[expleo]

Launching ENSO: CubeSat payload delivery

Maximising the benefits of space technology on Earth

Developed in partnership with the University Space Centre of Montpellier (CSUM), ENSO (Expleo Nanosat for Solar-irradiance Observations) is an R&D cubesat that aims to help characterise the ionosphere by aiding the measurement of solar activity and its impact on Earth.

CSUM
CENTRE SPATIAL UNIVERSITAIRE DE MONTPELLIER

The next space era requires smaller, lighter and adaptable nanosatellites. ENSO demonstrates a forward-thinking production model that lowers the financial barriers to entry and opens the technology to new market entrants. The successful launch displays Expleo's expertise in end-to-end delivery of cutting-edge innovation for NewSpace partners.

Out of this world

Size:
10cm x 10cm x 10cm

Weight:
1 kg

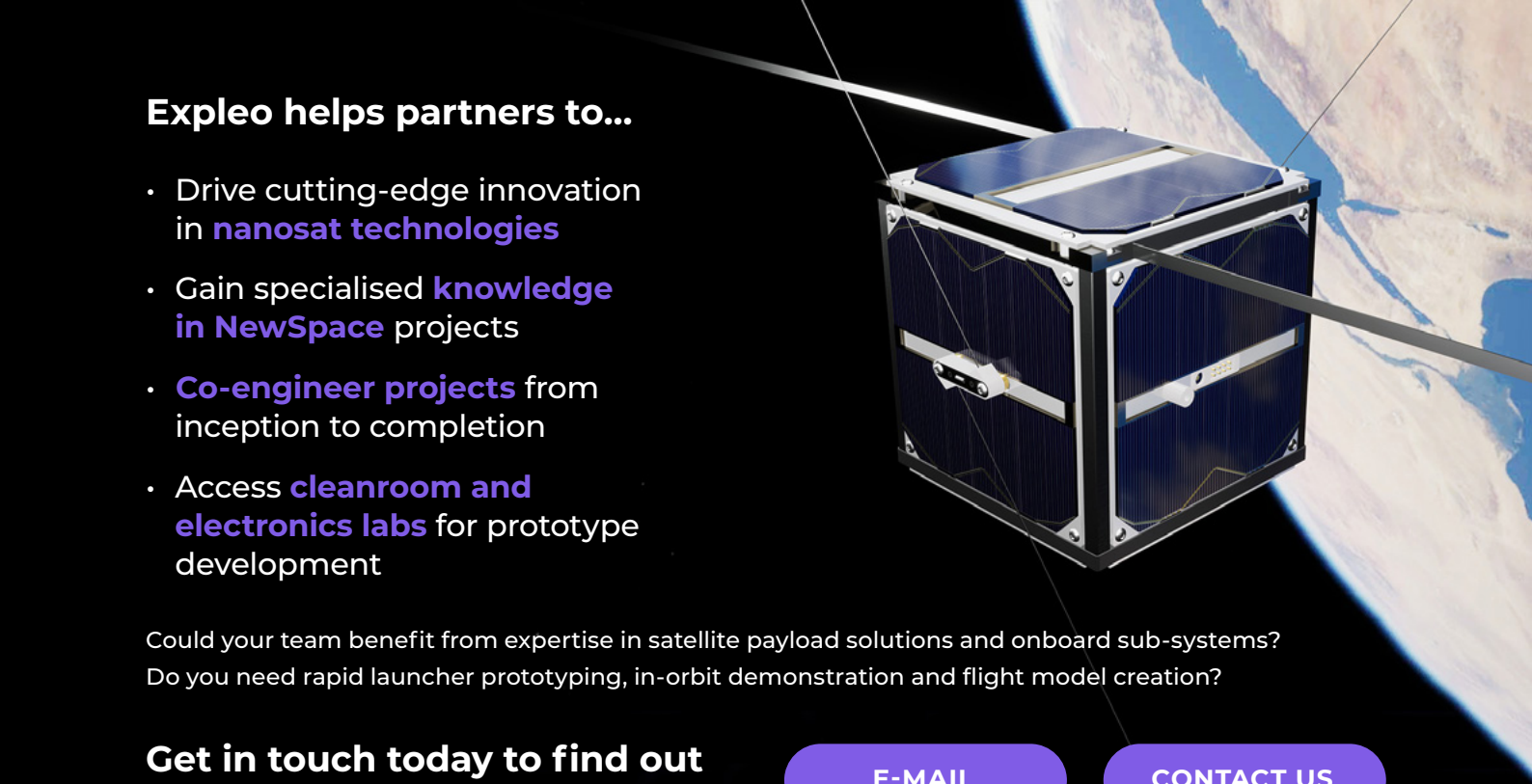
Temperature range:
-40°C to +50°C*

Average orbit:
95 minutes

*ENSO can withstand temperature changes between -40°C to +50°C in off-mode and -20°C to +40°C in operations

Expleo helps partners to...

- Drive cutting-edge innovation in **nanosat technologies**
- Gain specialised **knowledge in NewSpace** projects
- **Co-engineer projects** from inception to completion
- Access **cleanroom and electronics labs** for prototype development



Could your team benefit from expertise in satellite payload solutions and onboard sub-systems? Do you need rapid launcher prototyping, in-orbit demonstration and flight model creation?

Get in touch today to find out how we can help.

E-MAIL | CONTACT US

> "It's exciting to think that an idea originally conceived by Expleo interns is now orbiting our planet every 95 minutes and revealing valuable secrets about the Earth's atmosphere that could help shape the future of space technology."
>
> **Julie Bidault**, Quality Assurance Manager, Expleo Group

The ENSO story...

Partnership commencement
Collaboration with CSUM

Internship initiative
Dedicated interns embarked on the mission to develop the Nanosatellite R&D Payload.

R&D
Mission analysis, preliminary design, and detailed design

Testing and delivery
Testing phase completed, successful delivery to ISISPACE

Launch
SpaceX's Falcon 9 via ISISPACE

Commissioning
Deployment of the antenna and successful reception of radio frequency signals

Missions
1. Beacon emitted to measure ionosphere frequencies
2. Gathering raw data and sending back to Earth

End of Life
Culmination of the nanosatellite's mission

Engineering the next space era

From satellite design to space data management, through next-gen ground systems equipment, Expleo develops and tests new products and services that are scalable, smarter and more sustainable. With our partners, we bring the wonders of space to the world, connecting the possibilities of space with life on Earth.

Think bold, act reliable
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