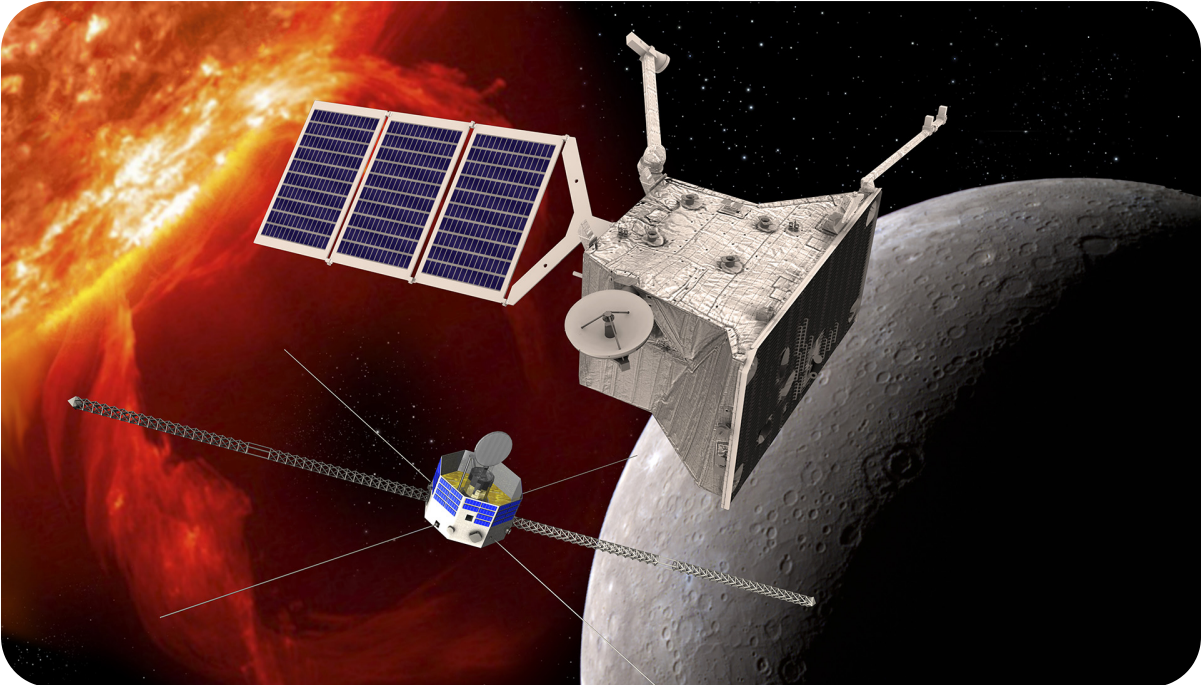


BepiColombo: ESA’s mission to Mercury



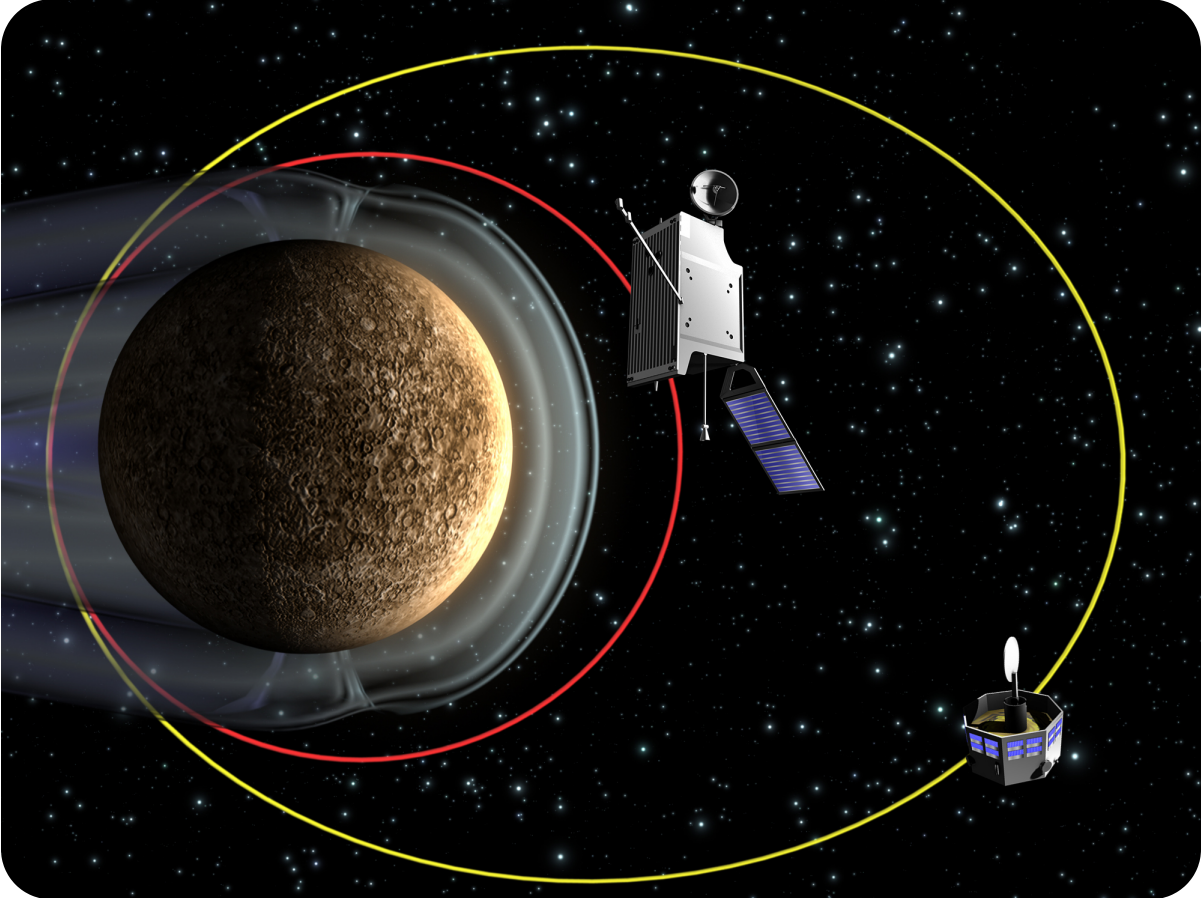
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16 January 2017

European Space Agency space probes have visited many worlds in our Solar System, but so far none have been to the planet Mercury. That will change soon thanks to the BepiColombo mission!

BepiColombo is named after Giuseppe (Bepi for short) Colombo, a scientist who studied Mercury's orbit, and helped lay the groundwork for interplanetary travel. Set for launch in 2018, BepiColombo will travel through space for over seven years before reaching the elusive planet Mercury!

After it arrives, BepiColombo will separate into two craft. The first of these is called the Mercury Planetary Orbiter. This ESA probe will study the surface of Mercury, and use high-tech instruments to investigate the inside of the planet. The second craft is called the Mercury Magnetospheric Orbiter. Run by the Japan Aerospace Exploration Agency, it will study the magnetic field around Mercury.



BepiColombo's planetary and magnetospheric orbiters at Mercury

[Access the image](#)

Operating spacecraft around Mercury is incredibly difficult! The BepiColombo probes will be exposed to radiation from the Sun that is ten times more intense than around Earth. Plus, Mercury's scorching surface can reach 470 °C, which is hot enough to reflect heat toward the probes in orbit. They need to be protected otherwise they might melt!

The risks are worth taking, though, because BepiColombo will help solve many Mercury mysteries. Why is the planet a lot denser than others in our Solar System? Is its core liquid or solid? Why does it have a magnetic field? Is there any water ice concealed in deep craters? BepiColombo will investigate all these questions, and more!

Cool fact: Mercury is the least-explored planet in the inner Solar System. When BepiColombo arrives in late 2025, it will be only the second spacecraft to orbit Mercury in the entire history of planetary exploration!