# Never Quit the Lunar Quest

November 29, 2023

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.

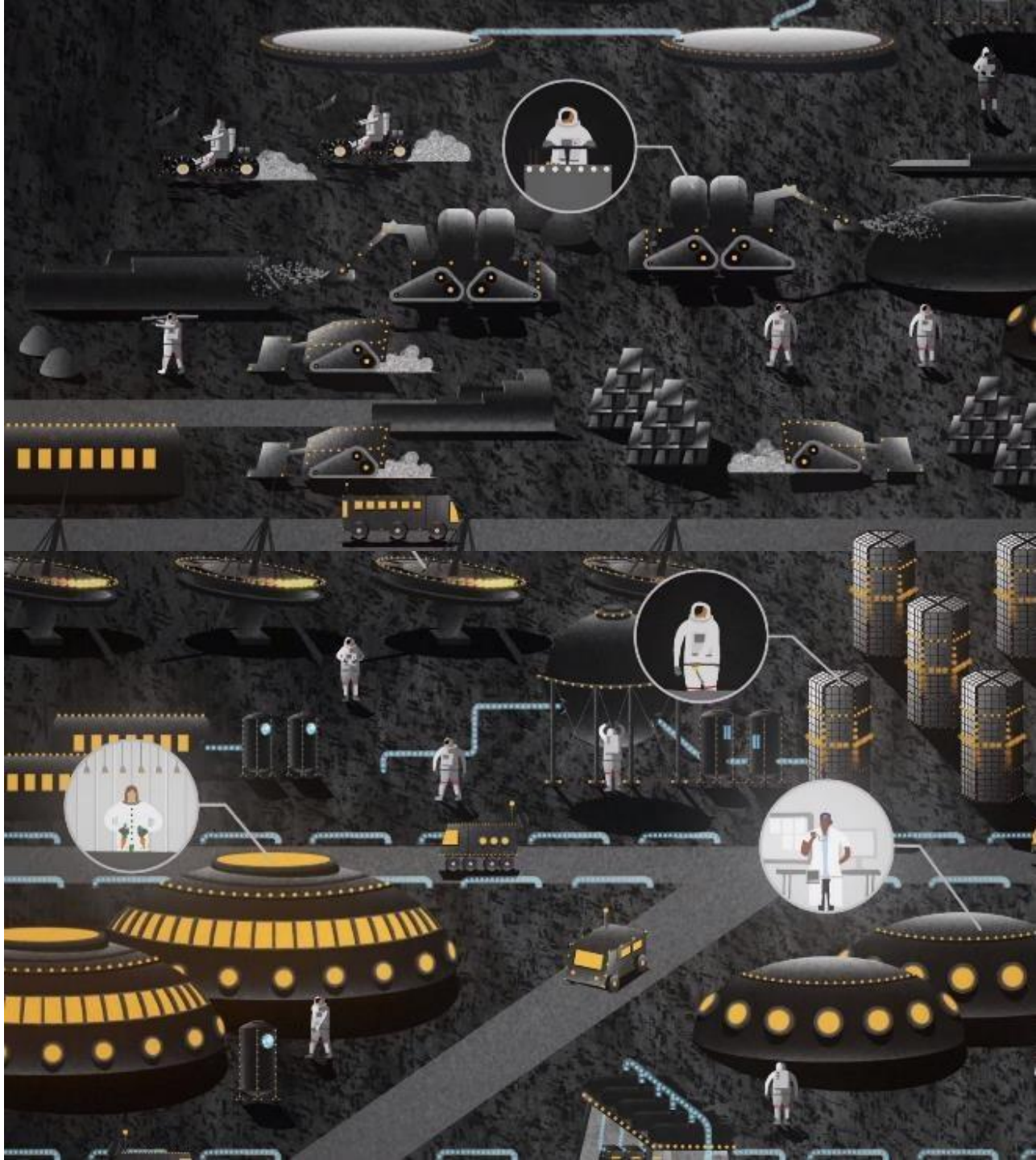
By taking advantage of lunar water resources, we aim to develop the space infrastructure needed to enrich our daily lives on Earth as well as expand our living sphere into space.

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 :**

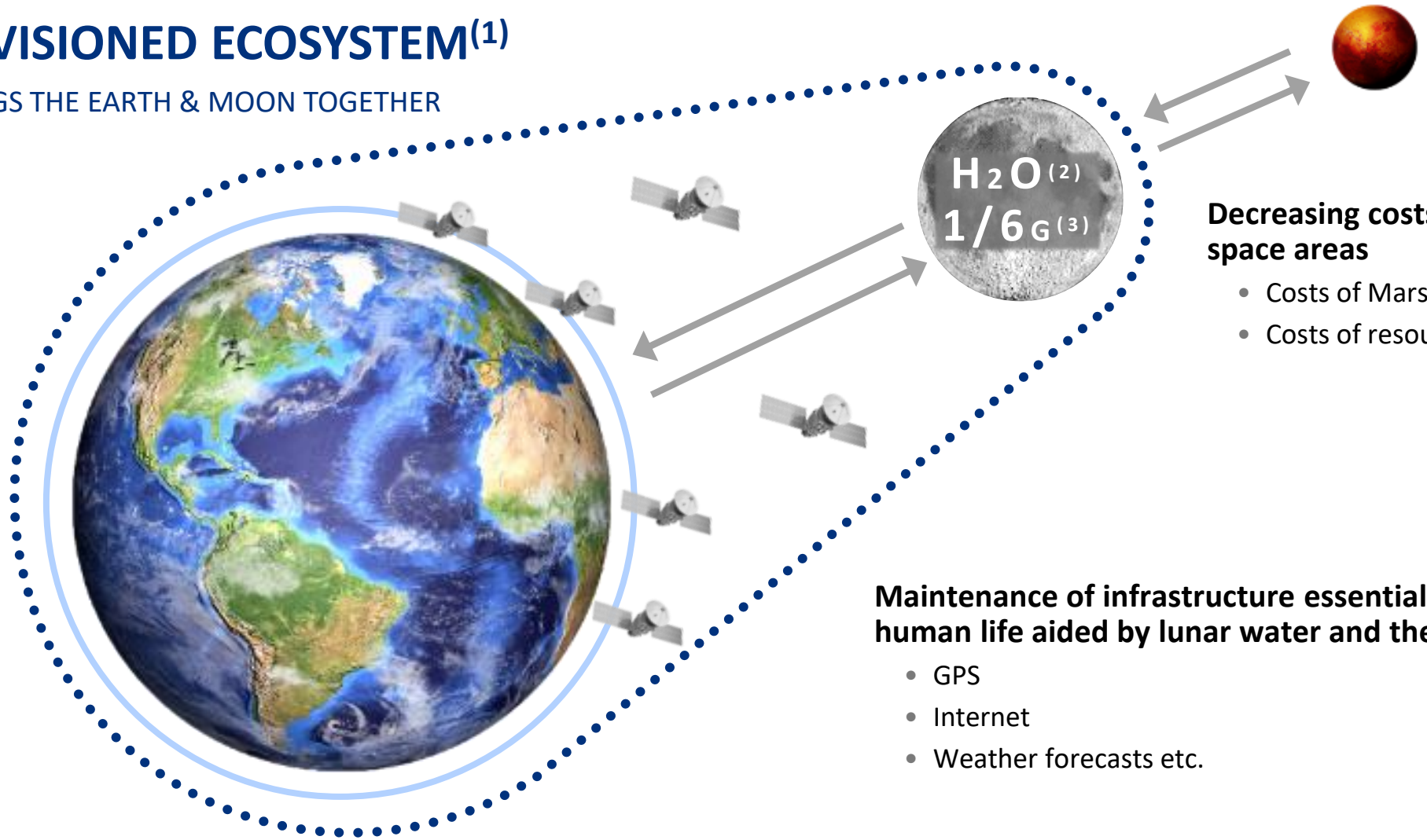
# MOON VALLEY 2040



## Potential of the Moon as a “fuel supply base” utilizing H2O that may exist on the Moon

# 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.

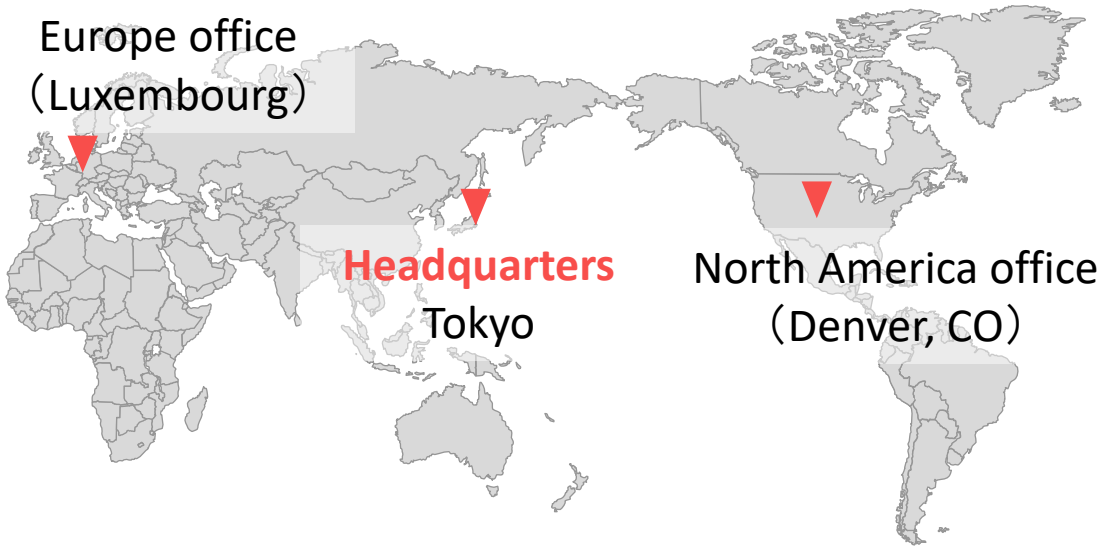
# ispace, inc. at a glance

## General info

Founded in: **September 2010**

# of employees: **278**（27 nationalities）(1)

% of engineers: **c.68%** (1)




## Financing track record / shareholders

| | |
|---|---|
| Seed: | c. $2.0MM(2) |
| Series A (2017): | c. $94.5MM(3) |
| Series B (2020): | c. $33.1MM(4) |
| Series C (2021): | c. $50.7MM(5) |
| IPO: | c. $48.6MM |
| Bank loan 1: | c. $19.8MM(6) |
| Bank loan 2: | c. $37MM(7) |

**Record for largest Series A financing in Japan at the time**

**Total**: c. $285MM

### Venture capital / investment funds

INCJ, Incubate fund, Development Bank of Japan, Airbus ventures, Space Frontier Fund, Innovation Engine, SPARX, THVP, Axiom Asia, Real Tech Fund, SBI investment

### Strategic Enterprises

Japan Airlines, KONICA MINOLTA, SUZUKI Motor Corporation, TOPPAN, Shimizu, Dentsu, KDDI, Mitsui Sumitomo Insurance Company, Takasago Thermal Engineering, SMBC Nikko Securities, TBS

### Banks / financial institutions

Sumitomo Mitsui Banking Corporation, MUFG Bank, MIZUHO Bank, Japan Finance Corporation,
Shoko Chukin BANK, Shizuoka Bank, Resona, SME Support

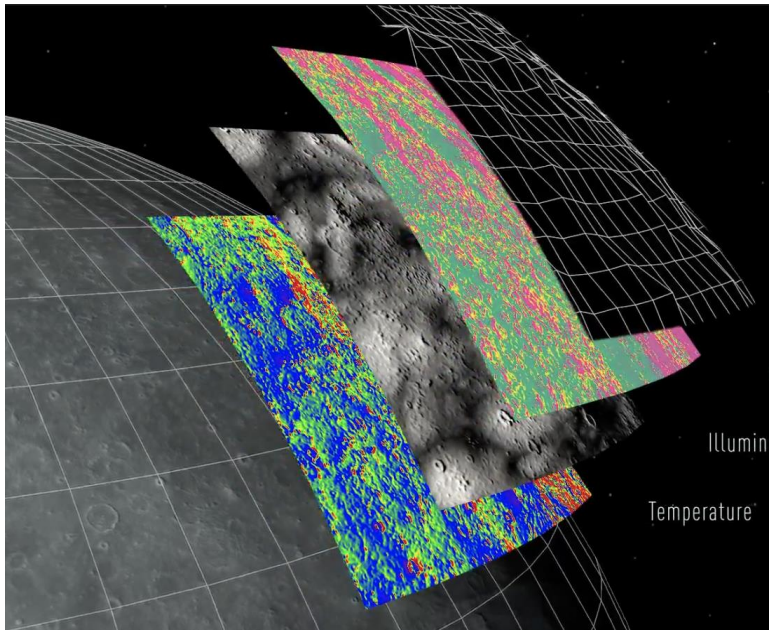
(1) *Data as of November 2023. Employees include management, subsidiaries and contract personnel*
(2) *Actual figure in original currency is JPY 204 MM; JPY to USD conversion provided for familiarity, using FX rate for Oct 2016*
(3) *Actual figure in original currency is JPY 10,350 MM; JPY to USD conversion provided for familiarity, using FX rate for Feb 2018*
(4) *Actual figure in original currency is JPY 3,500 MM; JPY to USD conversion provided for familiarity, using FX rate for Jul & Dec 2020*
(5) *Actual figure in original currency is JPY 5,567 MM; JPY to USD conversion provided for familiarity, using FX rate for Jul & Aug 2021*
(6) *Actual figure in original currency is JPY 2,180 MM; JPY to USD conversion provided for familiarity, using FX rate for May 2021*
(7) *Actual figure is JPY 5 billion; JPY to USD conversion provided for reference purposes, using an FX rate based on the past 1-month average of TTM rate in June 2022*

# Payload service and Partnership service are the current business pillars of ispace. We plan to establish Data service in the future

## Payload service

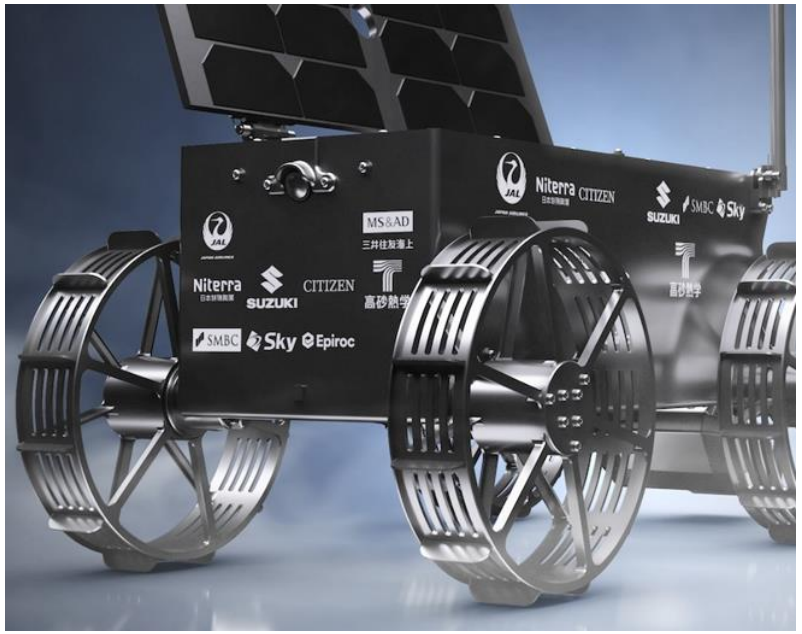

Transport customers' payload to the Moon. Customers will acquire significant data from payload, by conducting experiments as needed.

## Data service




Customers are expected to acquire significant data from payloads developed by ispace. Access to the database accumulated by high frequency missions will be provided to customers in the future.
* Net Sales have not been recorded as of March 2023.

## Partnership service




Supporting customers' marketing by posting logo to the lander and rover of ispace. Also, each company will collaborate with ispace from technical or business perspective etc.

# MISSION 1: Launched on December 11, 2022.

**Landing attempt on April 26, 2023.**

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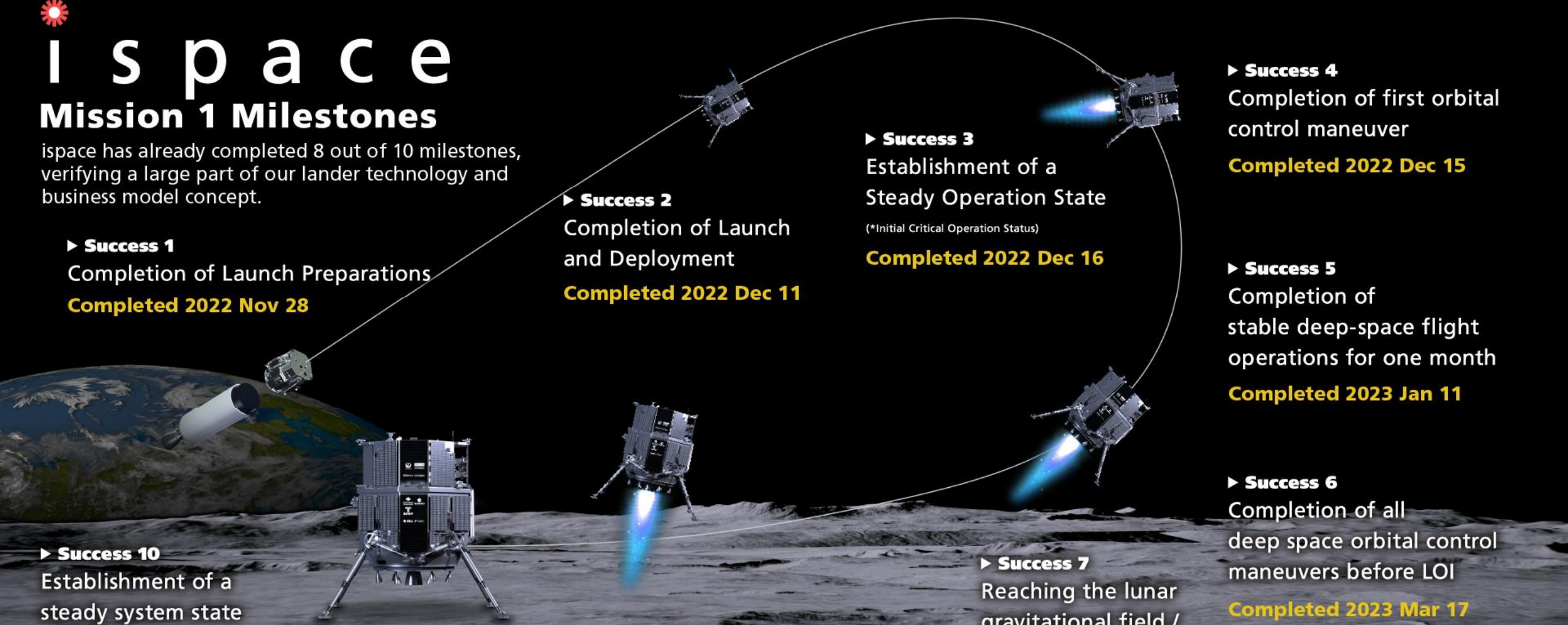
## Mission 1 Milestones

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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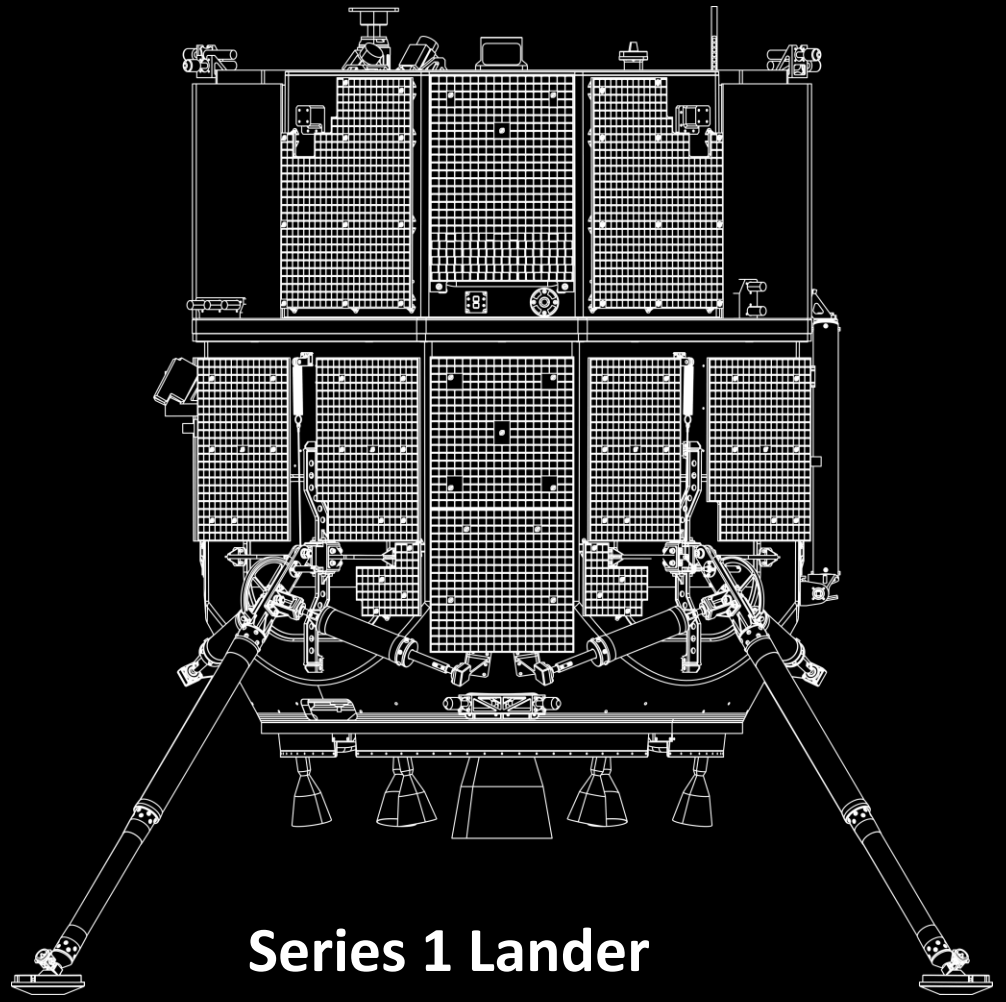
# M1



Series 1 Lander

## 宇宙・ミッション検証済みハードウェア
## Space & Mission-proven Hardware

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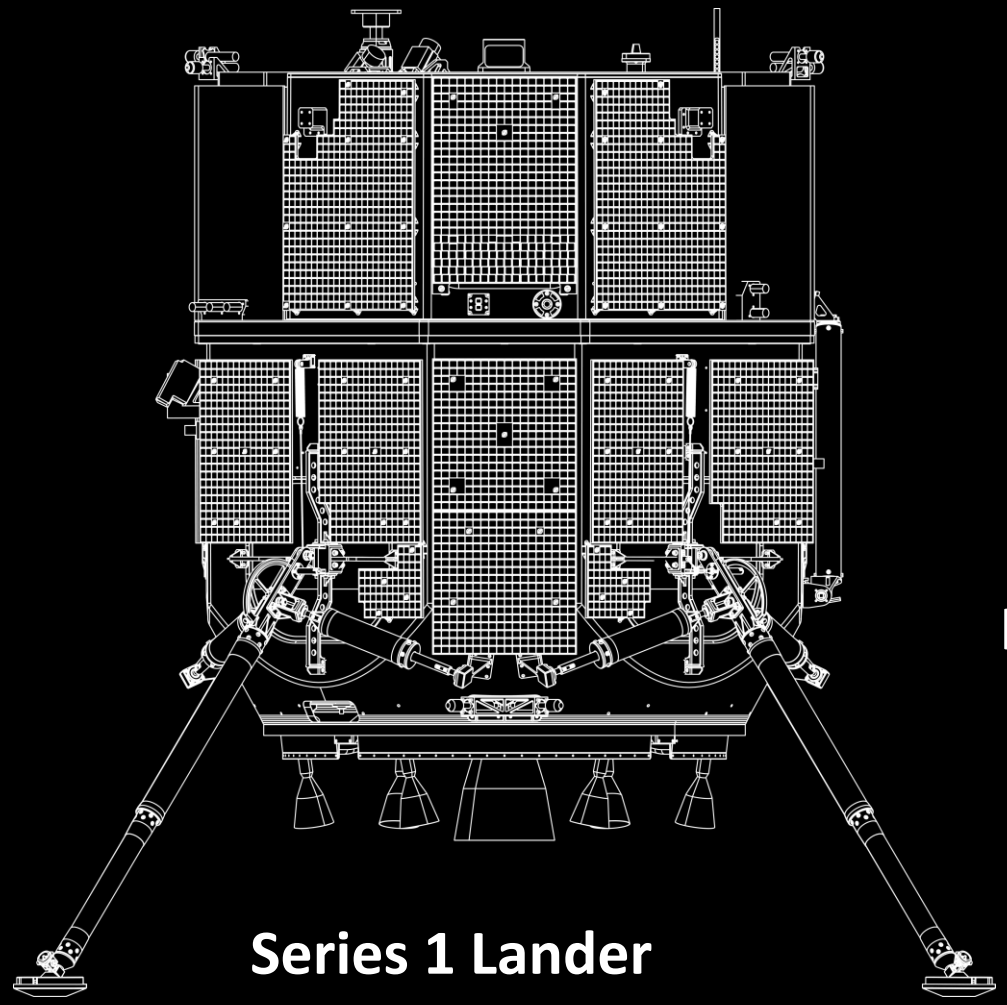
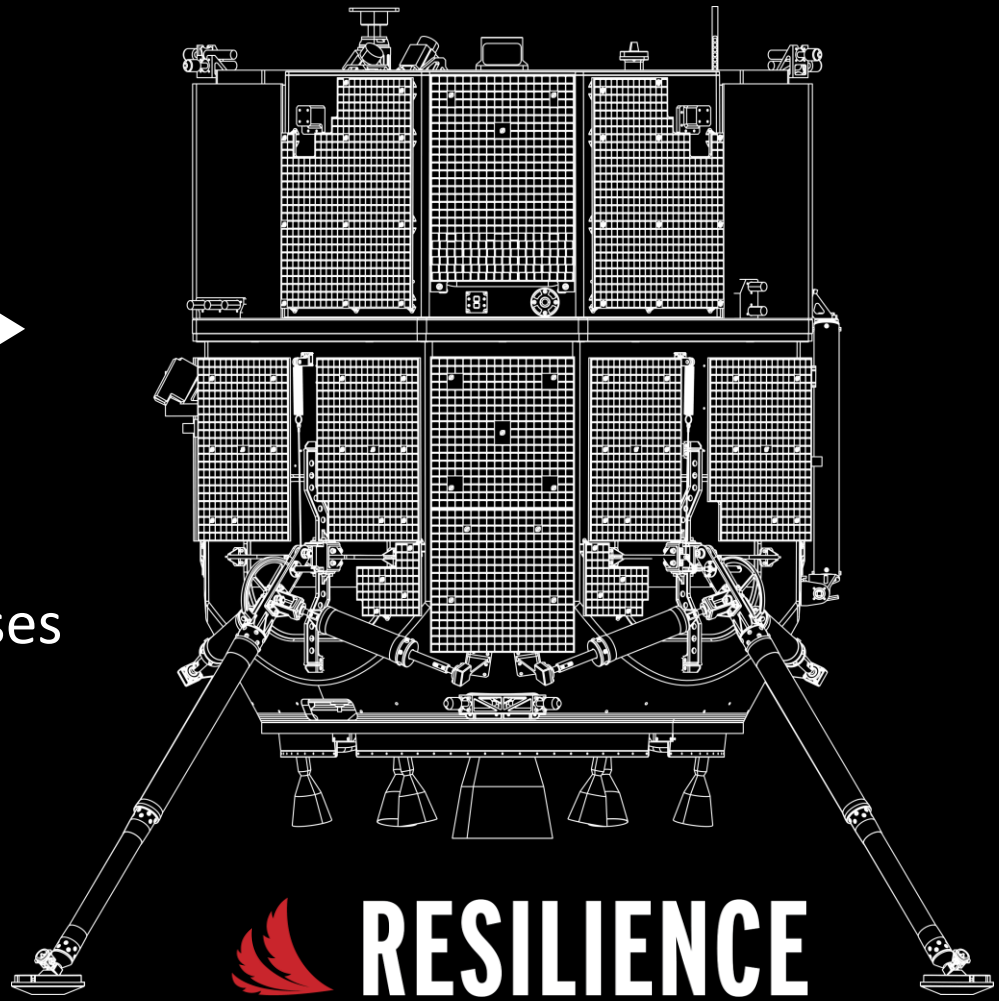
# M1

# M2



Series 1 Lander

プロセス改善
Improved Processes



RESILIENCE

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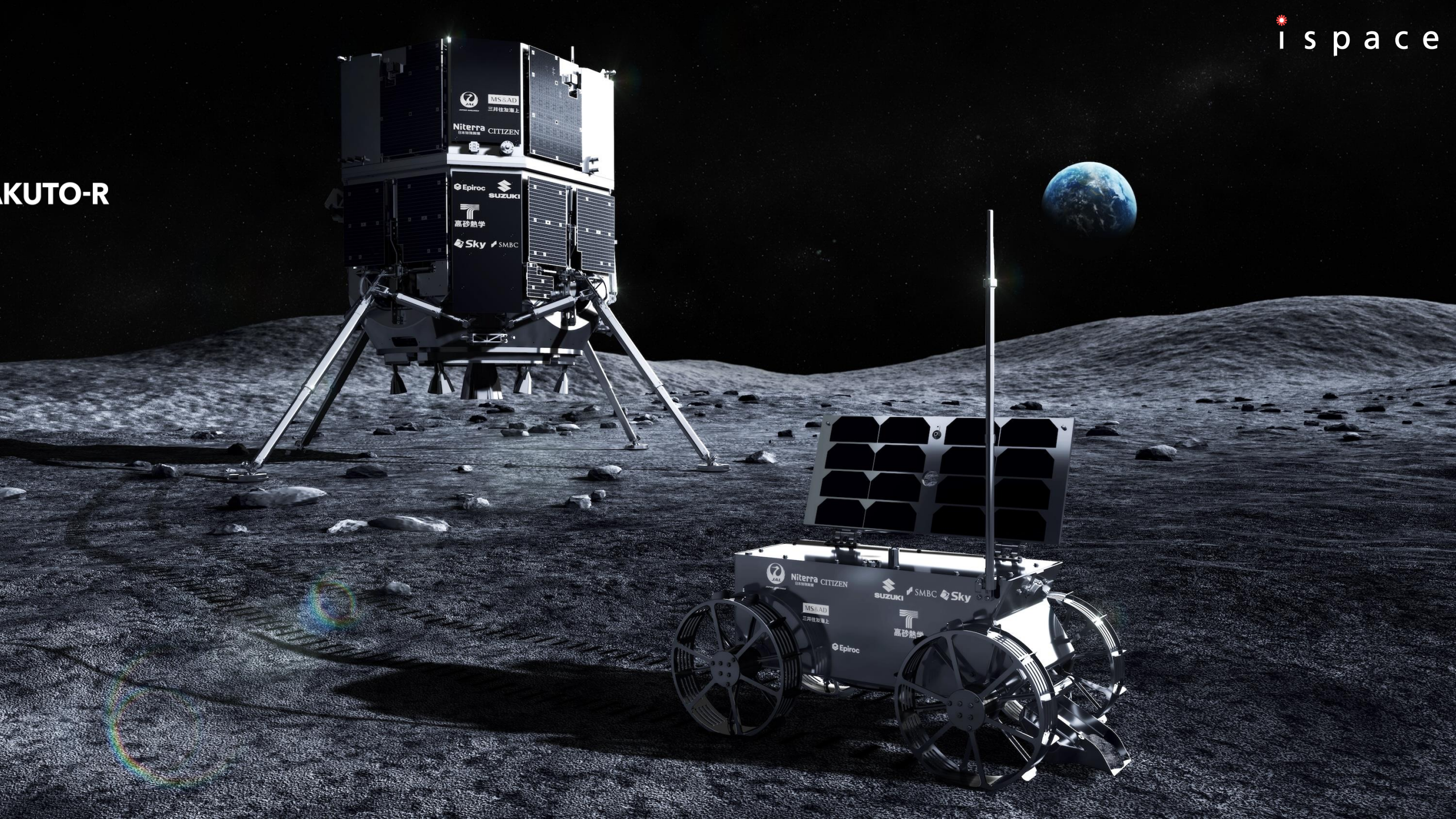

# Mission 2 ペイロード
# Mission 2 Payloads


高砂熱学 Takasago Thermal Engineering

**月面用水電解装置**

Water-splitting experiment

ispace

**月面探査車**

ispace Micro Rover

ユーグレナ

いきる、たのしむ、サステナブル。

**藻類培養実験モジュール**

LunaGlena

**深宇宙放射線プローブ**

Deep Space Radiation Probe

BANDAI NAMCO

**「GOI 宇宙世紀憲章」プレート**

“Space Century Charter” plate

※2023年11月時点の想定

※Current plan as of Nov 2023

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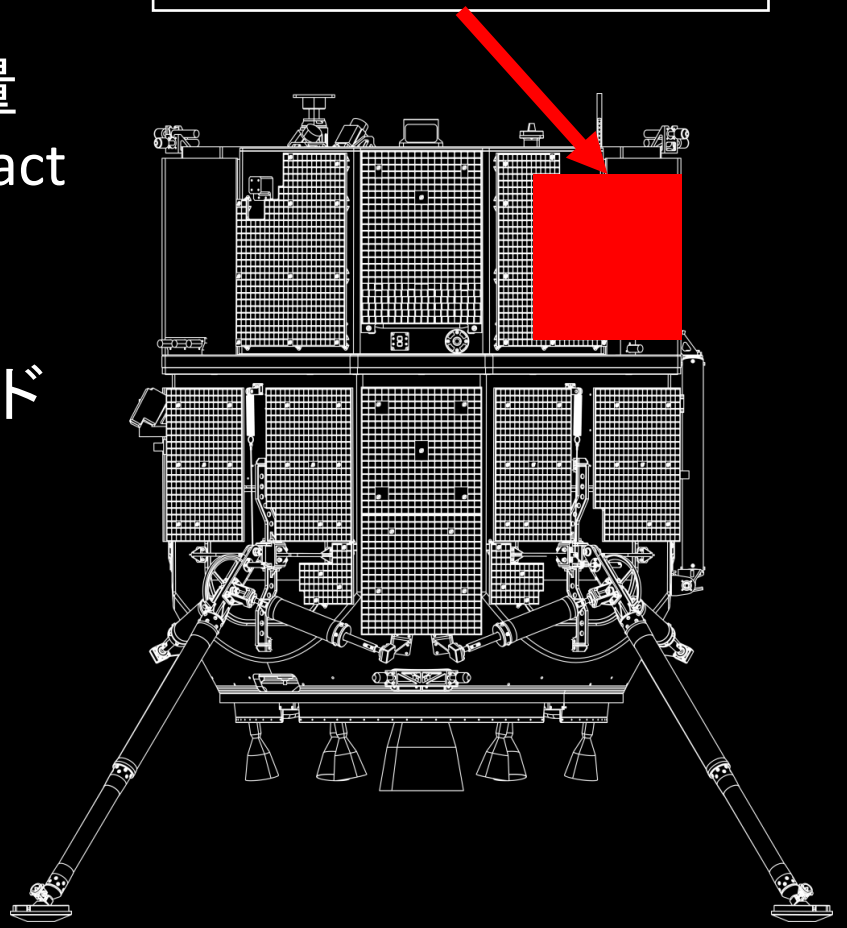
## Micro Rover


- 小型、低質量
5kg mass, compact size

- 1kgペイロード容量
1kg payload capacity

**Payload Bay**
**ペイロードベイ内部**



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*図はイメージであり、実際の製品とは異なる場合があります。
*For illustration purposes only. Actual hardware may differ.

# Mission 3

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