

Omega Horizons UG (haftungsbeschränkt) is a German New Space start-up developing satellite platforms specially designed for Very Low Earth Orbit (VLEO)—operating at altitudes around 200 to 250 kilometers. This exciting and underexplored orbit offers unique advantages that will shape the future of space-based services.

Satellites in VLEO can deliver much sharper images, lower communication latency, and operate with significantly less power compared to traditional higher-altitude systems. This opens up new possibilities for Earth observation, IoT connectivity directly from space, direct-to-device communications, and even future applications in governmental and security sectors.

To tackle the challenges of operating in such a demanding environment, we're building innovative satellite platforms that leverage advanced propulsion concepts, including air-breathing electric propulsion. These technologies help our satellites overcome atmospheric drag, enabling long-term, reliable, and scalable operations in VLEO.

What's more, VLEO's natural self-cleaning effect means that defunct satellites and debris don't linger—they quickly burn up in the atmosphere. This makes VLEO an inherently sustainable orbit, supporting long-term sustainable spaceflight and responsible use of space.

Our mission goes beyond hardware: we're laying the foundation for a vibrant service ecosystem in VLEO, creating new infrastructure that supports digital connectivity, environmental monitoring, and strategic communications.

Based in the Stuttgart region, we're proud to be part of a thriving aerospace community and to benefit from the support of programs like ESA BIC Baden-Württemberg and Green Space Center. We're actively advancing our technology development through collaborations and public initiatives.

With our passionate founding team and clear vision, Omega Horizons is ready to pioneer the next chapter of satellite infrastructure and space innovation.

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