PROJECT

HELENA

Halide solid state batteries for electric vehicles and aircrafts

HELENA responds to the need of the development of a safe, novel high energy efficiency and power density solid state battery (4b generation batteries) cells, based on high capacity Ni-rich cathode (NMC), high-energy Li metal (LiM) anode and Li-ion superionic halide solid electrolyte for application in electric vehicles and, especially in aircrafts.

This project has received funding from the European Union's Horizon Europe Research And Innovation programme under Grant Agreement Nº 101069681

15	8	€8 M	4
PARTNERS	COUNTRIES	TOTAL BUDGET	YEARS

IN ONE CLICK

Coordinator	Programme	Period
CIC ENERGIGUNE	Horizon Europe	2022-2026
Sector	**Web**	
ENERGY	-	

01
Challenge

HELENA responds to the need of the development of a safe, novel high energy efficiency and power density solid state battery (4b generation batteries) cells, based on high capacity Ni-rich cathode (NMC), high-energy Li metal (LiM) anode and Li-ion superionic halide solid electrolyte for application in electric vehicles and, especially in aircrafts.

02
Solution

HELENA will avoid dependence on Asia for battery production. HELENA is built by a multidisciplinaryand highly research experienced consortium that covers the whole battery value chain and proposes a disruptive halidebased solid-state cell technology with the overall aim to significantly increase the adoption of these batteries on aircraftsand EVs The technical challenges that are presented by current conventional battery technology and the consumer needswill be overcome

03
Impacts

HELENA consortium has designed an ambitious pathway that will ensure that the 24 HELENA results will contribute to all Expected Outcomes specified in the topic during and within 4 years after the project, and to the Expected Impacts identified in Destination 2 in a long-term. To successfully achieve this, the pathway will be supported by well targeted D&C&E measures , aimed at specific Target Audience (TA), and defined to face the main barriers identified.