Press release

AERNNOVA and IK4-TEKNIKER present their approach to laser technology in the aeronautical business

- *AERNNOVA and IK4-TEKNIKER present a number of new technological approaches developed by the technology centre's advanced laser manufacturing laboratory to Basque Government officials*
- *Both organisations are collaborating in projects such as the development of an innovative micro-drilling process for large titanium sheets as well as, among other projects, additive manufacturing applications using a wire deposition technique*

(Eibar, Basque Country. 10 November, 2017).- Today, the multinational corporation AERNNOVA AEROSPACE and the IK4-TEKNIKER technology centre presented their joint approach with regard to developing new laser technology solutions used to significantly enhance competitiveness in the aeronautical sector. This plan materialised after setting up an advanced laser technology laboratory at the technology centre's facilities in the Gipuzkoa Technology Park, Eibar.

The visit featured a delegation from the Basque Government headed by the deputy regional minister for Technology, Innovation and Competitiveness, Ms. Estibaliz Hernáez who was accompanied by the Director for Technology and Strategy, Mr. Iosu Madariaga; AERNNOVA AEROSPACE was represented by Ms. Conchita Azcuenaga, Director for Aerometallic Industrial Operations and by the Director for Industrial Relations and Industrial Manager of AERNNOVA AEROSPACE, Mr. Francisco Javier Fernández de Retana. The Director General of IK4-TEKNIKER, Mr. Alejandro Bengoa, was also in attendance.

The laboratory has strengthened this strategic collaboration that began several years ago between the company and the technology centre in the aeronautical sector, a key business for

the industrial fabric of the Basque Country that has become increasingly valuable thanks to the application of new laser methods developed to date within the scope of this collaboration.

It has been estimated that this particular technology is one of the most outstanding and promising tools as regards heading towards new manufacturing scenarios that are more productive, efficient and flexible. It has, in fact, become an essential asset nowadays for many processes associated with manufacturing.

Joint projects

The facilities, already in operation, hold the results of a collaborative solution developed by both organisations. Specifically, it is connected to a micro-drilling prototype that uses laser technology to drill large titanium sheets for the aeronautical sector.

The technology centre has been responsible for areas related to design, development, production, assemblage, quality control and process monitoring.

Specialised in Additive Manufacturing

This collaboration with AERNNOVA AEROSPACE has been made possible by IK4-TEKNIKER's high degree of specialisation in some of the most innovative laser technologies such as fibre laser bombing, laser beam characterisation, optics, design and development of scanners, or Additive Manufacturing. It is an advanced manufacturing technique used to make structures and parts by successively depositing several layers of material.

It was eight years ago when the Technology Centre decided to specialise in Laser Metal Deposition (LMD), an Additive Manufacturing technique based on synthesising metallic powder. The Centre is now attempting to make a qualitative leap towards new applications involving this innovative method and is also working on wire-based deposition processes.

In this regard, today's visit allowed visitors to see the two Laser Powder Metal Deposition cells in operation as well as the new robotised cell that applies the new wire deposition method. They were also shown the design of a new piece of equipment to be used to manufacture large parts that also points to the future of the technology centre.

2020 Strategic Plan

Additive manufacturing is one of IK4-TEKNIKER's main areas of action addressed by its recently approved 2020 Strategic Plan whose aim is to develop equipment internally to further improve deposition processes.

In addition, the technology centre will do its utmost to strengthen its alliances with companies such as AERNNOVA AEROSPACE to obtain first-hand knowledge on what the market really needs.

IK4-TEKNIKER has set itself a number of challenges such as achieving technological excellence, promoting sustainable growth and focusing much more on people in order to, among other things, address the new triennium to continue to be a benchmark organisation with regard to knowledge generation and transfer for companies against the backdrop of a firm commitment focused on furthering the competitiveness of the Basque industrial fabric from the point of view excellence, technological specialisation and scientific rigour, all of which must be fully in line with the industry's current needs.

Concerning IK4-TEKNIKER

With more than 35 years of experience in applied technology research that has been be transferred to companies, IK4-TEKNIKER has achieved a high degree of specialisation in four major areas (Advanced Manufacturing, Surface Engineering, Product Engineering and ICTs). This means that its cutting edge know-how has been made available to customers to meet their requirements.

Regarding AERNNOVA

AERNNOVA is a cutting-edge company in its sector that specialises in the design and manufacture of aeronautical structures. It is also a major supplier to leading aircraft manufacturers all over the world.

With more than 700 million in turnover in 2016 and 4,500 employees, AERNNOVA is operating in Spain, Mexico, United States, Brazil and Romania. The company has also signed collaboration agreements in India and China.

Further information

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