

## RUAG Space

The Group's international market position was further expanded and key successes were achieved in the commercial space business. Thanks to organic and strategic growth, RUAG Space operates at twelve locations in six countries, now including Germany and the USA.

### Business performance

As expected, RUAG Space was one of the Group's growth pillars in 2016. Net sales totalled CHF 345 million, an 11 % increase on the previous year's figure of CHF 310 million. EBIT likewise saw significant growth, from CHF 24 million to CHF 32 million. Both sales and profit exceeded their targets. Key performance factors included success in the launch vehicle business in Europe and the United States, participation in all aspects of European space programmes and a determined focus on commercial product development and industrial series production. This was consistent with the successful international expansion strategy.

In May, RUAG Space fully acquired German technology company HTS with a staff of 32. HTS specializes in engineering services and produces customer-specific mechanical products for space flight. With this acquisition the division now has its own location in the important German market.

In addition, RUAG Space has achieved a strategically decisive step in the United States. Carbon fibre structures for Atlas V and Vulcan launch vehicles will be produced in Decatur, Alabama for United Launch Alliance. A new production facility is also being built at Cape Canaveral, Florida, where up to 900 structures will be manufactured in series for OneWeb, the world's largest satellite project. RUAG will also supply 21 mission-critical "dispensers" for OneWeb. Each of these separation systems is capable of placing 32 satellites in their proper orbital positions.

In Europe as well, RUAG Space won significant contracts, with an excellent order volume in institutional programmes and solid results in the growing commercial telecommunications satellite segment. RUAG Space signed a contract with Airbus Safran Launchers to develop a payload fairing for the new Ariane 6 launch vehicle, scheduled for its first launch in 2020. The new orders also strengthen the division's position as leading supplier of GNSS receivers for satellite navigation. These are used by systems including the Sentinel 6 earth observation satellite and the Electra telecommunication satellite. RUAG will also play a key role in the second generation of the European MetOp weather satellite and the ESA JUICE (Jupiter Icy Moon Explorer) research mission.

In the projects implemented, the division once more gave proof of its rapid execution capabilities and high dependability. It delivered payload control and thermal protection systems for the globe-spanning Iridium-NEXT telecommunications system. For NASA's award-winning James Webb Space Telescope, RUAG Space developed an antenna system for secure data transmission. For the ESA's ExoMars mission to explore the Red Planet the division supplied mechanical, digital and electronic subsystems, including components for the Mars rover scheduled to launch in 2018.

While continuing on its growth trajectory, RUAG Space 2016 also sharpened its focus on core competencies and strategic product groups. This includes the decision to spin off the scientific satellite instrument and optical communications business. Thales Alenia Space acquired all activities and staff at the Zurich location.

## Outlook

The growth trend for RUAG Space is expected to continue in 2017, based on a stable institutional market in Europe as well as on good prospects in the United States and in the commercial telecommunications market.

Digitalization and an increasingly networked world, together with the rise of commercial space organizations, will ensure continuing dynamism and drive the development of ever lower-cost and more efficient products. In the future it will be increasingly important to develop products suitable for both the institutional and the commercial markets.

Development of digital satellite communications systems, for example, will remain a priority in 2017. With their high bandwidth and greater flexibility, these will replace today's analogue television and data transmission systems in the medium term.

Along with active portfolio management, further optimizing underlying processes also remains a priority. Examples include further development of series manufacturing (e.g. through automation), targeted use of industrial components in production (e.g. in electronics) and lean management initiatives.

Additional priorities for 2017 include further securing the division's international presence, facilitating know-how transfers among countries and exploiting available synergies. In the United States, highly skilled workers are being recruited to start production in Alabama and Florida before the end of 2017. From the European locations, customer relationships will be strengthened and new customers won in the commercial market.

## Brief profile

RUAG Space is the leading supplier of products for the space industry in Europe and has a growing presence in the United States as well. With twelve production sites in six countries, the division specializes in components for use aboard satellites and launch vehicles. Its capabilities fall into four areas: structures and separation systems for launch vehicles, structures and mechanisms for satellites, digital electronics for satellites and launch vehicles, and satellite communications equipment.

## Customers/partners

ESA, NASA, Arianespace, Airbus Safran Launchers, European Launch Vehicle, Airbus Defence & Space, OHB, Thales Alenia Space, United Launch Alliance, Space Systems Loral, Orbital ATK, Boeing, Lockheed Martin

## Numbers and facts

Net sales:	CHF 345 million
EBITDA:	CHF 48 million
EBIT:	CHF 32 million
Employees:	1,257
Based in:	Switzerland, Sweden, Austria, Finland, USA, Germany