

ispace Selected by European Space Agency to Support Lunar Mission

ispace's European Office Joins PROSPECT Science Team for Mission Aiming to Extract Water at the Lunar South Pole by 2024/2025

LUXEMBOURG – July 25, 2019 – ispace, a lunar exploration company headquartered in Japan with a subsidiary in Luxembourg, and the European Space Agency (ESA), announced today that ispace Europe was selected by ESA to be part of the Science Team for PROSPECT, a program which seeks to extract water on the Moon.

PROSPECT — which stands for **P**ackage for **R**esource **O**bservation and **i**n-**S**itu **P**rospecting for **E**xploration, **C**ommercial exploitation and **T**ransportation — is a payload package being developed by ESA to fly on the Luna 27, a planned lunar lander mission by the Russian Federal Space Agency (Roscosmos) with collaboration by the European Space Agency to send a lander to the Moon's South Pole by 2024/2025. The purpose is to prospect for resources such as lunar water ice in permanently shadowed regions of the Moon. The lander will carry several payloads, such as a sampling drill and other instruments to analyze the lunar regolith.

Three members of the ispace Europe team were chosen by ESA to be members of the mission's Science Team, including Carlos Espejel, Space & Earth Mine Planning Engineer, Abigail Calzada Diaz, Mission Scientist; and, Julien-Alexandre Lamamy, ispace Europe's Managing Director, and VP of Europe R&D. The team will be part of the group responsible for the planning, operation, and processing data from the mission, as well as the coordination of the PROSPECT lunar instruments. Additionally, Carlos Espejel was chosen as the Lead for the ProsPA ISRU prospecting investigations.

- **Takeshi Hakamada, ispace's Founder & CEO:** “We’re very proud of Carlos, Abigail and Julien for this achievement and we know they are the optimal choice to serve ESA in this mission. Likewise, we’re honored at ispace to play a role in the realization of space resource utilization in the very near future.”
- **Julien-Alexandre Lamamy, ispace Europe's Managing Director:** “It’s a real privilege for our team to support ESA in this exciting endeavor. We hope that ispace Europe’s role in this mission will be an important factor in positioning ESA at the frontline of the space resources arena.”

ispace, inc. <http://ispace-inc.com>

ispace is a lunar exploration company with over 85 full-time and part-time staff from 13 countries. The company has 3 global offices in Japan, Europe and the NASA Ames Research Park in the U.S., and has signed agreements with JAXA and The Government of Luxembourg. ispace raised nearly \$100 million USD in its Series A funding—more than almost any other space company in history. The funding is being used for its first two lunar missions in 2020 and 2021, which will both launch on SpaceX's Falcon 9 rocket. The missions are intended to lay the groundwork for high-frequency commercial missions. ispace's engineers have collective experience working for 5 international space agencies, including NASA. Our Media Room can be accessed [here](#).

PROSPECT <http://exploration.esa.int/moon/59102-about-prospect/>

The **P**ackage for **R**esource **O**bservation and **i**n-**S**itu **P**rospecting for **E**xploration, **C**ommercial exploitation and **T**ransportation (**PROSPECT**) is a package to access and assess potential resources on the Moon and to prepare technologies that may be used to extract these resources in the future. PROSPECT's drill (ProSEED) will drill beneath the surface in the South Pole region of the Moon and extract samples, expected to contain water ice and other chemicals that can become trapped at the extremely low temperatures expected; typically -150 °C beneath the surface to lower than -200 °C in some areas. Samples taken by the drill will then be passed to a chemical laboratory (ProSPA) where they will be heated to extract these cold-trapped volatiles. Thermochemical processes, at temperatures of up to 1000 °C, can then be used to further extract chemical species, including oxygen. This will test processes that could be applied for resource extraction in the future.

###