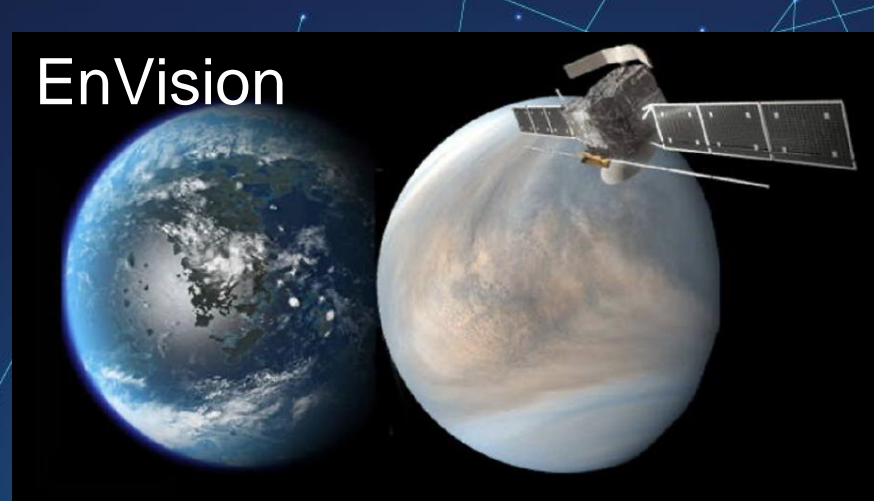
Ariel



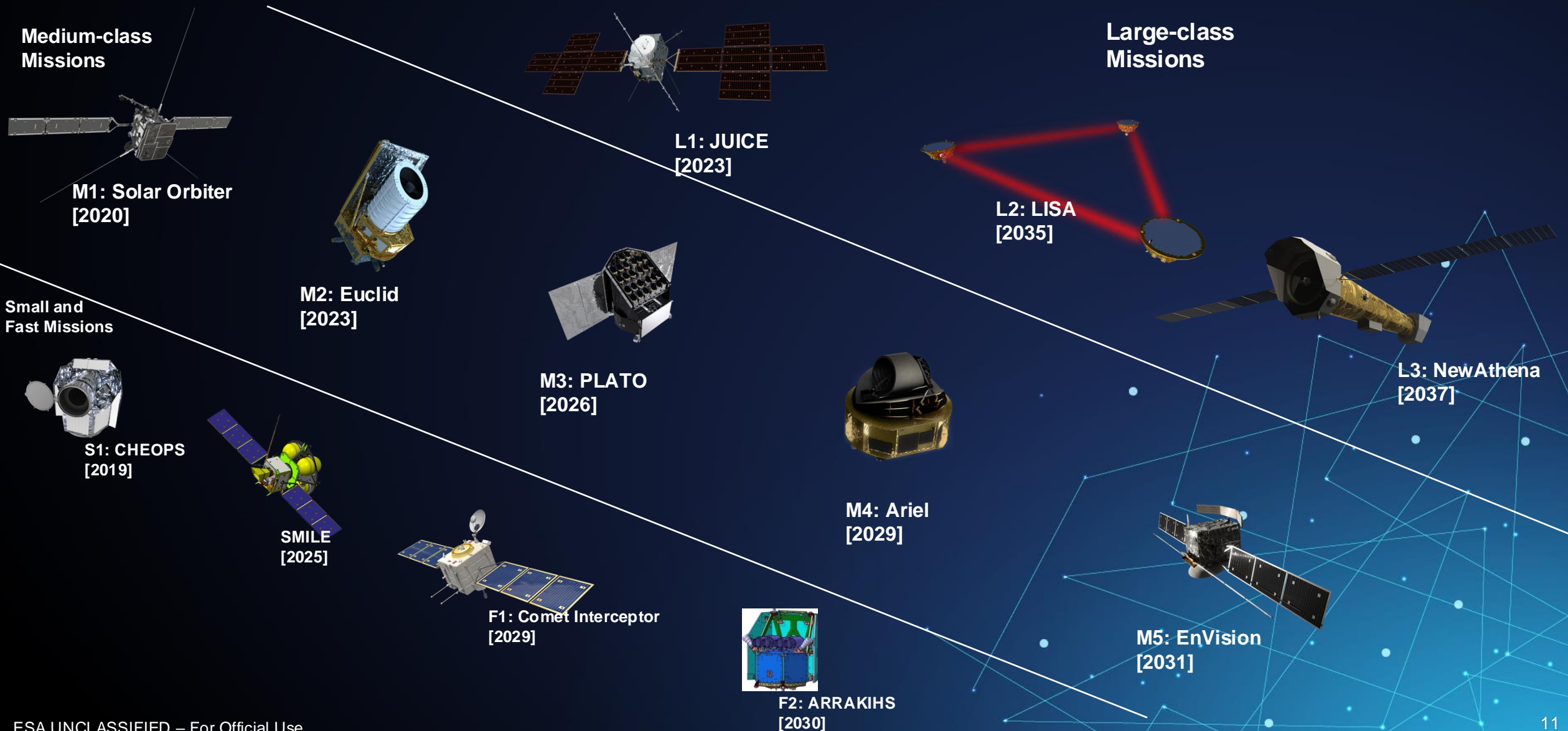
Comet Interceptor



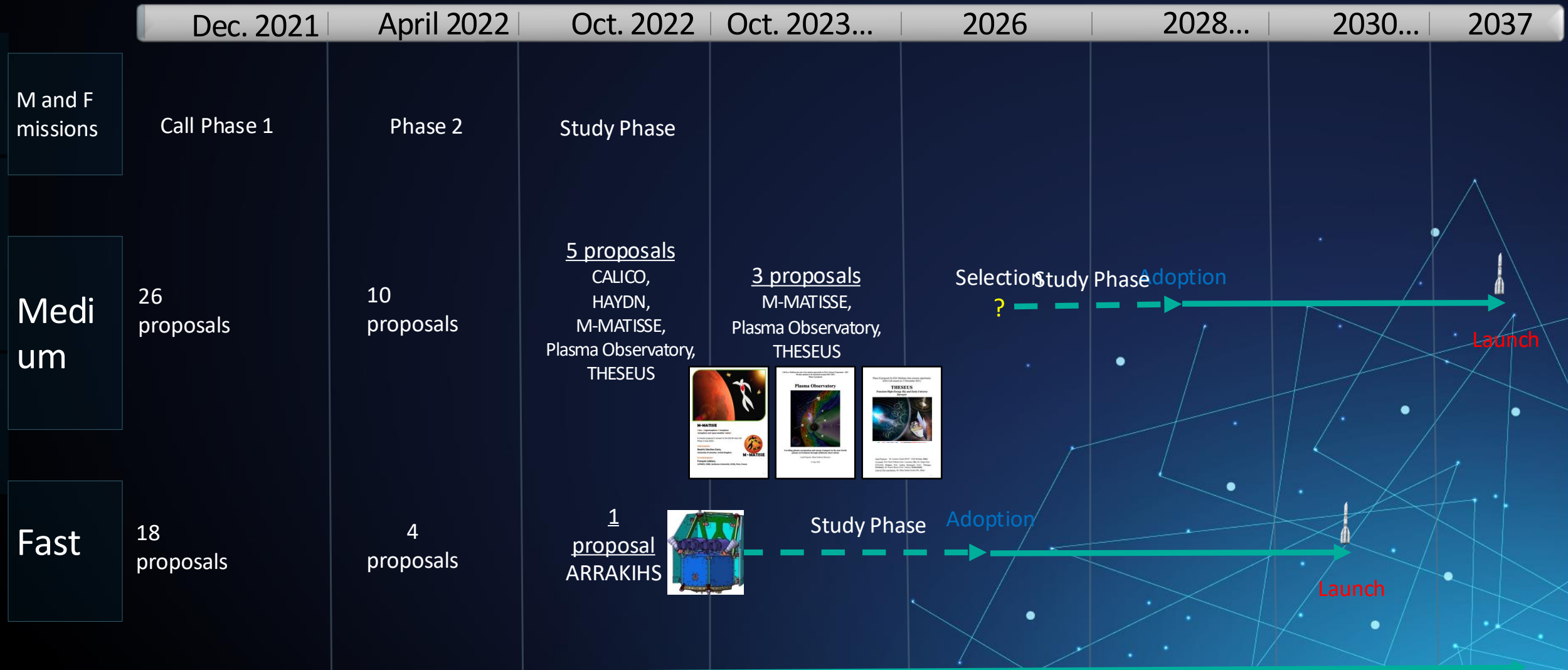
EnVision

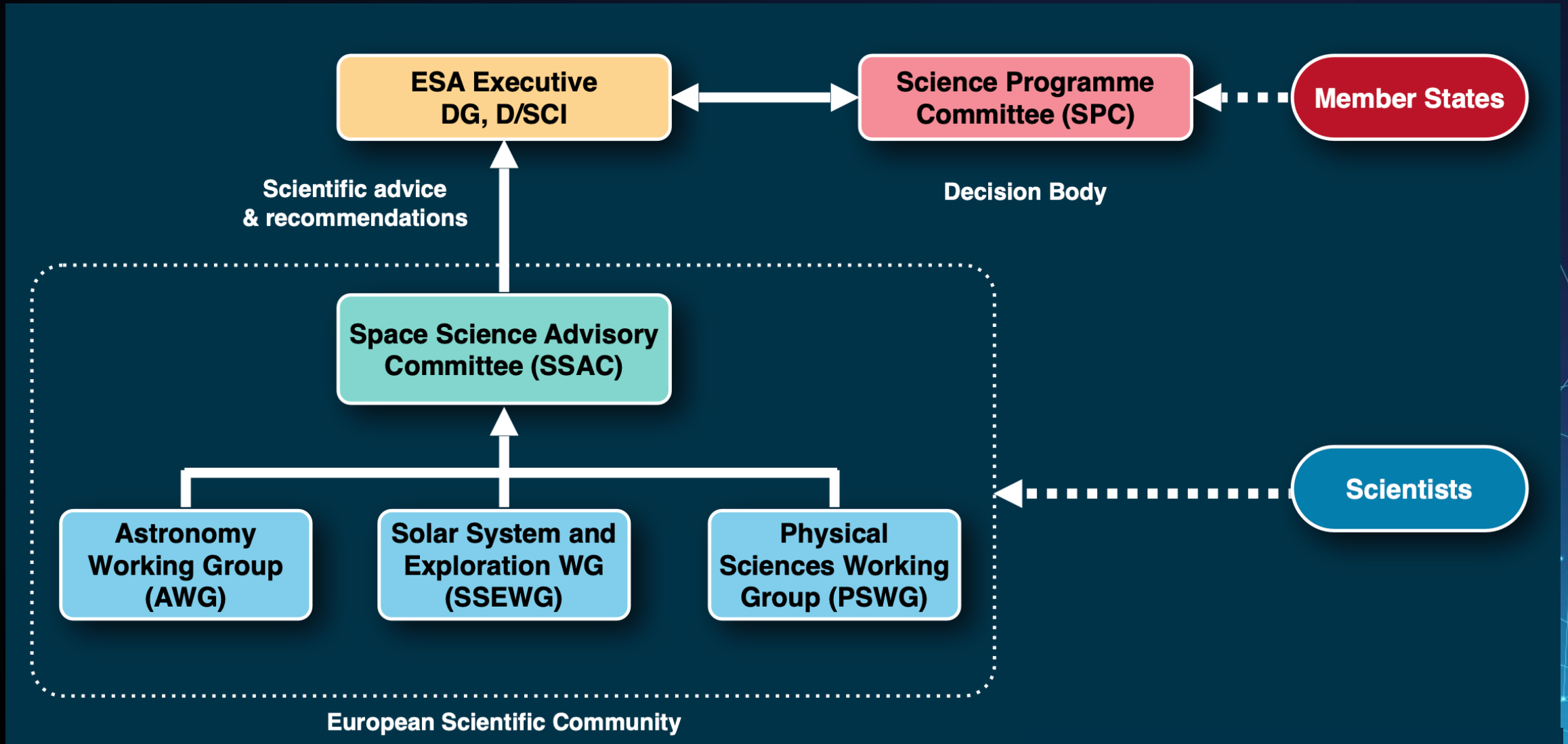


Completing the Cosmic Vision



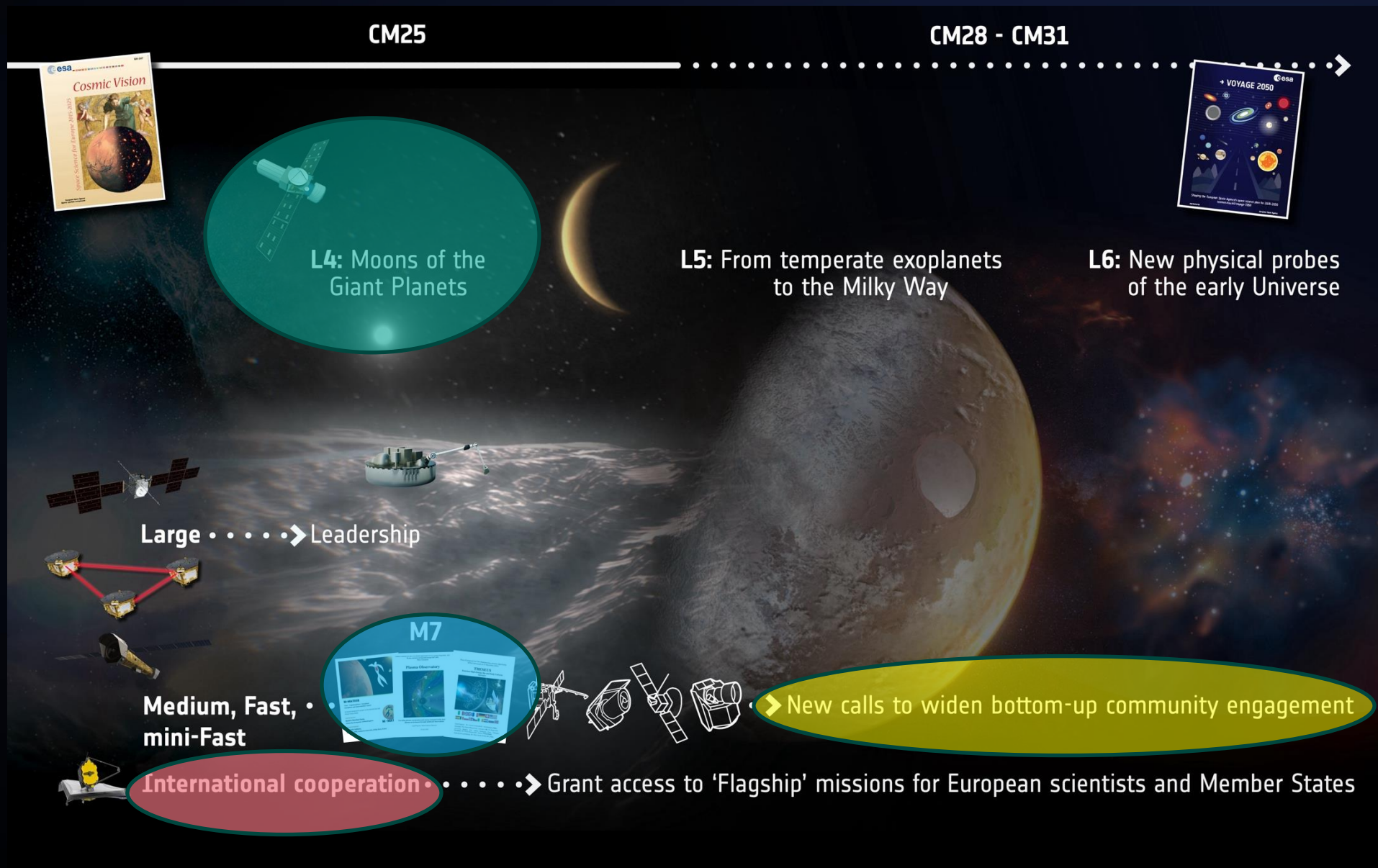
Bottom-up selection: unique feature to achieve excellence of Science missions (M7 and F2 cases)





- Goals
 - Maintain and increase **leadership** in key strategic scientific domains
 - **Allow cadence** of different classes of missions to respond to appetite of scientific community and to different interests of Member States
 - Allow **industries** to be engaged in new challenging studies and developments to stimulate competitiveness generated by competition
 - Maintain **diversity** in science themes and technological domains offering a portfolio of opportunities to all stakeholders in Member States
 - Offer attractive opportunities to **STEM students and young generations** for training/growth
 - Keep **flexibility** in the Programme (key to respond to fast evolving landscapes and mitigate risks)
 - Position ESA in a strong role for **partnership with international agencies**
- The Cosmic Vision plan is **going to be completed** with ARRAKIHS and NewAthena adoptions in 2026-2027
- **We need to start “now” planning for the 2030’s-2040’s (the Voyage 2050 era)**

Strategic Objectives: Voyage 2050 sets sail



High-level schedule – starting with resources from CMin25



Today

CM 2025

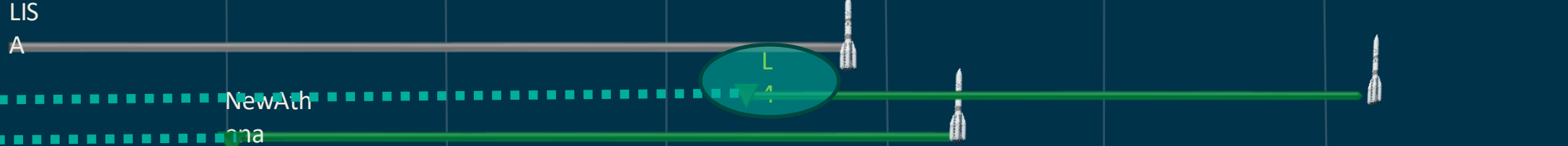
CM 2028

CM 2031

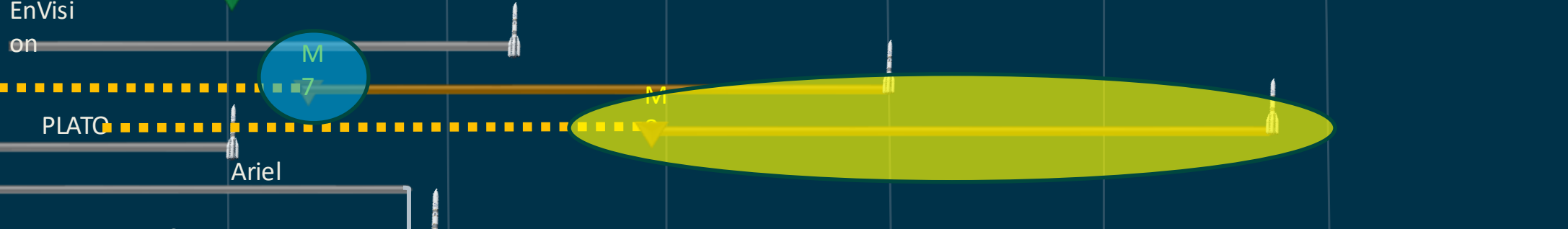
Study Development Adoption

2024 2024 2027 2030 2033 2036 2039 2042 2044

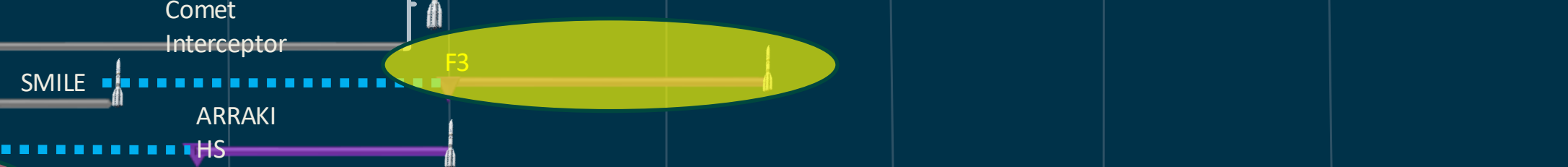
Large



Medium



Fast



mini-Fast
 Participation to international (NASA) flagships and Missions of Opportunity



10 years

10 years



Call for new Medium and Fast missions + mini-Fast (exploration call)

- Call in Q1 2025
- This is required to be ready to consolidate M / F candidates to keep launch cadence
- Need to start now the process for selecting the next F for the mid-2030's and M for the early-2040's
- Two steps approach (as for the last call) (*)
- ESA will perform a technical / feasibility assessment before end of 2025 of Step 1 proposals (*)
- Exploration call for mini-F proposals (*)
- **Proposals for all categories with have to be for ESA-led missions (no contribution to missions led by international partners will be accepted)**

(*) details in the following presentation

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Thank you very much!

