



PRESS RELEASE

SOLIDBAT drives development of new solid-state battery technology that will facilitate large-scale production

- **The European SOLIDBAT project, funded by the European Union through its Horizon Europe program, will contribute to the development of high-energy density solid-state batteries that offer greater durability and safety, and whose production has a minimum environmental impact.**
- **The consortium, in which 13 entities from the continent and one from Canada participate, held its kick-off meeting at the headquarters of CIC energiGUNE, the Basque research center leading the project.**

(January 24, 2025)

The European project SOLIDBAT, which brings together 13 companies and research centers from the European continent and a Canadian entity to jointly develop a new solid-state battery technology, was officially launched today in Vitoria-Gasteiz (Basque Country - Spain) with the kick-off meeting held at the headquarters of CIC energiGUNE, a Basque research center reference in electrochemical and thermal energy storage and conversion that leads the project.

The objective of SOLIDBAT, funded by the European Union through its Horizon Europe program, is to develop a disruptive technology in the field of solid-state batteries to facilitate the large-scale production of these devices and thus meet the stringent demands of the automotive sector.

To this end, the focus of the SOLIDBAT project will be on high energy density solid-state batteries (400 Wh/kg, 1000 Wh/L), as they enable long life and increased safety, and are therefore ideally suited to meet the needs of the automotive industry.

As highlighted at the kick-off meeting, the development of the project involves innovation in five main areas: new digital tools and models for materials development and cell parameter design; an active nickel-manganese-cobalt nickel-rich, high-capacity, water-processable nickel-manganese-cobalt cathode material; a 3D textured high-energy lithium metal anode coated with an artificial protective solid-electrolyte interface; a highly conductive and electrochemically stable hybrid gel polymer electrolyte; and scalable solutions for manufacturing solid-state battery technology that easily adapt to current lithium-ion technology.

One of the focuses of the development of this disruptive technology is to minimize the impact on the environment by reducing the use of critical raw materials, reducing the use of toxic PFAS (per- and polyfluoroalkyl substances), and developing more sustainable production processes.



**Co-funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them. No. 101147533



PRESS RELEASE

In this way, SOLIDBAT will contribute to the transition to climate-neutral energy and transportation, and will avoid dependence on battery production in Asian countries.

It should also be noted that SOLIDBAT continues the work carried out over the past four years in the SAFELiMOVE project, an initiative also led by CIC energiGUNE, which was committed to the development of a new generation of batteries for electric vehicles - based on a solid-state electrolyte - capable of producing a safer, more reliable and high-performance lithium battery. The work carried out at SAFELiMOVE was decisive in successfully advancing in three key areas: the development of advanced materials; the analysis and optimization of interfaces; and the scalability of solid-state technology to several prototypes.

The SOLIDBAT consortium includes 13 recognized European and one Canadian entity, covering the entire battery value chain and fostering European innovation and industry growth. Under the leadership and coordination of CIC energiGUNE, the other SOLIDBAT partners are: Inobat Auto JSA (Slovakia), SCHOTT AG (Germany), Hydro-Quebec (Canada), Specific Polymers SAS (France), Ampere SAS (France), Toyota Motor Europe (Belgium), Life Cycle Engineering SpA (Italy), Eurida (Austria), Commissariat a L'Energie Atomique et Aux Energies (France), Fundación CIDETEC (Spain), RWTH Aachen University (Germany), Technical University Braunschweig (Germany), and Fraunhofer Institute for Silicate Research ISC (Germany).



**Co-funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them. No. 101147533