



AVIO: 100th LAUNCH WITH ARIANE 5

Italian space technology: the star of thirty years of collaboration within the European programme

Colleferro, 26 September 2018. **Mission number 100 of the European launcher Ariane 5** was a success. The launcher exploits the power of the solid propulsion engines and of the Vulcain liquid oxygen turbopump manufactured in Italy by **Avio**, market leader in space propulsion.

Avio has been part of the Ariane 5 programme for over thirty years, since the launcher development stage and, later, during the manufacturing of the fundamental components to ensure the success of the phases of the launch at each mission. In fact, Ariane 5 had its maiden flight in 1996 and, in over twenty years of operations, there has been a long line of successes culminated in mission 100 which placed two telecommunication satellites in orbit: Horizons 3e and Azerspace-2/Intelsat38.

Giulio Ranzo, CEO of Avio, said: *“This important milestone is the symbol of a success story: the story of Ariane 5 and Avio, which with its technological and manufacturing know-how has contributed greatly to the success of an ambitious European programme in collaboration with all the other partners involved.”*

“The success of Ariane 5 – concluded Ranzo – inspires us to do even better with the new-generation launchers Ariane 6 and Vega C, an evolutionary development of Vega, which are the future of access to space for increasingly sophisticated and demanding Clients”.

Press contacts

Giuseppe Coccon – giuseppe.coccon@avio.com - +39 348 8558076/ + 39 06 97285235

Francesco De Lorenzo – francesco.delorenzo@avio.com +39 335 5293206/+39 06 97285317

Rossella Conte – rossella.conte@avio.com – +39 342 9217676 / + 39 06 97285650
comunicazione@avio.com

Avio S.p.A.

Avio is a leading international space launcher, spacecraft propulsion and space transport group. It has 5 sites in Italy, France and French Guiana, and employs over 850 people at the consolidated level. In 2017 its revenues totaled 343 million Euros. The Avio Group is prime contractor of the Vega launcher. This makes Italy one of the very few countries in the world with the ability to produce a complete space launch vehicle.

Avio will build the new Vega C launcher and contribute to the new Ariane 6 launcher by providing the new solid engines and the Vinci and Vulcain liquid

oxygen turbopumps.

The new solid propulsion engine, currently named P120C, for the Ariane 6 European launch vehicle and the new, more powerful version of the Vega launcher is developed and built by Europropulsion (J.V. 50% Avio, 50% ArianeGroup). To create this engine and the new Zefiro 40 engine (entirely developed, built and tested in Italy by Avio and designed for the second stage of the Vega launch vehicle), a new composite material made of pre-impregnated carbon fibre will be used. It will be made directly by Avio in Italy, in its research centres in Colleferro (near Rome) and Airola (near Benevento).

Avio has many years of experience in the design and construction of solid and liquid propellant propulsion systems for space launch vehicles and tactical propulsion. Avio built the liquid oxygen turbopump for the Vulcain cryogenic engine, as well as the two lateral solid propellant engines for Ariane 5, the first stage of the Aster 30 anti-missile defence missile. To date, Avio solid propulsion has been used successfully in all of Ariane's launches (which number over 230 in total) and all of Vega's launches.

In the field of satellites, the Avio Group has built and supplied propulsion subsystems for ESA and ASI to put into orbit and control over 30 satellites, including most recently SICRAL and SmallGEO.