Video: Landing on a Comet – the Rosetta Mission

23 October 2014

After a 10-year journey of some seven billion kilometres, the Mission Rosetta is now heading towards its next major milestone – setting the lander Philae on a comet.

On 12 November 2014, a lander is scheduled to touch down on a comet for the first time in the history of spaceflight. "We don't know exactly what awaits us there," says lander Project Manager Stephan Ulamec from the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR).

Landing on Comet 67P/Churyumov-Gerasimenko will enable scientists to carry out experiments in situ for the first time. Comets are considered to be witnesses to the birth of the Solar System. Will the surface of the comet be in a primordial state? Do comets show evidence of prebiotic molecules and water, and did they therefore play a role in the origin of life on Earth? The Rosetta mission is expected to help answer such questions.

//www.youtube.com/embed/cArihDTnOZg

The short film ‘Landing on a Comet – the Rosetta Mission’ begins where the DLR video on the Rosetta mission left off – on 20 January 2014, the day the Rosetta spacecraft ‘woke up’. At that time, the researchers were anxiously waiting for a signal that would take 45 minutes to reach Earth, despite travelling at the speed of light. In the new video, the participating scientists describe the milestones for the Rosetta mission in 2014 and eagerly look forward to the day of the comet landing.

Livestream of the landing

You will have the opportunity to follow the landing via a livestream on DLR.de from 12:30 CET on 12 November 2014. Updates will also be provided via the DLR social media channels (Twitter, Facebook, Google+, Vine) via the hashtag #CometLanding. You can find the trailer 'Landing on a Comet – the Rosetta Mission' on the DLR YouTube channel.

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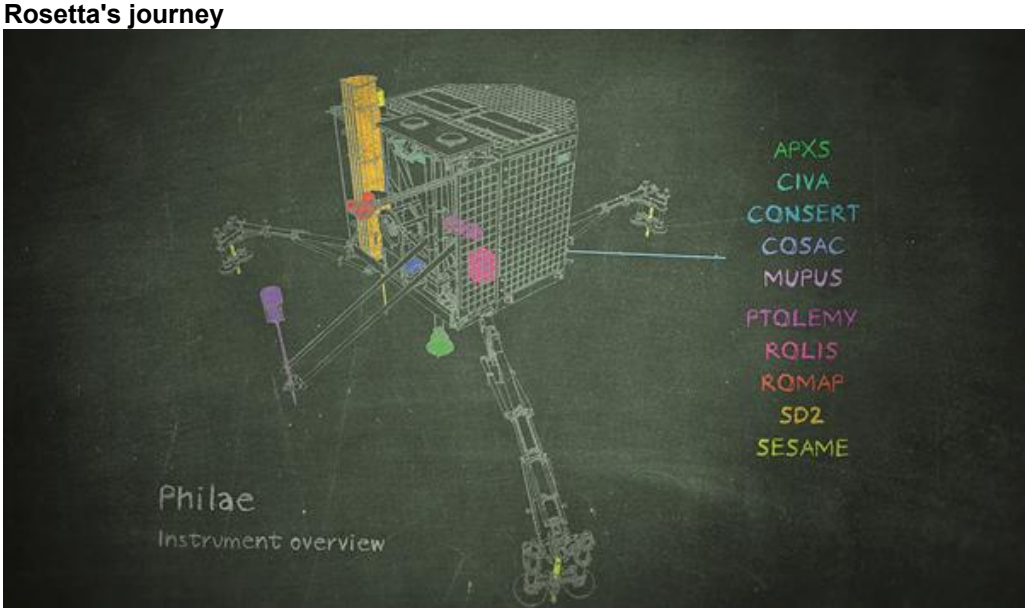
Rosetta's journey



Few things could be more fascinating or demanding in the history of European space travel than the Rosetta comet mission. The lander, Philae, will separate from its parent craft on 11 November 2014, touch down on the comet and immediately fire harpoons to anchor itself on the surface. The two spacecraft will then accompany the comet on its month-long journey to the point at which it is closest to the Sun.

Credit: DLR (CC-BY 3.0).

Comet landing

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Philae touchdown

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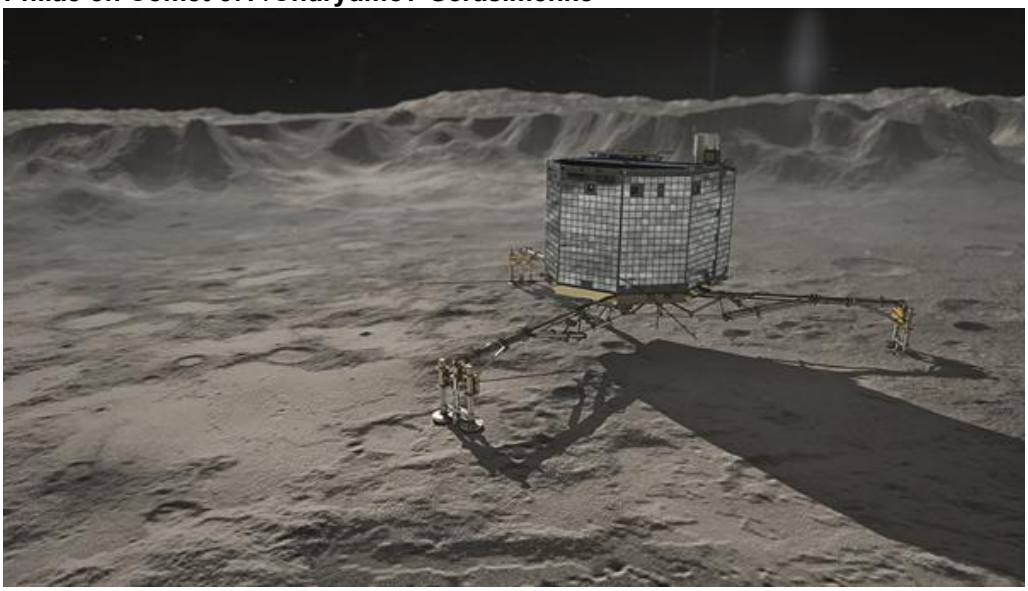
Philae on Comet 67P/Churyumov-Gerasimenko



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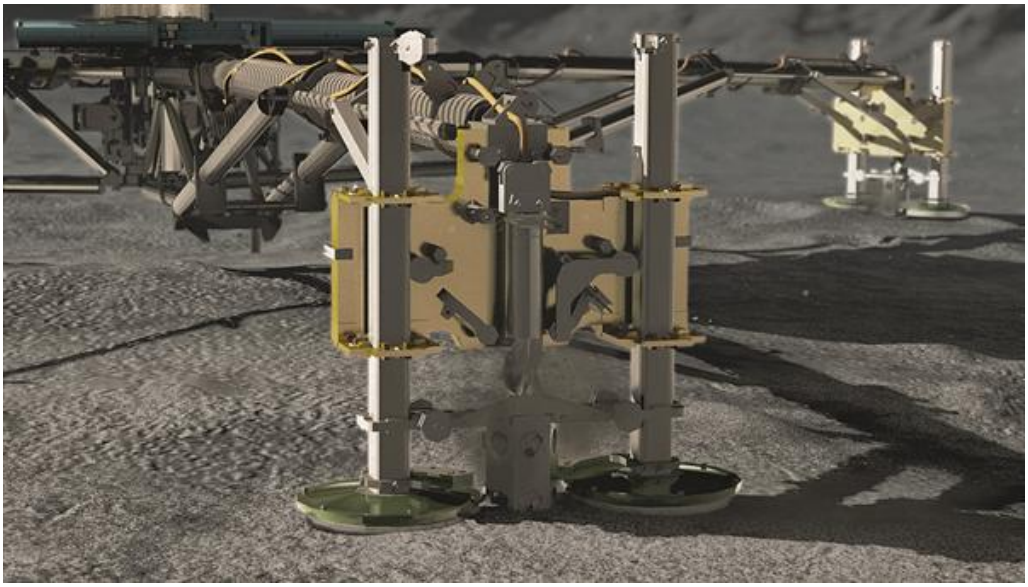
Philae drill



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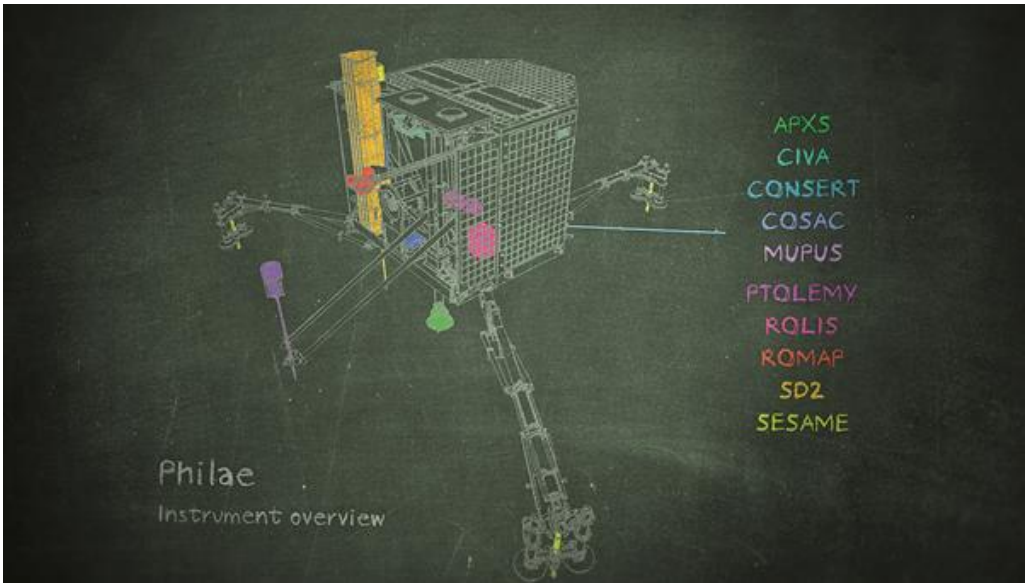
Philae all instruments



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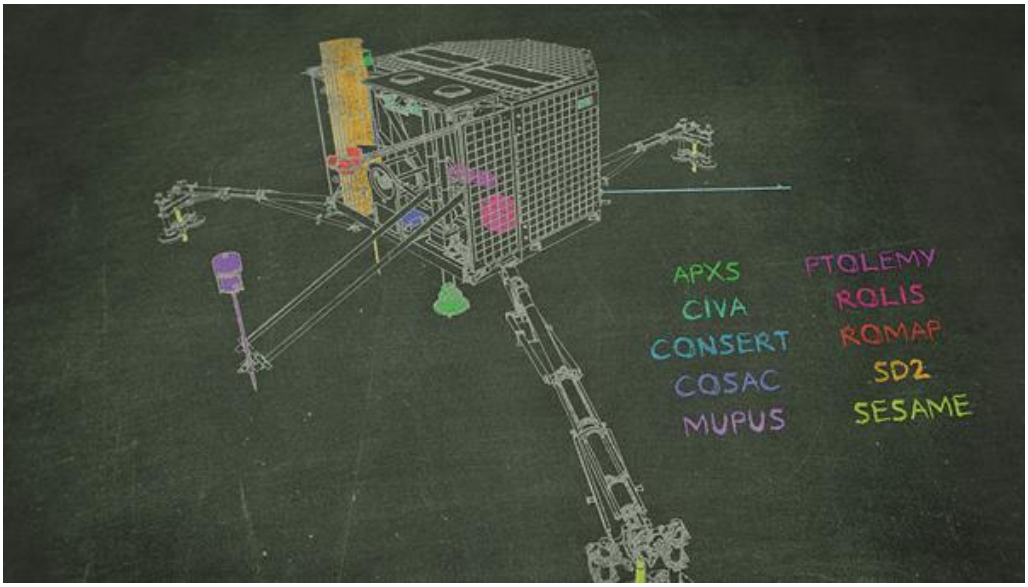

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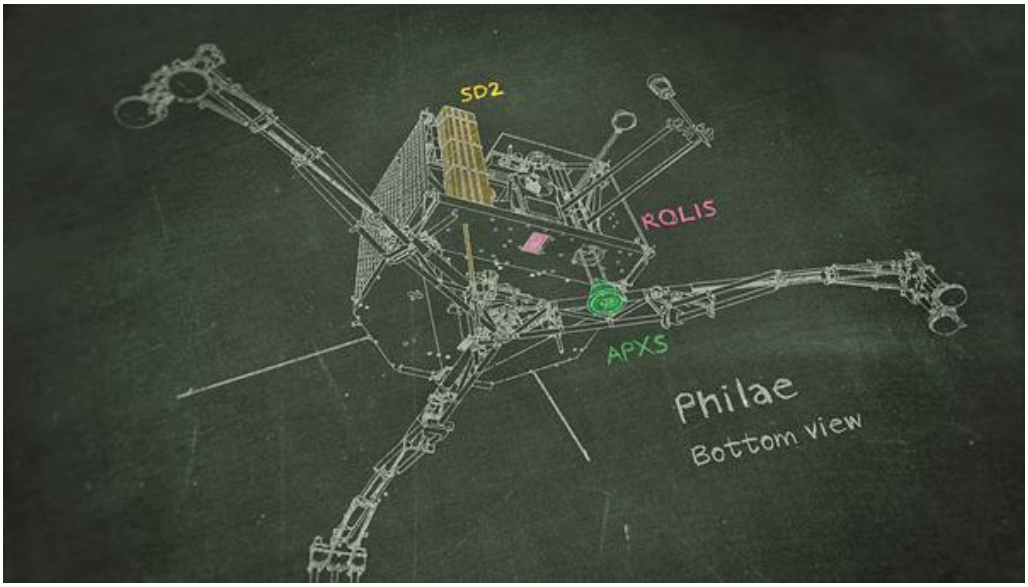
Philae bottom view



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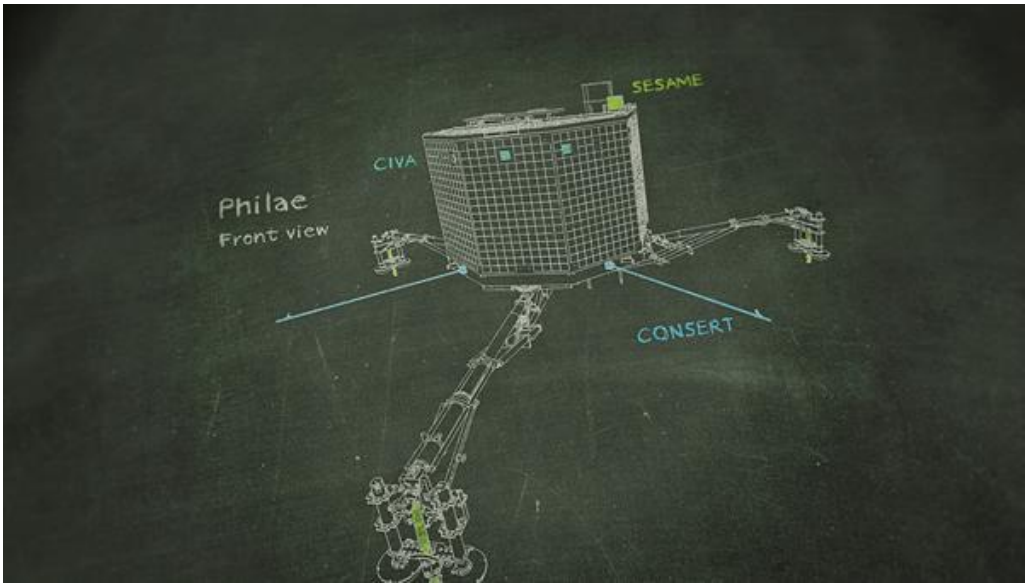
Philae lander front view



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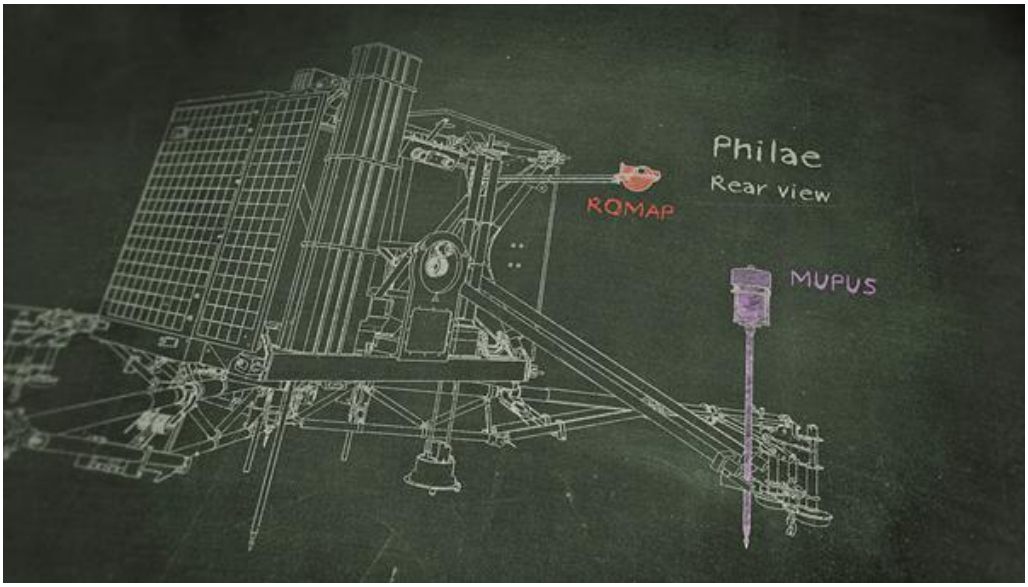
Philae lander rear view



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