D-ORBIT

NEW SPACE SOLUTIONS

ESA SPACE SAFETY ISAM DAYS

16-17 September 2025


D-ORBIT
NEW SPACE SOLUTIONS
esa
RISE
ESTEC - 16th Sept 2025

THE RISE MISSION

RISE Mission in the ESA ADRIOS Programme

The main purpose of the RISE programme is the validation of life extension of a satellite through Attitude and Orbital control System Takeover (AOCS Takeover) in geosynchronous graveyard orbit on a non-ESA object, with the final objective to provide Europe with an **in-space validated, sovereign, commercial, in-orbit servicing infrastructure** in the Geostationary Orbit region.

The validation will be carried out in 2029 on an **unprepared and operationally cooperative** target satellite, belonging to a commercial anchor customer, which has been announced in March 2025 to be Eutelsat.

The following services will be demonstrated and then available on the market:

- Inspection Service;
- Life Extension Service through AOCS Takeover;
- Relocation Service to either:
  - another GEO Slot;
  - by Inclination Change;
  - to Geostationary Graveyard Orbit (GGO)


D-ORBIT
PIONEERING SPACE LOGISTICS

PIONEER IN SPACE LOGISTICS

600
people and growing

21
missions

19
ION launched

200
payloads in space

- Commercial customers in 4 continents
- Presence in Italy, UK, Portugal and USA
- Acquired Planetek in March 2025

PRODUCTS AND SERVICES

ADDRESSING THE NEEDS OF TODAY WHILE DESIGNING THE TECHNOLOGY OF TOMORROW

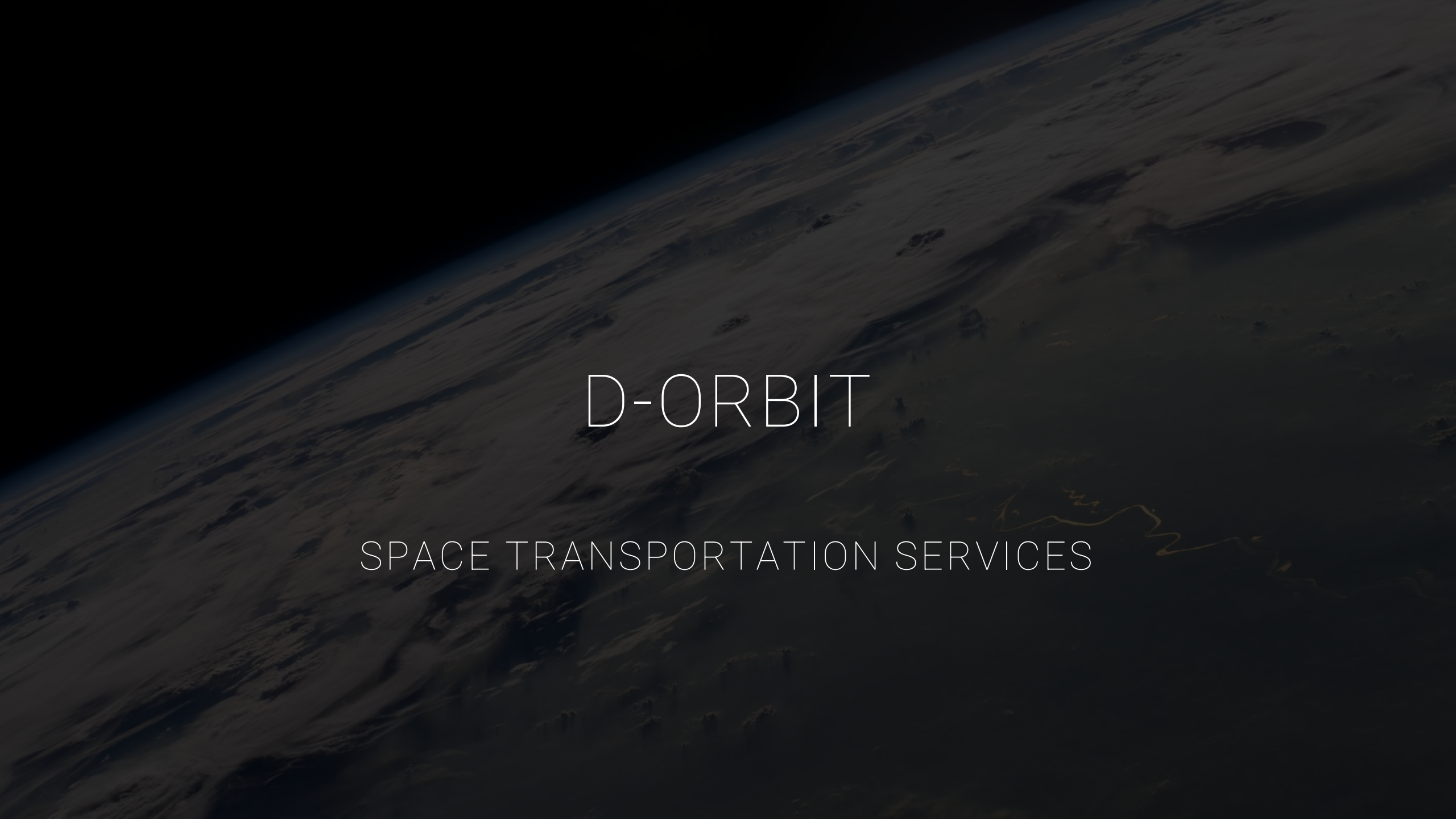
Space Transportation Services: solutions to address the needs of the small satellite market in terms of launch and deployment, operations on payloads, including testing of new technologies in orbit.

Space Cloud Services: an innovative space cloud-based technology that will enable close to real-time data computing and data storage directly in orbit.

Satellite as a Service: a model that allows customers to leverage the capabilities of satellite technology without having to invest in and operate their own satellite infrastructure.

In-Orbit Servicing: services powered by proprietary robotic servicing vehicles designed to achieve multiple mission objectives throughout their lifespan (e.g., inspection, assembly, refurbishment, refueling, and debris removal).

Downstream Services: Geospatial and Analytics provider for Government and Commercial users, cognitive Cloud Computing Service.


D-ORBIT
SPACE TRANSPORTATION SERVICES

SPACE TRANSPORTATION SERVICES

ION SATELLITE CARRIER

ION Satellite Carrier is our proprietary orbital transfer vehicle designed to **transport satellites to space and release them into precise, independent orbital slots**, enabling to start their space mission quickly and in optimal operational conditions.

ION is equipped to launch a combination of CubeSats of any form factor, up to 64 CubeSat units in total, or **microsatellites up to 200 kg of mass**.

Extra services include mission analysis and design, platform engineering, software development, acceptance testing, and transportation.

OUR HERITAGE

19 ORBITAL TRANSPORTATION MISSIONS TO DATE AND A GROWING DEGREE OF COMPLEXITY

2020-1

3 IONs LAUNCHED

First successful commercial orbital transportation mission in the space industry

Successful testing in orbit of innovative plug-and-play system for hosted payloads

- 38 Satellites deployed
- 17 Hosted payloads

2022-3

10 IONs LAUNCHED

ION performs the first RAAN shift maneuver in orbit ever performed by an OTV*

First launch featuring two IONs

- 60 Satellites deployed
- 25 Hosted payloads

2024-5

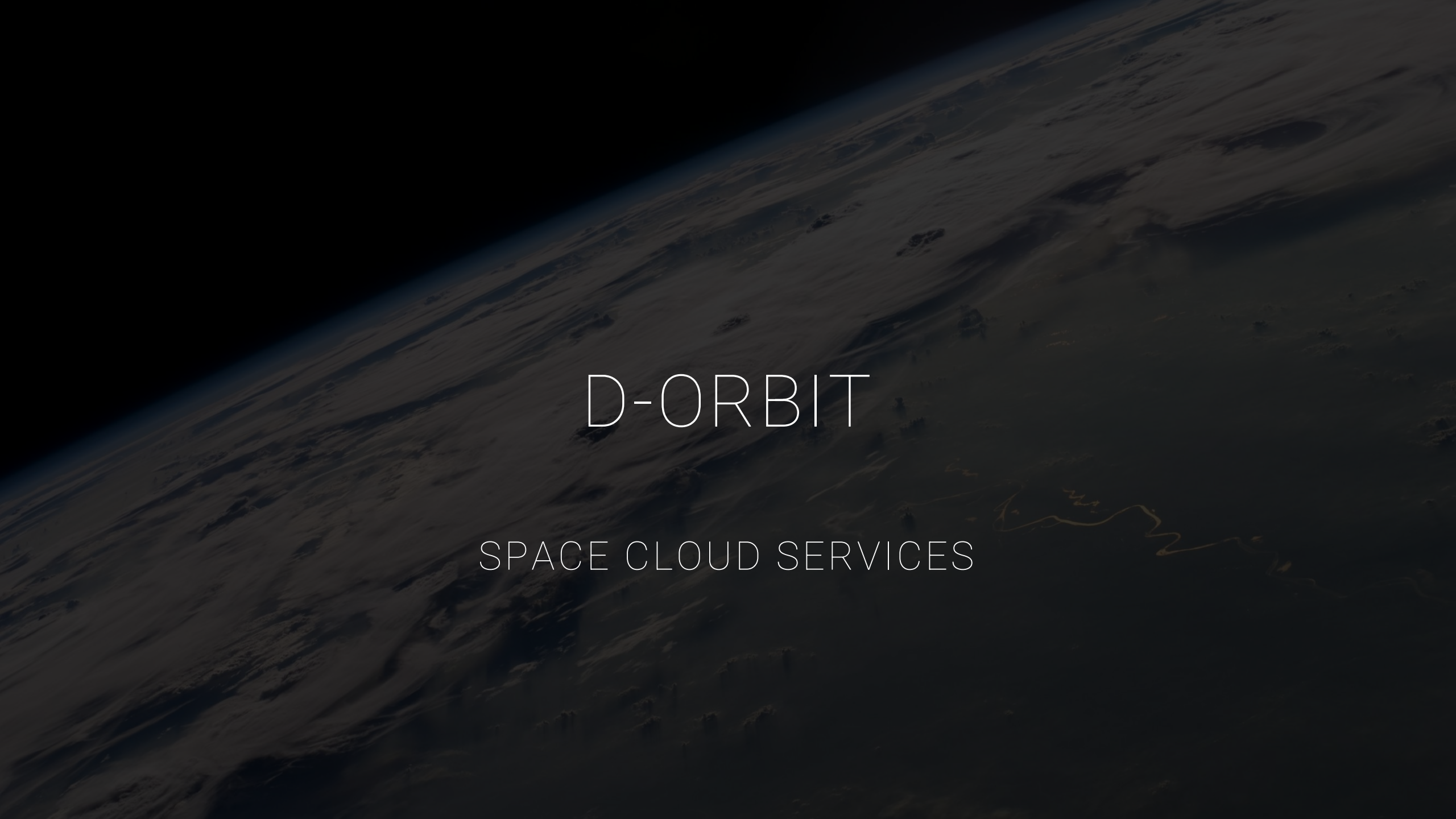
6 IONs LAUNCHED
(2 more launches scheduled for 2025)

80% of passengers onboard are recurring clients

Next ION Launch: Oct 2025

- 14 Satellites deployed
- 28 Hosted payloads

* Note: Orbital Transfer Vehicle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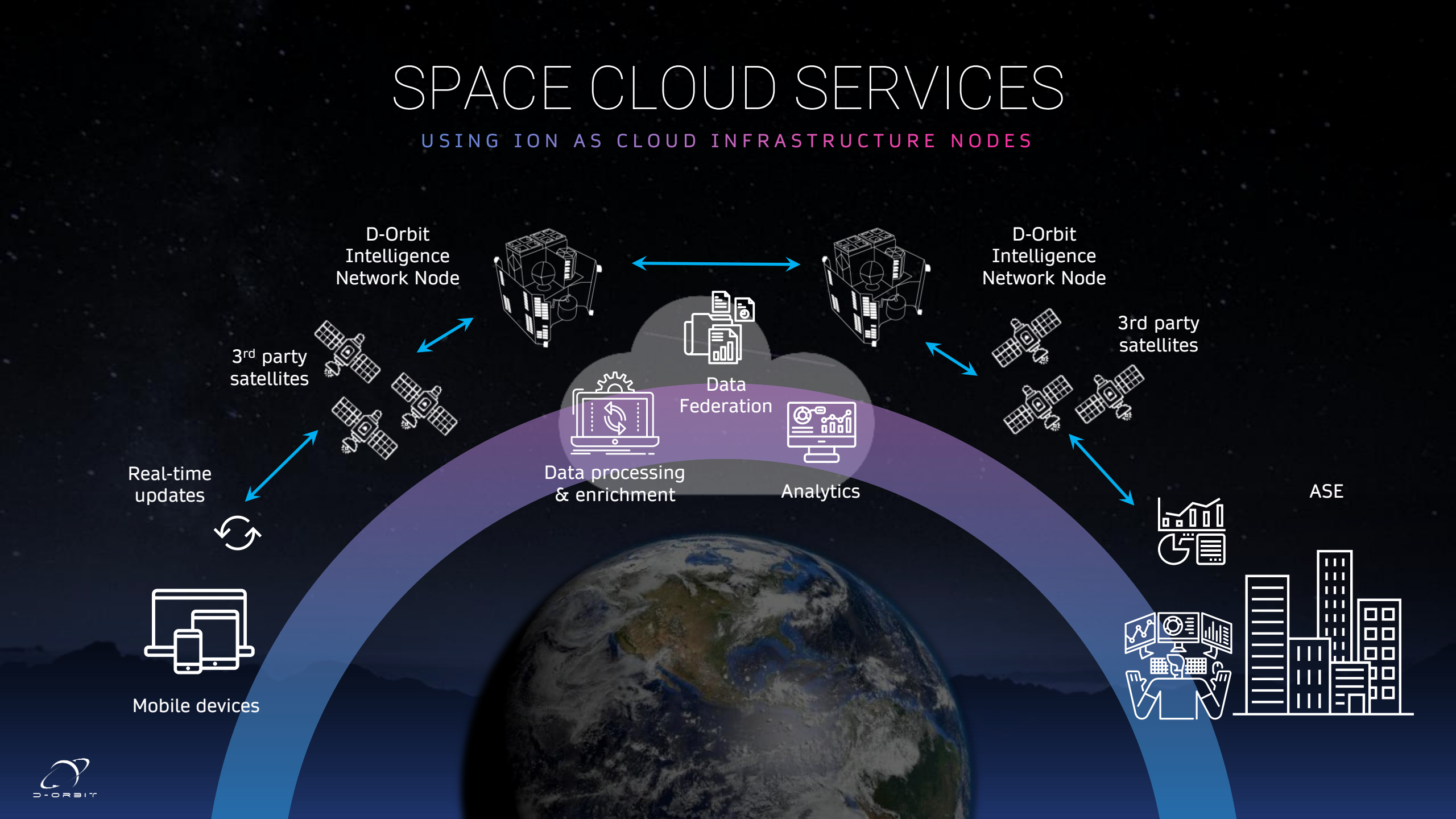
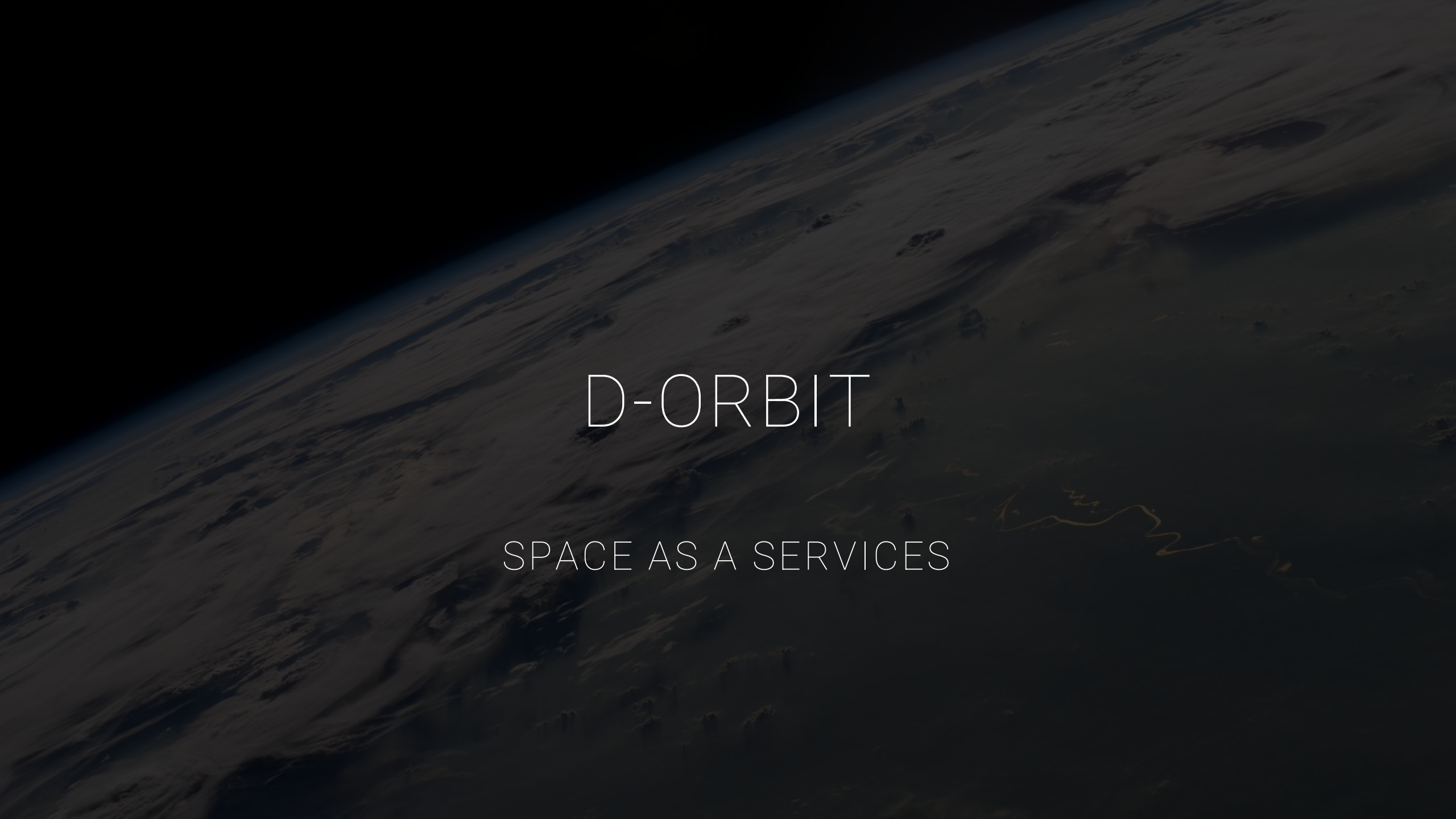
SPACE CLOUD SERVICES

SPACE CLOUD SERVICES

USING ION AS CLOUD INFRASTRUCTURE NODES

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SPACE AS A SERVICES

SATELLITE AS A SERVICE

YOUR SHORTCUT TO SPACE

D-Orbit helps the customer to get the data that they really want defining the best upstream solution.

The customer can rely on a proven and regularly launched infrastructure, in shared or dedicated missions, fully operated by D-Orbit.

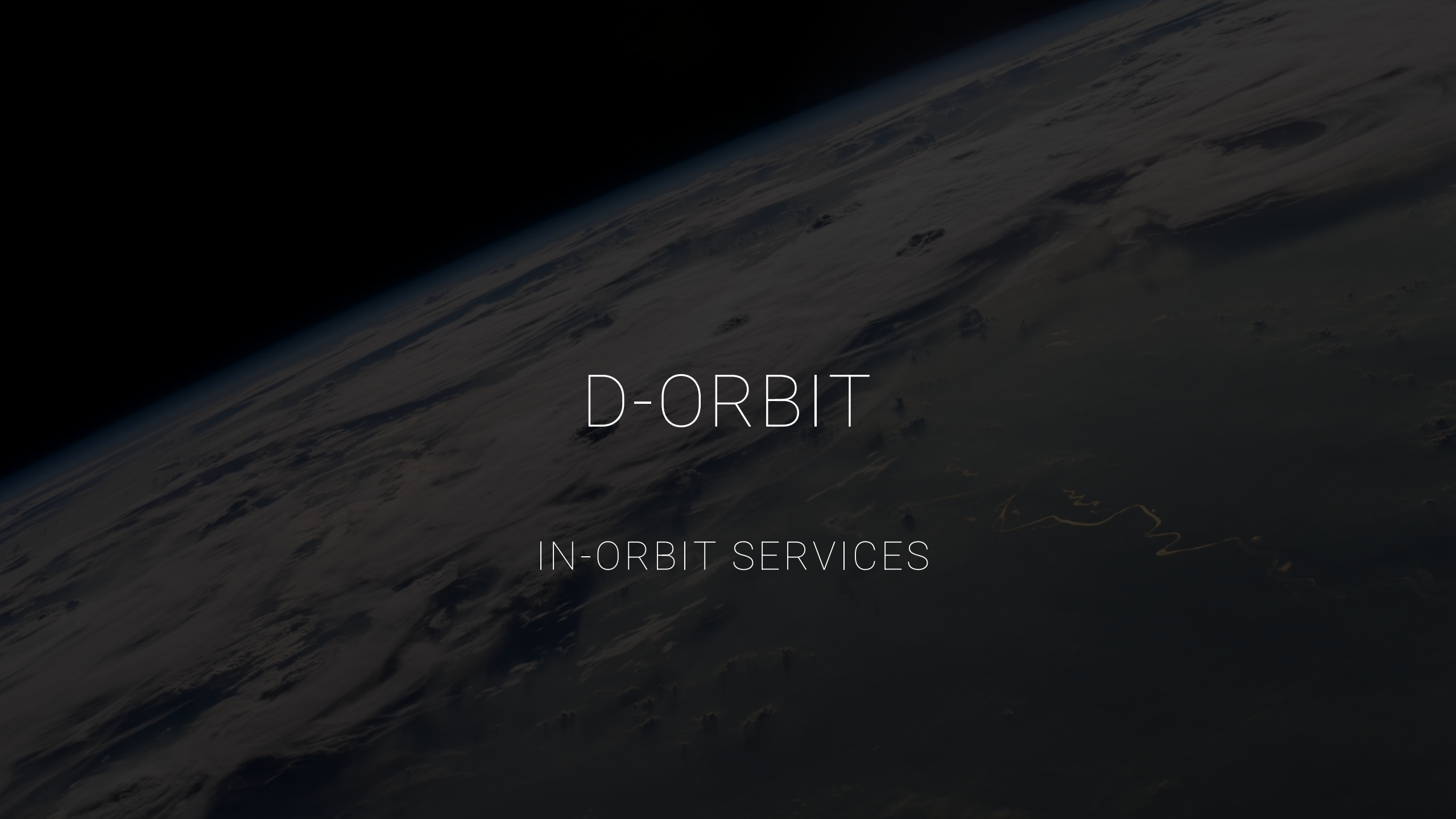
Leveraging on their variety platforms developed, launched, and operated, D-Orbit is offering a new service to give a short-cut access to space.

Our platforms, from 200 kg to 2 tons mass, are designed to operate in LEO or GEO and can host different payloads with a wide range of requirements

NOX

THE SPACECRAFT

Spacecraft mass	<580kg
Spacecraft Stowed Volume	2,0 x 1,7 x 1,5 m
Reference Operative Orbit	Low LEO
Lifetime	5 years


D-ORBIT
IN-ORBIT SERVICES

IN ORBIT SERVICING

THE NEXT GENERATION OF D-ORBIT SPACECRAFT

D-Orbit is working on a next-generation spacecraft, called GEA, with **in-orbit servicing capabilities**, such as rendezvousing, docking with, and taking over the attitude and orbit control functions of another spacecraft for repair, life extension, or disposal.

GEA

MAIN SERVICES

REPOSITIONING: Moving existing satellites from one orbit to another orbit to extend useful life / allow for re-purposing.

INSPECTION: Life of modular satellites can be extended via refuelling or component replacement (e.g. battery).

LIFE EXTENSION: Close approach to existing satellites to inspect their status.

EMERGENCY: Rescuing satellites launched or drifting into the wrong orbit.

DECOMMISSIONING: Disposing of satellites properly at the end of their life- “active debris removal”.

GEA: GENERAL EXPANSION ARCHITECTURE

EXPANDING D-ORBIT'S REACH

- Designed for fast configurability and assembly
- Intrinsically serviceable
- Multi-mission, multi-environment through physical re-configuration

GEA

MAIN CHARACTERISTICS

<1 year time to service from launch

>7 years of service lifetime

<6 months from standby to service

<0.05 degrees attitude accuracy

<0.1 degrees attitude stability

No interruptions

>3 deg inclination change / year

>7 years life extension

>180 deg rephasing / year

Compatible with the most common GEO spacecraft platforms through their launch adaptor ring (not relying on ascent engine)

LATEST ACHIEVEMENTS

RISE

esa

In October 2024, we signed a **€119.6 million contract with ESA** under the Space Safety programme. Under this contract D-Orbit is developing, launching and demonstrating the capabilities of **a vehicle designed to rendezvous with, dock with, and take over the attitude and orbit control functions of another spacecraft** for purposes including life extension, relocation, repair, disposal, and more.

A key aspect of this contract is the development of **GEA**, **an innovative satellite platform designed to demonstrate in-orbit servicing capabilities in geostationary orbit (GEO)**.

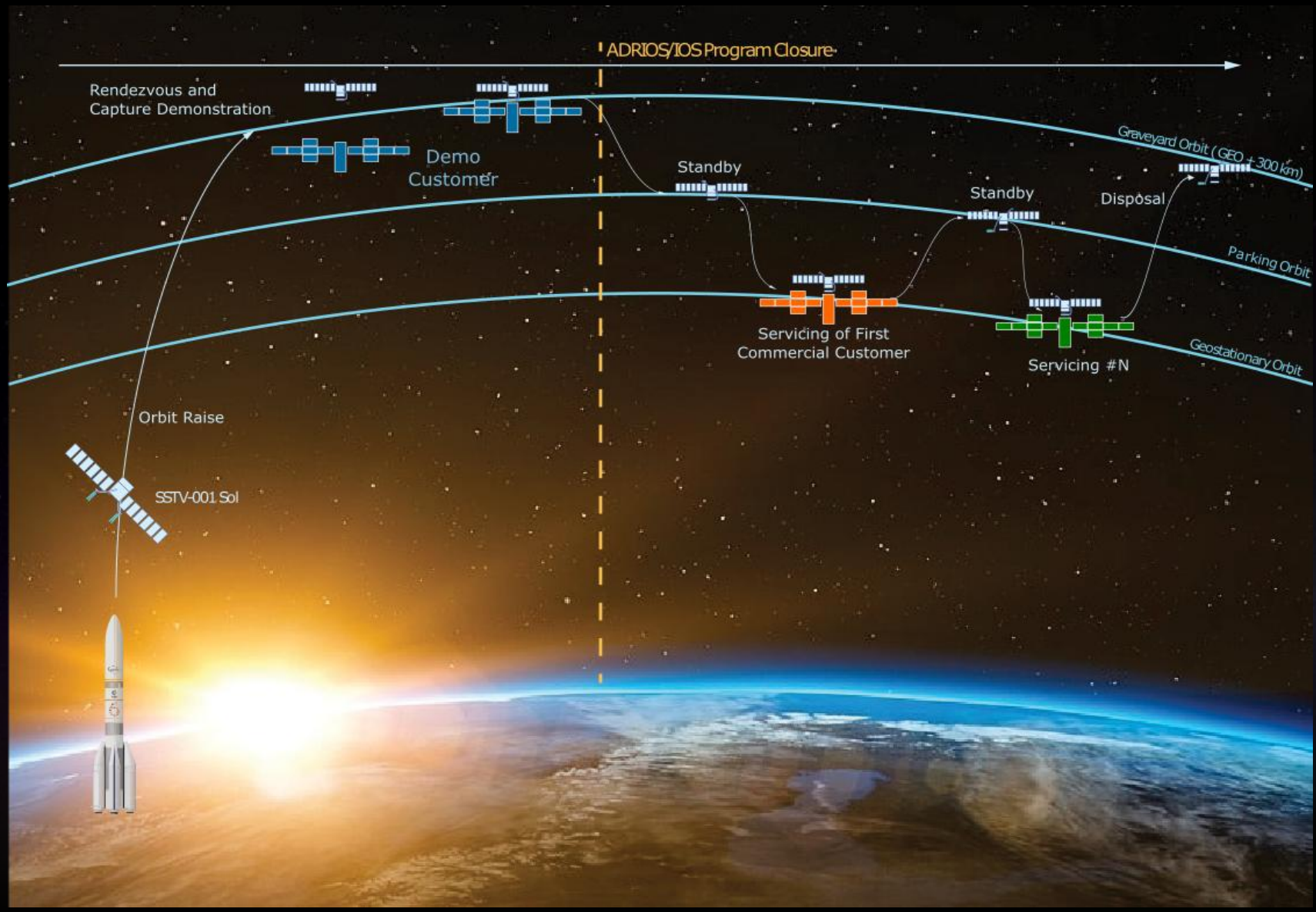
LATEST ACHIEVEMENTS

RISE

- PATP signed in Q4 2023
- PRR passed in Q1 2024
- Full contract signed in Q3 2024, announced at the IAC’24 in Milan
- Anchor Customer (Eutelsat) announced in March ‘25
- SRR passed in July 2025 (< 6 weeks duration)

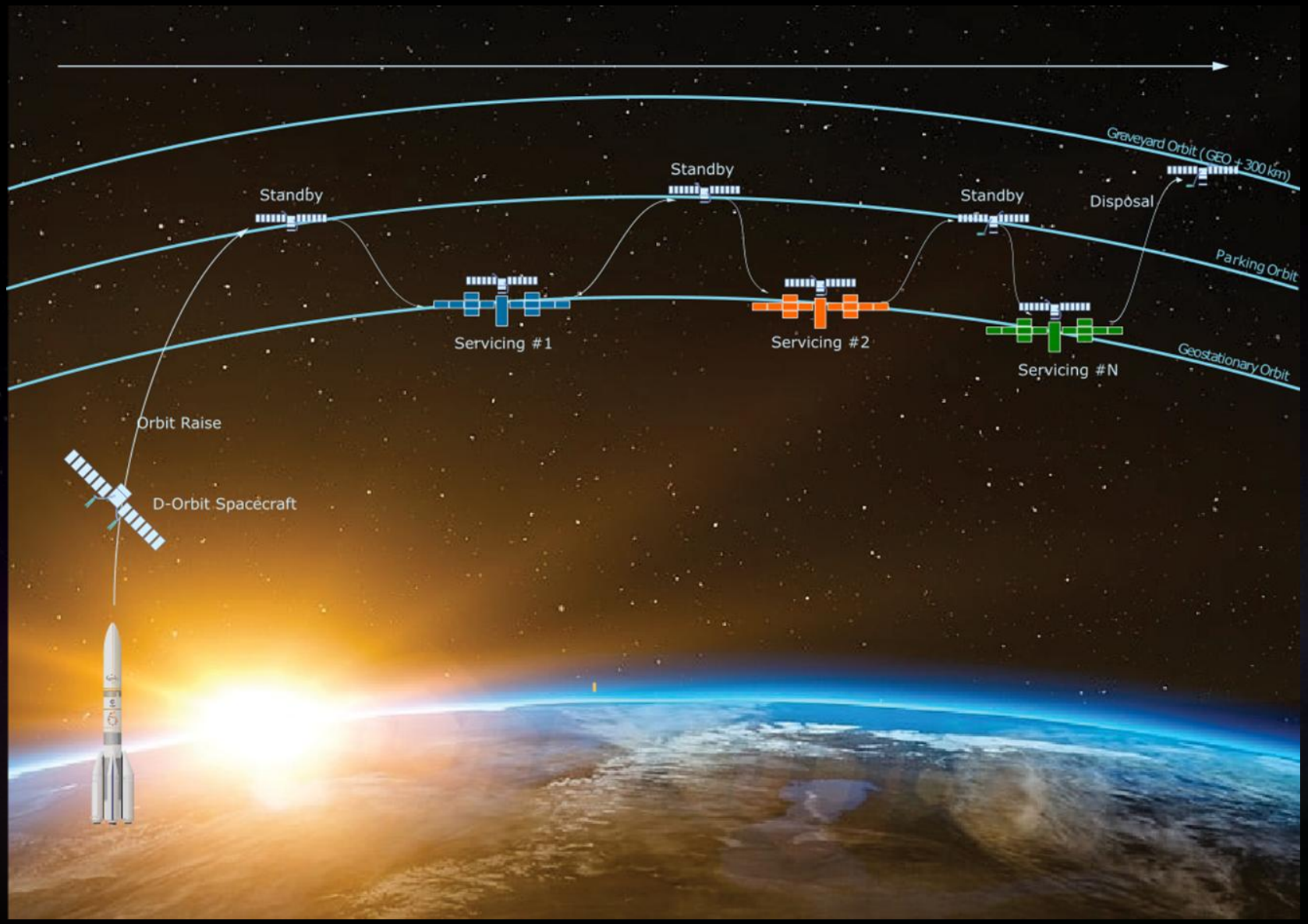
RISE Mission Architecture

- ***LV injection:*** *GEA is launched in GTO*
- ***Orbit Raise:*** *from GTO to GEO Graveyard (GGO)*
- ***Rendezvous and Capture Demonstration:*** *in GGO on the Demo Customer*
- ***Standby in parking Orbit:*** *reaching parking orbit from GGO and wait there to start servicing*
- ***Servicing of First Commercial Customer:*** *the Demo Customer may be the First Commercial Customer*
- ***Disposal:*** *after the last service is delivered GEA is decommissioned in GGO*



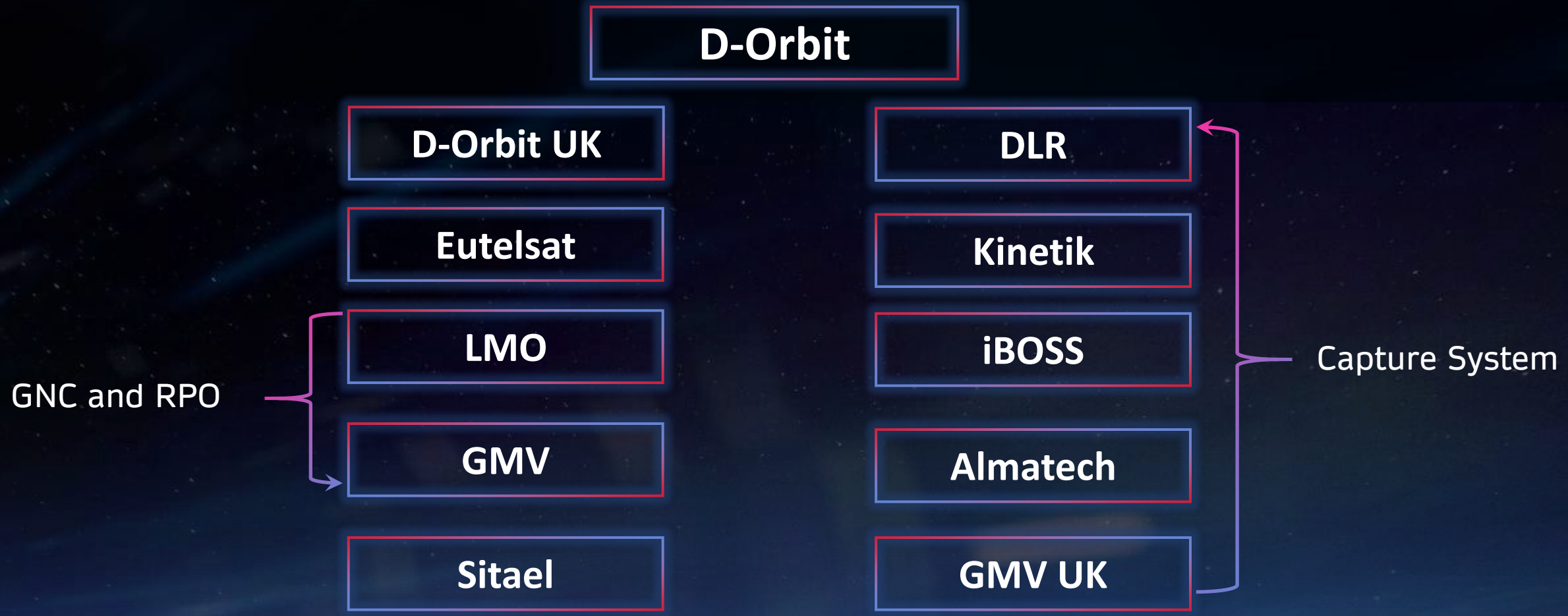
Generic GEA Mission Architecture

- ***LV injection:*** *GEA is launched in GTO*
- ***Orbit Raise:*** *from GTO to GEO or GEO Parking*
- ***In-Orbit Servicing in GEO:*** *delivering AOCS takeover, Inspection, Relocation including inclination management and disposal for up to 7 years and up to 5 different targets.*
- ***Disposal:*** *after the last service is delivered, GEA is decommissioned in GGO, possibly with the last customer*

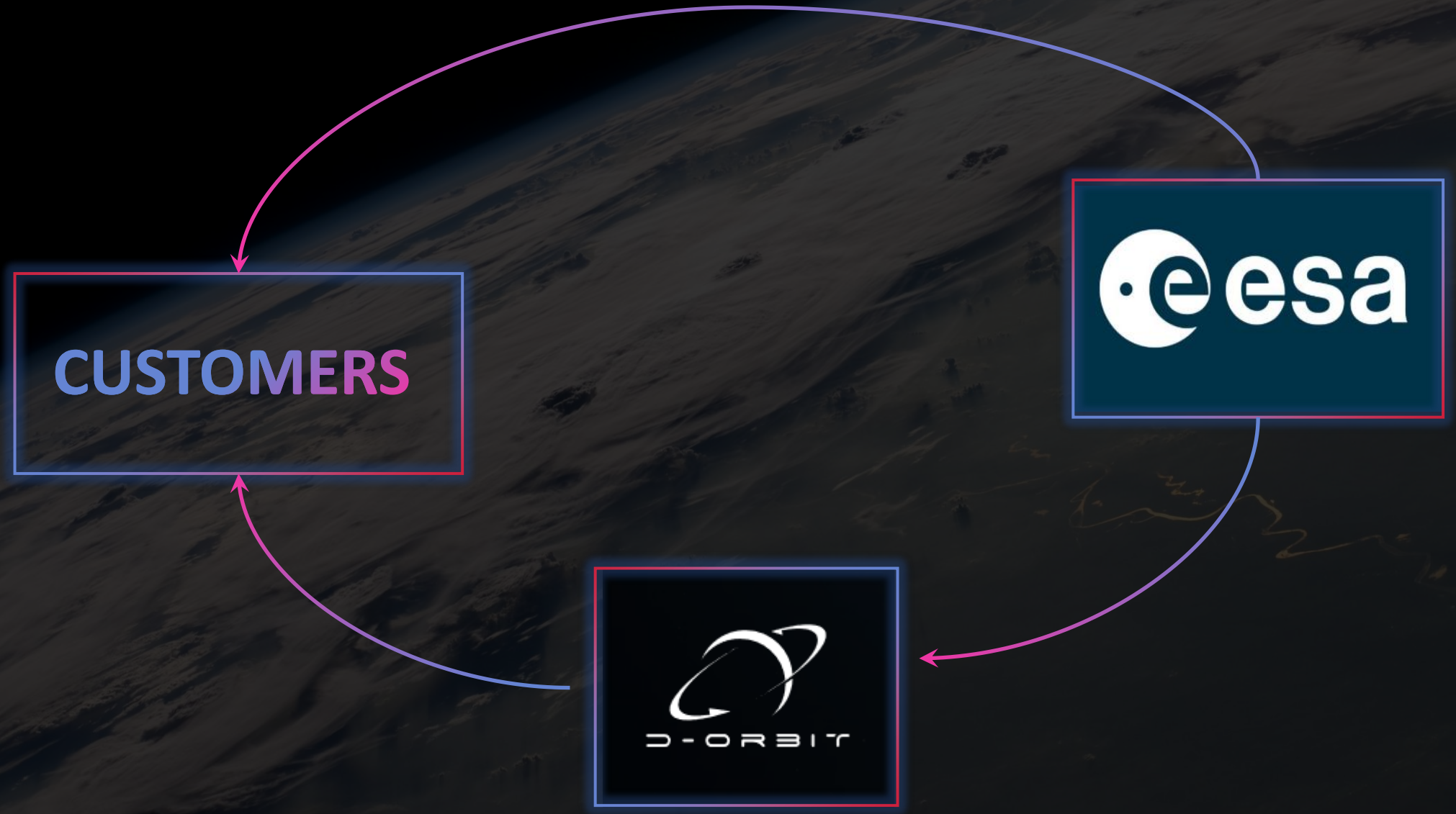


RISE INDUSTRIAL TEAM

UP TO SRR



RISE INDUSTRIAL TEAM

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Thanks!