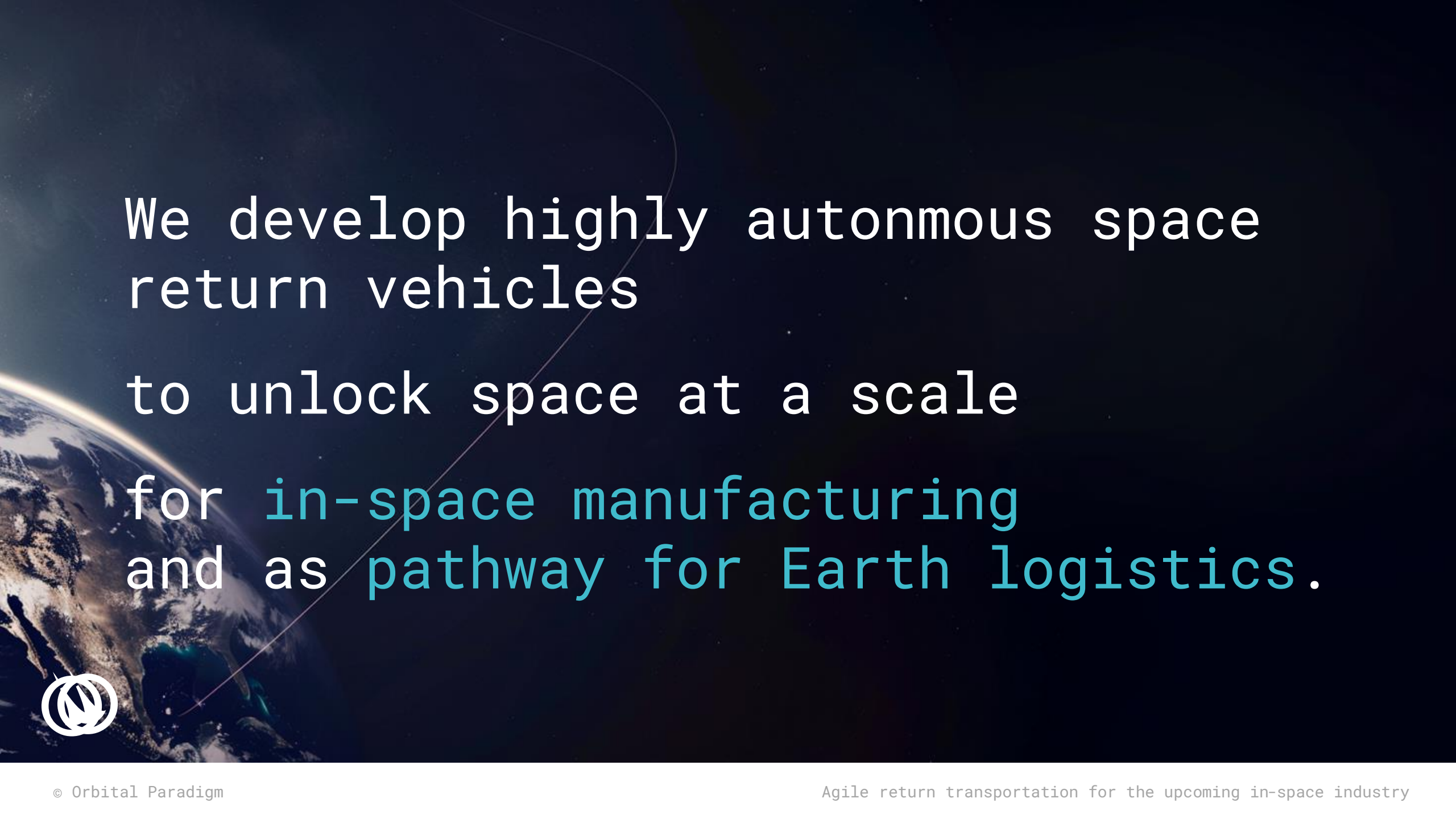




ORBITAL PARADIGM

Agile return transportation
for the in-space industry

francesco@orbitalparadigm.space



We develop highly autonomous space
return vehicles
to unlock space at a scale
for in-space manufacturing
and as pathway for Earth logistics.



ORBITAL PARADIGM

Born

October 23



Raised

1.3MEUR

Pre-Seed

Demium.

id⁴ ventures



Public&private

ESA Projects

Oct '24

ASTRA

FLPP

InSPoC3



Nov '24

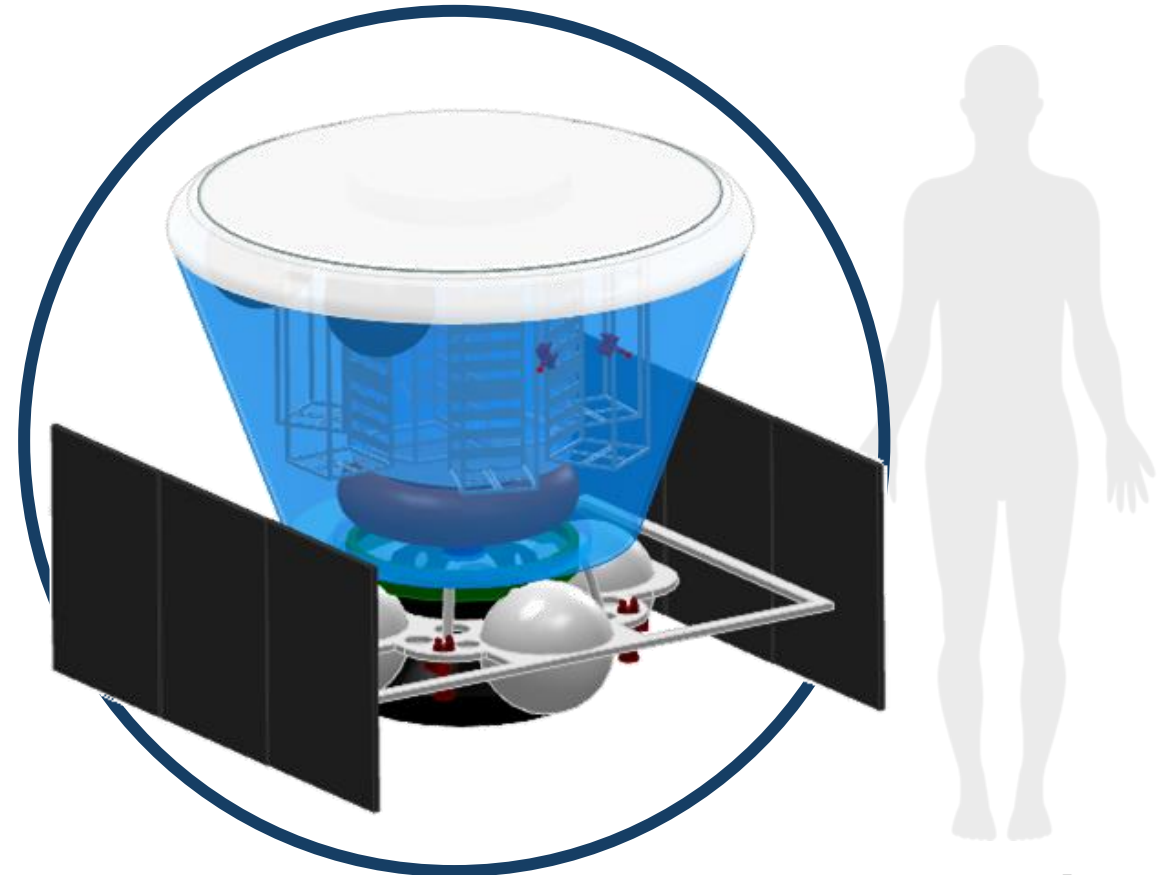
COSMIC

ESA BSGN



SW-centric high-autonomy reentry vehicles

- > Ensured low acceleration
 - 2x less wrt competition
- > Safe & accurate landing in mainland Europe
 - 10x accuracy wrt competition
- > Compact design

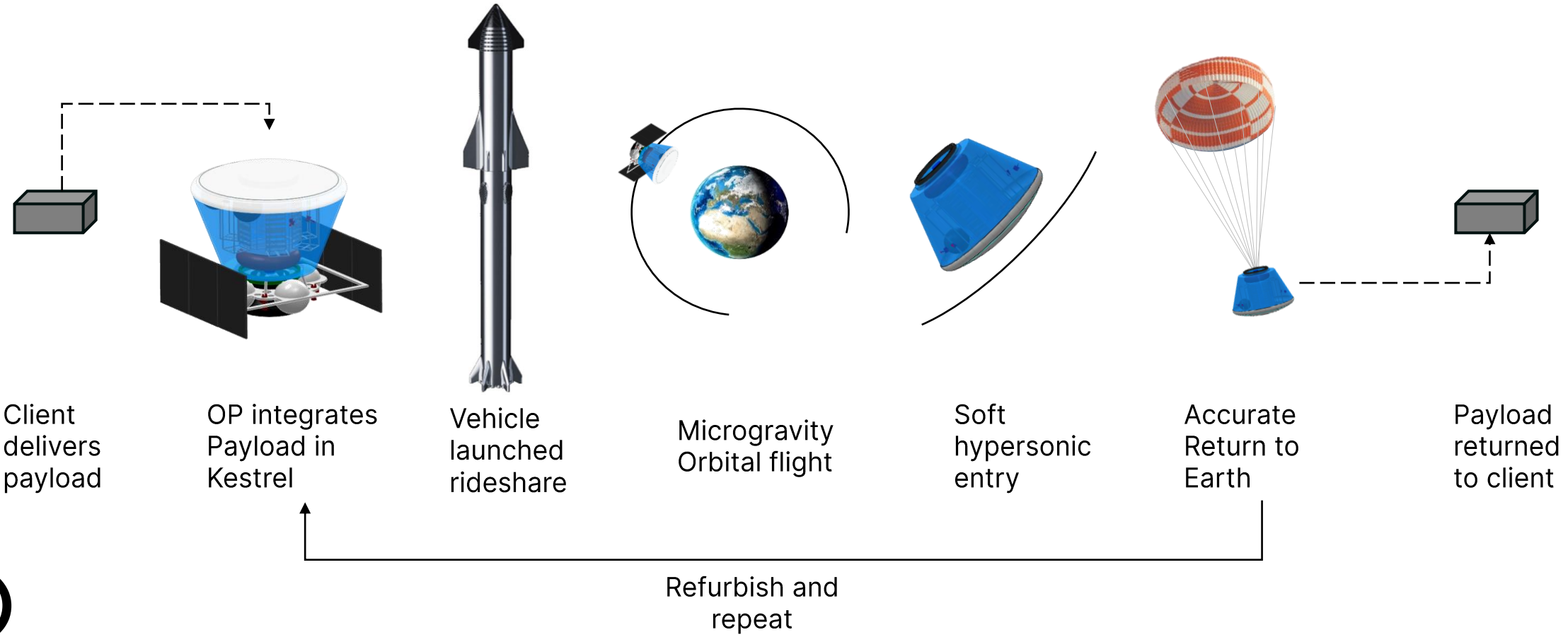


Up to 120 kg Payload

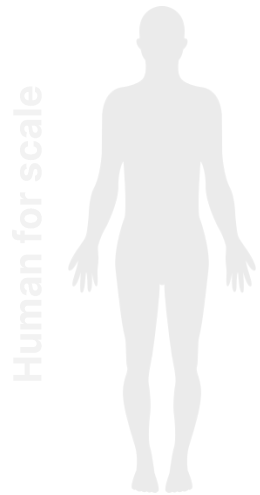
For scale



End-to-end high cadence for in-space manufacturing



Missions Roadmap



2025
20kg total
2kg payload
Ballistic
Unrecovered



2026
100kg total
20kg payload
Guided
80% pre-booked



2027-2030
350kg total
120kg payload
First operational version
Scale to monthly cadence

> **KID Launch to be confirmed soon**

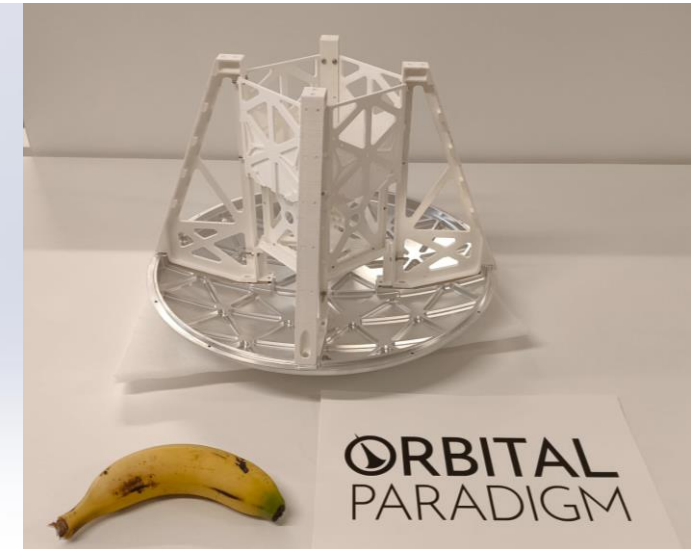
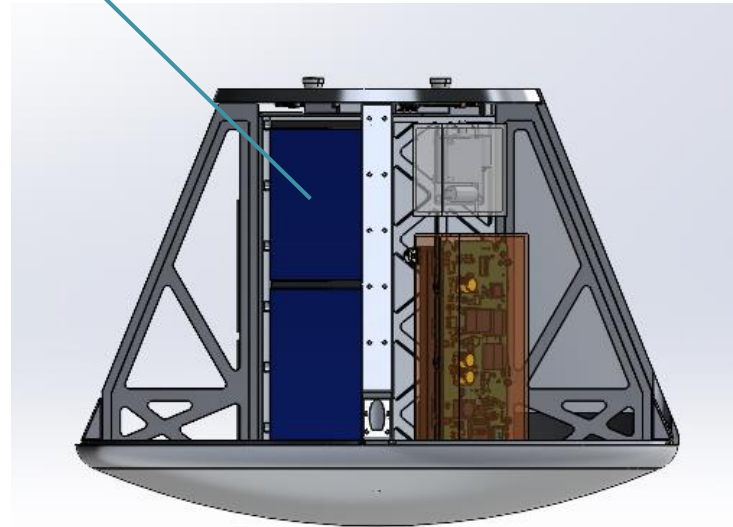
> **Agreement in place with launcher for Learn To Fly**



KID – Sept 2025

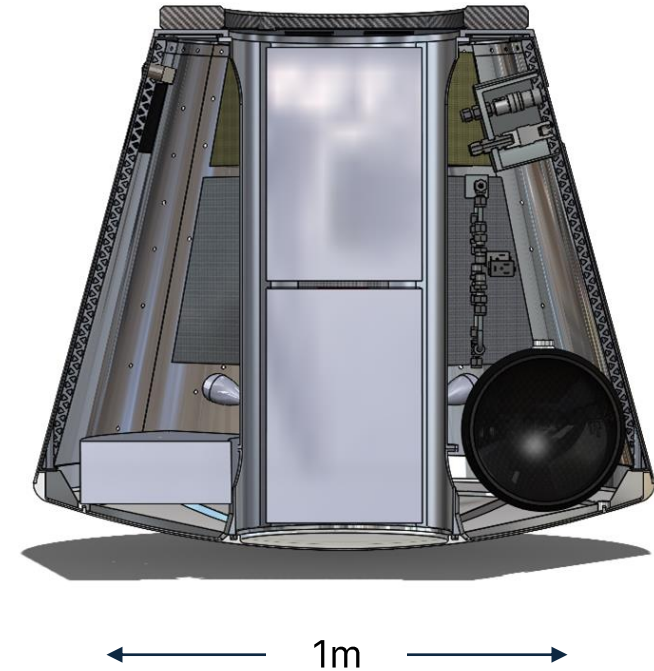
2U Cubesat
form Factor

Non-recovered reentry
Duration: 2hrs flight
Payload capacity 2kg
Datalink: Iridium
Power: 10W



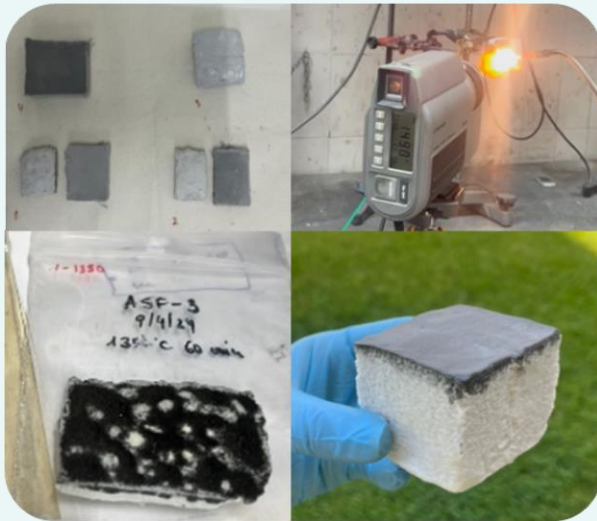
Learn To Fly

Mission Duration: 4h to 5days TBC
Payload Mass: 20kg max payload capacity
Payload Volume: up to 40L
Thermal: 20°C to 50°C
Power: 2-4 W/kg avg
Data Interface: UART, CAN, SPI
Maximum reentry g-load on payload: 3g
Return: Azores (primary), Australia (backup)



Lean team, fast progress

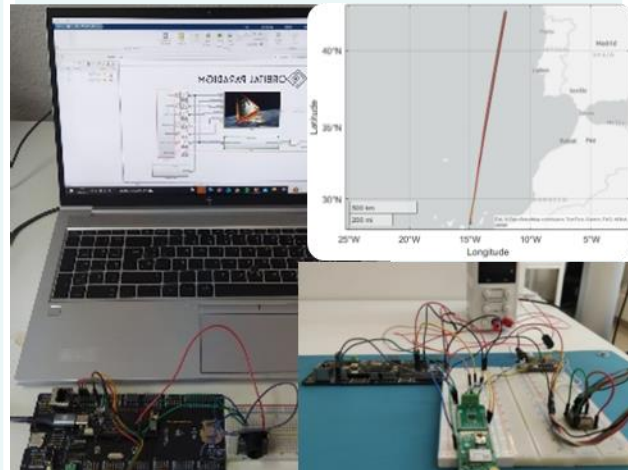
Heatshield Tiles



Batch 1
April 24

Batch 6
November 24

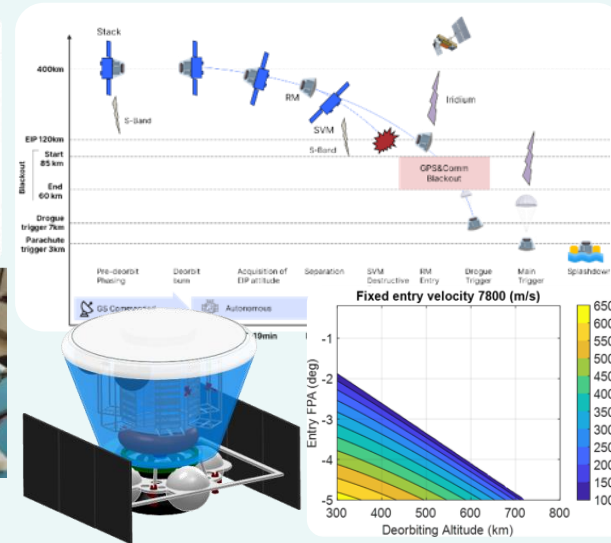
SW Autopilot Prototype



Proto 1
March 24

Proto 2
October 24

Mission Design Review With industry experts



MDR
July 24

Product design



KID First HW Part
LearnToFly Layout
November 24



50 Years Space Engineering 6 Years Space Reentry



Francesco Cacciatore

**CoFounder
CEO&CTO**
18 Years.
Professor, MBA
Space Rider GNC Lead



Víctor Gómez

**CoFounder
COO&SysEng**
11 Years.
MBA, PhD Candidate
Dorbit Avionics&System



Carmen Muñoz

Heatshield Lead
5 Years.
PhD
Ceramic composites



Tomás Girona

GNC Engineer
3 Years.
PhD Candidate
Control systems



Enzo Van de Ven

Mechanical Engineer
2 Years.
Mech and AIT



Guillermo Zaragoza

Flight SW Lead
7 Years.
PhD Candidate
ION Flight SW Lead



LEO Commercial Multi-user Facility



 **ORBITAL**
PARADIGM



Biotech



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Advanced
Materials



HITec | Hannover
Institute of
Technology

IOD

Ecosystem and Partners

Actively collaborating with the space ecosystem

Agreements in place for propulsion systems and sensors

More than 2.5MEUR in ESA and AEE projects and national grants **presented**



Partners and collaborators





ORBITAL PARADIGM

Simplify space return to seamlessly connect orbit back to Earth.

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