



ADVAGEN

Development of advanced next generation solid-state batteries for electromobility applications

NEWSLETTER #6 - FALL 2025

ADVAGEN is a Horizon Europe project gathering 14 partners from 9 European countries. It aims at developing, manufacturing and validating the most performant, stable and safe 10Ah solid-state pouch cells by developing novel materials for each of the parts that constitute a battery (i.e., the electrolyte, anode and cathode). In particular, an innovative hybrid oxide-sulfide ceramic electrolyte to be integrated with a lithium metal anode and a high Ni-rich content-based cathode.

In this newsletter, you will learn more about the ADVAGEN latest activities, as well as the ones to come.

Willing to know more about ADVAGEN and its latest developments? Visit our website and follow us on LinkedIn and Twitter!



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WHAT IS NEW?

• LATEST EVENTS

- **7th Consortium Meeting & Review meeting:**

ADVAGEN partners met in Grenoble on the 2nd and 3rd of October at CEA's facilities. It has been the opportunity to discuss last semester's updates as well as strengthen the Exploitation Plan through a dedicated workshop held by TechConcept!

As ADVAGEN enters its final year, exploitation is more key than ever.

This has also been highlighted during the 2nd Review Meeting held on October 6th.

- **End of RP2**

In August, ADVAGEN reaches M36 meaning the end of the 2nd Reporting Period



• TECHNICAL INSIGHTS

- **First Small Solid-State Cells Assembled**

Partners achieved a preliminary milestone: The ADVAGEN small-scale solid-state cells have been successfully assembled with no technical issue under current test conditions.

Why this matters:

- It provides encouraging signs that electrolyte preparation, cell pressure management, and interface engineering are already within a potentially viable process window.
- Preliminary indications suggest stability under current conditions.
- It opens the next question: how these behaviours will evolve as larger formats introduce new process sensitivities.



AI-generated image

- **Large-Format Coating Trials Underway**

Partners initiated large-format electrode coating trials, moving from controlled lab-scale casting to formats that start revealing real process sensitivities.



Large-format coater used for the trials

Key insights so far:

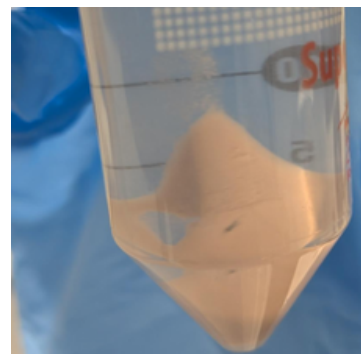
- Early observations show stable slurry behaviour at the coating widths tested so far.
- No major dispersion or sedimentation issues have been observed under the current processing parameters.
- Drying uniformity will require further examination as coating dimensions increase.

- **Recycling Baseline for NMC Defined**

The recycling team established ADVAGEN's baseline process for NMC recovery.

Why this is significant:

- It offers a reference scenario against which solid-electrolyte-containing composites can later be benchmarked.
- It anchors the project's circularity efforts to a practical, industrially credible starting point.



Mn-containing precipitate extracted from the NMC-based cathode

- **Follow-up and funding opportunities**

Well engaged in the last reporting period, ADVAGEN is already thinking beyond its formal end. The consortium is exploring how its most mature results could form the foundation of a future Innovation Fund application or a follow-on project under Horizon Europe with a higher TRL, such as an Innovation Action pursuing our TRL5 developments.

The next Innovation Fundcall is expected to open on December 3rd, 2025, with an online information day scheduled for 16 December 2025. This timing gives ADVAGEN partners a concrete window to prepare a strong, follow-on proposal.



• SOLID4B CLUSTER'S NEWS



• Solid4B Cluster – Expanding the Network and Strengthening Synergies

Over the past semester, the cluster has continued its mission of uniting Horizon Europe projects tackling shared challenges in next-generation battery technologies. The network has grown, welcoming new members that broaden both its scientific scope and technological depth.

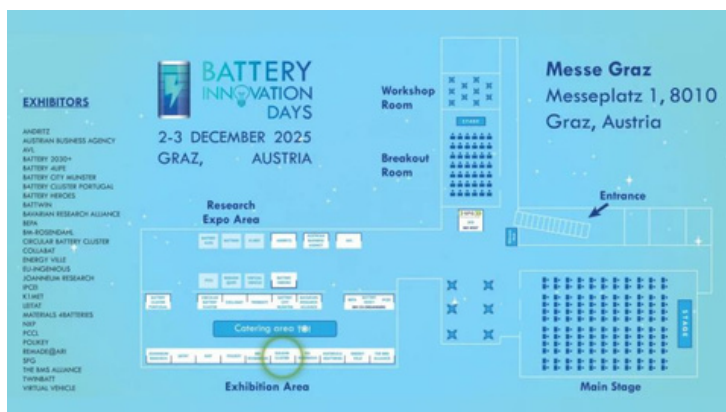
Notably, **SPRINT** and **ANGeLiC** bring complementary expertise on sodium-ion and Li-Sulphur systems, extending the cluster's reach beyond solid-state lithium chemistries. **STELLAR**, progressing toward TRL7, contributes valuable insights on manufacturing and industrialisation – areas that benefit many cluster discussions.

In parallel, the cluster is exploring the inclusion of additional Horizon Europe initiatives to further consolidate expertise. Joint webinars, technical sessions and coordinated dissemination activities will continue, ensuring that Solid4B remains a central platform for collaboration and shared impact in the EU battery community.

• Solid4B at the Battery Innovation Days 2025

The cluster will be represented by 6 HEU projects at the BID2025 event in Graz. An exhibition booth will display projects' posters and partners from each project will be present to network with all participant.

Moreover, the cluster will have a spotlight in the parallel session "Exploring the development of next generation batteries", as a speaker!



• SCIENTIFIC PUBLICATIONS

The collaborative efforts of all partners are beginning to engage a broader audience, thanks to [scientific publications](#) stemming from the project's advancements!

Don't miss the chance to explore our work!

Upcoming publications topics:

- "Synthesis optimization via spray pyrolysis of NMC811 powders, a study of calcination temperature, atmosphere and Li stoichiometry"
- "Ecodesign Recommendations for Sustainable Solid-State Batteries"
- and much more !

WHAT IS NEXT?

• NEXT EVENT

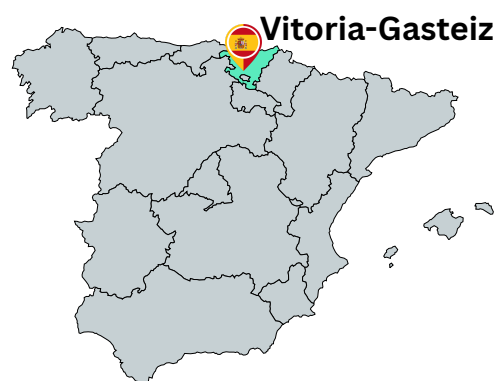
The ADVAGEN project will be present at the Battery Innovation Days 2025 event, together with 5 other projects from the Solid4B cluster.

We hope to see you there!



• NEXT CONSORTIUM MEETING

The next ADVAGEN Consortium Meeting is scheduled for March 11th and 12th, 2026 and will be held in Northern Spain at the CICE's facilities. This session will allow us to discuss last challenges, ensuring that all partners are aligned in terms of ideas, work, and solutions as we move toward the end of the project in July 2026.



Stay tuned for more updates and insights in our next newsletter, scheduled in Spring 2026. In the meantime, feel free to reach out with any questions or to learn more about ADVAGEN!



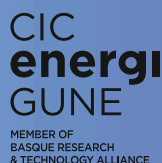
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