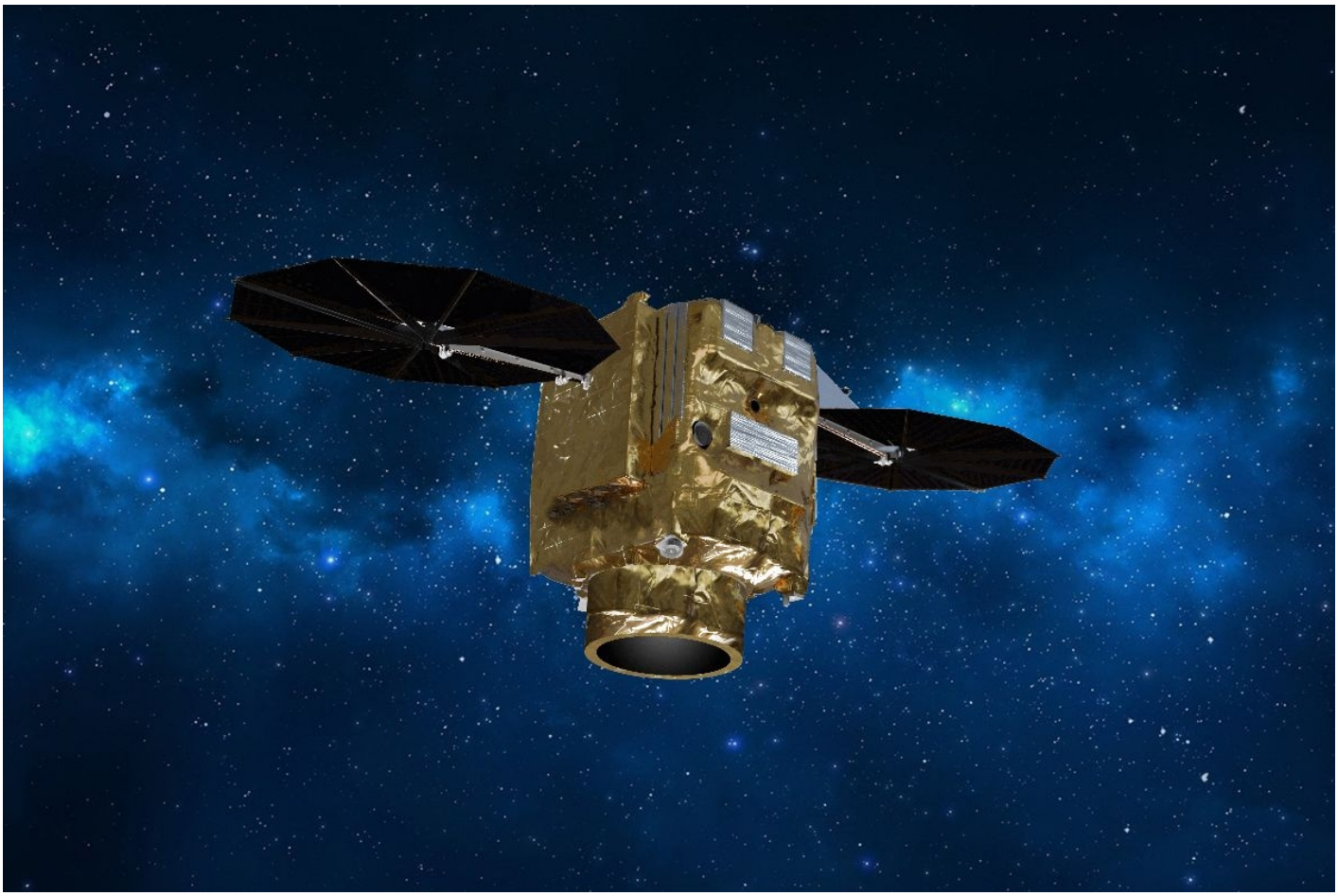
# AIRBUS TO RESHAPE EARTH OBSERVATION MARKET WITH ITS PLÉIADES NEO CONSTELLATION

**News / Manufacturer**



**The production of Airbus' four new very high resolution satellites, which together will form the Pléiades Neo constellation, is well on schedule for launch in 2020. They will join the already world leading Airbus constellation of optical and radar satellites and will offer enhanced performance and the highest reactivity in the market thanks to their direct access to the data relay communication system, known as the SpaceDataHighway.**

**This first batch of four optical and very agile satellites will double the number of visits per day anywhere on Earth and offer a re-tasking rate which is five times higher than previous constellations. Each satellite will be adding half a million km² per day at 30cm resolution to Airbus' offering. These images will be streamed into the OneAtlas on-line platform, allowing customers to have immediate data access, analytics and correlation with Airbus' unique archive of optical and radar data.**

**"With Pléiades Neo, we will have the most advanced high-resolution constellation on offer for both commercial and secured governmental applications with another four satellites added to our existing Airbus fleet of 10 accessible Earth observation satellites," said Evert Dudok, Head of Communications, Intelligence and Security at Airbus Defence and Space. "The fact that Pléiades Neo is equipped with the latest Laser Communication Technology**

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**gives our customers an advantage of speed that will be unrivalled in our industry for a long time."**

Pléiades Neo will utilise the SpaceDataHighway to ensure the highest system reactivity, lowest latency and high volume data transfer. Thanks to the very high communication bandwidth possible with lasers of up to 1.8 Gbit/s and the geostationary orbit positioning of the relay satellites, up to 40 terabytes per day can be transmitted securely in quasi-real-time to Earth, as opposed to the delay of several hours sometimes experienced today. The four satellites will be equipped with reactive Ka-band terminals that will allow last minute tasking updates, even if the satellites are beyond their ground stations' line-of-sight. This is an important asset for customers, when it comes to the assessment of natural disasters and first line response for civil and military applications.

The integrated next generation laser terminals are optimised in terms of power and will save 60% in mass and size compared to currently used terminals. They are designed by Tesat Spacecom and developed under a partnership between the German Aerospace Centre (DLR) and Airbus. These generational advancements have the added advantage of driving significant cost efficiencies in design and integration. Development and verification are supported by the DLR's Space Administration with funds from the German Federal Ministry for Economic Affairs and Energy.

The SpaceDataHighway, also known as the European Data Relay System (EDRS), was developed through a public-private partnership (PPP) between the European Space Agency (ESA) and Airbus, and actually benefits to the Sentinel satellites of the European Union's Copernicus programme. Pléiades Neo will be the first commercial constellation to be equipped with this technology, and therefore able to provide a unique responsiveness level.

Thanks to Pléiades Neo, customers will take advantage from increased monitoring capability and operational efficiency. In line with Airbus' strategy for increased digitalisation and connectivity, its next-generation ground segments will foster access to the information, offering machine learning and automated analytics applications. They will also provide multi-mission capabilities and large-scale image processing.

Entirely funded, manufactured, owned and operated by Airbus, Pléiades Neo is a breakthrough in Earth observation domain and will provide customers with high-level service continuity for the next 15 years.

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