

PRESS RELEASE

Safran Reosc wins contract to polish primary mirror on Europe's giant ELT telescope

Saint-Pierre du Perray, France, May 31, 2017

The European Southern Observatory (ESO) has awarded a contract to Safran Reosc, a Safran Electronics & Defense company, to polish, mount and test all segments in the M1 primary mirror for Europe's Extremely Large Telescope (ELT), which will be the world's most powerful telescope when it enters service (*).

Safran Reosc has now won contracts for four mirrors in this program, having already been chosen for all previous mirror contracts awarded by ESO: the six-segment M4 mirror in 2015, then in 2016 and 2017 the production contracts for the M2, M3 and M4 mirrors.

This contract for the primary mirror is a major business win for Safran Reosc, making it the world leader in large astronomical mirrors, while also bolstering its long-standing partnership with ESO.

The primary mirror contract spans seven years and gives Safran Reosc responsibility for polishing 931 optical segments, including an ESO option for 133 spares. Each one is an aspherical, hexagonal glass-ceramic mirror, measuring 1.5 meters from point to point. Once assembled, these segments will form the telescope's primary mirror, 39 meters in diameter.

Safran Reosc has developed unrivaled expertise in the polishing of these types of high-performance mirrors. Each segment will be polished until its surface irregularities are so small that they would be no higher than a ladybug if each segment were as big as France!

To meet the M1 challenge, Safran Reosc will create 90 new jobs for highly qualified personnel, to support a production rate of up to one segment a day. Fifty of these jobs will be at Safran's Poitiers plant, specialized in the production of high-tech optical and optronic (electro-optical) equipment, which will set up a new production facility dedicated to this project. The company will also create 40 new positions at its Saint-Pierre-du-Perray plant.

Commenting on this latest contract, Martin Sion, Chief Executive Officer of Safran Electronics & Defense, said: "Through the ELT program, Safran Reosc once again shows its unrivaled technological expertise in space optics, as well as its ability to address ESO's requirements by offering a solution that combines the agility of this innovative small business with the production capabilities of parent company Safran Electronics & Defense."

Philippe Rioufreyt, CEO of Safran Reosc, added: "This latest major international success for French technology is largely due to customer confidence in Safran Reosc's scientific and industrial capabilities, which the French Ministry of Higher Education and Research and the entire French astronomical community have already expressed for many years."

Safran Reosc develops and produces high-performance optics for satellites, large telescopes and high-energy lasers, as well as the semiconductor industry. In particular it polish the 8-meter one-piece mirrors for ESO's Very Large Telescope and the Gemini international telescope, the segments for the 11-meter *Gran Telescopio de Canarias* telescope, the mirrors for the Nirspec instrument on the James Webb Space Telescope (JWST) and the GAIA astronomy satellite. The company also supplied optics for the Meteosat, Spot and Helios satellites.

(*) The ELT is a giant telescope with a 39-meter primary mirror. Being built in Chile on the <u>Cerro Armazones</u> mountain (3,046-meter altitude), it will allow astronomers to make significant progress on stellar archeology, the discovery and characterization of exoplanets, etc. "First light" is expected in 2024.

Safran is a leading international high-technology group with three core businesses: Aerospace, Defence and Security (ongoing divestiture of Security business). Operating worldwide, the Group has 66,500 employees (Security included) and generated sales of 15.8 billion euros in 2016 (excluding Security). Safran is listed on Euronext Paris and is part of the CAC40 index, as well as the Euro Stoxx 50 European index.

Safran Reosc, a subsidiary of Safran Electronics & Defense, a high-tech Safran company, is a world leader in the design, production and integration of high-performance optics for astronomy, space, large lasers and the semiconductor industry, for both civil and defense applications. Founded in 1937 by Henri Chrétien, Safran Reosc has developed expertise unrivaled worldwide in optics for ground-based astronomy. From research and design, to production and integration, Safran Reosc offers a complete range of high-performance optics and high-precision opto-mechanical devices.

Safran Reosc has 130 employees and is based in Saint Pierre du Perray, about 35 km southeast of Paris.

For more information: www.safran-electronics-group.com, www.safran-electronics-group.com, <a href="ww

Contact(s)

Press relation Communication / Safran Electronics & Defense Philippe WODKA-GALLIEN / philippe.wodka-gallien@safrangroup.com / +33 1 55 60 38 54