



# Solid-state lithium metal battery with in situ hybrid electrolyte

Newsletter n°2  
2<sup>nd</sup> quarter 2024

**Generate a local EU industry**  
that revolves around a cost-effective,  
robust **all-solid-state Li battery**  
comprising sustainable materials by 2026.

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### GENERAL NEWS

- ≡ A new deliverable has been submitted on the date of April the 30th 2024, linked to the Work Package 4 Anode & Interfaces and entitled “Interlayer deposition process”.
- ≡ The D1.2 deliverable has been submitted on due time (June, 30<sup>th</sup> 2024): “Sustainability Assessment”, linked to the Work Package 1 (“Cell Target Requirements”).
- ≡ An engineer and a trainee will come to reinforce the CNRS team by October.

### RECENT PROGRESS

- ≡ Definition and selection of all the battery key materials. ✓
- ≡ First life cycle of the Seatbelt technology. ✓
- ≡ Scale-up of the solid electrolyte and the cathode active material by the Industrial partners. ✓
- ≡ Identification of a protective interlayer deposited on Lithium metal. ✓

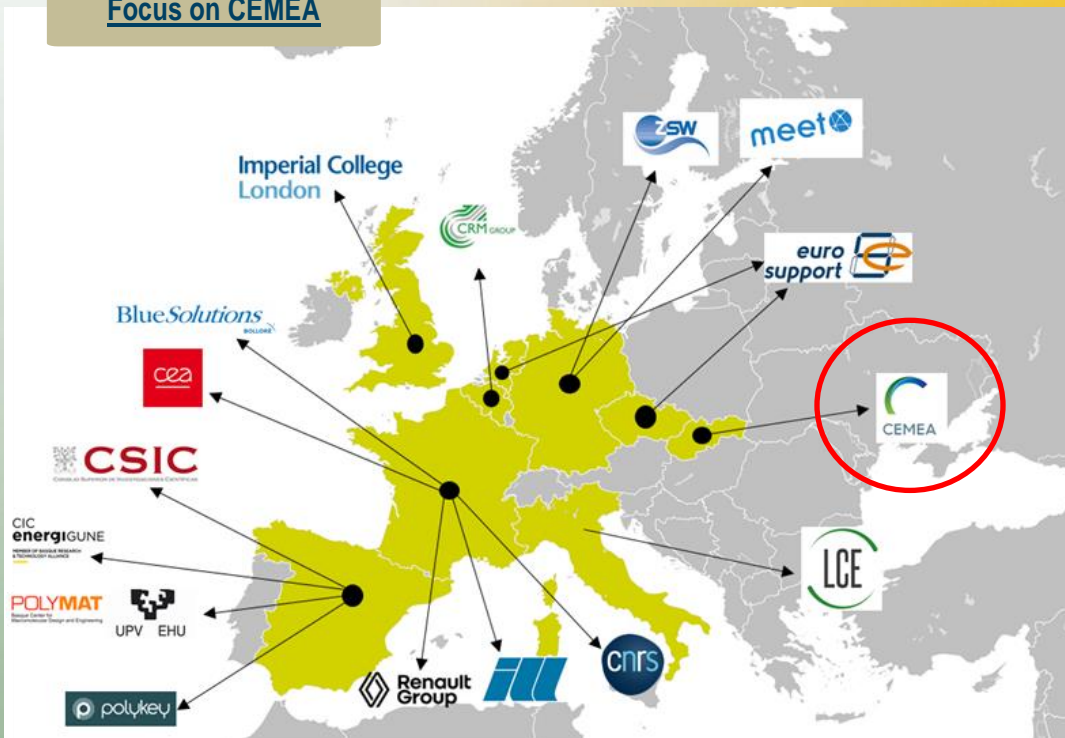
### RECENT EVENTS

- ≡ Jan Hilhorst from our partner Euro Support attended the 2<sup>nd</sup> SOLID4B workshop (15.04.24) to speak about the scaling up of high-energy-density solid-state batteries.
- ≡ The #9 PGA took place on June 21<sup>th</sup> (online).
- ≡ SEATBELT team attended the Electrochemical Days (Saint-Malo, France).
- ≡ Raul Artal Lopez from CSIC presented results on the development of lithium solid state electrolytes for SEATBELT Project during the Solid-State Ionics 2024 Conference (London, UK).

### UPCOMING EVENTS

- ≡ Next Onsite PGA meeting will be held in Bratislava (Slovakia) in October at CEMEA.

## Focus on CEMEA



The Slovak Academy of Sciences' **Centre for Advanced Materials Application (CEMEA)**, a recently formed interdisciplinary institute, focuses heavily on developing next-generation batteries.

As part of the SEATBELT project, CEMEA is involved in the work package 2 (In Situ Hybrid Electrolyte Innovation) and 3 (Cathode Development) as task leader, and 5 (Battery Assembly Optimization & Cycling) as partner, and will address challenges related to measuring real solid-state batteries using operando X-ray and optical techniques. Specifically, they will investigate the real-time distribution of phases and stresses within the battery, as well as the kinetics of lithium nucleation.

