

ΜΑΑΝΑ
ELECTRIC

ENABLING ENERGY INFRASTRUCTURE
FOR SUSTAINED SPACE EXPLORATION

Space For Inspiration 2024

MAANA IN A NUTSHELL

Experts in In Situ Resource Utilization & Power Generation Technologies

>€100M

Order book

>€18M

R&D Revenues

25

Employees

2018

Founding Year



PARTICIPATED IN 15+ SPACE R&D PROJECTS

OUR MASTERPLAN

STEP 1



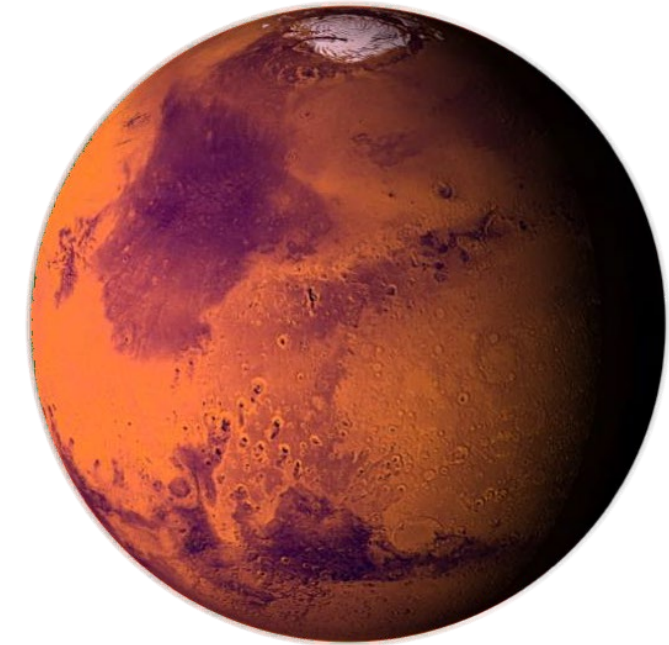
**ENABLING THE GREEN
TRANSITION**

STEP 2



**PROVIDE CHEAP ENERGY
ON THE MOON**

STEP 3



**BECOMING THE UTILITY
COMPANY OF THE SOLAR
SYSTEM**

COMPANY PHILOSOPHY

“2 birds, 1stone” approach



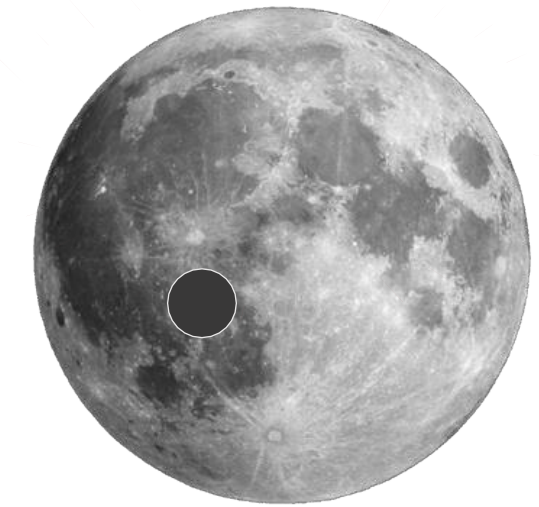
BECOMING A SPACE FARING CIVILIZATION

Many hurdles exist in making Humanity a Space Faring civilization

HURDLE 1:
Launch



HURDLE 2:
Power



HURDLE 3:
Living off the land

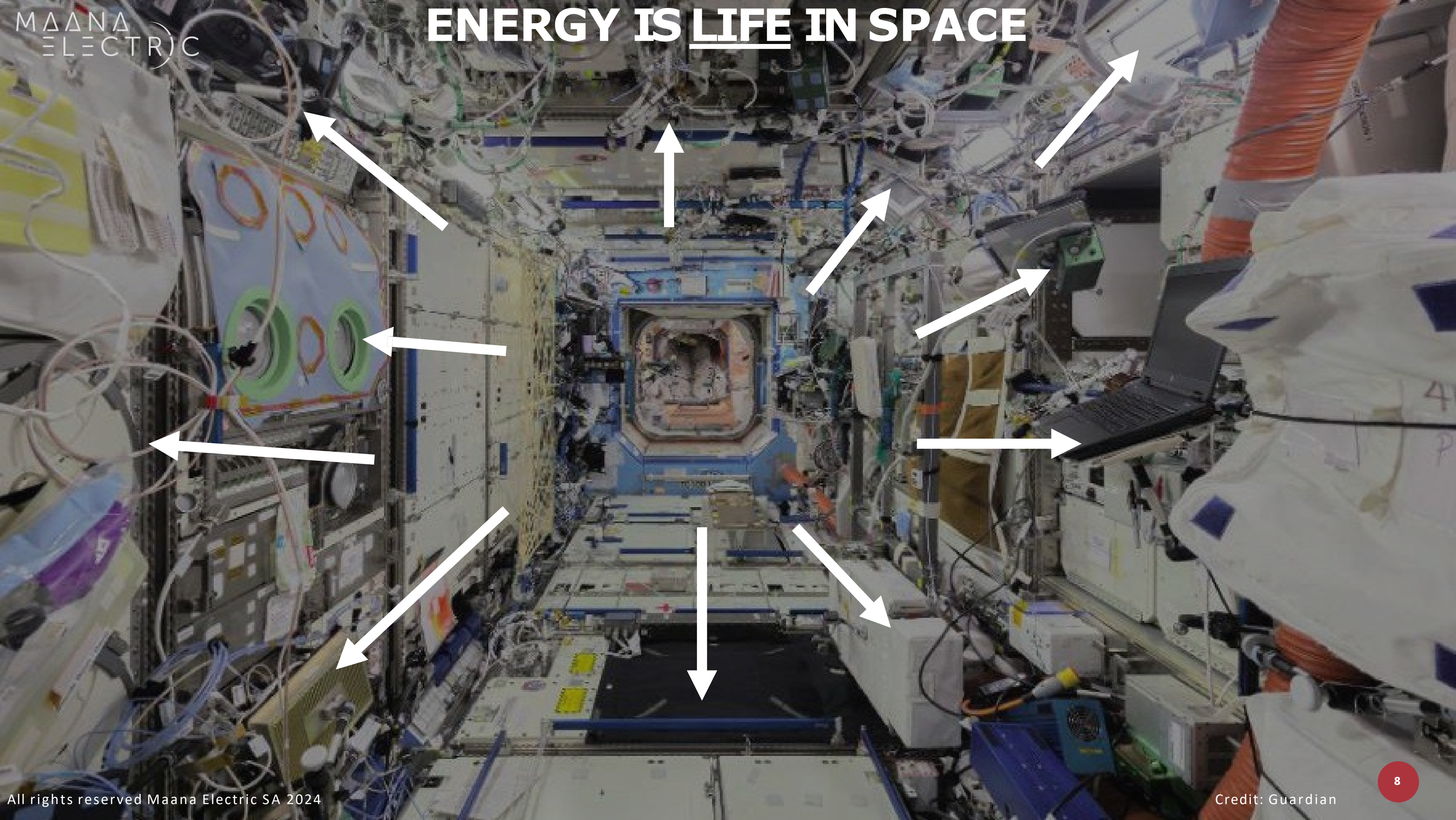
THE "LAUNCH REVOLUTION"

Dec 21, 2015: first time Falcon 9 successfully Landed



THE NEXT HURDLE: POWER

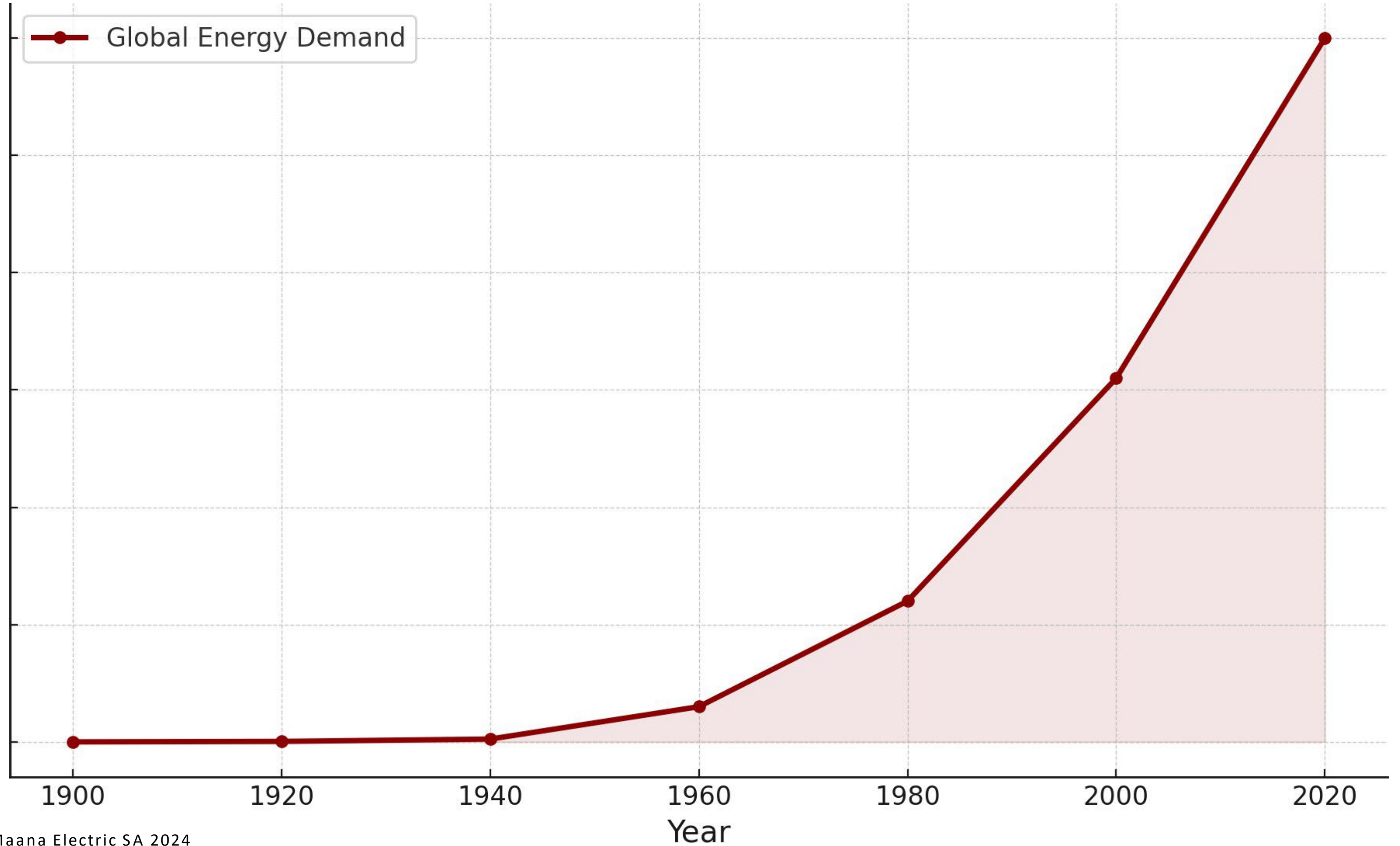
ENERGY IS LIFE IN SPACE



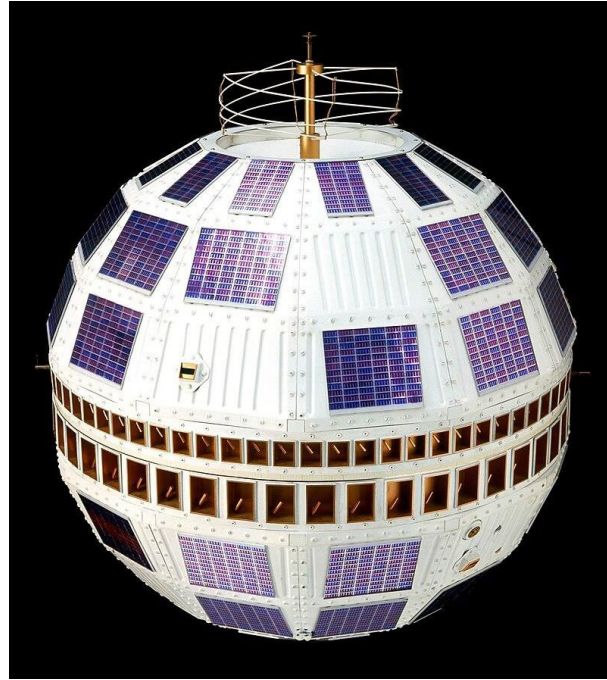
Power demand increases by orders of magnitude when **LIVING OFF THE LAND**



ENERGY DEMAND ON EARTH



SAME HAPPENING IN SPACE



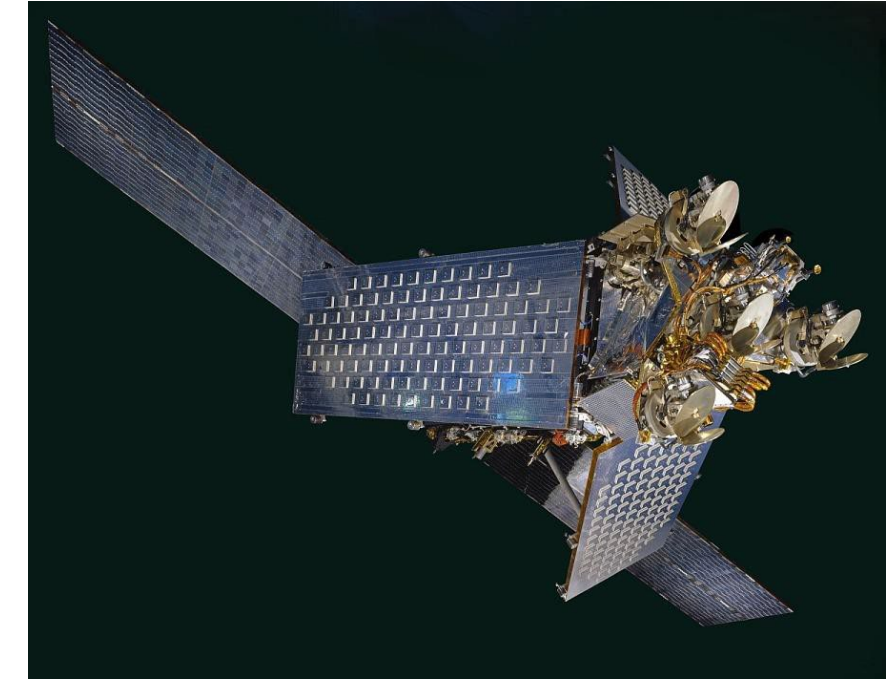
TELSTAR 1 (1962)



ATS 6 (1974)



TDRS (1983)



IRIDIUM (1991)



ISS (2024)

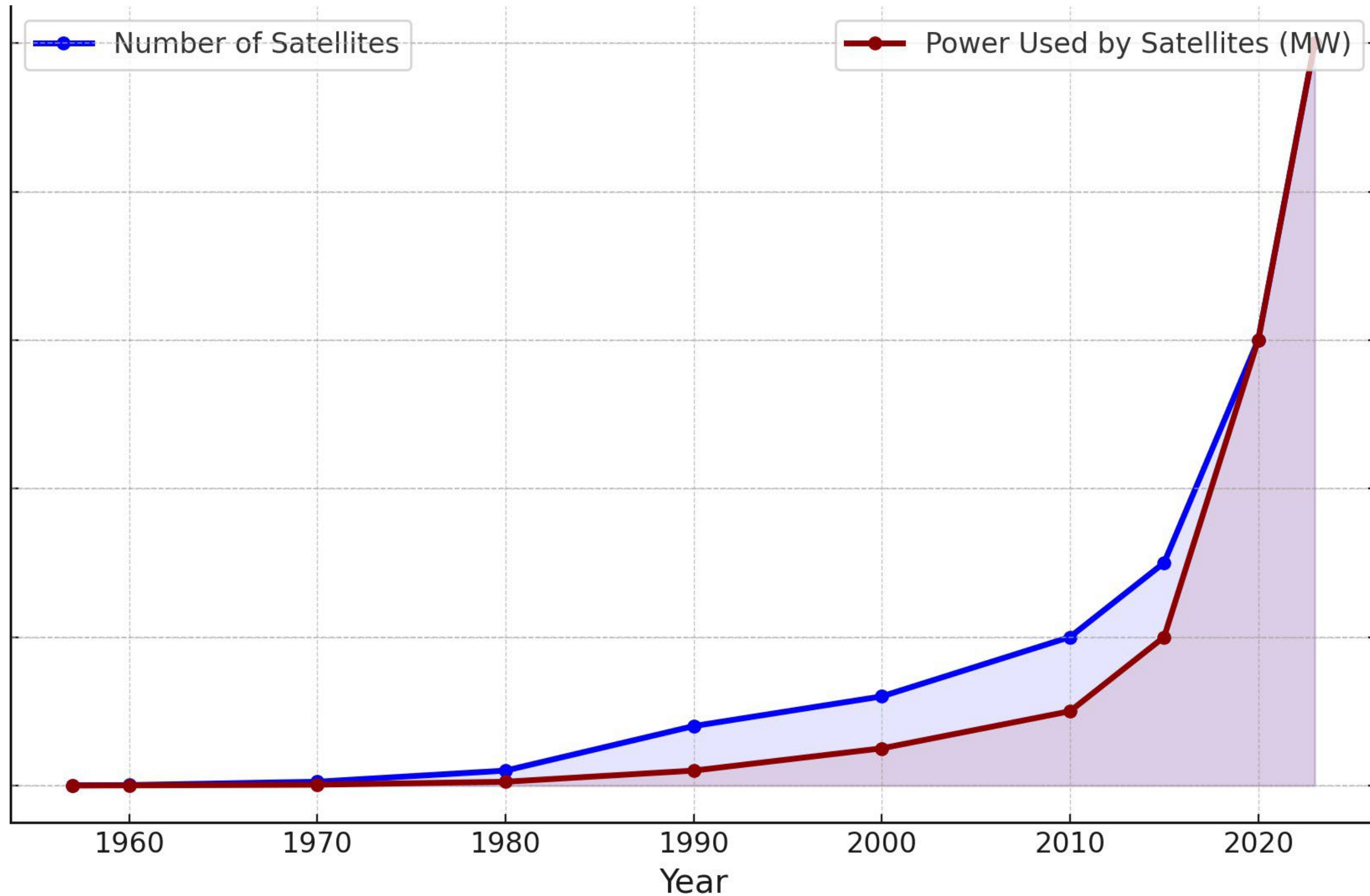


ASTRA 3B (2010)

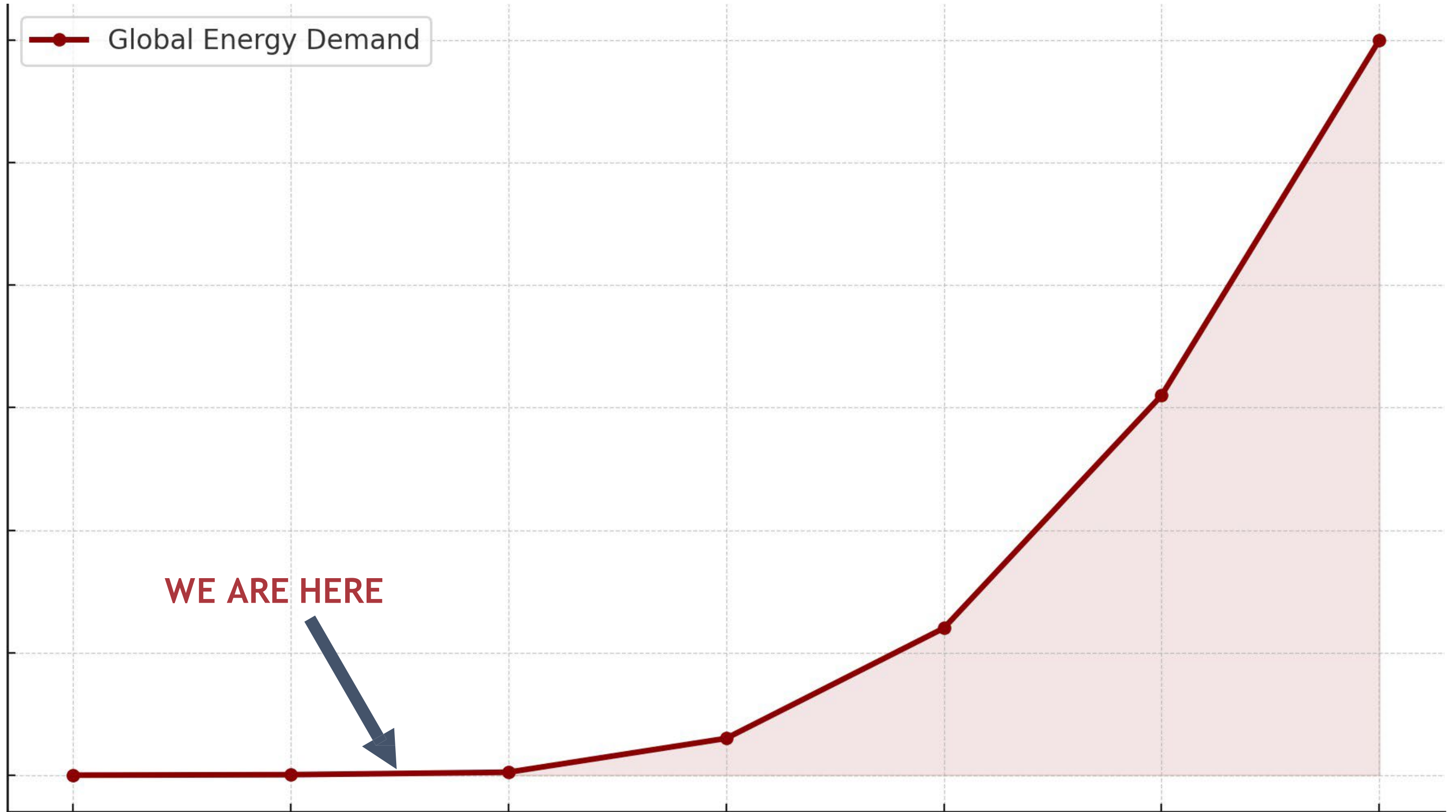


ISS (2000)

ENERGY DEMAND IN SPACE

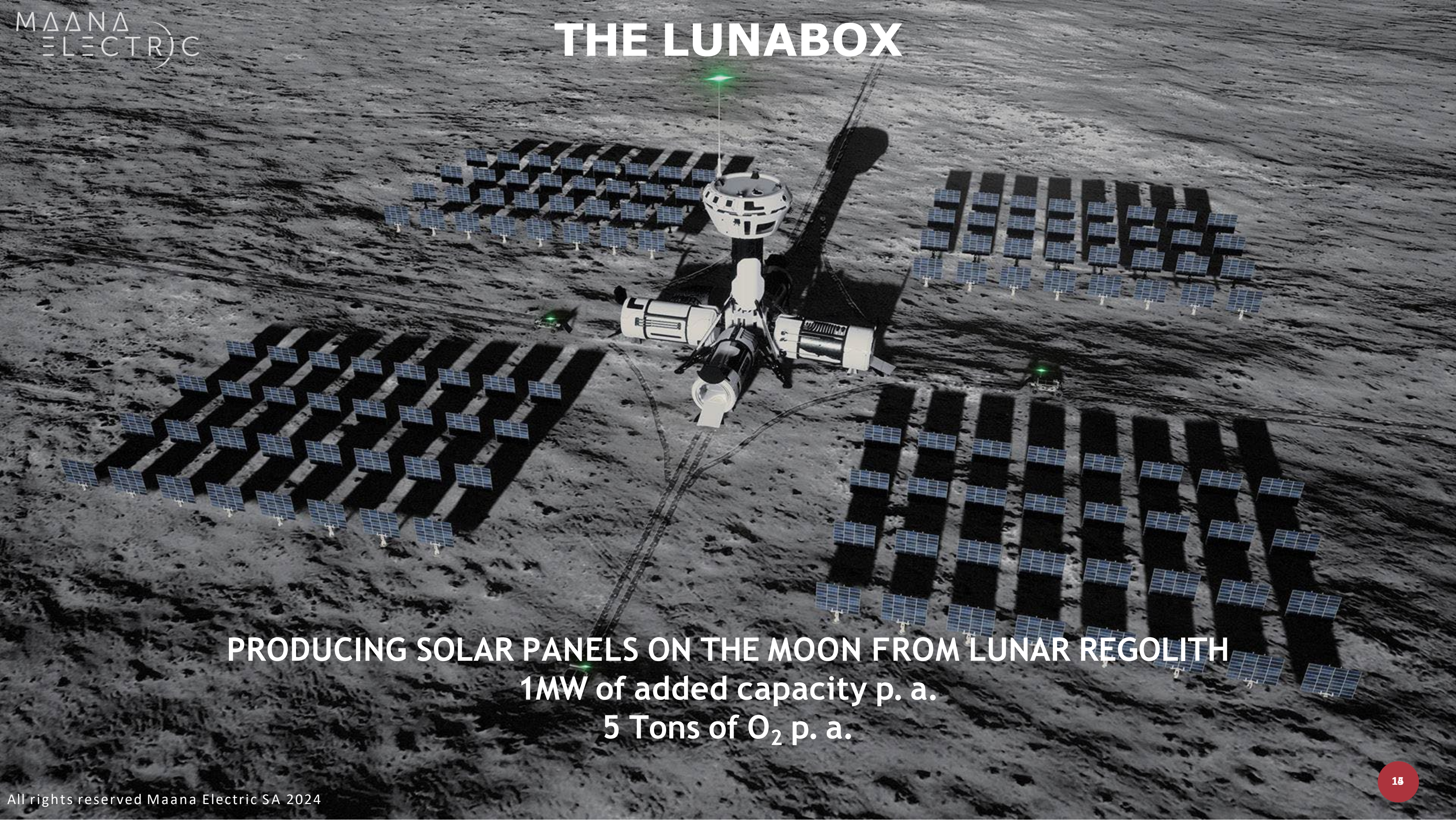


ENERGY IN SPACE IS AT ITS INFANCY



**TO BECOME A SPACE FARING CIVILIZATION
HUMANITY WILL NEED ACCESS TO
TWhs OF ENERGY**

THE LUNABOX



PRODUCING SOLAR PANELS ON THE MOON FROM LUNAR REGOLITH
1MW of added capacity p. a.
5 Tons of O₂ p. a.

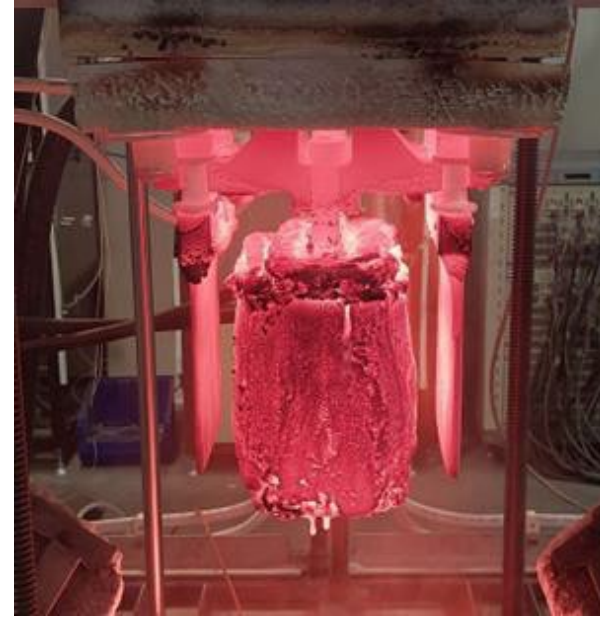
THE "POWER REVOLUTION"

2024: first fully ISRU solar panel

INNOVATIONS ON:



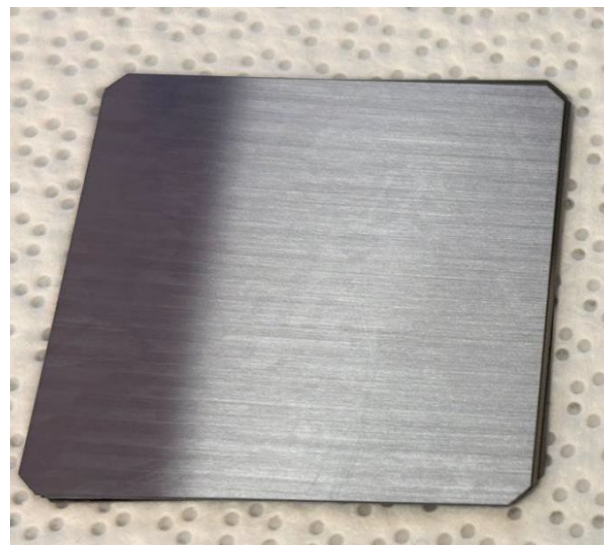
BENEFICIATION



**METAL
EXTRACTION**



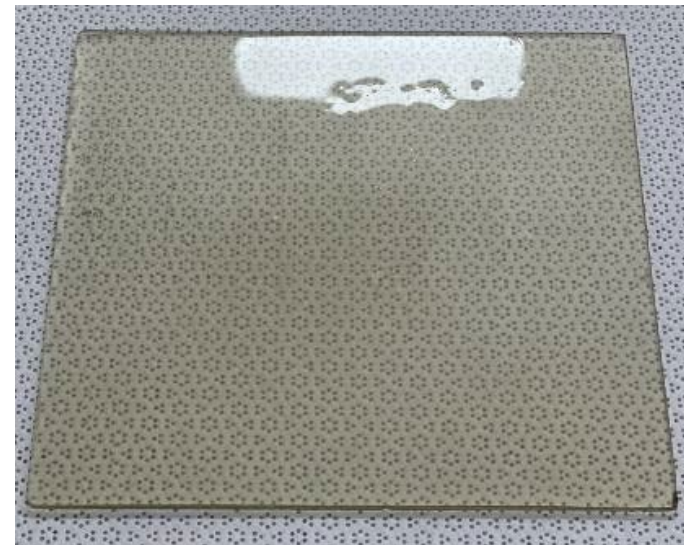
**METAL
PURIFICATION**



WAFERING



**SOLAR CELL
FABRICATION**



**GLASS
MANUFACTURING**



SOURCE

First technology demonstration mission on the Moon



REGOLITH

ELECTRICITY

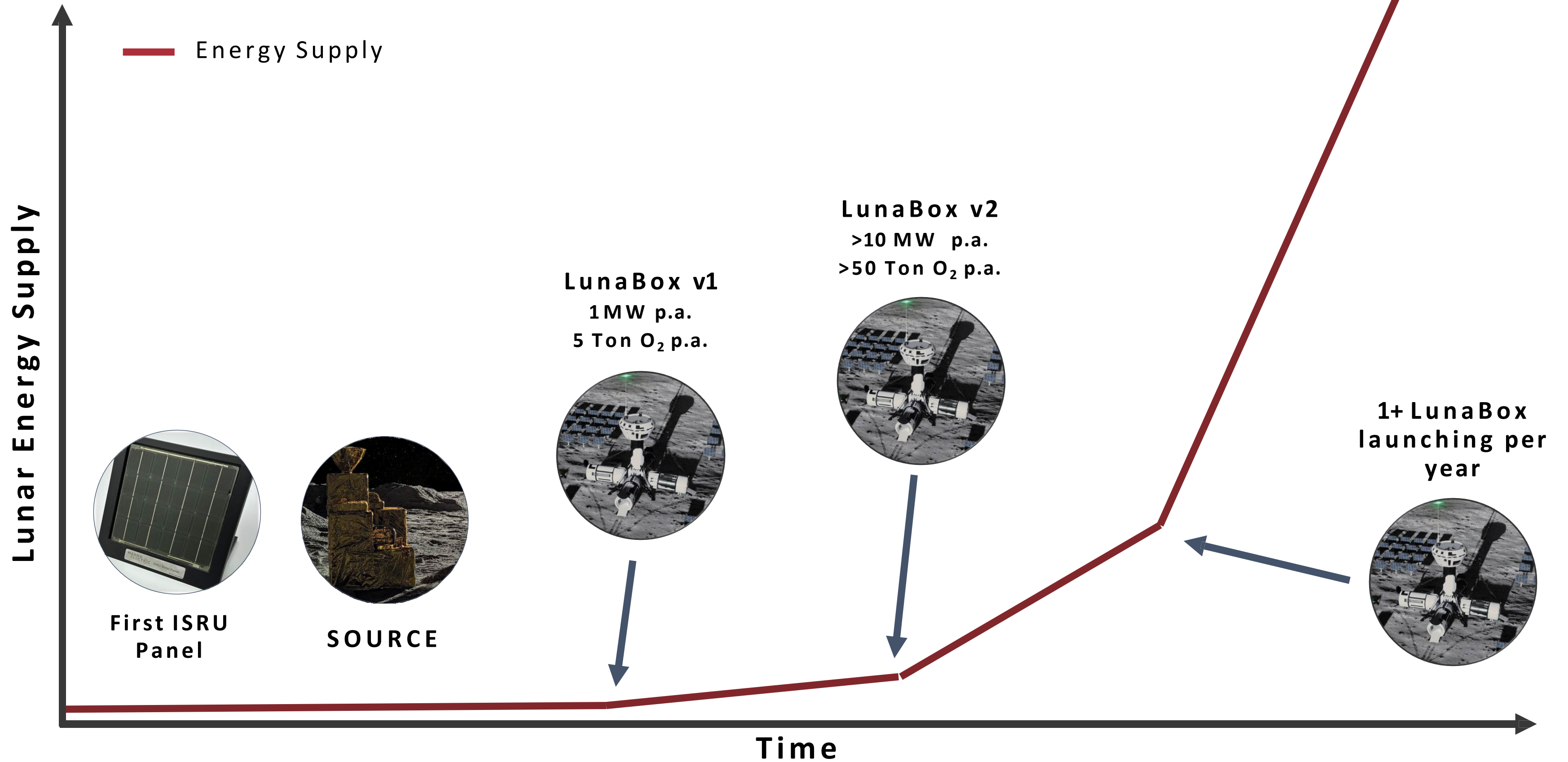


SILICON



OXYGEN

ROADMAP



Powering Human Ambition

Making electricity as accessible on the Moon as it is on Earth

PRICES STARTING AT:

€40

per kWh

€2000

per kg of O₂

**PLUG AND PLAY SOLUTION
OFFERED THROUGH POWER PURCHASE AGREEMENTS (PPA)**

THANK YOU

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