

## PRESS RELEASE

### Two new Galileo satellites successfully launched - The role of Finmeccanica companies

*Rome, 28 March 2015* – The seventh and eighth satellite of the European satellite navigation and localization system Galileo were successfully launched at 22:46 (CET) on March 27, with a Soyuz launcher, from Europe's Spaceport in Kourou, French Guiana.

The Finmeccanica group plays a fundamental role in the development of the Galileo programme, with its companies Telespazio, Thales Alenia Space and Selex ES.

**Telespazio** plays a leading role in Galileo, having built at the Fucino Space Centre one of the two Control Centres which manage the constellation and the programme mission. Furthermore, through Spaceopal - a company established in an equal joint venture with DLR/GfR - Telespazio is responsible for the operations and integrated logistics of the entire system, ensuring the management and coordination of the services. After launch, the Galileo Control Centre in Fucino will be involved in the IOT activities (In Orbit Test) of the programme, to verify the functionality and performance of the payload on board the satellites.

During the launch operations, an important role was played by Telespazio France, which supported the CNES and Arianespace from Toulouse and Kourou in managing the Launch Centre in Guyana and in the launch and putting the satellites into orbit.

Finally, Telespazio is involved in the validation phase of the programme's early services and in the implementation of applications based on Galileo, which will encourage the development and dissemination of innovative services in multiple sectors: transport, telecommunications, geodesy, oil exploration and mining.

**Thales Alenia Space** has been a major partner of the Galileo program since its very inception: as responsible for Galileo System Support Contract, the Company provides industrial system support to ESA regarding system engineering, performance, integration and validation. Therefore Thales Alenia Space is prime contractor for the development of the Galileo Mission Segment and the Galileo Security Facility that will control the overall satellite navigation system.

The Company provides also some key elements as the signal generation units and the antennas for the first 22 satellites of the FOC (Full Operational Capability) phase. In addition Thales Alenia Space has developed in the site of Rome the assembly, integration and test of 4 IOV (In Orbit Validation) satellites.

**Selex ES** has been key contributor to the European Galileo satellite navigation system from the very beginning of the programme, with the development and production of the IRES - N2 (InfraRed Earth Sensor) and the PHM atomic clock (Passive Hydrogen Maser). IRES - N2 is a particularly advanced and reliable tracker sensor for accurate measurement of pitch and roll attitude angles with respect to the Earth. The PHM is the most stable on board clock ever developed for space applications. It is characterised by its extraordinarily precise time measurement which guarantees

only one second discrepancy for every three million years. This never before reached level of accuracy lies at the heart of the Galileo positioning system and has been integrated in the Galileo IOV (In-Orbit Validation) and FOC (Full Operational Capability) satellite systems. Selex ES is supplying over fifty IRES-N2 sensors and as many units of the PHM for the Galileo constellation. Both systems are crucial to the quality of operations and services that will be provided by the satellite system.

The Galileo programme is a collaboration of the European Union with ESA to improve the technological independence of Europe and establish international standards for Global Navigation Satellite Systems (GNSS). The purpose of the programme is to provide a global navigation satellite system, a highly accurate, guaranteed global positioning service, interoperable with the US GPS and Russian GLONASS systems. At full operation, Galileo will consist of 30 Medium Earth Orbit (MEO) satellites and a broad ground infrastructures.

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