

PROJECT

NEXTBAT

Next generation battery systems for paving the way for transport electrification in the European Union

NEXTBAT project aims to significantly contribute to decrease the carbon footprint of the innovative battery system by decreasing production costs thanks to the high recyclability capacity of both hardware and cells components introduced along the production chain technologies.



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12

PARTNERS

6

COUNTRIES

€5M

TOTAL BUDGET

42

MONTHS



IN ONE CLICK

Coordinator	Programme	Period
VTT Technical Research Centre of Finland	Horizon Europe	2023-2026
Sector	Web	
Energy, mobility	https://nextbat.eu/	

01 Challenge

Transport produces 25% of total CO2 emissions in the EU. Despite efforts to enhance efficiency, the sector faces an escalating demand and remains the only one that has not reduced its emissions. In this context, batteries play a crucial role in decarbonizing light-duty transport (cars and vans), heavy-duty transport (trucks, trains, ships, planes) and non-road machinery (construction, agriculture, mining). However, technical and non-technical challenges persist, including cost, energy density, power capability, and the lifespan of energy storage systems.

02 Solution

NEXTBAT aims to provide a new framework for standardization of the next generation battery system design that will contribute to speed up a safe and sustainable electrification of transport and mobile applications in the EU. The project will significantly contribute to decrease the carbon footprint of the innovative battery system by decreasing production costs thanks to the high recyclability capacity of components.

03 Impacts

Thanks to the new technologies developed within the NEXTBAT framework, the battery system performances will be enhanced with decreasing battery weight by 25% using a newly developed lightweight material. Battery management systems will be incorporated at the cell and system unit allowing to increase battery lifetime by up to 20%.