



Thales Alenia Space, a joint venture between Thales (67%) and Leonardo (33%), is a key European player in space Telecommunications, Navigation, Earth Observation, Science & Exploration, Orbital Infrastructures & Space Transport. The company also teams up with Telespazio to form the "Space Alliance", which offers a complete range of services and solutions. Thales Alenia Space posted consolidated revenues of about 2,4 billion euros in 2016, and has 7,980 employees in 9 countries



**Telecommunications** Thales Alenia Space is one of the world's leading designers of telecommunications satellites, platforms and payloads. The telecom segment accounts for half of the company's business. The company is also the worldwide leader in the fields of telecommunications constellations in low or medium Earth orbit.

**Earth Observation** Thales Alenia Space is a leader in Earth Observation, based on its high or very-high resolution optical and radar payloads. The company has established a position as a major supplier in export markets, covering military, dual and civilian missions: intelligence gathering, target designation, mapping, crisis management, meteorology, oceanography, climatology, etc. The company also proposes Stratobus™, a very innovative multi-missions autonomous stratospheric platform halfway between a drone and a satellite.

**Science and exploration** Venus, Mars, Titan, asteroids and comets... Thales Alenia Space has always been a pivotal partner in Europe's fantastic missions to the Solar System. Like ExoMars, Thales Alenia Space was also prime contractor for Herschel and Planck, the two

largest space observatories ever built in Europe. The company also developed and integrated Corot, the French exoplanet hunter, and made 25 parabolic antennas as part of Europe's contribution to the ALMA program in Chile. Thales Alenia Space also played a lead role in the Rosetta-Philae comet landing mission, in particular taking charge of the assembly, integration and testing of the Rosetta probe, as well as Europe's Bepi-Colombo mission to explore the planet Mercury. Thales Alenia Space also built, as prime contractor, the Huygens probe in the framework of Cassini-Huygens exploration program. Our next scientific challenge is the European program Euclid, designed to help further our understanding of dark matter.

**Navigation** Thales Alenia Space is the pioneer in European satellite navigation, as prime contractor for the Egnos augmentation system, the precursor to Galileo. The space manufacturer plays a major role in its development, with system support for Galileo and a lead role in the in-orbit validation phase, not only through the first four satellites in orbit, but above all by building the Mission Ground Segment for the complete constellation.

**Orbital infrastructure & space transport** The company provided half of the ISS's pressurized volume, including Nodes 2 and 3, the Leonardo Permanent Multipurpose Module (PMM), the Multipurpose Logistics Modules (MPLM), the Cupola, the Columbus lab structure, and the cargo modules for the ATV vessels. Thales Alenia Space also builds, on behalf of Orbital ATK, the pressurized cargo modules for the Cygnus resupply vessels. Thales Alenia Space has leveraged on its unrivaled expertise in orbital infrastructures and space transport to meet key challenges, including the IXV, a huge success that paves the way to future European reentry missions, and the pressurized compartment on SOAR (Sub-Orbital Aircraft Reusable), which will carry both scientific experiments and astronauts. Thales Alenia Space is also a leading contributor to the Orion Multi-Purpose Crew Vehicle (MPCV) being developed by NASA.

**Advanced electronics** Thales Alenia Space contributes to Europe's policy for independent access to space by supplying advanced electronics for the Ariane launcher family, and the onboard range safety system for Soyuz launchers operated at the Guiana Space Center.