

SUCCESS: Latvian Innovation Supports Ariane 6's Successful Second Liftoff



On March 6, 2025, Europe's Ariane 6 rocket successfully launched for the second time from French Guiana, delivering the CSO-3 satellite into orbit. This milestone marks the first commercial flight of the Ariane 6 (Flight VA263), with all phases of the mission executing flawlessly, including the reignition of the Auxiliary Propulsion Unit (APU) and the third boost of the Vinci engine.

One of the elements of Ariane 6's success was the advanced cryogenic insulation material developed by the **Latvian State Institute of Wood Chemistry**. This innovative material, used to insulate the rocket's fuel tanks, is crucial for withstanding the extreme temperatures and stresses of rocket launches. It ensures the tanks remain insulated at temperatures as low as -253°C , allowing the fuel to remain stable during flight.

The research team behind this material, including Dr. Ugis Cabulis, Dr. Vladimirs Jakušins, Laima Vēvere, and Beatrise Stūre-Šķēla, was recently honored with the Latvian Academy of Sciences Award for the Most Significant Scientific Achievements of 2024 for their work.

Ariane 6 is a cornerstone of Europe's efforts to maintain autonomous access to space.

Its modular design supports a wide range of missions, and the rocket's upper stage showed its full potential during this flight, preventing space debris accumulation by safely deorbiting.

For more details, the full liftoff video is available on the [ESA YouTube channel](#).

Source: esa.int