

Press release

ARIANESPACE SUCCESSFULLY LAUNCHES ESA'S BIOMASS SATELLITE

- On April 29, 2025, Arianespace successfully carried out the launch of Biomass, the European Space Agency's Earth Explorer satellite, using the Vega C rocket.
- The Biomass satellite aims to provide essential data on the condition and evolution of global forests, enhancing the understanding of how they influence the planet's carbon cycle.
- By serving as the launch provider, Arianespace plays a key role in ensuring Europe's independent access to space, supporting ESA in executing a vital mission focused on climate science and environmental observation.

On Tuesday April 29th, 2025, at 6:15 a.m. local time (09:15 a.m. UTC, 11:15 a.m. CEST), Arianespace successfully launched the European Space Agency's (ESA) Earth Explorer Biomass satellite from Europe's Spaceport in French Guiana. The mission called "VV26", placed its passenger on board a Vega C launcher, into Sun-Synchronous Orbit at an altitude of around 666 km. Spacecraft separation occurred 57 minutes after lift-off.

"With the successful launch of Biomass for the European Space Agency, Arianespace not only ensures Europe's autonomous access to space, but also contributes to using space to make life better on Earth. The fine-tuned collaboration between all involved made it possible to place into orbit a satellite dedicated to environmental monitoring and climate research, to help us better understand the forests of our planet. With this mission, we are proud to contribute to the fight against climate change and the preservation of biodiversity. Congratulations to the Arianespace team and to all our partner teams on this perfectly executed European mission," said David Cavaillolès, CEO of Arianespace.

After lift-off from Europe's Spaceport, the Vega C launcher was propelled by the first three stages for a little over seven minutes. Then the AVUM+ 4th stage ignited twice before releasing Biomass in the target orbit marking the successful launch. Approximately 14 minutes after separation, ESA successfully acquired signals from the satellite.

Simonetta Cheli, ESA's Director of Earth Observation Programmes, commented; "I'd like to thank Arianespace and Avio for the successful launch of Vega-C carrying our Biomass satellite into orbit. This remarkable mission joins our family of Earth Explorers, each of which has consistently delivered groundbreaking insights into our planet and yielded scientific excellence. Biomass will provide crucial data to help us better understand how much carbon is stored in the world's forests and fill critical gaps in our understanding of the carbon cycle, and hence Earth's climate system."

The Biomass satellite carries the first P-band synthetic aperture radar to observe Earth from space. Thanks to its long wavelength, around 70 cm, the radar signal can penetrate all the way through the forest canopy. This allows it to collect information on the height and structure of different forest types and measure the amount of carbon stored in the world's forests and how it changes over time. In addition, the Biomass mission will map subsurface geology in deserts, the ice structure of ice sheets and the topography of forest floors.

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About Arianespace

Arianespace uses Space to make life better on Earth by providing launch services for all types of satellites into all orbits, since 1980. Arianespace is responsible for operating the new-generation Ariane 6 launcher, developed by ESA, with ArianeGroup as the prime industrial contractor. Arianespace will also operate the Vega C launches up until mission VV29, point at which Avio will become the sole operator and launch service provider of Vega. Arianespace is headquartered in Evry, near Paris, and has a technical facility at the Guiana Space Center in French Guiana, plus local offices in Washington, D.C., Tokyo and Singapore. Arianespace is a subsidiary of ArianeGroup, which holds 74% of its share capital, with the balance held by 15 other shareholders from the Ariane and Vega European launcher industry, and ESA and CNES as censors. www.arianespace.com

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ESA's Earth Explorers satellites are recognized as being among the world's leading research missions, delivering groundbreaking scientific insights about Earth's complex systems. Forests, the 'Earth's green lungs', absorb around 8 billion tonnes of carbon dioxide from the atmosphere each year. Deforestation and degradation are causing carbon stored in forests to be released back into the atmosphere. Quantifying the global carbon cycle is essential to understanding the subsequent implications for our climate.

Biomass, manufactured by Airbus Defence and Space, will spend at least five years making detailed observations and witnessing at least eight growth cycles in the world's forests. Observations from this new mission will also lead to better insight into the rates of habitat loss and, as a result, the effect this may have on biodiversity in the forest environment.

The VV26 launch at a glance:

- → 353rd launch by Arianespace, 4th Vega C launch
- 10% of the satellites launched by Arianespace are Earth observation satellites
- → 52nd mission for the European Space Agency
- 146th spacecraft built by Airbus Defence and Space launched by Arianespace

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