

## Press Release

# Spanish firm Elecnor Deimos is working with Swiss Space Systems on the launch of satellites at a reduced cost

- The new Swiss company, Swiss Space Systems (S3), will make space more accessible with the construction of a sub-orbital space shuttle for small satellites, with launch costs that are four times lower than the current cost.
- Elecnor Deimos will be responsible for the dynamic part of the flight, the control system and equipment on Earth.

Madrid, 15 March 2013. - Elecnor, through its technology branch Elecnor Deimos, is a partner in the new aerospace company Swiss Space Systems (S3), whose aim is to develop, construct, operate and certify sub-orbital space shuttles for launching small satellites. Thanks to an original system its launch costs are four times lower than current costs, which will facilitate greater access to space. The first test launches are expected to take place at the end of 2017.

The official opening of S3 was on 13 March this year, in the Swiss locality of Payerne. National and International Authorities and prestigious institutions such as ESA, Von Karman Institute and Stanford University attended the opening as well as partners Elecnor Deimos, Dassault Aviation, Sonaca and Meggitt.

### **A simpler, safer and more efficient launch system**

The new S3 launch model uses an Airbus A300, an aeroplane that is certified for zero-gravity flights capable of transporting the shuttlecraft up to 10,000 m to launch it from this height. The combination of internal architecture, developed by the French firm Dassault for Hermes, together with the external architecture, developed by the Belgian firm Sonaca and Space Application Services, will be responsible for the space shuttlecraft and launch.

This original launch method requires developing and integrating all the control systems. In order to guarantee efficiency and reusing the system's infrastructures, Elecnor Deimos will be responsible for the dynamic part of the flight, the control system and Earth equipment. To this end it has developed software solutions for fine-tuning and supporting the mission design and engineering by applying guidance, navigation and control concepts, flight mechanics, attitude and orbit indicators, and innovative navigation algorithms.

#### **More information:**

Porter Novelli. Eva Toussaint / Beatriz Crespo  
[eva.toussaint@porternovelli.es](mailto:eva.toussaint@porternovelli.es) / [beatriz.crespo@porternovelli.es](mailto:beatriz.crespo@porternovelli.es)  
Tel:(+34) 91 702 73 00



The shuttlecraft-drone will be responsible for the next phase of ascent to a height of 80 km, the distance at which satellites are put in orbit. Once this operation has been completed the shuttlecraft-drone will return to Earth gliding to its airport, where it will be serviced by the maintenance teams preparing for a new launch.

The system developed by S3 offers many safety advantages, since the launch can be interrupted at any point of the process allowing the shuttlecraft to return to Earth. This launch equipment for regular use and with much lower fuel consumption than current systems enables S3 to offer satellite launches at a cost that is four times lower than current market prices.

### **A Swiss company with strong worldwide alliances**

During the presentation of S3, Pascal Jaussi, founder and Chief Executive, drew attention to the great advances in the integration of the European space industry: 'Our launch programmes benefit from technologies previously developed and certified by some of the key actors in the aerospace industry, such as the European Space Agency (ESA), Elecnor Deimos, Dassault Aviation, the Von Karman Institute and Sonaca".

The application of pre-existent technology programmes, such as Hermes and X-38 will reduce the Swiss company's research, development and production costs.

### **Payerne Spaceport development and construction**

The spaceport construction is currently being designed in the Swiss city of Payerne and is expected to open in 2015. Likewise, countries like Malaysia and Russia have expressed their interest in becoming bases for new spaceports. At the moment 4 launches have already been agreed with the prestigious Von Karman Institute

### **About Elecnor Deimos**

Elecnor Deimos is Elecnor's technology branch, specialising in the design, engineering and development of solutions and system integration within the fields of space and information and communications technology.

### **About Swiss Space Systems S3**

Swiss Space Systems Holding SA is a Swiss company founded in Payerne in 2012. The aim of Group S3 is to develop, construct, operate and certify sub-orbital shuttlecrafts to launch satellites of up to 250 kg. At present, the company has 25 staff and its total budget is approximately 250m CHF.

#### **More information:**

Porter Novelli. Eva Toussaint / Beatriz Crespo  
[eva.toussaint@porternovelli.es](mailto:eva.toussaint@porternovelli.es) / [beatriz.crespo@porternovelli.es](mailto:beatriz.crespo@porternovelli.es)  
Tel:(+34) 91 702 73 00