



## Grupo Antolin works with IMDEA in the research of flexible batteries for integration into the car interior

**Burgos, 24 June, 2021-** Grupo Antolin, global supplier of technological solutions for car interiors, works with IMDEA Materials and IMDEA Energy Institutes in the development of flexible Lithium-ion batteries that can be integrated in interior components of vehicles. The objective is to develop Lithium-ion batteries that are flexible, safer and lighter.

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With this research, Grupo Antolin strides towards a more efficient, accessible and profitable electric mobility, and promotes the sustainability of the automotive industry. For this purpose, the company is collaborating with leading research groups on the development of nanostructured materials (IMDEA Materials) and innovative batteries (IMDEA Energy). The team have worked together for the last few years researching new materials and component fabrication methods, as well as the assembly of thin batteries and their electrochemical characterisation.

As a result of this research, they have produced large-area batteries combining excellent energy-storage, high safety and extraordinary mechanical properties. These mechanical properties enable shaping of the battery into different car interior components, such as a roof, boot or flooring.

A key Innovation is the choice of materials. Unlike traditional Lithium-ion batteries with liquid electrolytes, these flexible Lithium-ion batteries use a solid electrolyte to eliminate the risk of leaks and increase safety. In addition, the metallic current collectors were substituted by fabrics of carbon nanotube fibres, which are thinner, more flexible, and cost-effective. These innovations have led to a reduction in weight of components and a corresponding increase in energy and power density.

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So far, the results are very promising. The mechanical properties of the electrodes are superior to those of commercial Lithium-ion batteries. The flexible battery prototypes can be given complex shapes under processing conditions used in manufacturing.

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### **About Antolin**

***Grupo Antolin is one of the largest manufacturers of vehicle components in the world and a global provider of technological solutions for the car interior. The company has about 150 factories in 26 countries, 27,000 employees and sales of €3.9 billion in 2020. The company supplies the world's leading car manufacturers. Grupo Antolin offers products with high added value through four Business Units: Overheads, Cockpits&doors, Lighting&HMI, and Electronic Systems.***

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