

# Efficiency has to be the key to success

*Hans Steininger, CEO of MT Aerospace AG, tells us why his company hasn't been hit by the economic crisis and why a comparatively costly location may be a strategic competitive advantage in these times*

By Dr. Heiko Frank

## **MT Aerospace: partner of aerospace agencies**

Some companies remain unaffected by the global economic crisis and recession, including MT Aerospace, one of the leading manufacturers of components and subsystems for the European aerospace industry. It is a system provider for antennas, and it supplies tanks and structural

modules of the European launcher Ariane 5 to various industry partners in the Ariane project. The aerospace industry is the company's principal source of income, accounting for about 90 percent of its business.

There are two types of customers for MT Aerospace: European agencies, such as the European Space Agency

(ESA) or DLR, and the commercial customers, including the space division of EADS, Astrium.

"The business concept for commercial satellite carrier companies is comparatively simple because of the long lifetime of the satellites and long-term agreements," says MT Aerospace CEO Hans Steininger. "That simplifies





our long-term sales forecast and helps to smoothen the manufacturing process. A large risk is any unexpected launch failure, which could immediately stop production at our premises. With the Ariane 5 rocket, Europe is a leader in the transportation of commercial satellites into space. It transports large loads into orbit and

is one of the highest-performance global launch vehicles. The Ariane rockets have been developed by aerospace companies from the ESA member states. MT Aerospace maintains a production share of about 10%, which makes the company the largest supplier outside France for the program. Space systems and aero-

space technologies play a major role in everyday life. Most indispensable services of our modern world, including telecommunications, television, weather forecasts and data transmission for global financial systems, are dependent on aerospace technologies.

### **MT Aerospace: a staid partner?**

There are other providers of large telecommunications satellites worldwide. European, Russian and American companies are all competing to be chosen to play a major role in the European navigation project Galileo. Russia's Sojus is one of the most tried and tested carrier systems with average carrying capacity in the world. The major consideration for the competing companies is price.

### **What is MT Aerospace's impact in the aerospace industry?**

Steinger describes his company's role as being a partner and supplier for German agencies, such as DLR (German Aerospace Center) and other European participants, including ESA, which has 17 member states. The European aerospace policy enables programs and projects that could not be achieved by any of the member states single-handedly. MT Aerospace's ability to cooperate and network is important for its success. MT Aerospace's manufacturing facilities, materials,

manufacturing methods and processes are not available elsewhere in Europe, Steiningger says. But despite its unique position, it cannot have a monopoly within the sector. Due to competition, there is a maximum price the customer is willing to pay, he says, and a spirit of cooperation is necessary so that everyone can make a profit.

### **The Ariane project allows a stable outlook**

“So far, MT Aerospace has not been affected by the economic crisis, neither in business-related space flight nor in the aviation sector,” Steiningger says. Sales volume in business-related space flight is stable, he says, and the only risk would be if the crisis lasts much longer.

Market fluctuations in this industry do not exist on a monthly basis but over a period of three to five years, Steiningger says. Companies such as MT Aerospace are not exposed to them, he says, unless “the population would stop buying TV sets [because of lower purchasing power] or the private TV stations wouldn’t be able to sell commercials; then the demand for satellite-transmission capacity would drop, including demand for carrier rockets such as Ariane 5.”

“The market for digital consumer electronics is continuously expanding,” he says, “and the impending ‘triumphal procession’ of high-definition television [HDTV], which is

significantly broadcasted via satellite in Europe, also benefits the aerospace industry.” “The market’s influence on aerospace is moderate compared to other industries,” Steiningger says. Constantly increasing demand for mobility enables 10-year trends to be predicted, which gives this sector the ability to react flexibly to any market fluctuations. Currently, about 20-25 satellites are transported into space annually, he says, including about six to seven launches of the Ariane, which is a very limited number. A launch, including the transport of two satellites into a geostationary orbit, costs about €150 million to €170 million. “Production orders for the Ariane up to the year 2013 make the aerospace location in Augsburg comparatively solid,” Steiningger says, especially since production of the Ariane 5 will take place until 2020-2025. “Because of the fixed-price contracts, we have to primarily drive the costs down to become more successful.”

### **The heyday of aviation is past**

The aviation industry had a peak year in 2008: no-frills airlines sprang up like mushrooms, which led to record sales for Airbus and Boeing. But future prospects for this market look less encouraging than aerospace: time is getting more and more precious, the Internet provides opportunities to entertain oneself virtually, and that makes trav-



Currently, about 20-25 satellites are transported into space annually, including about six to seven launches of the Ariane

A launch, including the transport of two satellites into a geostationary orbit, costs about €150 million to €170 million



eling less essential. Oil prices, and hence the price of jet fuel, is something the aviation industry will have to contend with. Even though Airbus and Boeing recorded a decent volume of orders in 2009, a cutback of 10%-20% for 2010 is expected.

The aviation industry will be affected by developments in the world economy, especially regarding financing options, Steinger says.

"Unlike the aerospace sector, we can measure only a five- to 10-year trend in the aviation sector," he says. The aerospace industry is affected

by the external market, but in the aviation industry, problems that are mainly home-made have to be addressed, including controlling costs and excessively long developmental periods.

Nevertheless, there is enormous potential for growth in emerging markets such as China and India, Steinger says. Long-term economic indicators and demographics indicate a tremendous increase in demand for air travel over the next 20 years. To meet demand, local airlines will have to boost their capacities.

However, the years 2010,

2011 and maybe 2012 will be challenging for the aviation industry, but normalization in the financial markets should coincide with a recovery of the industry. In the long term, demand should be stable. But the giants of the industry, Airbus and Boeing, will probably face serious competition from China, Brazil, India and Russia in the medium to long term.

### **Pressure to innovate and cost considerations in the aerospace industry**

In a competitive sector like aerospace, a company cannot rest on its laurels: it must constantly innovate. Current research and technological development programs for the growing sector of space flight are very significant, even for MT Aerospace.

"The development period for new launchers averages about 10 years," Steinger says.

"The challenge for us is to develop our products gradually, to simplify complex issues at the same time, to minimize costs and to develop solid technologies and also light materials that can withstand enormous loads."

For the planned development of an Ariane 6 rocket, basic research is necessary to tie in with the high reliability of Ariane 5. Modified production processes, which result in a decrease of cost for an Ariane rocket, have to be consistent with the goal of improving the reliability and the performance of the carrier system.

## Efficiency is the crucial factor

The aviation industry will face tremendous challenges in the coming years. It will be forced to take into consideration climate protection while contending with growing competition. In addition, developmental stages in the aviation industry are shorter than in the space-flight industry. "Once the development of a product is completed, it is not advanced or modified anymore," Steiningger says. "Due to the division into quality categories, this would necessitate a requalification, which is usually not made until 10 years have passed." The factors for success in the aviation industry are quite different: the term efficiency has to be clearly stated as the key to success. Consumption, noise, emissions, complexity, shortened processing on the ground and other external influences permanently change, in contrast to the space-flight sector.

## Strategic competitive edge in the face of high-priced location

A ceremony for laying the corner stone for the new Fraunhofer Institute and the DLR Institute in Augsburg took place this past September. Steiningger says Augsburg in particular and Bavaria in general are locations where the state provides an attractive infrastructure. Many high-tech companies, including SGL Carbon, Premium Aerotec,

MAN and Eurocopter, are located nearby. There is a clear focus on aviation. Companies like Premium Aerotec, a leading supplier for civil and military aircraft structures, invest a lot in new infrastructures. In the future, MT Aerospace will also invest in technology companies, primarily in the carbon-fiber industry, Steiningger says, adding: "The know-how does exist, and there is great potential for start-up companies."

"Everything [in this location] is somewhat smaller but on no account inferior," he says. "There is sufficient potential: the only question is how to use this potential and how it can be effectively realized." That is the challenge and the main goal of the management: to make use of the potential to advance innovations; to sustain and strengthen competitiveness.

For many companies in different industries, work flow and processes always need to be optimized, and costs have to be kept low to adapt to external conditions and requirements. That also holds true for MT Aerospace, Steiningger says. Its current advantage is that it has not been directly hit by the recession. For this reason, he says, MT Aerospace is well-positioned to strengthen its competitive edge.

Dr. Heiko Frank,  
Managing Director,  
Tefen Germany

Long-term economic indicators and demographics indicate a tremendous increase in demand for air travel over the next 20 years

The factors for success in the aviation industry are quite different: the term efficiency has to be clearly stated as the key to success