



## Empowering Europe: 7 New EU-Funded Battery Research Initiatives

**Bordeaux (France) April 23, 2024.** – The European Union is taking a significant leap forward in battery research, and proof of it is the Horizon Europe programme, that funds groundbreaking projects to develop next-generation battery technology. Among these initiatives are BATSS, EXTENDED, FASTEST, NEXTBAT, NEXTCELL, TEMPEST and VERSAPRINT, that come together intending to build safer, more effective, and environmentally sustainable battery solutions that will power the future of transportation, electronics, and energy storage, key in the crucial electrification and green transition towards the Sustainable Development Goals. This online event will present the future of battery technology and the latest advancements in the sector. To explore these topics and their impact on Europe's future, the TEMPEST project is hosting a free webinar titled **EMPOWERING EUROPE: 7 New EU-Funded Battery Research Initiatives**. TEMPEST project aims to provide and refine a new generation of safe, recyclable, lightweight and high-performance batteries for as many transport applications as possible before 2026.

### **The webinar will feature the 7 EU-funded projects:**

BATSS: Safe and efficient battery systems with advanced cell technology.

EXTENDED: Next generation of multifunctional, modular, and scalable solid-state batteries.

FASTEST: Fast-track hybrid testing platform for developing advanced battery systems.

NEXTBAT: Next-generation technologies for battery systems in transportation electrification.

NEXTCELL: Pioneering the next generation of high-performance lithium-ion battery cells.

TEMPEST: Towards the new generation of safe-by-design, recyclable, high-performance, and lightweight batteries.

VERSAPRINT: Versatile printed solutions for safe and high-performance battery systems.

### **Join the live event on Tuesday, May 14 from 2 p.m. to 3.15 p.m. to gain insights into:**

- Innovative battery technologies designed for safety, efficiency, recyclability, and lightweight design.
- Real-world applications for these innovations in electric vehicles and renewable energy storage.
- The expertise of leading researchers from across Europe, with each project presented by its technical coordinator or a member of the technical team.
- Q&A session where you can ask your questions directly to the researchers.

### **Register Now:**

[https://us06web.zoom.us/webinar/register/WN\\_UOD-cU0bQka8zpmV5ph-TQ](https://us06web.zoom.us/webinar/register/WN_UOD-cU0bQka8zpmV5ph-TQ)

Don't miss this opportunity to learn about the future of battery technology in Europe!



**TEMPEST:** TEMPEST is the European Project to provide a new generation of batteries needed by Europe and its key sectors. Led by RESCOLL, TEMPEST is made up by ABEE, Fraunhofer, IAAPS, the Kemijski Institute, Tekniker, the Universities of Kaunas, Patras, and Bath, Sustainable Innovations, and Albion Technologies. This project has received €3,614,902.50, is co-funded by the European Union under grant agreement 101103681 and UKRI – UK Research and Innovation under the UK government's Horizon Europe, under grant agreement 10075481.

**BATSS:** Guided by an innovative Safe-by-Design approach, BATSS aims to develop a cell-to-pack modular battery system concept that ensures exceptional safety and electro-thermal performance for off-road e-vehicles and semi-stationary applications. Through specific thermal, electrical, and mechanical innovations, we will meet industry standards supported by cutting-edge modelling, simulation, and predictive maintenance tools. Beyond performance, we are focused on sustainable end-of-life solutions, including modular assembly, automated disassembly, and second-life exploration. This project has received € 4 990 149,75 of funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101103821.

**EXTENDED:** EXTENDED, a Horizon Europe project, is a collaborative effort bringing together 19 partners from 10 EU countries! Our mission is to design, develop, and validate the next-generation battery pack systems that will drive the mass-market adoption of electric vehicles and applications. EXTENDED project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101102278.

**FASTEST:** The FASTEST project aims to develop and validate a fast-track testing platform that delivers a strategy based on Design of Experiments (DoE) and robust testing results, combining multi-scale and multi-physics virtual and physical testing. Led by ABEE, FASTEST is made up of BMZ Germany, COMAU, FEV, Flash Battery, Flanders Make, Fraunhofer Gesellschaft, IKERLAN, INEGI, Mondragon Unibertsitatea, Surrey University, Sustainable Innovations, University of Ljubljana, and VTT.

The project has received €4,781,08 in funding from the European Union's Horizon Europe research and innovation program under grant agreement number 101103755.

**NEXTBAT:** NEXTBAT is a European project aiming to develop safe-by-design battery systems that reduce the carbon footprint of innovative battery technology and speed up transport electrification. By emphasizing recyclability throughout the production chain, the project aims to lower production costs. It focuses on creating the safest, most sustainable battery system by addressing electrical, thermal, and mechanical safety aspects, and by introducing digitalized production processes and advanced battery management techniques. The project also introduces innovative materials and processes to enhance performance, safety, and recyclability, while striving to establish new industry standards within the European battery sector. Two complementary prototypes will be manufactured as part of the project.

**NEXTCELL:** NEXTCELL's objective is to pioneer a new generation of Li-Ion cells, combining high capacity and high voltage capabilities through innovative gellification techniques applied to electrodes, separators, and a high voltage-stable gel electrolyte. Led by FEV Europe, NEXTCELL is formed by ABEE, Solvay, Nanomakers, Universitat Politècnica de València, Politecnico di Torino, Sintef, Inegi, CIC energiGUNE, the French Commissioner for Atomic Energy and Renewable Energies (CEA), Varta Innovation, FIAT Research Centre (CRF), Nanocyl, Univerza v Ljubljani, Sustainable Innovations, Technische Hochschule Ingolstadt. It has received €7,995,015 in funding from the European Union's Horizon Europe research and innovation program under grant agreement number 101069910.

**VERSAPRINT:** VERSAPRINT is a European project aiming at bringing innovations to the battery system to tackle safety issues, enhance performances as well as decrease the cost and environmental impact. Versatile technical solutions (Building Blocks - BB) will be achieved by additive manufacturing processes and will operate from the heart of the battery system. A simulation platform and decision tool will also be implemented in order to connect the BBs to a varied range of applications such as automobile, aeronautic, waterway transport and others. The project VERSAPRINT is composed of 10 partners: CEA, LEITAT, FEV GmbH, CRF, SONACA, EFESTO, ABEE, LOMARTOV, RWTH, Plastic Omnium. This project has received 4.9 M of funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101103696.