Moon Valley 2040 - Expanding Opportunities for Lunar Exploration

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March 18, 2024

HAKUTO-R

ispace

OUR VISION:

EXPAND OUR PLANET.
EXPAND OUR FUTURE.

Creation of a world where the Earth and the Moon are one ecosystem, establishing a new economy on the Moon

At ispace, we've turned our attention to the Moon.

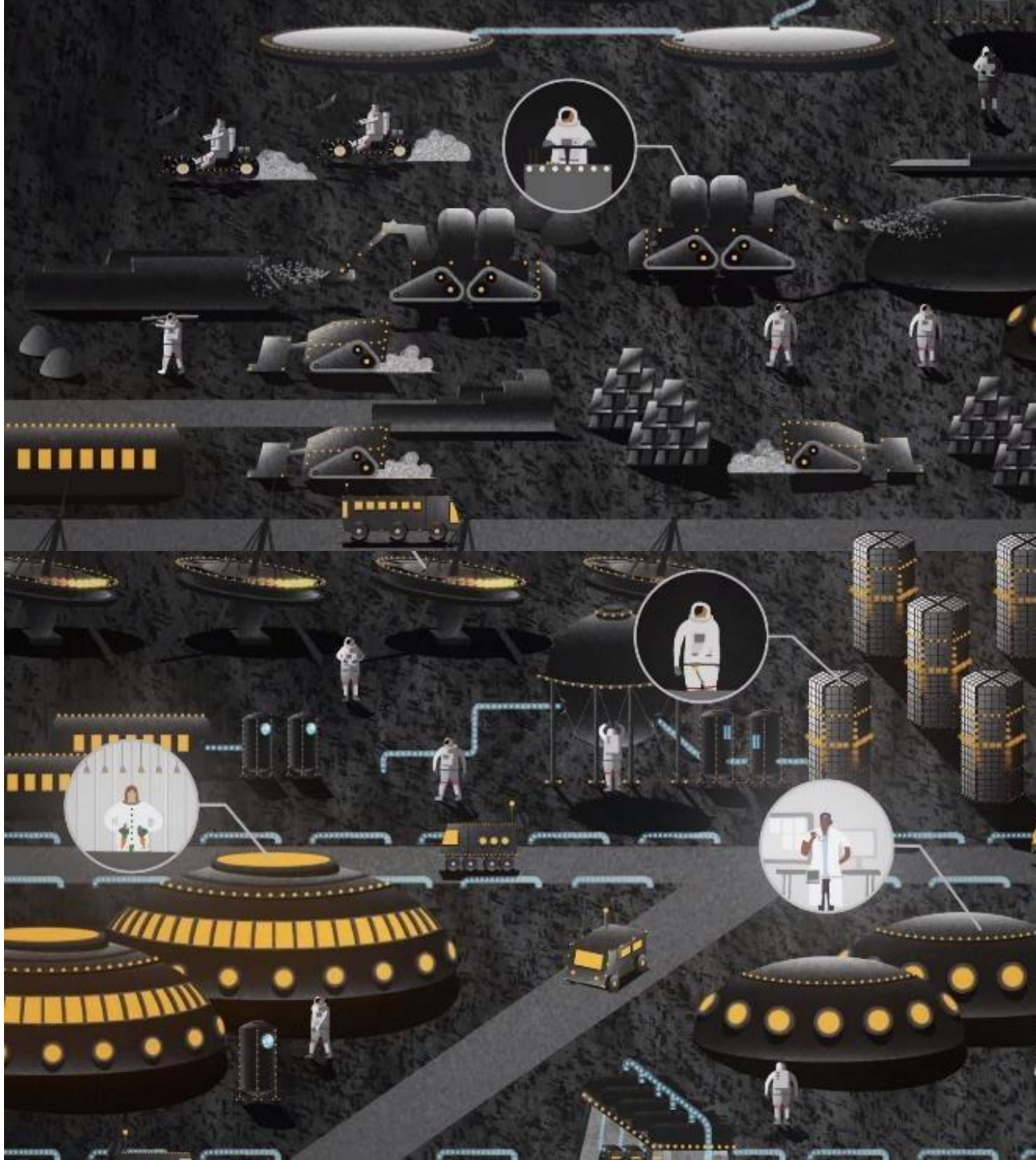
By taking advantage of lunar water resources, we aim to develop the space infrastructure needed to enrich our daily lives on Earth as well as expand our living sphere into space.

We also believe that integration of the Earth and Moon into one ecosystem, which could support a new economy with space infrastructure at its core, will support human life, making sustainability a reality.

This result is our ultimate goal, and our search for water on the Moon is the first step to achieving that goal.

Long-term vision :

MOON VALLEY 2040



ispace, inc.

Global leading company for development of Cis-lunar Ecosystem

Corporate Overview

- Established in 2010
- **Vision: "Expand our planet. Expand our future."**
- **Global: 297 employees from 30 countries located in 3 offices** (*as of April 2024)
  - **JAPAN** Headquarters in Tokyo
  - **USA** ispace technologies., inc. in Denver (Lander Development)
  - **EUROPE** ispace EUROPE S.A. in Luxembourg (Rover Development)

Business Activities

- Developing **Lunar Lander** and **Lunar Rover**.
- Operates **Mission Control Center** in Tokyo, Japan
- Main Business:
  1. **Payload Service** (Transportation cargo from the earth to the moon)
  2. **Data Service** (Flight data and Lunar data)

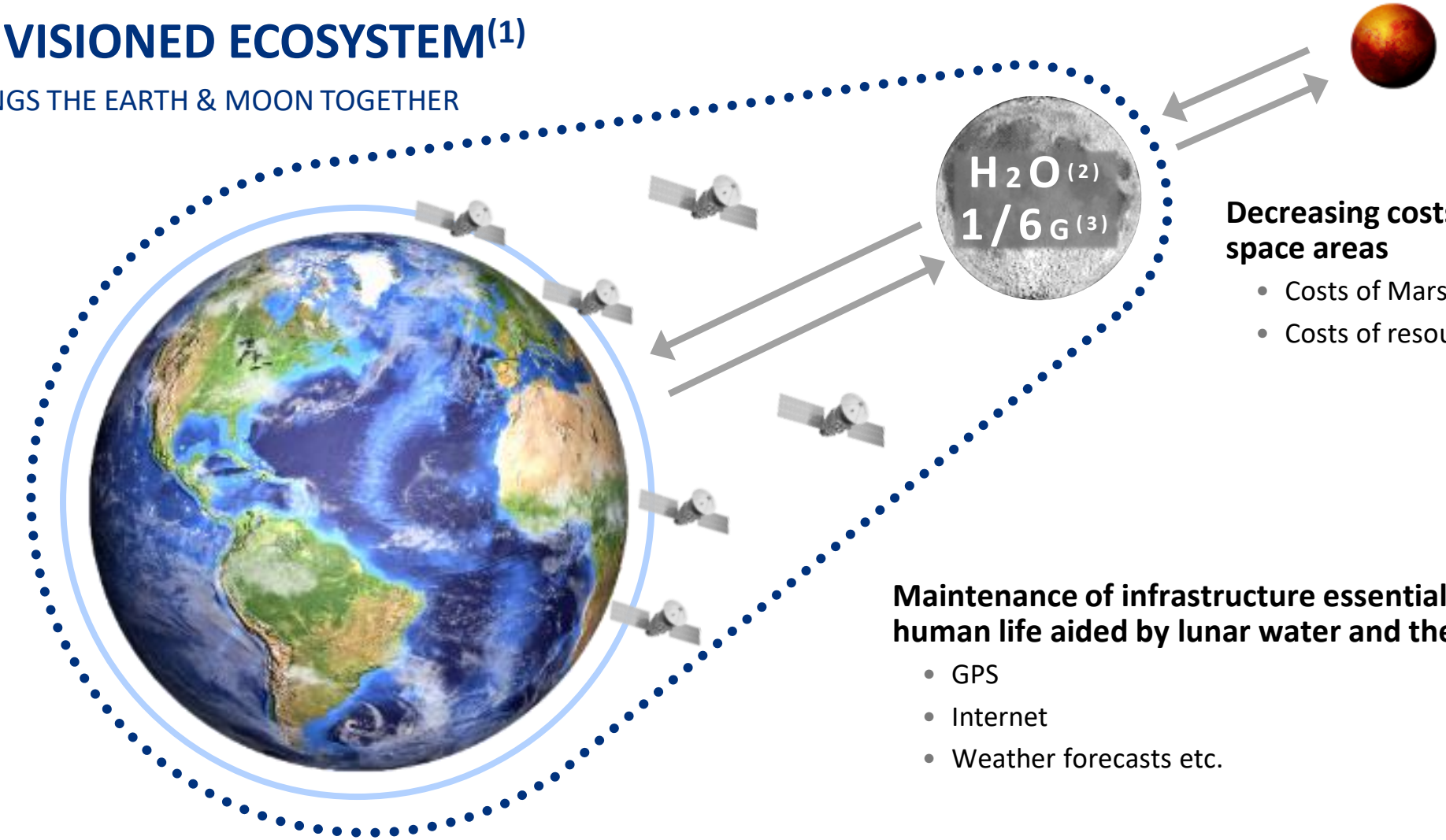
Financial Achievements

- **Fund Raising:** Successfully raised over **380 mil USD**.
- **IPO:** Listed on Tokyo Stock Exchange Growth Market in April 2023

Potential of the Moon as a “fuel supply base” utilizing lunar H2O

ENVISIONED ECOSYSTEM(1)

BRINGS THE EARTH & MOON TOGETHER



Decreasing costs to access deep space areas

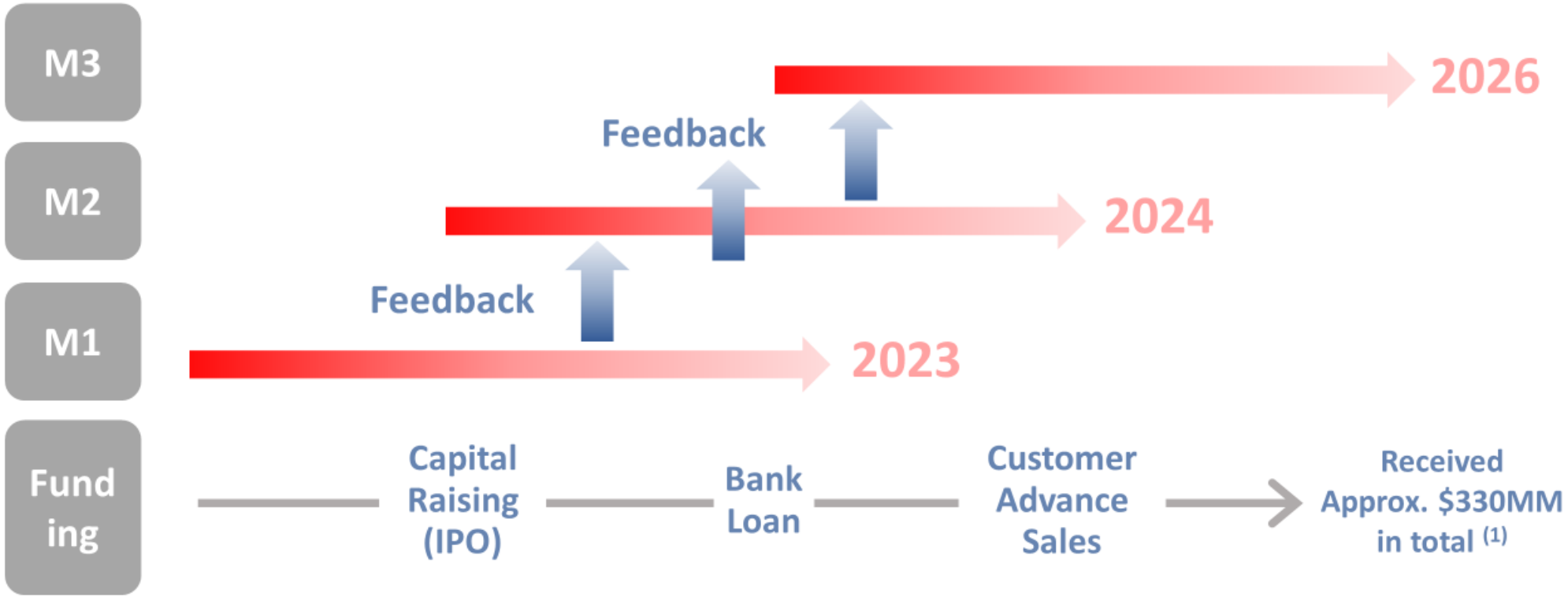
- Costs of Mars missions
- Costs of resource explorations etc.

Maintenance of infrastructure essential to sustainable human life aided by lunar water and the other resources

- GPS
- Internet
- Weather forecasts etc.

(1)The image shown on this slide is for illustrative purposes only.
(2)According to several studies, water may be widely distributed across the Moon (ex: http://www.planetary.brown.edu/pdfs/5242.pdf). We believe that it may be possible to utilize hydrogen and oxygen split through electrolysis of water extracted from regolith as a potential source of fuel for future deep-space exploration. (3)As Moon has only 1/6 gravity of the Earth, the launch cost from the Moon could be theoretically lower than from the Earth.

Sustainable Business Model



- Develop multiple missions in parallel based on a business model with continuous missions by securing budgets from investors, financial institutions, and customers.
- Findings from missions are fed back to the next mission in a timely manner and at a high frequency to increase the maturity of the technology. Continuous missions will be executed in a relatively short period of time.
- Developed the world's first lunar insurance with Mitsui Sumitomo Insurance Company, Limited, covering the liability period from the launch of Mission 1 to data transmission after landing on the lunar surface.

(1) As of May 2023

MISSION 1: Launched on December 11, 2022.

Landing attempt on April 26, 2023.

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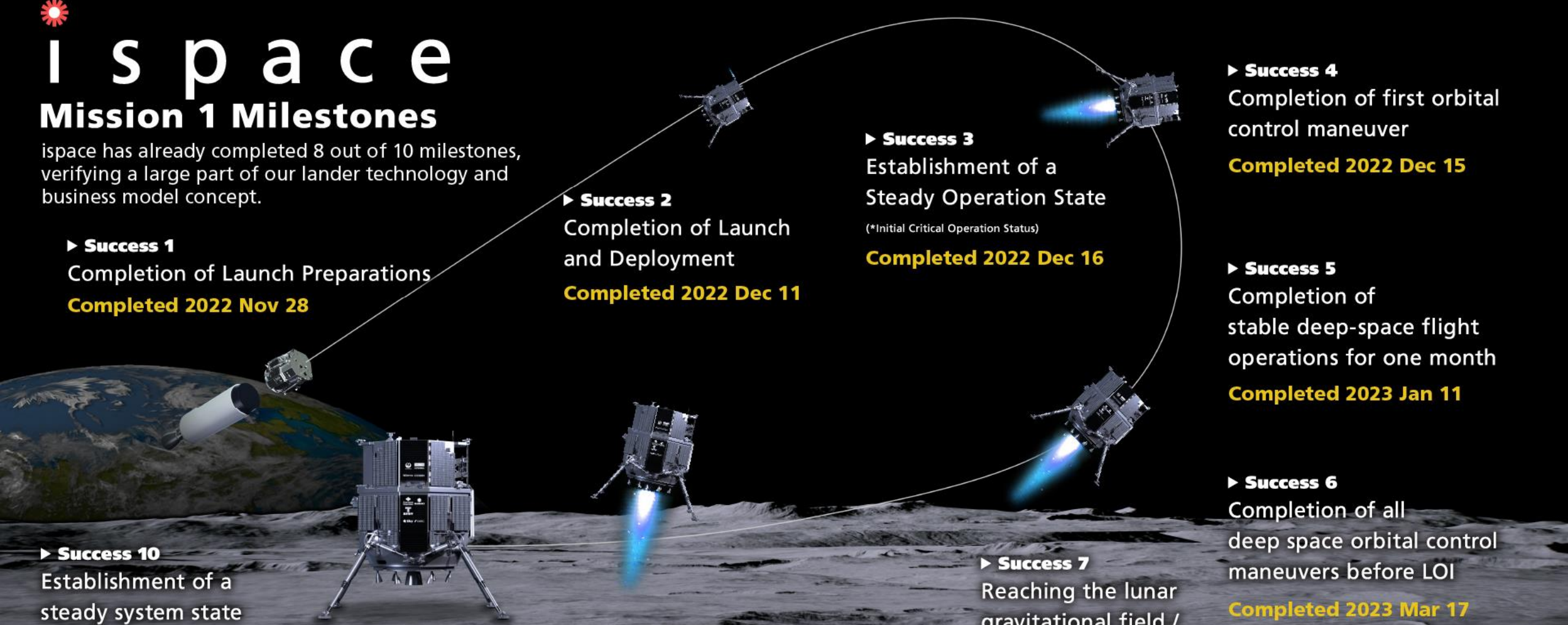
Mission 1 Milestones

ispace has already completed 8 out of 10 milestones, verifying a large part of our lander technology and business model concept.



▶ Success 1
Completion of Launch Preparations
Completed 2022 Nov 28

▶ Success 2
Completion of Launch and Deployment
Completed 2022 Dec 11

▶ Success 3
Establishment of a Steady Operation State
(*Initial Critical Operation Status)
Completed 2022 Dec 16

▶ Success 4
Completion of first orbital control maneuver
Completed 2022 Dec 15

▶ Success 5
Completion of stable deep-space flight operations for one month
Completed 2023 Jan 11

▶ Success 6
Completion of all deep space orbital control maneuvers before LOI
Completed 2023 Mar 17

▶ Success 7
Reaching the lunar gravitational field / lunar orbit
Completed 2023 Mar 21

▶ Success 8
Completion of all orbit control maneuvers in lunar orbit
Completed 2023 Apr 13

▶ Success 9
Completion of lunar landing
Incomplete 2023 Apr 25

▶ Success 10
Establishment of a steady system state after lunar landing
Incomplete

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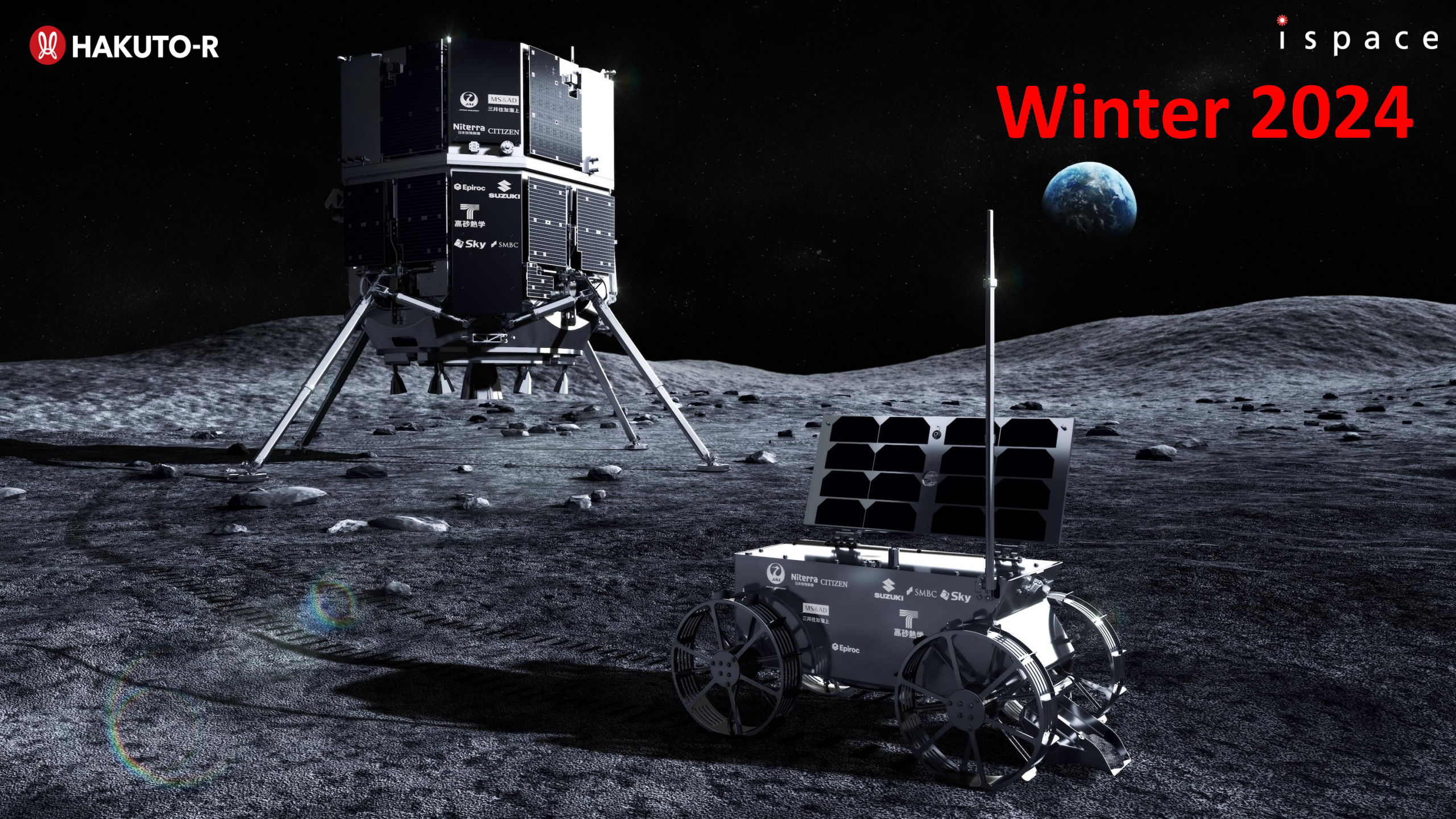
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ispace
Winter 2024
Niterra
CITIZEN
Epiroc
SUZUKI
高砂熱学
Sky
SMBC
MS&AD
三井住友海上

Mission 3

2026

APEX 1.0

A PIONEER IN EXPLORATION

ispace-US is proud to introduce our new lander design, now known as APEX 1.0. It represents the first iteration of an ever evolving lander to meet all customer needs, both government and commercial. This new lander is A Pioneer in EXploration that will continue to advance, accelerating our ability to explore the Moon and beyond.

LEARN MORE

Mission 3 Overview

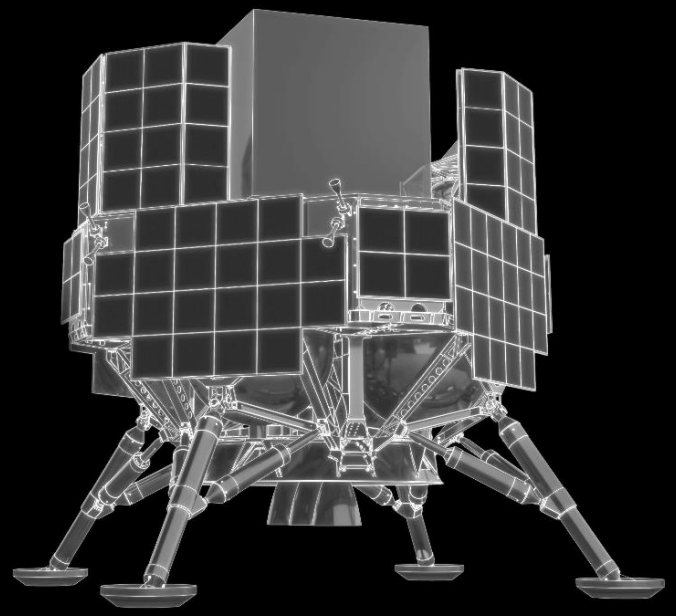
- To be launched - 2026
- Payload Capacity - 300kg
- NASA CLPS (Commercial Lunar Payload Service)
  Payload - 95kg in total
- Landing Location - Schrodinger Basin (Far-side)
- 2 Relay satellites

*The above information is based on the current plan, and it may change in the future.

Series 3 Lander

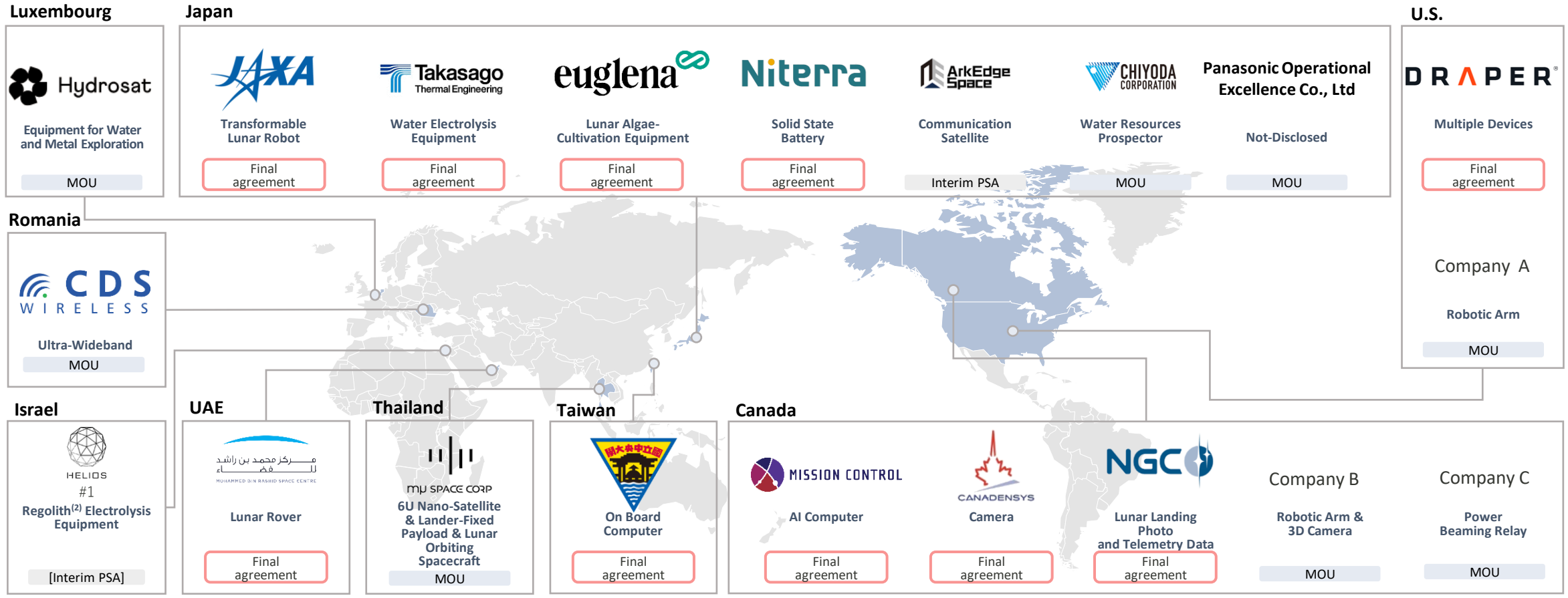
2027

- ispace has been selected by Japan's Ministry of Economy, Trade and Industry (METI) for a Small Business Innovation Research (SBIR) grant worth up to approximately **$80 million** (12 billion Yen).
- It is Phase 3 of the SBIR for the "Development and Operational Demonstration of a Lunar Lander." ispace will be expected to design, manufacture, and assemble a lunar lander with the capability of transporting a minimum payload of **100 kg** to the Moon's surface, then launch and operate the lander by **2027**.



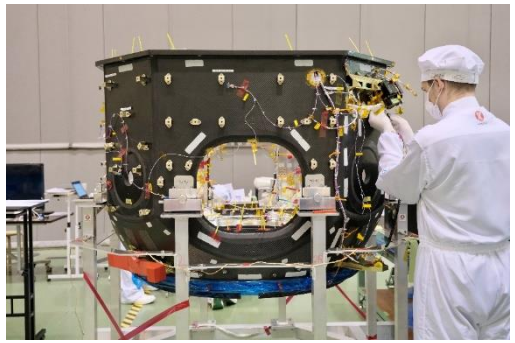
Global Business Activities

Example of the status of contracts including MOUs, etc.



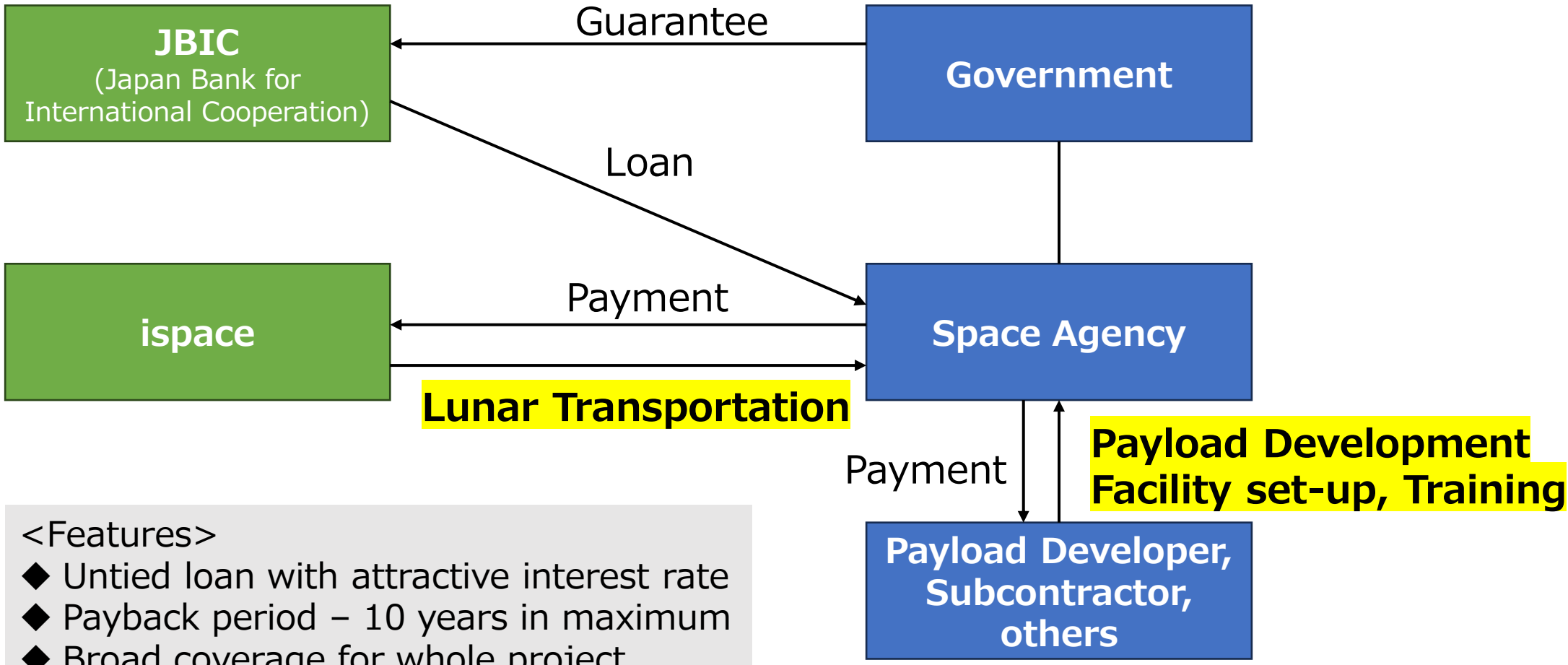
Package Service to Realize Lunar Mission

1. **Mission Planning**
   - ispace to provide technical consultation for developing ConOps of potential payload(s)
   - ispace to provide technical consultation for developing mission plan
2. **Lunar Transportation**
   - ispace to deliver satellite/CubeSat/surface payload to the moon.
3. **Capacity Building**
   - ispace to accept intern(s) as mission operator and provide an opportunity to experience mission operation.
   - ispace to provide an opportunity for experts to witness various tests and satellite/CubeSat/surface payload integration.
4. **Facility Set-up**
   - ispace to provide technical advice to set up facility such as Mission Control Center
5. **Finance Arrangement**
   - ispace to coordinate with JBIC to arrange loan program to cover project-related costs



JBIC Finance Scheme

JBIC (Japan Bank for International Cooperation) provides a special loan program which may cover overall mission cost.



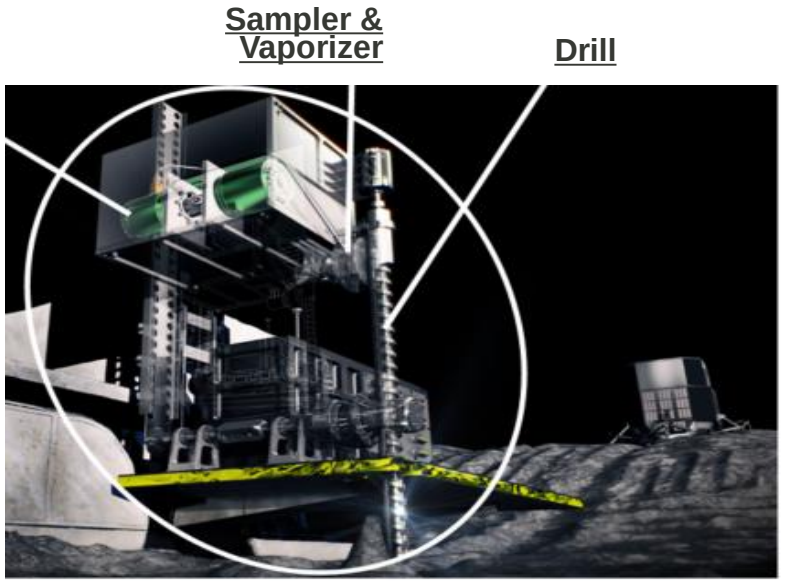
<Features>
- ◆ Untied loan with attractive interest rate
- ◆ Payback period – 10 years in maximum
- ◆ Broad coverage for whole project

Potential Payload

Water Analysis Module

The module consists of drill / sampler / vaporizer / analyzer with the following features.

- Take a sample of lunar soil and analyze its water concentration.
- Adaptable to load the module in various land-transportation on the moon.
- Apply drill technique (spiral screw), utilized widely on the earth, for sampling
- Apply TDLS technology, proven industrially, for moisture measurement.
  It will be capable of measuring volatile components other than water vapor.
- Cooperate with University / Academia to evaluate the sampled & analyzed data by latest technical knowledge.



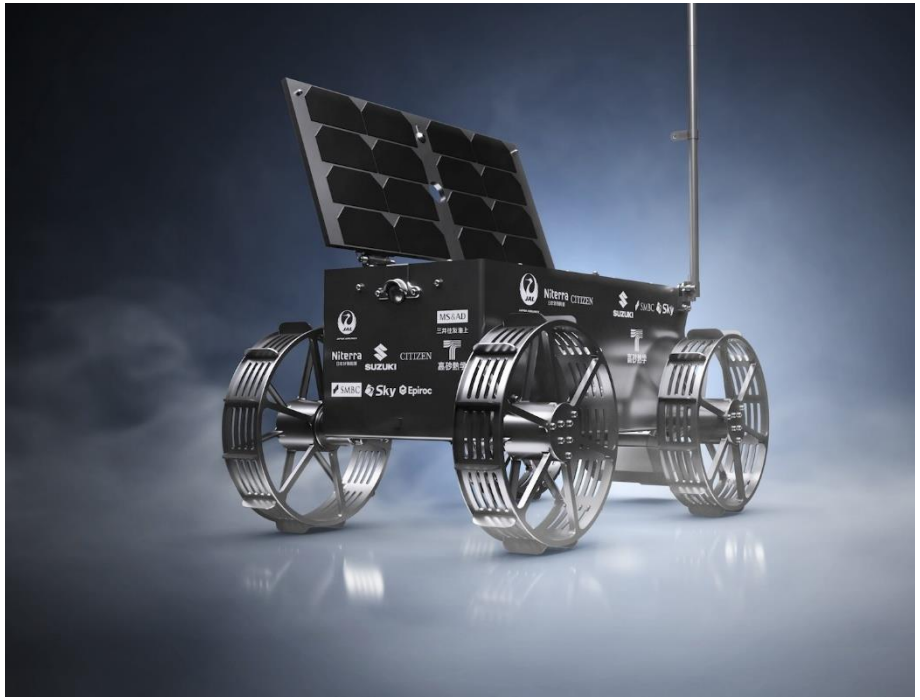
System size: 600 x 300 x 300 [mm]
System weight: 10 [kg]
Drilling depth: 50 [cm]
Measurable substance: H2O
Other: movement, electricity,
communication depends on carrier machine

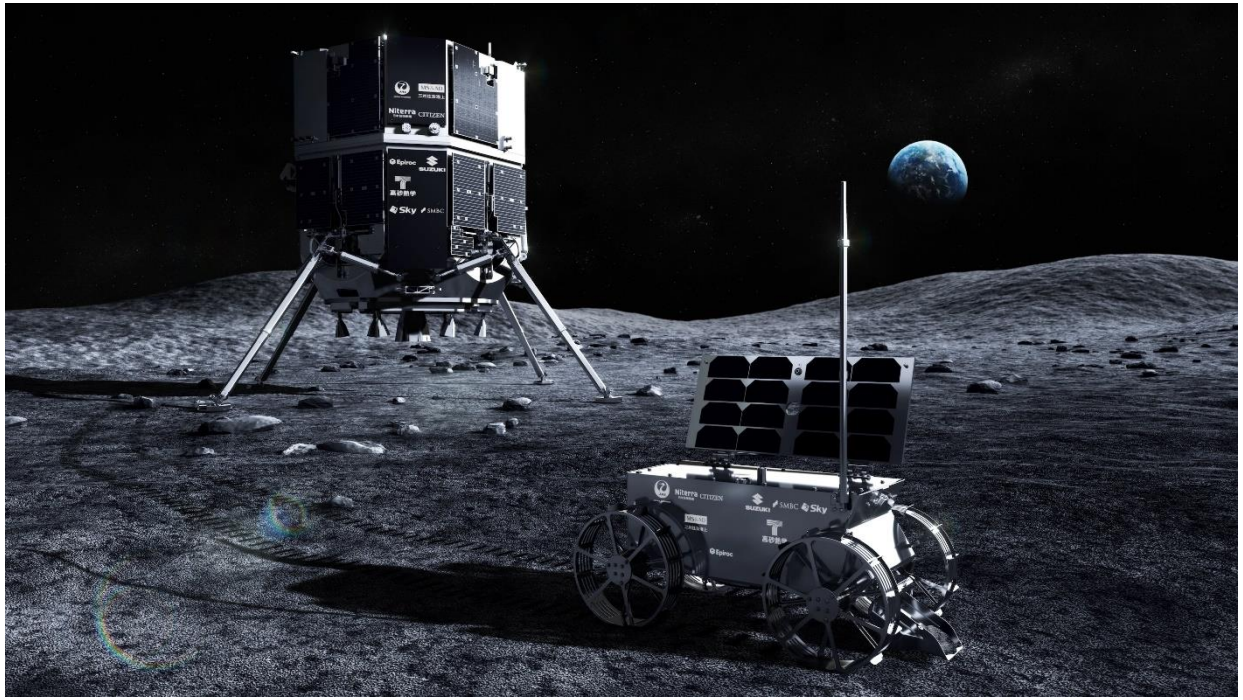
Potential Payload

Lunar Rover Mission

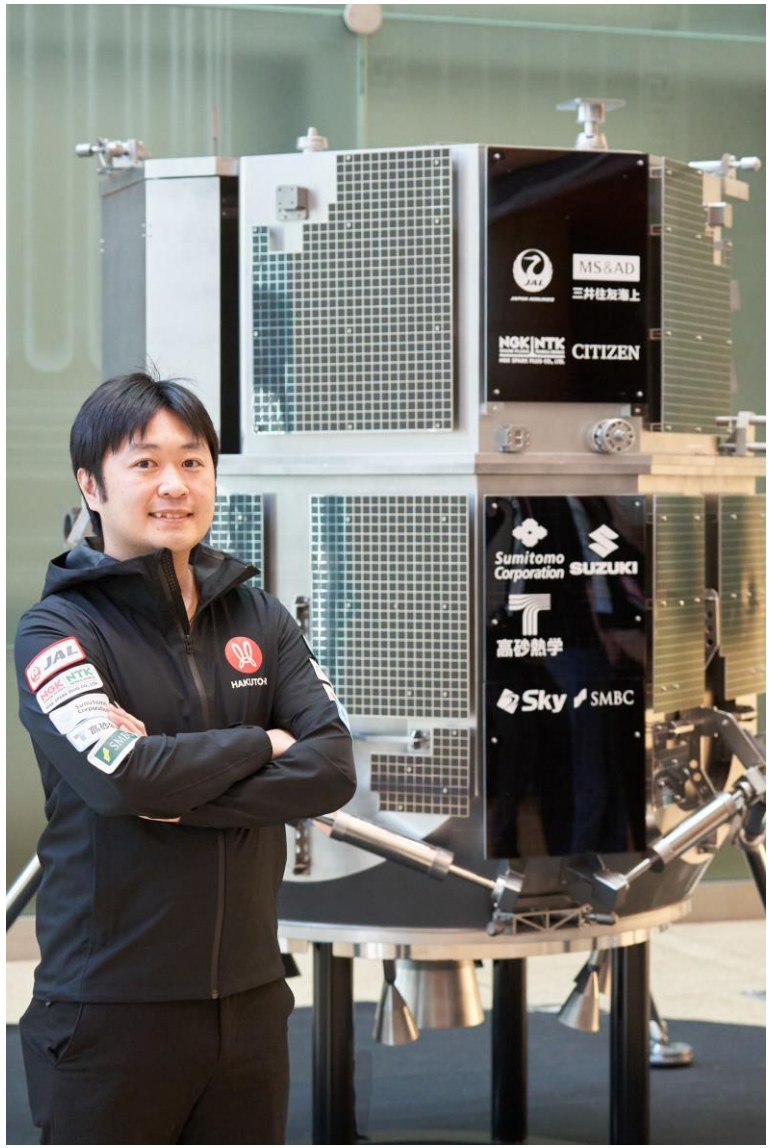
ispace to provide the comprehensive support to realize rover mission

- Mission planning
- Rover design, development and test
- Lunar transportation
- Mission operation
- Training





Contact Information



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- 10-years experience in Chemical Plant Construction Project Management.
  Successfully arranged JBIC finance for 1 billion USD.
- 3-years experience in Lunar Industry and responsible for international sales and business development in Indo-Pacific region.

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