

Press Release

July 25, 2024 ispace, inc.

ispace-EUROPE announces Completion of First European Designed, Manufactured, and Assembled Lunar Micro Rover

Micro Rover named "TENACIOUS" scheduled to fly on RESILIENCE Lander for Mission 2

LUXEMBOURG – July 25, 2024 – ispace EUROPE S.A. (ispace-EUROPE), the Luxembourg-based subsidiary of ispace, inc. (ispace)(<u>TOKYO: 9348</u>) announced today that the flight model of its European designed, manufactured, and assembled lunar micro rover has been completed and is being prepared for delivery to Japan for integration into the HAKUTO-R Mission 2 RESILIENCE lunar lander.

The announcement was made today by Julien Lamamy, CEO of ispace-Europe at a press conference in Luxembourg, attended by Lex Delles, Luxembourg's Minister of the Economy, SME, Energy and Tourism; Tadahiro Matsubara, Ambassador Extraordinary and Plenipotentiary of Japan in Luxembourg; Mathias Link, Deputy CEO of the Luxembourg Space Agency; and Atsushi Saiki, CRO of ispace, inc.

A TENACIOUS European-built Rover



A photo of the flight model of the TENACIOUS lunar micro rover.

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The lunar micro rover was designed, manufactured, and assembled with co-funding from the Luxembourg Space Agency through a European Space Agency contract with the Luxembourg National Space Programme, LuxIMPULSE.

The lunar micro rover, intended to be lowered to the lunar surface from the RESILIENCE lunar lander and conduct exploration of the area around the landing site, is named TENACIOUS. The name embodies both the human characteristics of the small-in-stature, yet unrelenting enterprise of the rover as well as the ispace-EUROPE team that has been developing it based on the ispace heritage of rover design and manufacturing.



Luxembourg's Minister of the Economy, SMEs, Energy and Tourism, Lex Delles, commented: "Our ambition is to develop a space sector that is highly integrated with our industries on earth and opens up new market opportunities, both in space and on earth. We are continuously increasing our efforts to establish fruitful collaborations with companies in the sector as well as with our international partners. And ispace is a concrete example of this excellent collaboration. With this micro rover, the very first to be developed and assembled in Luxembourg, ispace is helping to establish Luxembourg as a pioneer in the exploration and use of space resources."

"I am delighted to witness the completion of the first European rover designed, manufactured and actually going to the Moon, today in Luxembourg," said Tadahiro Matsubara, Ambassador Extraordinary and Plenipotentiary of Japan in Luxembourg. "This is a significant step for the Luxembourg government that is actively promoting the industrialization of space resources. We hope ispace's continuous challenge will further deepen the goodwill between Japan and the Grand Duchy of Luxembourg."

"ispace was one of the very first companies to set up in Luxembourg as part of the SpaceResources.lu initiative and ispace's vision has always been very much in line with the one of Luxembourg. We would like to congratulate the entire team on this achievement, and on the





work that has enabled this fruitful international collaboration between Luxembourg, Japan, and the USA," said Mathias Link, Deputy CEO of the Luxembourg Space Agency.

"Tenacious perfectly captures the spirit of this small rover, poised to achieve groundbreaking milestones. It is the first lunar rover built in Europe and will be the first to transport European customers to the Moon's surface and collect space resources under Luxembourg's 2017 Space Resources Law," said Julien Lamamy, CEO of ispace-EUROPE.

"As the world's interest in lunar exploration grows, we are very pleased to contribute, through our European subsidiary, to the development of the European Space Agency and the Luxembourg Space Agency for the future utilization of lunar resources," said Takeshi Hakamada, Founder and CEO of ispace. "All of us at ispace are dedicated to success as we prepare the RESILIENCE lander and TENACIOUS rover for Mission 2."



The TENACIOUS lunar micro rover on display at ispace-EUROPE's headquarters in Luxembourg.

TENACIOUS measures 26 cm tall, 31.5 cm wide, 54 cm long, and weighs approximately 5 kg. Its lightweight frame is made of carbon fiber-reinforced plastics (CFRP) that are able to withstand the rocket launch and other vibrations during transit to the lunar surface.





The lunar micro rover is equipped with a forward-mounted HD camera that can capture images on the lunar surface. The wheels are shaped in such a way so that the rover can traverse lunar regolith in a stable manner. Commands and data will be sent and received from the mission control center via the lander.

HAKUTO-R Mission 2

Mission 2, ispace's second lunar exploration mission, is expected to launch on a SpaceX Falcon 9 rocket from Cape Canaveral, Fla., in Winter 2024. RESILIENCE will deliver commercial and scientific equipment to the lunar surface and is expected to contribute to the NASA-led Artemis program. In addition to operation of its commercial payloads, the mission will include TENACIOUS, which will deploy from the lunar lander and conduct surface exploration including the collection of lunar regolith.

In December 2020, ispace-EUROPE was selected by NASA to acquire regolith from the lunar surface to be purchased by the space agency. Once on the lunar surface, ispace operators plan to use a shovel to collect a sample of lunar regolith and photograph the collection with the camera mounted on the rover.

ispace is leveraging its global presence through its three business units in Japan, the U.S., and Luxembourg, for the simultaneous development of upcoming missions. Mission 2 is led by the ispace Japan entity. Mission 3, debuting the APEX 1.0 lunar lander, is led by the ispace U.S. entity and is expected to launch in 2026. Mission 6, which will utilize the Series 3 lander, currently being designed in Japan, is scheduled to be launched by 2027.

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About ispace, inc. (<u>https://ispace-inc.com</u>)

ispace, a global lunar exploration company with the vision, "Expand our planet. Expand our future.", specializes in designing and building lunar landers and rovers. ispace aims to extend the sphere of human life into space and create a sustainable world by providing high-frequency, low-cost transportation services to the Moon. The company has business entities in Japan, Luxembourg, and the United States with approximately 300 employees worldwide. For more information, visit: <u>www.ispace-inc.com</u> and follow us on X: <u>@ispace_inc</u>.

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