



Press Release

Elecnor Deimos launches Spain's first ultra-high resolution satellite into orbit


- The DEIMOS-2 satellite will improve our knowledge of natural phenomena on Earth and help prevent and manage natural catastrophes.
- It acquires images with a high accuracy and a resolution of up to 75 cm.
- The successful outcome of this new mission reinforces Elecnor Deimos's position as a benchmark in the Spanish and European aerospace industry following the launch of DEIMOS-1 and the development of the Puertollano Satellite Assembly and Operations Centre.

Madrid, 17 June 2014. - [Elecnor Deimos](#), the technological area of [Elecnor](#), is close to culminating one of the most ambitious aerospace projects launched in our country. It involves launching into orbit Spain's first ultra-high resolution satellite, DEIMOS-2, which has required an investment of 60 million euros – a figure that is expected to rise to 100 million euros by the end of the satellite's useful life.

The launch will take place on 19 June at 21:10 hours at the Yasni Launch Complex in Russia, where the Russian-Ukrainian Dnepr launch vehicle will carry it into orbit. Once there, it is expected to collect accurate images of the Earth's surface for at least the next seven years.

This mission has been developed in a record time of three years. Once in service, DEIMOS-2 will participate in different projects, all of which are to the benefit of society. It will generate highly accurate information requested by customers (mainly governments and big business) who need images for use in several fields: agriculture, the environment, climate change, crisis control and civil protection (fires and floods), as well as defence, intelligence and border control.

This new panchromatic and multispectral satellite, weighing 300 kg and measuring 2 m high by 1.5 m wide, is fitted with a camera that captures very accurate and detailed images, with 75 cm resolution. The satellite is capable of covering 150,000 km²/day at this resolution in the RGB; NIR and panchromatic bands. If we compare a pixel of an image taken by DEIMOS-1, the first satellite launched by the company in 2009, with one captured using DEIMOS-2, 800 times more data and details of an area can be obtained.



Miguel Belló, General Manager of Elecnor Deimos: *"the goal of DEIMOS-2 is to improve our understanding of natural phenomena on our planet and contribute to preventing and managing possible natural disasters. For example, it will help improve agricultural production since it can be used to draw up recommendations on quantities of fertilisers, areas of application, irrigation, etc. This will help safeguard the environment as well as serving to measure and curb climatic change and deforestation. The satellite will also be used for defence, intelligence and even humanitarian aid, among other multiple applications."*

Elecnor Deimos' s second proprietary mission

The first satellite developed by the company was DEIMOS-1, which stood out as the first Spanish earth observation satellite and the first project of its kind in Europe to be funded in full by the private sector. It was launched into orbit in July 2009 and over the last five years has become one of the most widely used in the fields it was built to serve: agriculture, the environment, and mitigation of the effect of natural catastrophes.


DEIMOS-1 boasts a sensor that captures images with a swath width of 620 km.

Elecnor Deimos's Satellite Assembly and Operations Centre

Elecnor Deimos has developed the innovative Puertollano Satellite Assembly and Operations Centre to build and subsequently control the DEIMOS-2 mission. Involving an investment of close to 8 million euros, this complex, inaugurated in 2013, enables the company to assemble and control not only its proprietary satellites, such as DEIMOS-2, but also those of third parties.

It is equipped with the most advanced technology and is structured as follows:

- Engineering unit: where the work of designing and engineering satellites is carried out.
- 400 m² clean room: where satellites are assembled and tested. It is fitted with a sophisticated ventilation and air filtration system to maintain the most rigorous environmental parameters, and temperature and humidity control system used to assemble satellites to the strictest of requirements.
- 10.2 m diameter, dual band (S + X) dish used to communicate with DEIMOS-2 and receive the images collected by the satellite. Three more dishes will also be added to the array to communicate with DEIMOS-2: in Boecillo, Valladolid (where Elecnor Deimos has another control centre from which DEIMOS-1 is currently monitored), another in Inuvik, Canada, and a third in Kiruna, Sweden.
- Control centre: from where Elecnor Deimos communicates with the satellite, and monitors and controls it. Remote control data will be emitted from here to programme



which images DEIMOS-2 takes, how it has to manoeuvre or even perform emergency manoeuvres to avoid possible collisions with space junk. Telemetry data on the satellite's health and the images taken by DEIMOS-2 are also received by this centre.

Once the images reach the control centre, the data will be processed to convert them into a finished product for customers (primarily companies and governments). Elecnor Deimos has developed software in house to perform this process (the **gs4EO** suite of products, capable of processing and delivering images to customers in less than two hours).

DEIMOS-2 and the Puertollano Satellite Assembly and Operations Centre sees Elecnor Deimos operating across the entire space mission value chain, since it has the capability to manage entire space programmes; design, assemble, test, launch and operate earth observation satellites; operate observation satellites commercially; and develop earth observation systems for third parties.

About Elecnor Deimos

Elecnor Deimos is Elecnor's technological area that specialises in engineering solutions in the aerospace, information systems and telecommunications sectors. The company is structured into four business units: Remote Sensing (responsible for operating the DEIMOS-1 satellite); Aerospace, Defence & Systems; Aeronautics; and, lastly, Satellite Systems (managing the Puertollano Satellite Assembly and Operations Centre and the DEIMOS-2 project).

www.elecnor-deimos.com

About Elecnor

Elecnor carries out projects involving infrastructure, renewable energies and new technologies. It has 12,500 employees and operates in over 40 countries. *For further information:*

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