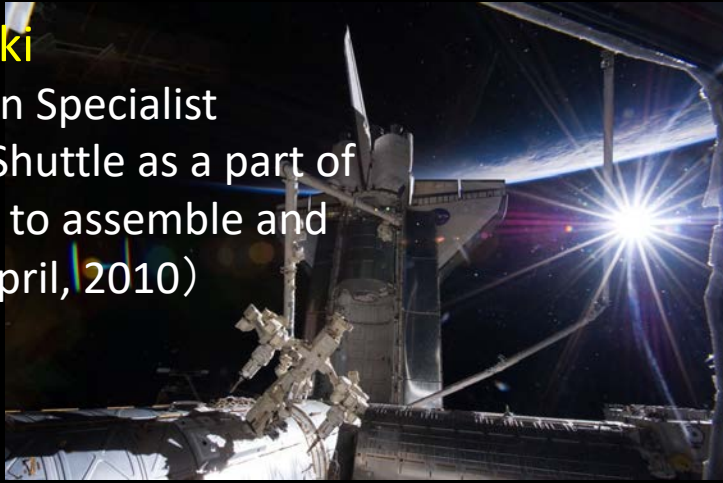


Naoko Yamazaki

Flew as a Mission Specialist
onboard Space Shuttle as a part of
STS-131 mission to assemble and
resupply ISS. (April, 2010)



©NASA/JAXA



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Naoko Yamazaki

- Member, National Space Policy Committee (2012~2022)
- Member, National Space Policy Subcommittees (2012~present)
- Representative Director, Space Port Japan Association (2018~present)
- President, Young Astronaut Club-Japan (2021~present)
- Councilor, The Earthshot Prize (2020~present)



©The Earthshot Prize



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Space Port Japan
Association



Space Diplomacy from an Astronaut's Viewpoint

Naoko Yamazaki

Representative Director, Space Port Japan Association, Tokyo, Japan

yamazaki@spaceport-japan.org

Accepted 8 March 2023

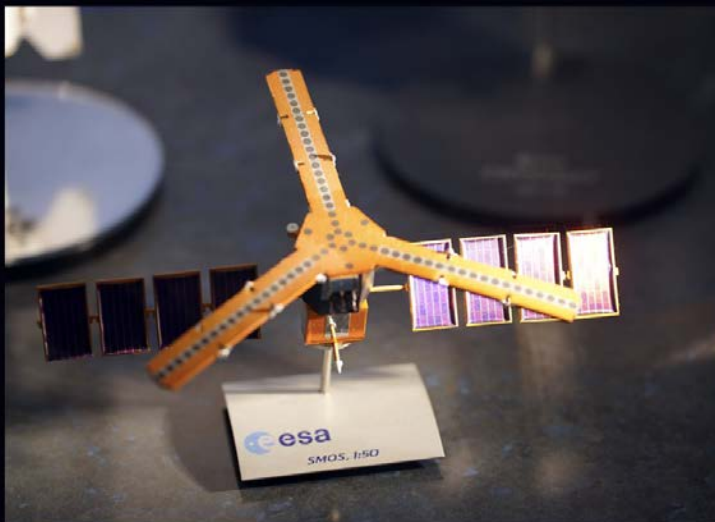
Summary

Intergovernmental space diplomacy has played an essential role in human space activities. The International Space Station of low-Earth orbit and the Artemis programme to explore the moon and beyond are essential examples. Current noteworthy developments that are influencing space diplomacy include the following: (1) the number of governments that engage in human space activities has been increasing; and (2) inter-industry and grassroots co-operation has had a significant impact. We astronauts, and I believe anybody who aims to explore space, appreciate the value of norms in space, which assure a safe environment for our activities and secure future possibilities to expand our frontier to the moon and beyond.

SPACE-Gov: Space Sustainability & Governance – Mitigating Compounded Risks through Foresight and Futures Methods



University
of Exeter



SPACE-Gov is an inter-sectoral engagement project designed to enhance resilience and mitigate compounded risks in the space sector at the national and international level.

Learn more about the project [here](#).

The project is supported by Research England Policy Support Fund.

Naoko Yamazaki – former astronaut – joins SPACE-Gov Advisory Group



SPACE-Gov welcomes former astronaut – Naoko Yamazaki – to the project's Advisory Group. Ms Yamazaki was part of the crew of the STS-131 mission onboard space shuttle *Discovery*. She co-founded the Space Port Japan Association, and is now a Council member of the Earthshot Prize – an ambitious initiative launched by HRH Prince William to tackle the world's greatest environmental challenges.

We are thrilled to welcome Ms Yamazaki onboard. Exeter Bear in particular is **ecstatic!** (See picture)

Photos credit: NASA / SW Chiu

International Space Station (ISS)

5 agencies:

CSA (Canada), ESA, JAXA (Japan), NASA (USA),
ROSCOSMOS (Russia)

15 nations:



32 nations signed Artemis Accords.



ARTEMIS ACCORDS



United for Peaceful Exploration of Deep Space

International Lunar Research Station (ILRS)

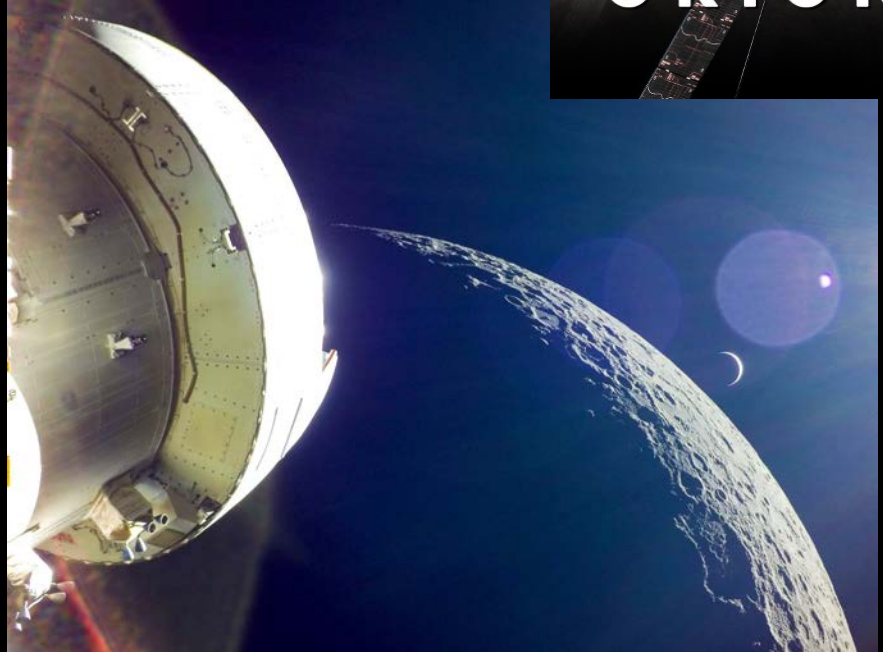


- CNSA and ROSCOSMOS signed MoU in March 2021.
- Agreement signed by Pakistan, UAE, APSCO in June 2023.

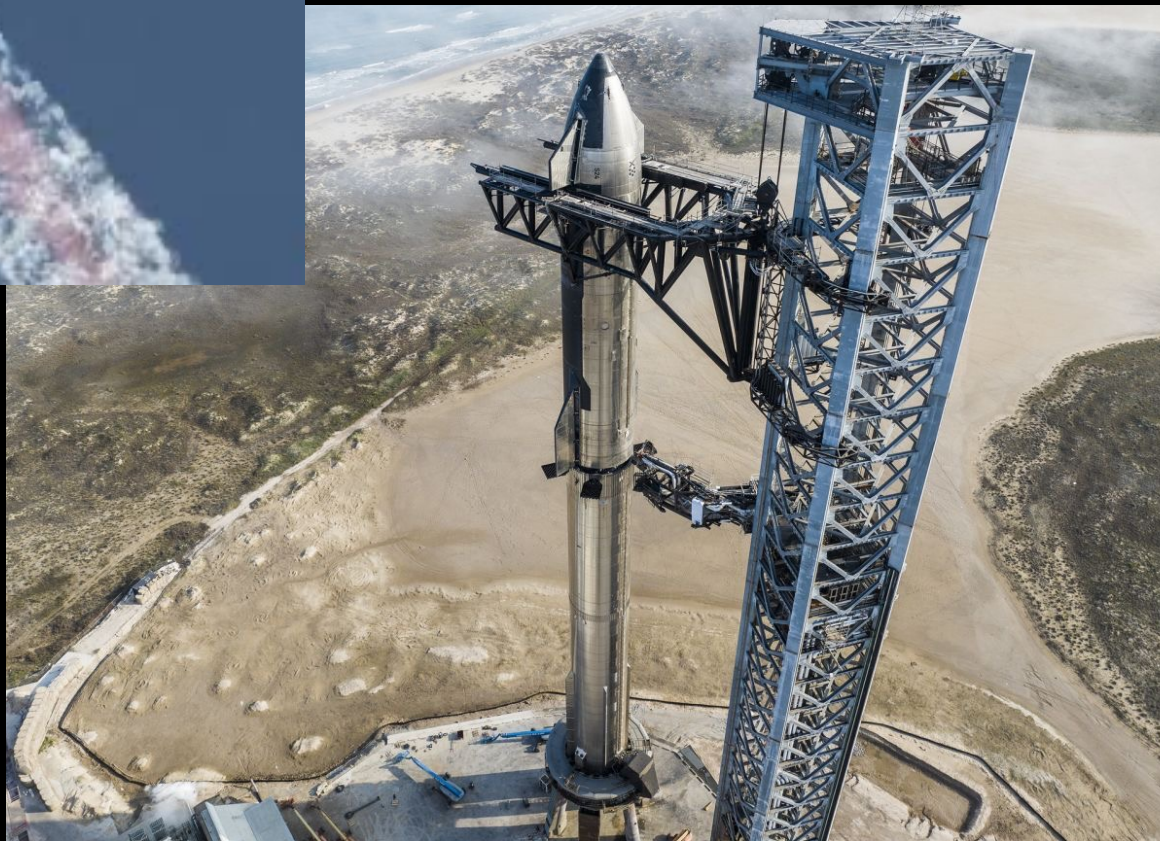
NASA's SLS Artemis 1 Mission in Nov. 2022



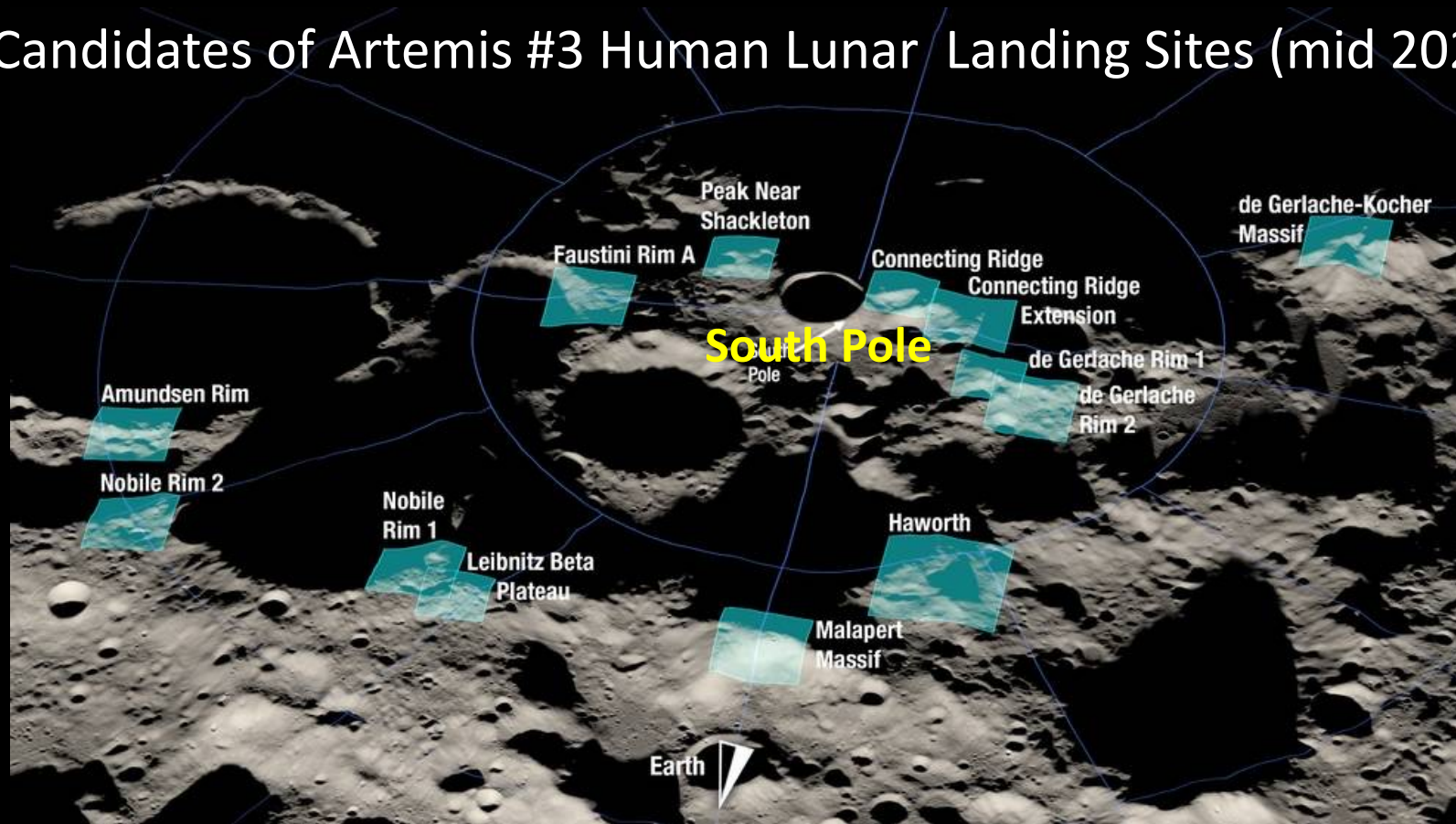
(C)NASA



SpaceX 's "Starship" under development



Candidates of Artemis #3 Human Lunar Landing Sites (mid 2020s)



S-Booster 2023

Asia-Pacific Space Business Idea Contest

Grand Prize "Astromine"

S-Booster 2023

Final Round

Innovation of Our Solution

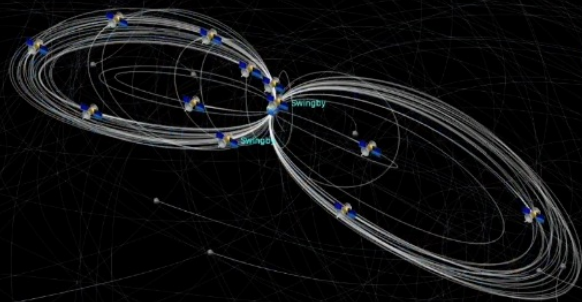
Machine Learning



Swingby



Micro Spacecraft (Constellation)



Animation made by Shoya Dozono



PROCYON

10
©S-Booster

S-Booster 2023

Final Round

Business Model



Planetary Defense

Customer 1

Governments/
Space Agencies



Space Resources

Customer 2

Asteroid resource
miners/users

Geometric
information of
asteroids

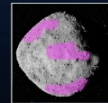


\$10M/
year

>\$100M/
mission

ASTROMINE

Resource
information
(location/type)



Resource itself

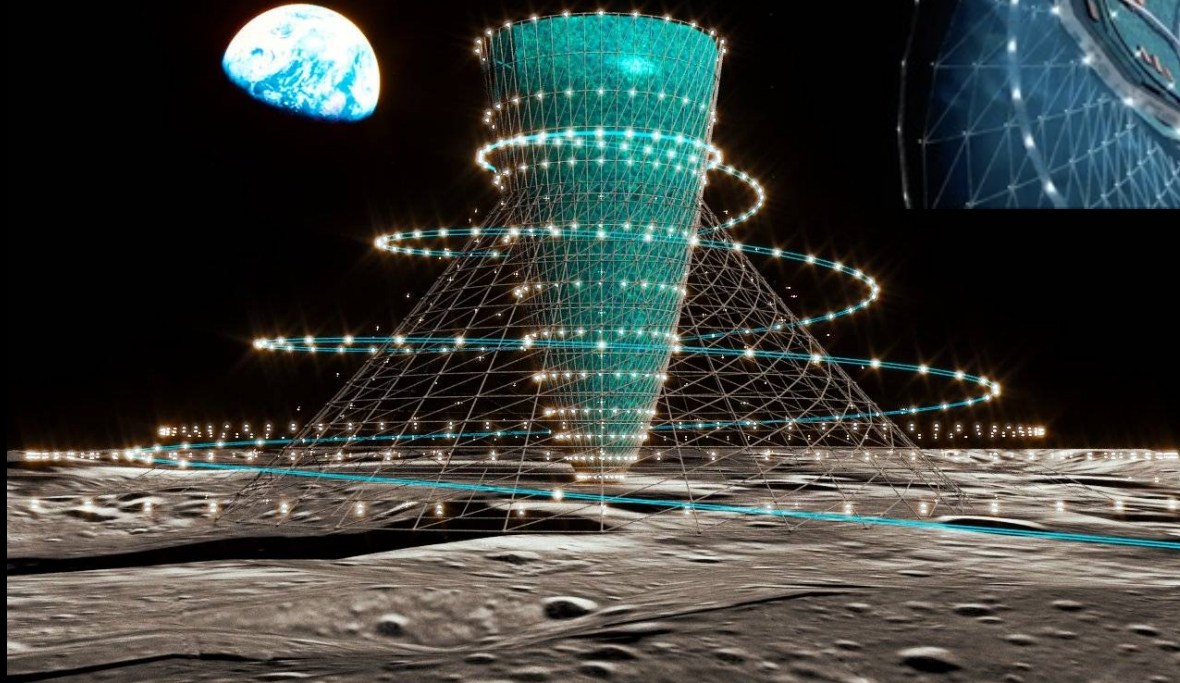


17

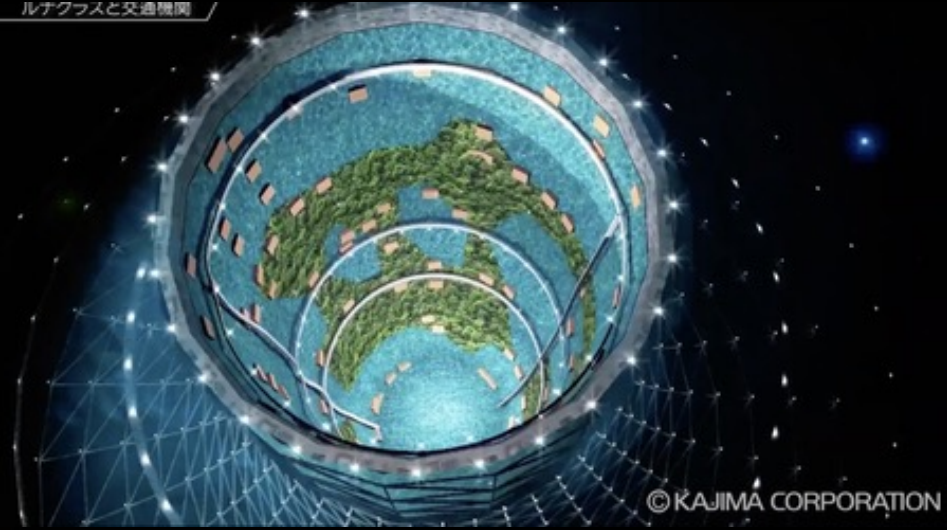
S-Booster 2023
Final Round



Proposal of Artificial Gravity



ルナクラスと交通機関



© KAJIMA CORPORATION

©Kajima Corp.
and University of Kyoto

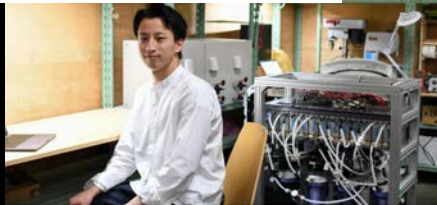


THE EARTHSHOT PRIZE



VINISHA UMASHANKAR

2021 FINALIST
India



WOTA BOX

2021 FINALIST
Japan



NOTPLA

2022 WINNER
United Kingdom



LOW CARBON MATERIALS

2022 FINALIST
United Kingdom



ENSO

2023 FINALIST
UK



COLORIFIX

2023 FINALIST
UK

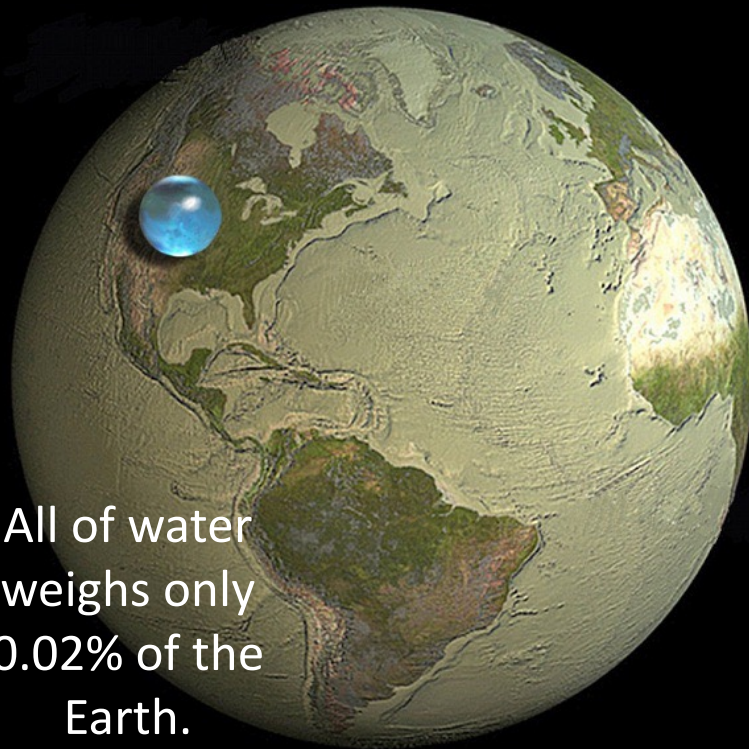


“Blue Marble”

from Earth Observation Satellite in 2012



(C) NASA/NOAA/GSFC/Suomi NPP/VIIRS/Norman Kuring



All of water
weighs only
0.02% of the
Earth.

© アメリカ地質調査所(USGS)

