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**Press Release**

**NEXTBAT: the new battery system design that will speed up a sustainable electrification of transport and mobile applications in the EU**

In June 2023, project NEXTBAT [*Next generation technologies for battery systems in transport electrification based on novel design approach to increase performance and reduce carbon footprint*] funded by EU and Swiss SERI was launched in Helsinki, Finland, under Grant Agreement nº 101103983. This project was awarded a Horizon Europe program grant of almost 5 million euros by the European Commission. The duration of the project will be 42 months as of 1st June 2023 and will end in November 2026.

**Context**

The transport sector represents around 25% of all EU CO2 emissions: To face the challenge, the NEXTBAT project will provide two battery prototypes with next generation technologies, and 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, thereby also contributing to meet the EU CO2 reduction target and to reach a climate neutral economy by 2050.

NEXTBAT will 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 cell components introduced along the production chain (100% weight for weight for hardware, 50-80% for cells depending on technology).

**NEXTBAT main objectives**

The electrification of transport and mobile applications requires high-performance and safe battery system. Thanks to the new technologies developed within the NEXTBAT framework, the battery system performances will be enhanced (energy/power density increase by 30-50%) 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% at a state of health (SoH) of 80% at cell level with innovative electronic sensing/actuating systems.

Two prototypes will be manufactured, and safety guidelines and methodologies will be established as a result of safety testing campaigns performed by certified laboratories and the end-users, whereas dismantling and reuse of BMS parts will be assessed along with life cycle analysis.

**Consortium**

NEXTBAT is coordinated by [**VTT** (VTT Technical Research Centre of Finland Ltd)](https://cris.vtt.fi/en), one of Europe’s leading research institutions, and gathers a pertinent and strong consortium of 11 partners from six different EU countries (Finland, Spain, France, Germany, Greece, and Sweden) and one Associated Partner from Switzerland:

* [**RISE** (Rise Research Institutes of Sweden AB)](https://www.ri.se/en)
* [**APPLUS** (LGAI Technological Center SA)](https://www.applus.com/global/en/about-us/our-brands/applus-laboratories)
* [**CEA** (Commissariat a l’energie atomique et aux energies alternatives)](https://www.cea.fr/)
* [**FHG** (Fraunhofer Gesellschaft zur Forderung der angewandten Forschung EV)](https://www.fraunhofer.de/en.html)
* [**BSC CNS** (Barcelona Supercomputing Center - Centro Nacional de Supercomputacion)](https://www.bsc.es/)
* [**VA** (Valmet Automotive EV Power OY)](https://www.valmet-automotive.com/)
* [**VA Sol** (Valmet Automotive Solutions GmbH)](https://www.valmet-automotive.com/)
* [**IDNEO SAU** (Idneo Technologies SAU)](https://www.idneo.com/)
* [**SUNLIGHT GROUP** (Systimata Apothikefsis Energeias Viomichaniki kai Emporiki Anonymi Etairia)](https://www.the-sunlight-group.com/en/north-america/)
* [**HEART** (Heart Aerospace AB)](http://heartaerospace.com/)
* [**ZABALA** (GBA ZABALA conseil en innovation SA)](https://www.zabala.fr/)
* [**CSEM** (Centre Suisse d’Électronique et de Microtechnique SA - Recherche et Développement)](https://www.csem.ch/)

The experience and expertise of renowned research centers and SMEs will allow the development of innovative safe-by-design battery systems with increased performances, recyclability and interoperability that will, reach technology readiness level (TRL) 5 by the end of the project i.e., it has been validated at prototype level in laboratory environment.

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