





 MELAGEN LABS

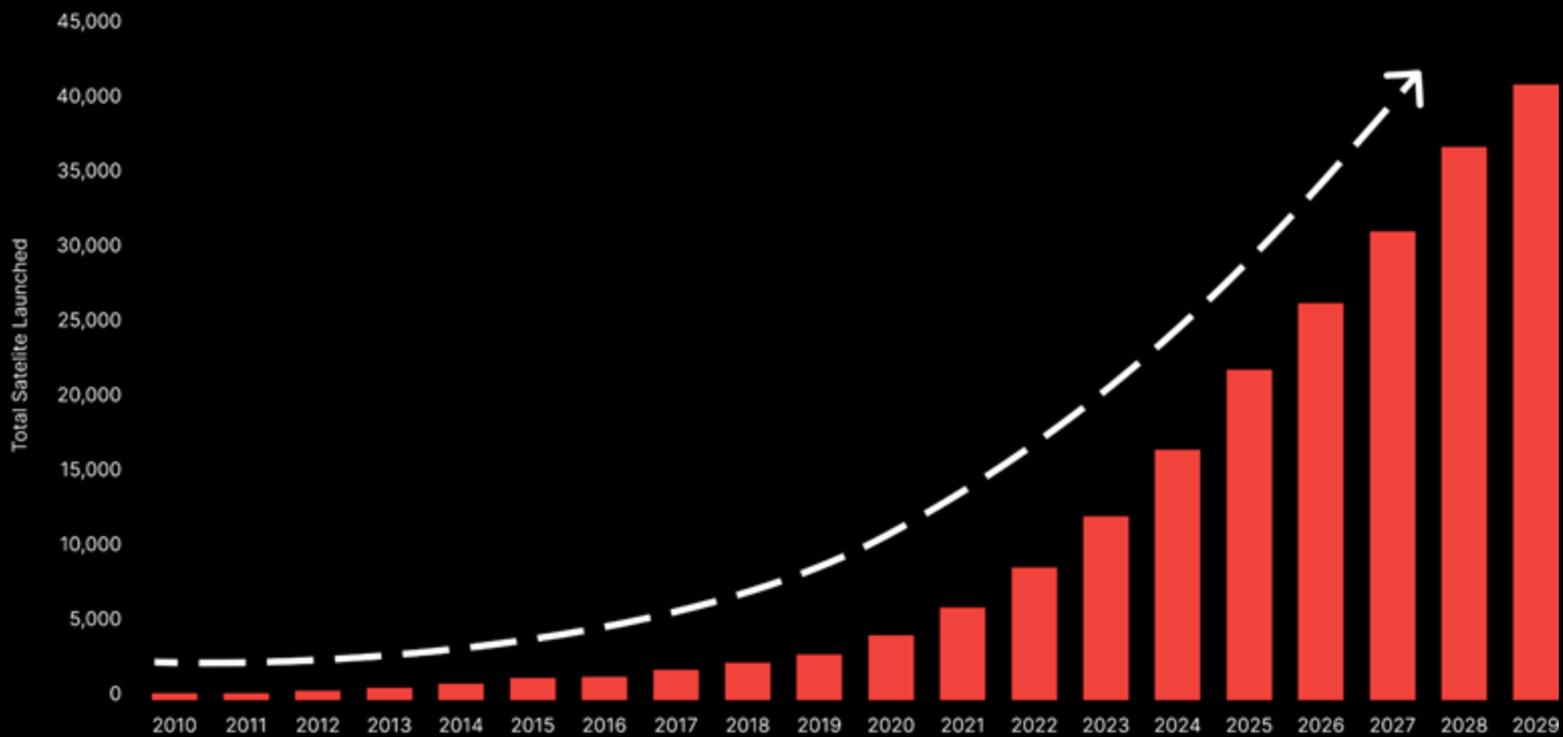
The main logo is centered in the image. It features the same stylized 'X' icon as the smaller version, followed by the text 'MELAGEN LABS'. 'MELAGEN' is written in white, and 'LABS' is written in red. The background is a high-angle view of Earth from space, showing city lights at night and a bright horizon line.



*Today*

**12,000+**  
Satellites

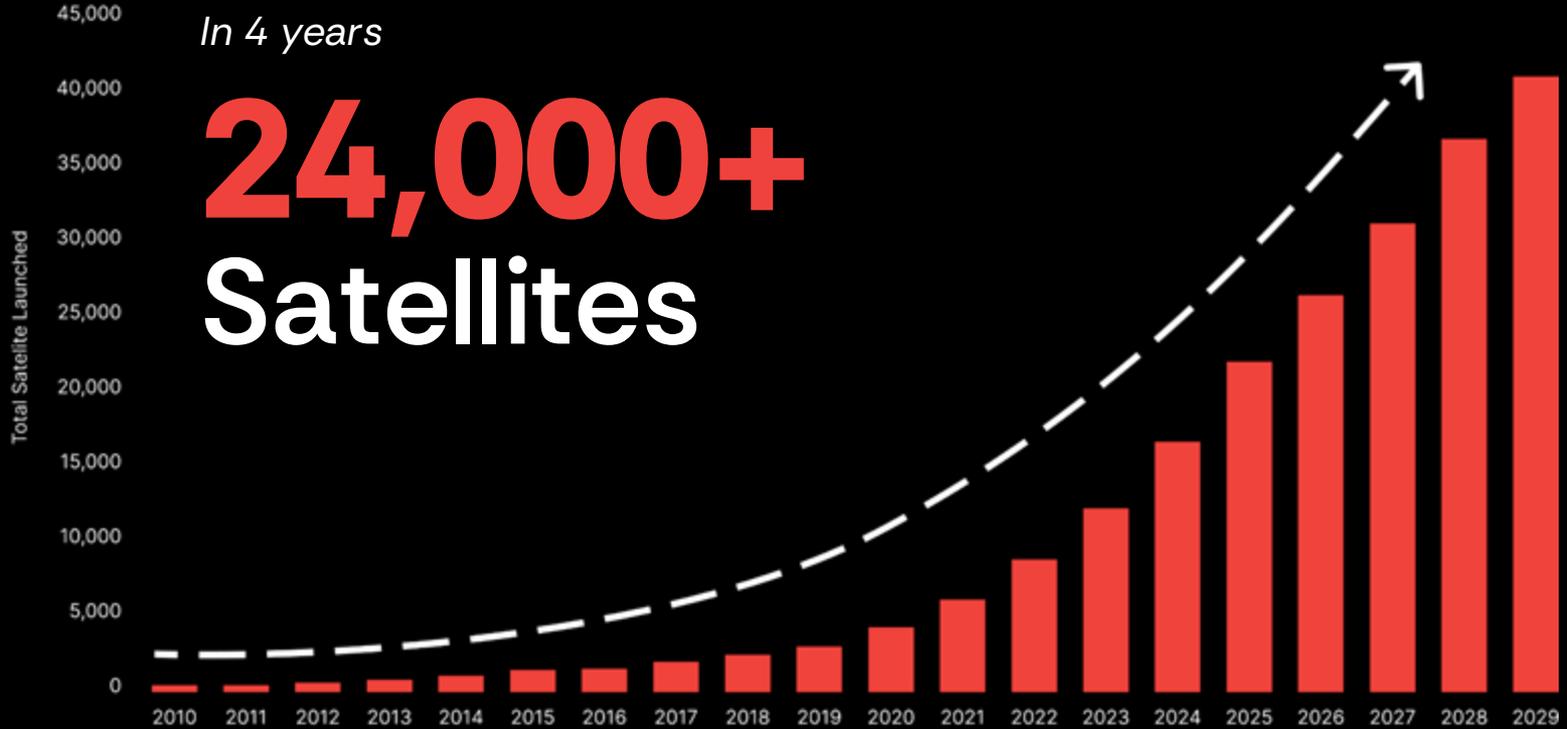






*In 4 years*

**24,000+**  
**Satellites**





**30+**

Space Tourism  
Companies



**100+**

**Space Explorers**



REUTERS

**Data centres in space?  
Jeff Bezos says it's possible**

Oct. 4

TheVerge

**Google has a 'moonshot' plan  
for AI data centers in space**

Nov. 4

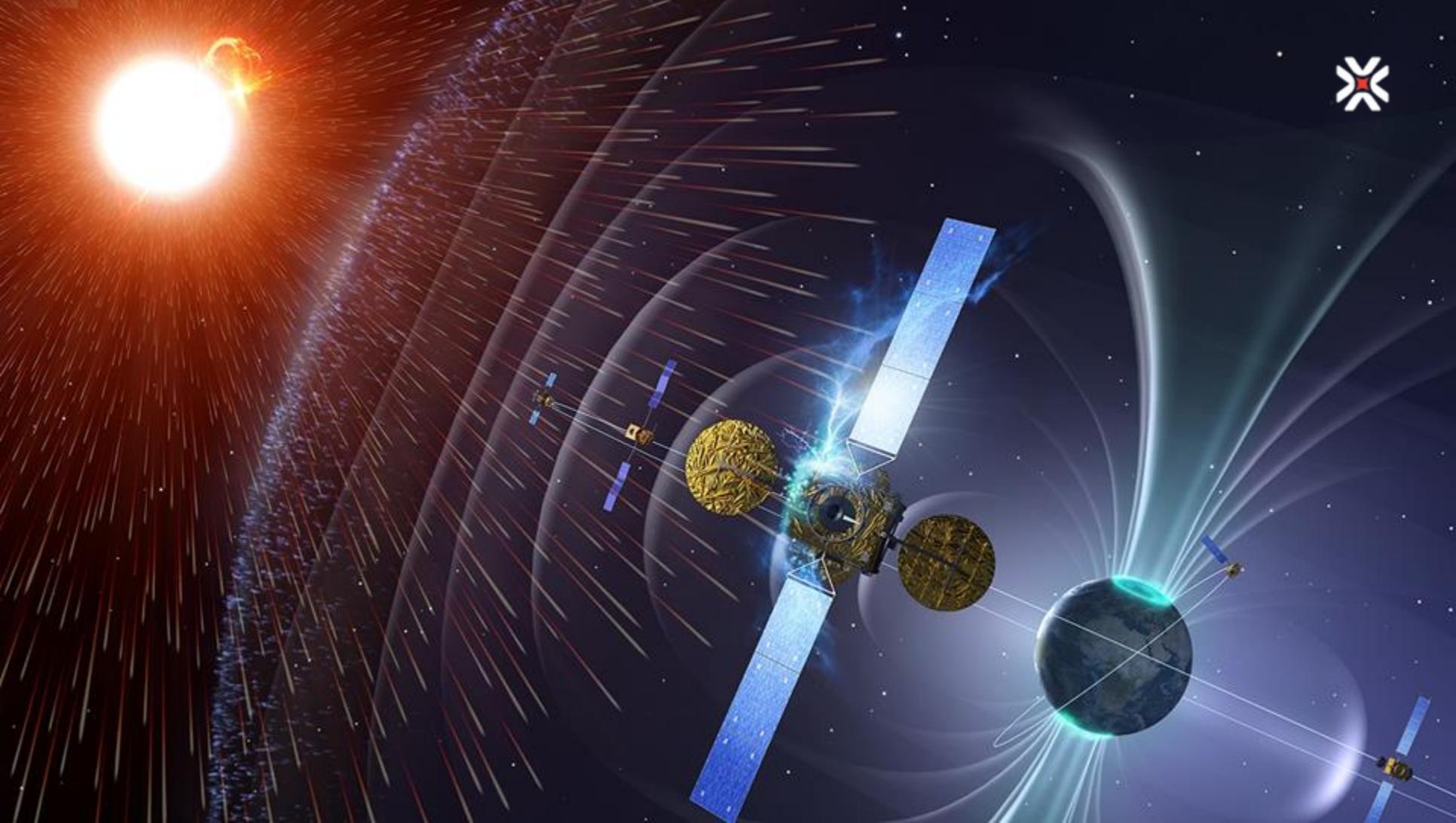
ars technica

**Elon Musk on data centers in  
orbit: "SpaceX will be doing this"**

Nov. 4

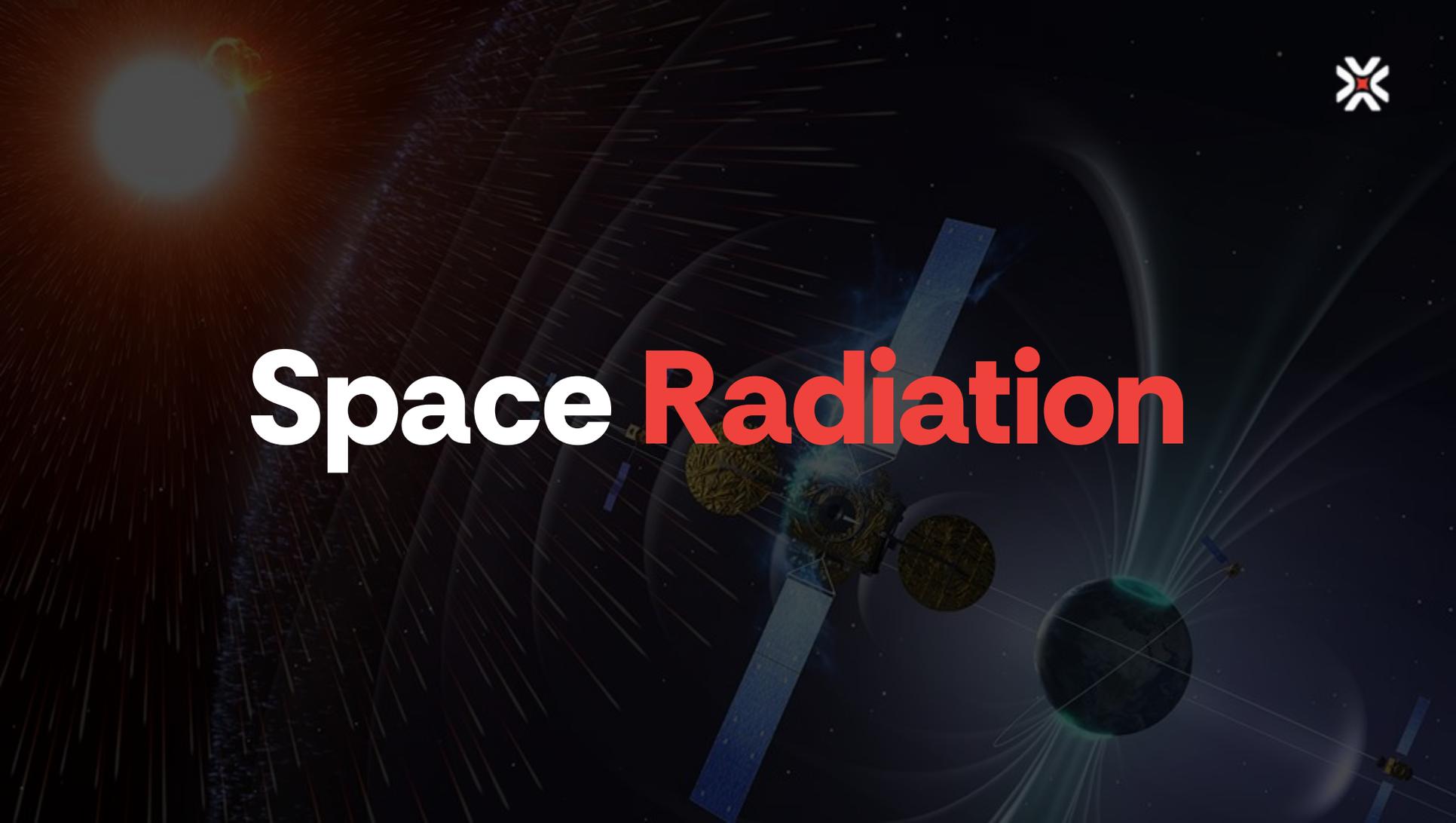


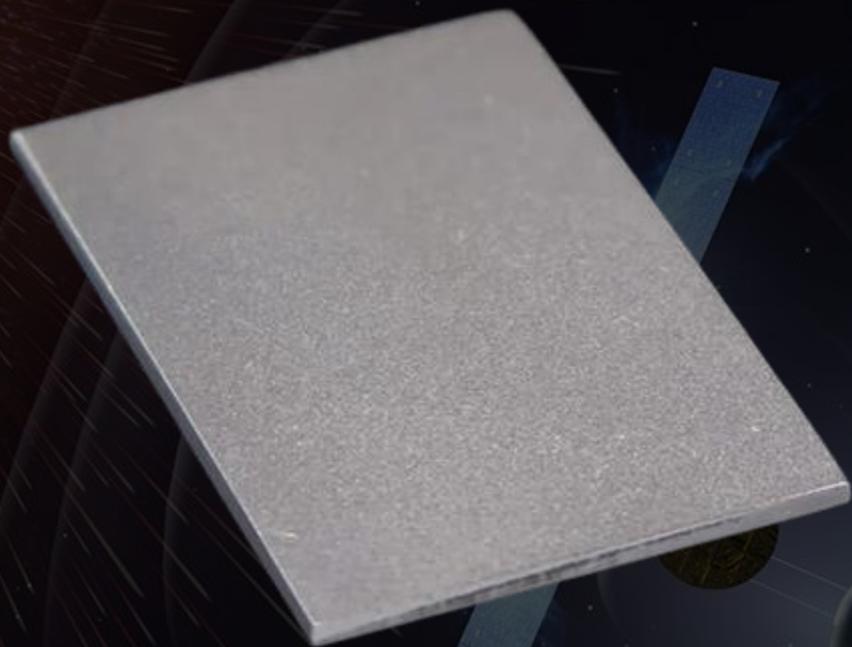






# Space Radiation







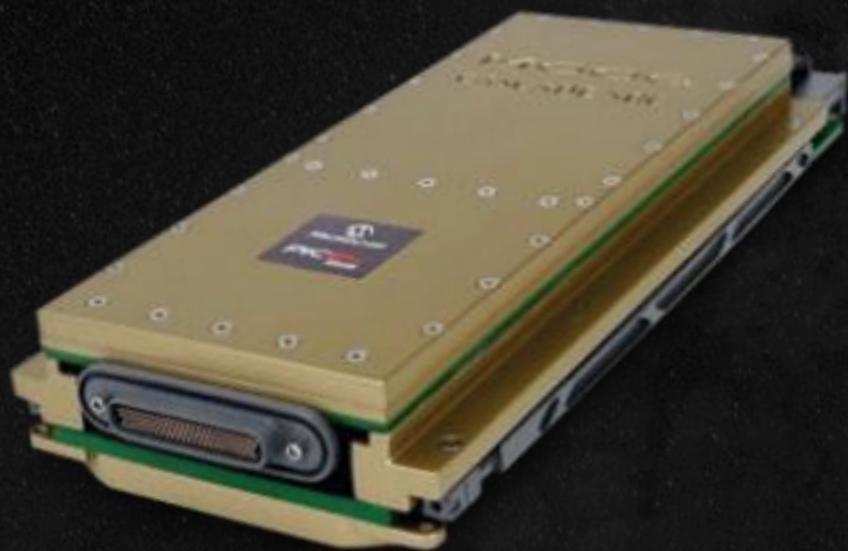
**38%**  
Satellite  
Failures





**38%**  
Satellite  
Failures

**1 - 2**  
Years COTS  
Lifetime





**38%**  
Satellite  
Failures

**1 - 2**  
Years COTS  
Lifetime



**Risk of  
Cancer**







 **MELAGEN LABS**

The main logo is centered in the image. It consists of a stylized 'X' icon with a red center, followed by the text 'MELAGEN' in white and 'LABS' in red. The background is a dark space scene with a view of the Earth's horizon and a bright light source on the left.



Revolutionizing  
**Radiation Shielding**



Introducing

***MLC1***





**FREEDOM**



# GPUs





**GPUs**

**TPUs**



**GPUs**

**TPUs**

**Sensors**

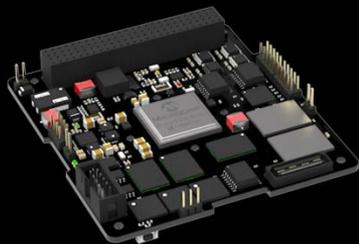


**GPUs**

**TPUs**

**Sensors**

**OBCs**





**7 yrs**

Extending  
Lifespan



**7 yrs** — **3x**

Extending  
Lifespan

Lighter  
Mass



**7 yrs**

Extending  
Lifespan



**3x**

Lighter  
Mass



**3x**

Increase in  
Effectiveness



Before





Before



Aging Hardware  
Heavy Component  
1 TFLOP  
\$100k+



Before



Aging Hardware  
Heavy Component  
1 TFLOP  
\$100k+

Now



Modern Hardware  
**50% Lighter**  
**16 TFLOPs**  
**60% Cost Savings**



**16x Compute Increase**



# Modern Hardware & Software Stacks

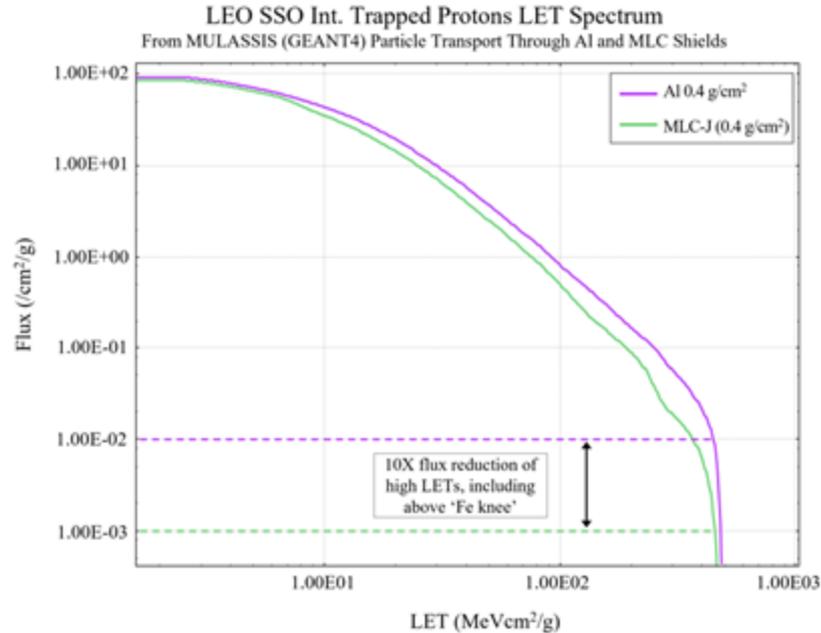


**Reduce Cost by 60%+**





# 10x fewer Bit-Flips that cause failures





# **Compliant with NASA's Outgassing Standard**



“I see the vision, recognizing the depth of capabilities that this pursuit enables from both a capability and an **efficiency factor---game changer!**”





"I see the vision, recognizing the depth of capabilities that this pursuit enables from both a capability and an **efficiency factor---game changer!**"

[Redacted]

"... I think it would be the **mass savings**. Mass is **such a pain...** and it sounds like this type of material would **provide us mass relief.**"

[Redacted]



"I see the vision, recognizing the depth of capabilities that this pursuit enables from both a capability and an **efficiency factor---game changer!**"

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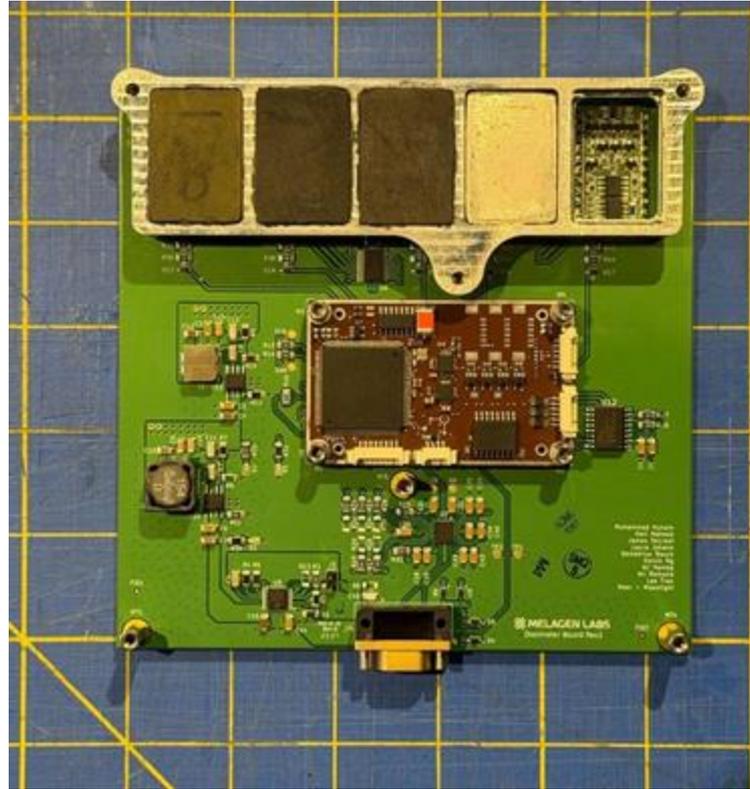
"This **product is promising on a radiation perspective**. I might even have an application in mind. Would like to go into detail in depth."

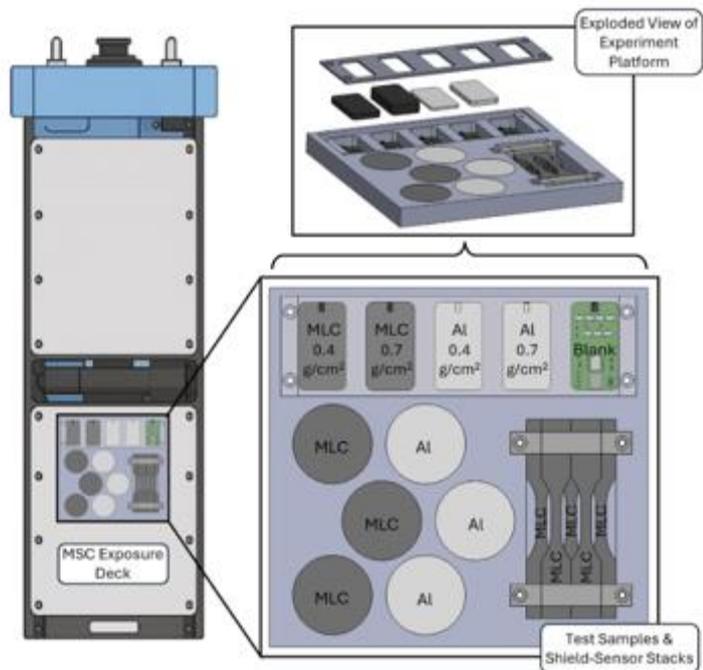
[Redacted]



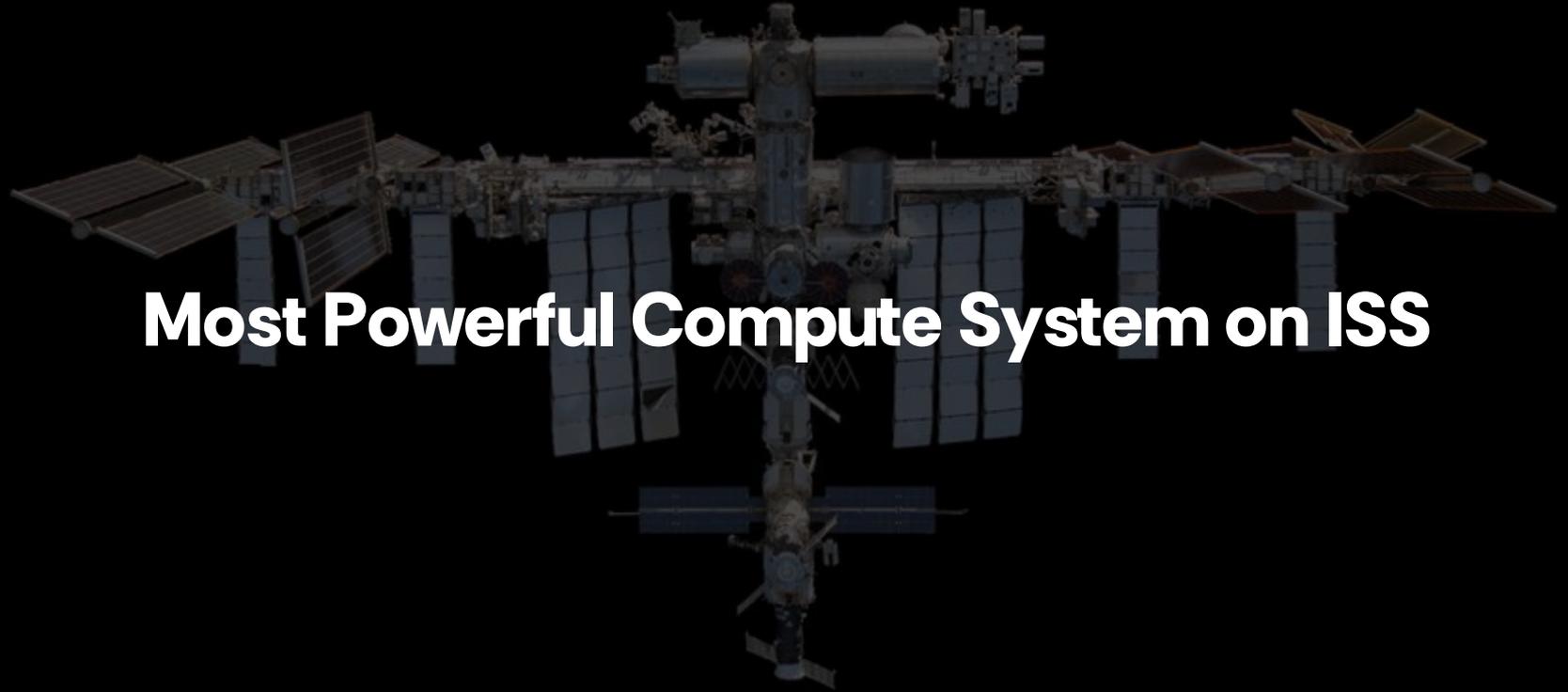
Space-proofing MLC1

# Multiple Orbits & Use Cases









# Most Powerful Compute System on ISS



**Radiation  
Shielding  
Ecosystem**



# Radiation Shielding Ecosystem

**Monitoring &  
Analytics**

**Radiation Testing**

**Shielding Materials**

**Shielding Design**

**Simulation &  
Modeling**



# Radiation Shielding Ecosystem





## Radiation Shielding Ecosystem

<b>Monitoring &amp; Analytics</b>
<b>Radiation Testing</b>
<b>Shielding Materials</b>
<b>Shielding Design</b>
<b>Simulation &amp; Modeling</b>

<b>Melagen Weather Services</b>
<b>Melagen Testing Facility</b>
<b>MLC1 &amp; more</b>
<b>Melagen Design Services</b>
<b>Melagen Simulation &amp; Model SaaS</b>

## Melagen's Full-Stack Offering



**The First Full-Stack  
Radiation Shielding Platform  
for Modern Space Companies**



**Space is the Next Economic Frontier**



**\$10B**

**Space**



**\$10B**

**\$15B**

**Space**



**\$10B**

**Space**

**\$15B**

**Nuclear  
Medical  
Defense**



Now

next 5 yrs

**\$10B**

**\$15B**

**\$35B**

**Space**

**Nuclear  
Medical  
Defense**



Our TAM

**\$50B**

**Space  
Nuclear  
Medical  
Defense**



**Started in *May 2024***







Our customers need a modern full-stack radiation shielding platform and that's why we're gaining *incredible momentum.*

**\$500k+**

*In Contracts from  
5 paid pilots*



Our customers need a modern full-stack radiation shielding platform and that's why we're gaining *incredible momentum.*

**\$500k+** — **\$20M+**

*In Contracts from  
5 paid pilots*

*LOIs/MOUs*



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*LOIs/MOUs*



**\$5M+**

*Projected contracts for  
2026*



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**\$500k+**

*In Contracts from  
5 paid pilots*



**\$20M+**

*LOIs/MOUs*



**\$5M+**

*Projected contracts for  
2026*



**\$1M+**

*Raised to date*



Industry leaders have joined the team to drive the next fundamental  
**paradigm shift to drive the space economy forward.**



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## Muhammad Hunain

*Founder & CEO - Full time*

- Immigrated to the U.S. at 14 with no English
- Elected NYC District Student Rep & Gov President by 17
- Led 16 PhDs & engineers on a Mars rover mission concept at NASA L'SPACE
- Future: Become an astronaut and protect all future space missions



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## Dr. James Secrest

*CTO - Full time*



## Hari Mahesh

*Business Development - Full time*





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**Andrew Shapiro**

*Startup Advisor*



**Laura Johann**

*Radiation Effects Engineer*



**Dr. James Secrest**

*CTO - Full time*



**Hari Mahesh**

*Business Development - Full time*



**Simon Lancaster**

*IP & Manufacturing Advisor*





