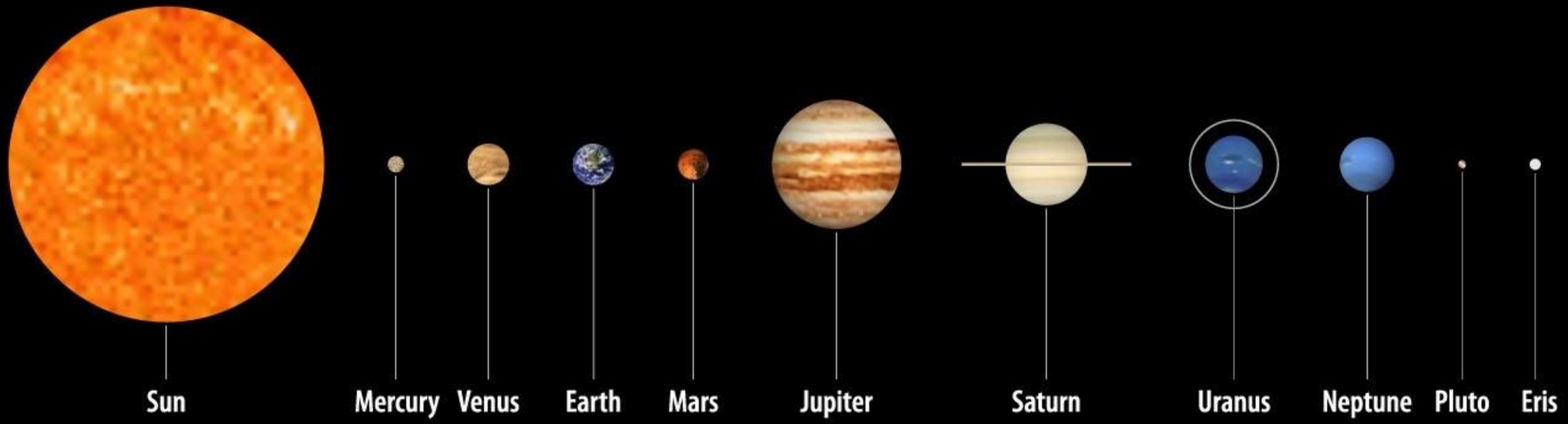
What awaits us in the space industry in the near future?

Plan

1. **The insane idea of Elon Musk**
2. **Breakthrough Starshot**


Why Mars?


Sun
Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Pluto
Eris

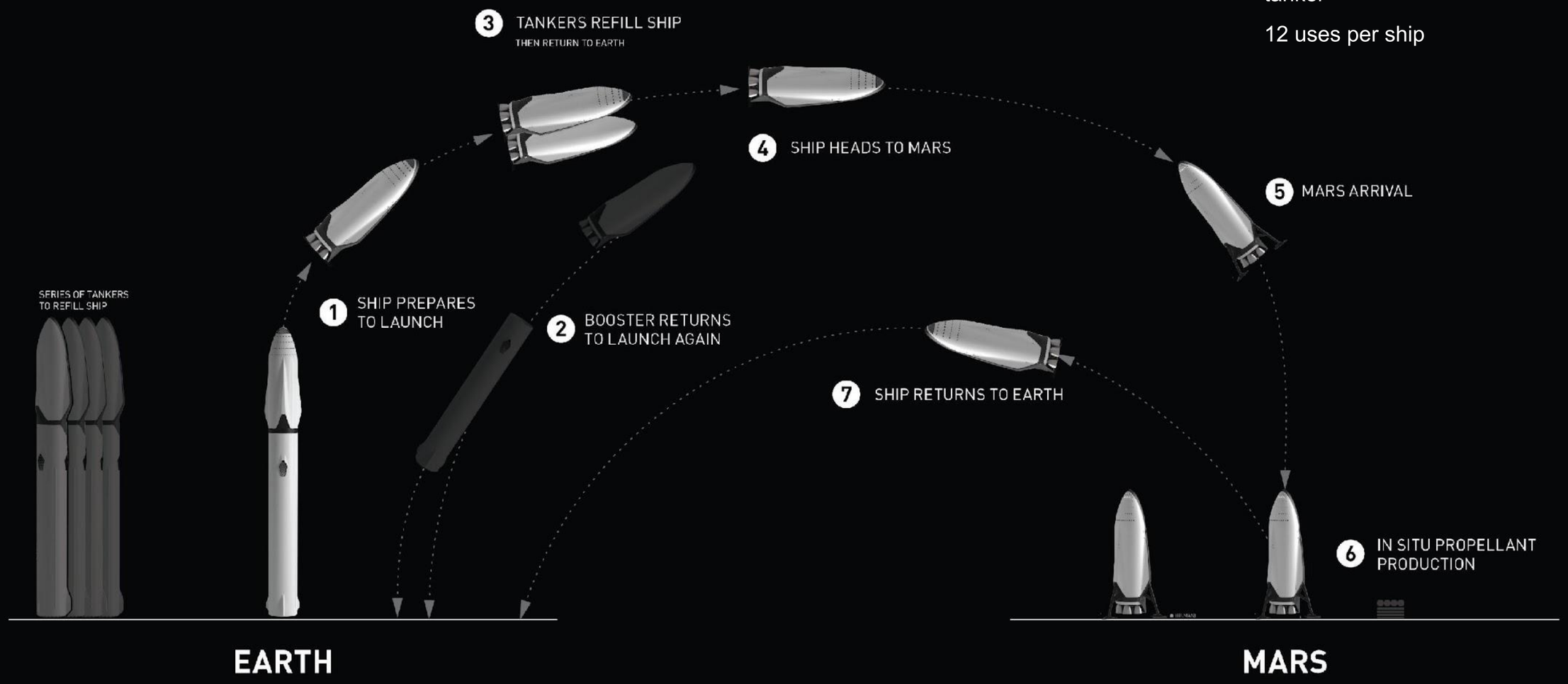
	EARTH	MARS
DIAMETER	12,756 km / 7,926 mi	6,792 km / 4,220 mi
AVERAGE DISTANCE FROM SUN	150,000,000 km / 93,000,000 mi	229,000,000 km / 142,000,000 mi
TEMPERATURE RANGE	-88C TO 58C / -126F TO 138F	-140C TO 30C / -285F TO 88F
ATMOSPHERIC COMPOSITION	78% N_2, 21% O_2, 1% OTHER	96% CO_2, <2% Ar, <2% N_2, <1% Other
FORCE OF GRAVITY (WEIGHT)	100 LBS ON EARTH	38 lbs ON MARS (62.5% LESS GRAVITY)
DAY LENGTH	24 hrs	24 hrs 40 min
LAND MASS	148.9 MILLION km^2	144.8 MILLION km^2 (97% OF EARTH)
PEOPLE	7 BILLION	0

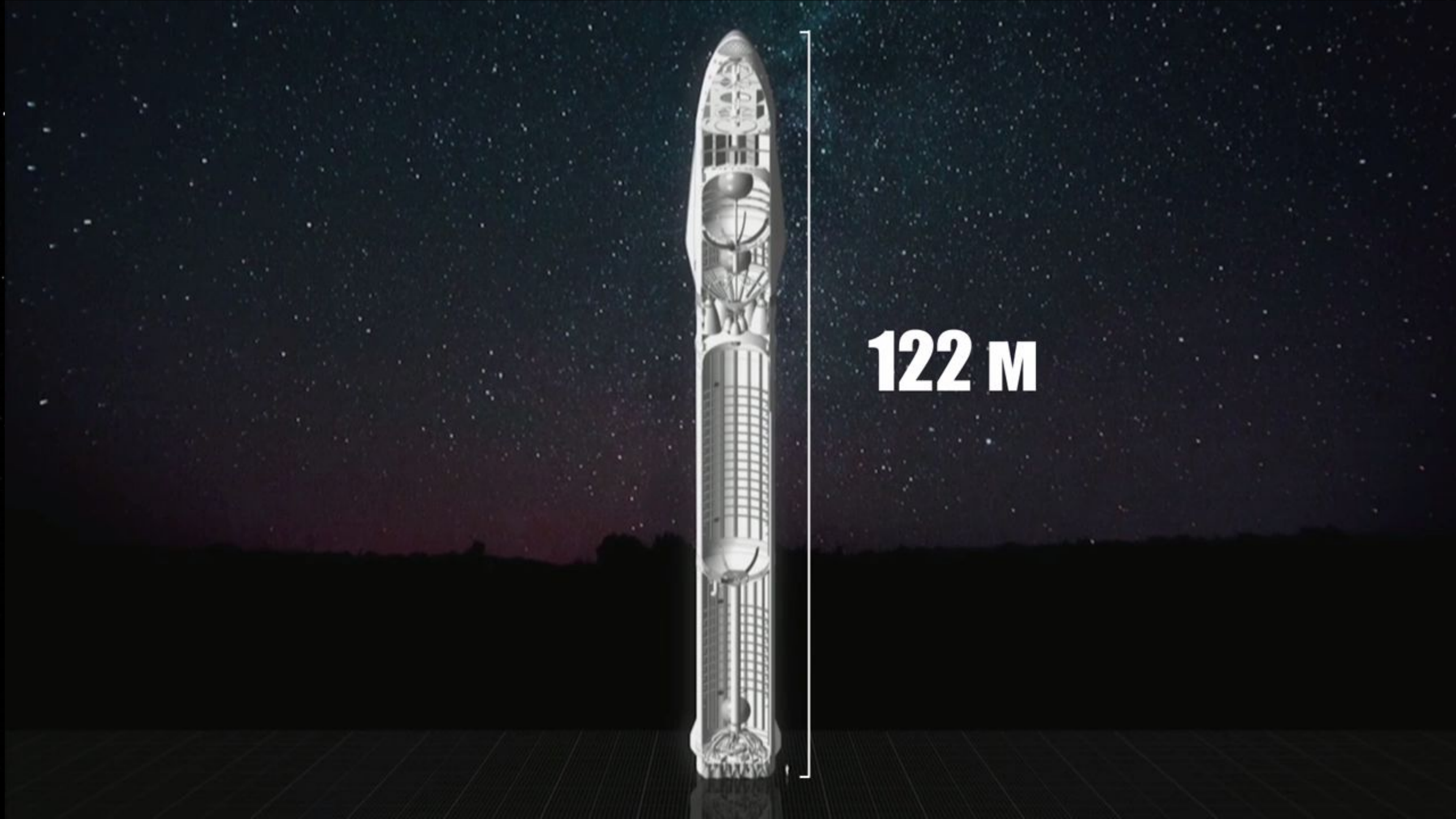
SYSTEM ARCHITECTURE

TARGETED REUSE PER VEHICLE

1,000 uses per booster 100 per tanker

12 uses per ship




122 м

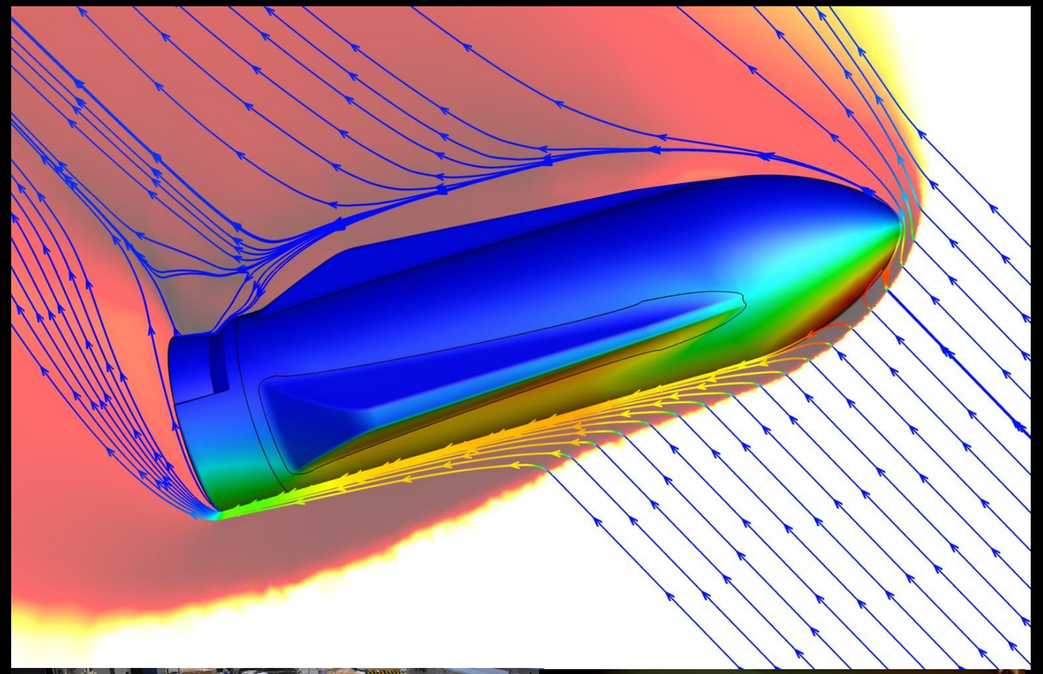
	$C_{12}H_{22.4}/O_2$ KEROSENE	H_2/O_2 HYDROGEN/OXYGEN	CH_4/O_2 DEEP-CRYO METHALOX
VEHICLE SIZE	●	●	●
~~COST OF PROP~~	●	●	●
~~REUSABILITY~~	●	●	●
~~MARS PROPELLANT PRODUCTION~~	✕	●	●
PROPELLANT TRANSFER	●	●	●

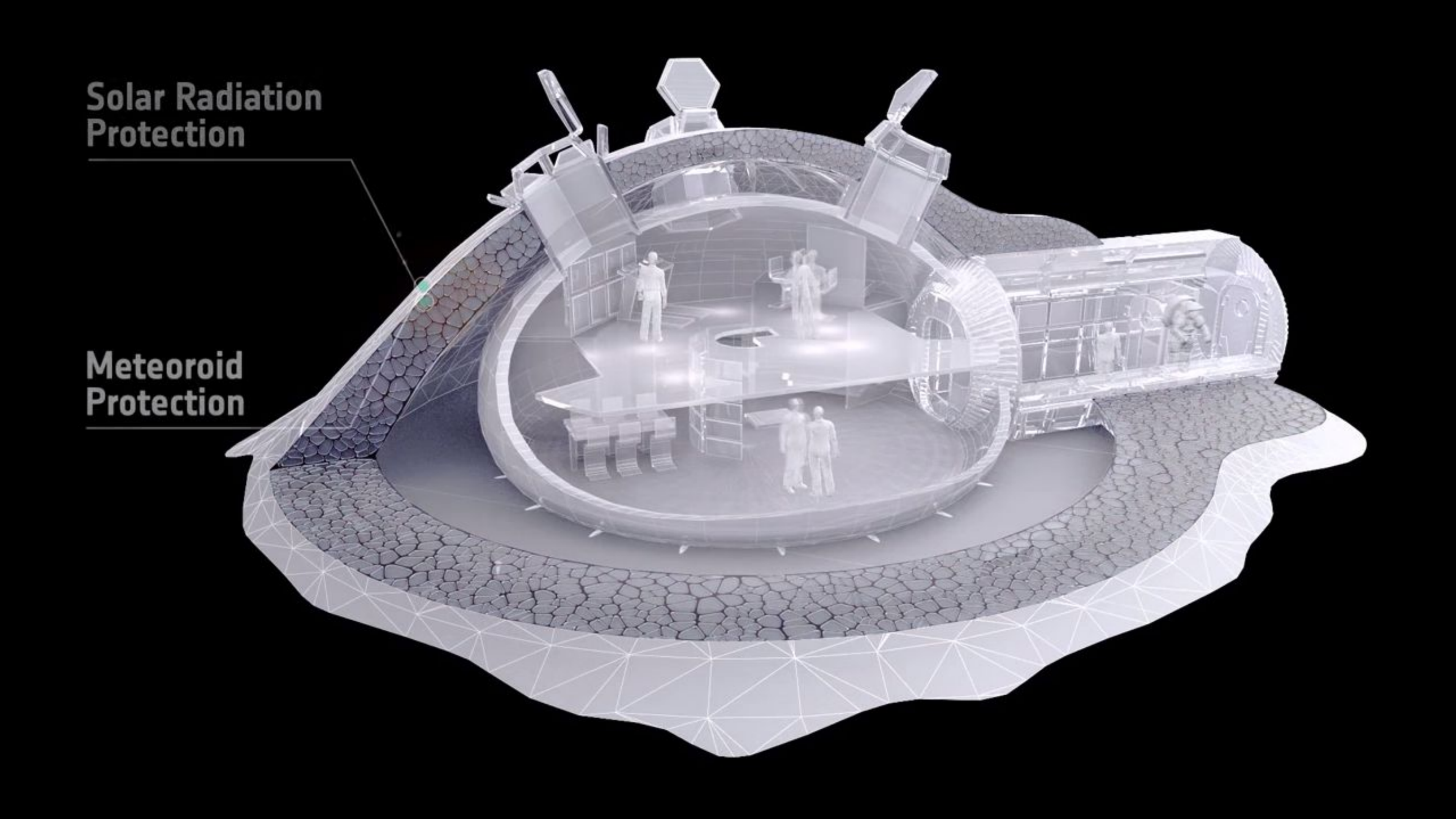
●
● GOO
● D OK
✕ BAD
VERY BAD

ARRIVAL

From interplanetary space, the ship enters the atmosphere, either capturing into orbit or proceeding directly to landing

Aerodynamic forces provide the majority of the deceleration, then 3 center Raptor engines perform the final landing burn




Solar Radiation Protection
Meteoroid Protection

ЗЕМЛЯ

МАРС

Твоя часть презентации

Thank you for attention!