

# Vega



# VEGA: THE NEWEST LAUNCHER FAMILY MEMBER

*Developed specifically for small and medium-sized payloads, Vega will provide an efficient way to space in low-Earth and Sun-synchronous missions.*

*This European four-stage launcher is tailored to carry the growing number of small scientific spacecraft and other lighter-weight payloads under development or planned worldwide.*

*Operating along with Ariane 5 and Soyuz at French Guiana, Vega is to offer a 1.5 metric ton capacity, and will benefit from the Spaceport's ultramodern support facilities. The Arianespace Launch Operations and Facilities team will be in charge of Vega.*

With a height of 30 meters, Vega will use the Spaceport's ELA-1 complex, which was the launch site for the original Ariane 1 and Ariane 3 vehicles. The Vega launch control room already exists, and the ELA-1 infrastructure is being retrofitted for its new operational life.

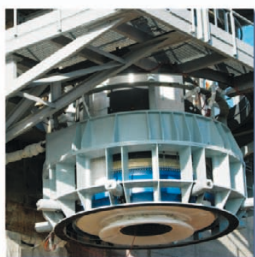
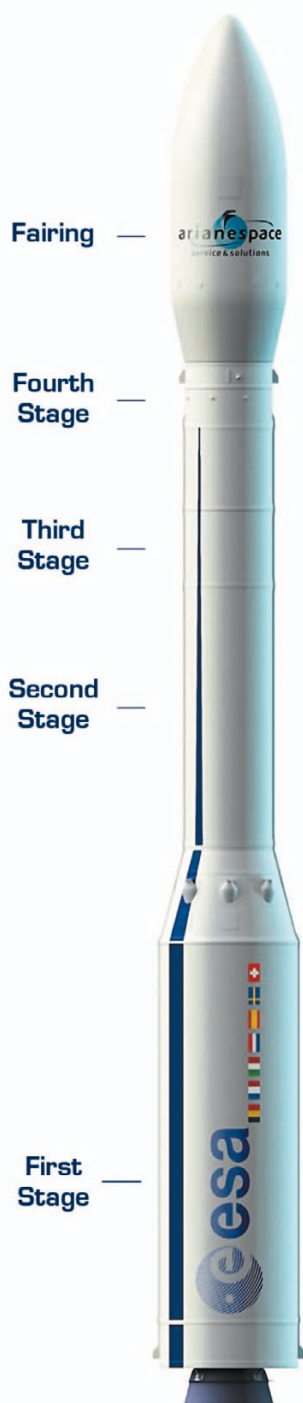
An Arianespace team fully dedicated to Vega activity was created by the company in early 2003, and operations of the vehicle will be handled by the launch teams that support Ariane 5 and Soyuz.

Vega's first stage will be powered by the P80 advanced solid propellant motor. This stage features a novel filament-wound casing structure – utilizing new-generation, high-quality production techniques.

The second and third stages (designated Zefiro 23 and Zefiro 9, respectively) also use solid propellant motors, and the launcher is topped off by the bi-propellant liquid upper stage (called AVUM – Attitude and Vernier Upper Module). The liftoff mass of Vega will be 137 metric tons.

The Vega's liftoff, ascent and primary trajectory is performed by the vehicle's three solid propellant stages, followed by up to five burns of the AVUM to reach the final orbit for payload deployment.

Vega's initial qualification flight in 2012 is expected to be followed by launches at an average rate of 2 missions per year.



## Arianespace, Service & Solutions

*Arianespace is the world's leading launch Service & Solutions company delivering innovative offers to its Customers since 1980. Backed by its 21 shareholders and the European Space Agency, Arianespace proposes an unrivalled launcher family comprising Ariane 5, Soyuz and Vega with an international workforce renowned for its culture of commitment and excellence. As of 1st June 2011, Arianespace has launched a total of 294 payloads, including more than half of all the commercial satellites now in service worldwide. It has a backlog of 18 Ariane 5 and 18 Soyuz launches, equal to 3 years of business.*

[www.arianespace.com](http://www.arianespace.com)