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ispace to Develop Commercial Lander Services for European Space Agency's Lunar Resource Mission

ispace's New Managing Director of Europe to Lead Contract with ESA

LUXEMBOURG – May 20th 2019 – ispace, inc. (ispace) announced a new contract in the frame of the Luxembourg National Space Programme – LuxIMPULSE and implemented by the European Space Agency in which ispace will support the mission preparation phase for ESA's Commercial In-Situ Resource Utilisation (ISRU) Demonstration Mission.

The goal of ESA's ISRU mission is to demonstrate the feasibility of producing resources, such as water, on the Moon by 2025. To enable this mission, ESA intends to procure services from the commercial sector, such as payload transportation on commercial lunar landers. The ISRU mission also fits in with Luxembourg's SpaceResources.lu initiative and the government's objectives in the field of exploration and use of resources in space.

The required deliverable for the preparation phase is to produce a stepwise approach to prospect, extract, and utilize water or oxygen, resulting in a scalable "pilot plant" in which the resource can be used to support human life on the Moon.

ispace, which joined the ISRU Mission as a prime contractor via its Luxembourg subsidiary, is proposing a "campaign-style" approach in which a series of precursor missions lead up to the goal of extracting and utilizing lunar resources, beginning sooner than the 2025 target.

The effort will be headed from ispace Europe by Julien-Alexandre Lamamy, who has become the new Managing Director of ispace Europe as of April 1, 2019. Hailing from Paris, Julien brings 15 years of experience to ispace from the NASA Jet Propulsion Laboratory (JPL), MIT Space Systems Lab, and Orbital ATK, where he worked on a variety of cutting-edge space missions. He holds a Masters and PhD from MIT in Space Systems Engineering and a Masters in Engineering from the Ecole Centrale de Lyon. Julien replaces Kyle Acierno, who, after opening and managing ispace's Luxembourg office since 2017, and establishing key relationships for ispace around the region, has returned to ispace's HQ to expand his role to Vice President of Global Sales & Strategy.

Julien-Alexandre Lamamy, Managing Director, ispace Europe: "As Managing Director, I will continue to lead the ispace Europe office toward becoming Europe's premiere company in lunar exploration. As a first step, our top priority will be delivering a sound proposal to ESA to achieve their goal of utilizing lunar resources by 2025. We look forward to the prospect of carrying out our proposed missions for ESA in the very near future."

Takeshi Hakamada, Founder & CEO, ispace: "ispace opened an office in Europe several years ago motivated by Luxembourg's Space Resources Initiative. With Luxembourg's continued support, our original purpose seems to be coming to fruition with the potential to work with ESA on space resources development."

Marc Serres, CEO of the Luxembourg Space Agency: "With the aim of supporting a human presence in space while at the same time using the resources available on the Moon, the expertise provided by ispace Europe will be a valuable contribution to the ISRU mission. As a pioneer in the exploration and utilization of space resources through its <u>SpaceResources.lu</u> initiative, Luxembourg is an active participant in the programmes of the European Space Agency (ESA) to help transform innovative ideas into products and services.

A Mission and System Requirements Review (MSRR) will be held in October 2019 with a Final Presentation in November 2019. The outcome of this study, together with other parallel studies is a key input to the ESA Council of Ministers in December 2019.

This contract with ESA is funded by the Luxembourg Space Agency, under the authority of the Ministry of the Economy of Luxembourg, and is complementary to the European Exploration Envelope Programme (E3P) Lunar In-Situ Resource Utilisation (ISRU) Demonstration Mission Preparation Phase.*

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