Cosmic Vision 2015-2025

Eight new mission proposals selected for ESA's future scientific programme

The space research community's long-term goals for their research programmes are to maintain the present level of research satellites in orbit around 2018 – 20 as well as working with and evaluating possible new missions.

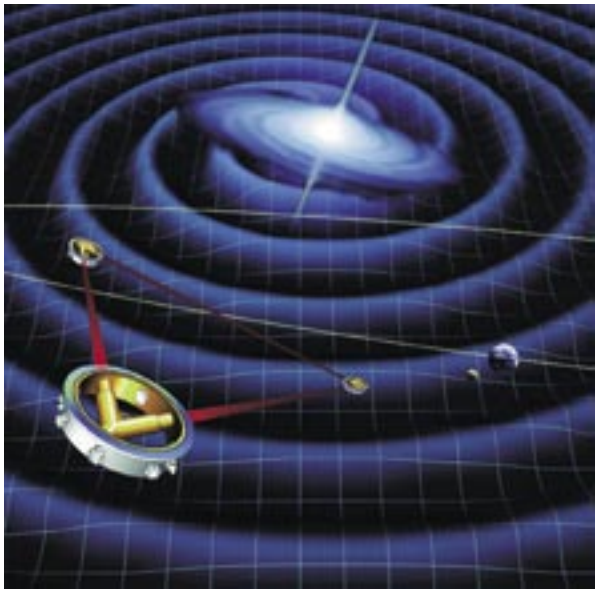
In October, after a Space Science Advisory Committee meeting (SSAC), the candidate missions were selected for further assessment and consideration for launch in 2017/2018.

That is the result of the Cosmic Vision 2015-2025's Call for Proposals announced earlier this year. The response was enormous and many interesting fields were represented in the proposals that were presented. Fifty new proposals were presented, twice the amount of proposals compared to the previous ESA calls in 1999.

Until mid-2009, SSCA and scientific working groups will assess the proposals and pre-select three 'class-M' missions and three 'class-L' missions. Class-M missions are medium-size projects, where the ESA costs do not exceed 300 million euros. Class-L missions are larger projects, with cost envelopes not exceeding 650 million euros. By the end of 2009, out of these three class-M and three class-L missions (plus LISA), two class-M and two class-L missions will be further short-listed for the definition phase (or mission 'phase A'). This phase will be run by European industries on a competitive basis between the beginning of 2010 and mid-2011. By the end of 2011, one class-M and one class-L mission each will be adopted for implementation with predicted launch in 2017 and 2018 respectively.

During the Assessment Phase, a maximum of four missions are selected by the SPC, each mission supported by a Science Team, which includes the one that proposed the mission. The Science Mission Team defines a model payload and ESA engineering teams undertake the technical assessment. The aim of the Assessment Phase is to define the mission to a sufficient level to show the scientific value and technical feasibility.

The main objectives of the Definition Phase are to establish the cost and implementation schedule for the project. At the end of the definition phase, the Prime Contractor for the Implementation Phase is selected. Competition between potential Prime Contractors is necessary. It is also essential that the design and costing is based on the actual mission, i.e. with the selected PI (Principal Investigator) funded instruments and selected new technologies, so that the competing contractors have a firm basis on which to make their proposals for the Implementation Phase.



LISA (Laser Interferometer Space Antenna) moved from Cosmic Vision 2005-2015.

Read more about the selected candidates at: www.esa.int

The selected candidate missions are:

Astrophysics

DUNE, the dark universe investigator and SPACE, the new near-infrared all-sky cosmic explorer.

PLATO - PLAnetary Transits and Oscillations of stars

SPICA - SPace Infrared telescope for Cosmology and Astrophysics

XEUS - X-ray Evolving Universe Spectroscopy a next-generation X-ray space observatory.

Solar System

Cross-Scale - multi-scale coupling in space plasmas in near-Earth space.

Laplace - a mission to Europe and the Jupiter System

Marco Polo - a near-Earth object sample return mission

TANDEM to explore two of Saturn's satellites,Titan and Enceladus.

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