

PRESS RELEASE

Tekniker and GAIKER form a partnership to boost the integration of electronics in plastic components

- *Both technology centres, members of BRTA, have signed a collaborative agreement to develop joint solutions that will generate jobs and further innovation in the business fabric*
- *The scope of application of the technologies developed within the framework of this partnership will focus on integrating electronics in plastic components by means of the In Mould Electronics technique*

[Eibar, September 16, 2021] – Electronics integrated in plastic parts is opening up new possibilities as regards implementing less costly and more resilient manufacturing procedures in different sectors. One of the technologies that is causing a revolution in this field is called In Mould Electronics (IME), a manufacturing technique that integrates electronics during a plastic injection process.

In view of this revolution, the Basque technology centres **GAIKER** and **Tekniker** have signed a collaborative agreement to boost the development of innovative solutions that include this technology. Another aim is to share their expertise and know how as key drivers for the Basque industry. This collaboration involving both industrial stakeholders will make it possible to replace the traditional manufacturing process used for different structural components based on the sector's traditional Ti6Al4V alloy with this innovative technique that deposits several layers of metal powder injected on the surface of a given substrate which is melted by a high-power laser beam.

Consequently, this new partnership featuring two **BRTA** (Basque Research and Technology Alliance) members will offer major collaborative and development opportunities as well as the possibility of implementing joint solutions aimed at integrating electronics in plastic components and generating synergies with other stakeholders in the business fabric.

Luis Uriarte, Tekniker's managing director, explains that "our mission at Tekniker consists in improving the competitiveness of our territory's industrial fabric. Consequently, the ultimate goal consists in encouraging companies to transfer new knowledge and technology in a field like electronics integrated in plastic parts that is clearly on the rise".

On the other hand, Santiago Rementeria, director general of GAIKER, underscores that "the technology to be developed and transferred within the framework of this agreement is now being demanded by key industrial sectors in the Basque Country, and we at GAIKER see this as yet another opportunity to contribute value to the companies in our environment".

An extensive catalogue of technologies

The agreement signed by Tekniker and GAIKER will allow both technology centres to provide an extensive catalogue of technologies in which they already specialise and are related to the field of electronics integrated in plastic parts by means of IME.

As regards Tekniker, the technologies covered by this partnership are the design of printed electronics for IME, 2D the printing of electronic circuits (including the materials involved in the printing itself such as substrates and inks) and the insertion of components that it is not possible to print at this point in time.

As far as GAIKER is concerned, this organisation will provide knowledge connected to technologies associated with plastic materials and material selection and processing: thermal shaping for printed circuits and injection over-moulding for printed circuits safeguarding connection elements, as well as eco-design and sustainability features of the solutions taken onboard to further the circular economy.

All of these technologies, moreover, also incorporate characterisation procedures. Tekniker, on the one hand, will run final functional and robustness tests on products with regard to electronics and, on other, GAIKER will follow suit in the case of the plastic materials used.

More about GAIKER

GAIKER, a member of the Basque Research & Technology Alliance (BRTA), is a technology centre whose mission consists in promoting the use of technology as a key tool to help improve the competitiveness of the industrial fabric by generating in-house R&D&I and transferring the knowledge and expertise acquired by developing innovative solutions for

companies in areas such as composite materials, functional and sustainable polymers, recycling & circular economy and biotechnology.

Concerning Tekniker

Tekniker is a technology centre specialised in Advanced Manufacturing, Surface & Product Engineering, and ICTs for manufacturing. Its mission is geared towards fostering growth and wellbeing through R&D&I actions aimed at society and enhancing competitiveness in the business fabric in a sustainable manner. Tekniker is a member of the Basque Research and Technology Alliance (BRTA).

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