

Extended life for ESA's science missions

November 14 2018

After a comprehensive review of their scientific merits and technical status, the SPC has decided to extend the operation of the five missions led by ESA's Science Programme: Cluster, Gaia, INTEGRAL, Mars Express, and XMM-Newton. The SPC also confirmed the Agency's contributions to the extended operations of Hinode, Hubble, IRIS, SOHO, and ExoMars TGO.

This includes the confirmation of operations for the 2019–2020 cycle for missions that had been given indicative extensions as part of the previous extension process, and indicative extensions for an additional two years, up to 2022.

The decision was taken during the SPC meeting at ESA's European Space Astronomy Centre near Madrid, Spain, on 14 November.

ESA's [science missions](#) have unique capabilities and are prolific in their scientific output. Cluster, for example, is the only [mission](#) that, by varying the separation between its four spacecraft, allows multipoint measurements of the magnetosphere in different regions and at different scales, while Gaia is performing the most precise astrometric survey ever realised, enabling unprecedented studies of the distribution and motions of stars in the Milky Way and beyond.

Many of the science missions are proving to be of great value to pursue investigations that were not foreseen at the time of their launch. Examples include the role of INTEGRAL and XMM-Newton in the follow-up of recent gravitational wave detections, paving the way for the

future of multi-messenger astronomy, and the many discoveries of diverse exoplanets by Hubble.

Collaboration between missions, including those led by partner agencies, is also of great importance. The interplay between solar missions like Hinode, IRIS and SOHO provides an extensive suite of complementary instruments to study our Sun; meanwhile, Mars Express and ExoMars TGO are at the forefront of the international fleet investigating the Red Planet.

Another compelling factor to support the [extension](#) is the introduction of new modes of operation to accommodate the evolving needs of the scientific community, as well as new opportunities for scientists to get involved with the missions.

Every two years, all missions whose approved operations end within the following four years are subject to review by the advisory structure of the Science Directorate. Extensions are granted to missions that satisfy the established criteria for operational status and science return, subject to the level of financial resources available in the [science](#) programme. These extensions are valid for the following four years, subject to a mid-term review and confirmation after two years.

Provided by European Space Agency

Citation: Extended life for ESA's science missions (2018, November 14) retrieved 26 April 2024 from <https://phys.org/news/2018-11-life-esa-science-missions.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--