NEWSLETTER

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Welcome to the 4th ARMS Project Newsletter!

As part of the Horizon Europe programme and the Graphene Flagship initiative, the ARMS project is driving innovation in sustainable energy storage. From international conferences to collaborative workshops, our consortium has been actively engaging with the global research community—sharing insights, showcasing breakthroughs, and building strong partnerships.
This edition highlights our key activities from May to October 2025. Inside, you'll find updates from our recent consortium meeting in Denmark, our participation in major conferences and scientific workshops, and ARMS' presence at Graphene Week 2025.
We're also excited to introduce BEYOND THE LAB COAT, a new interview series that offers a personal glimpse into the lives of our researchers—their journeys, passions, and stories beyond science. Plus, don't miss our brand-new promotional video, premiered just a few weeks ago!

WHAT HAVE WE BEEN UP TO?

The **ARMS consortium gathered for its 5th Consortium Meeting on October 23–24**, hosted across two inspiring locations in Denmark: the Faculty of Engineering (TEK) at the University of Southern Denmark in Odense, and the innovation hub Innocell ApS in Svendborg.
The two-day event brought together project partners from across Europe to share progress, exchange ideas, and deepen collaboration on the ARMS initiative.
Read more

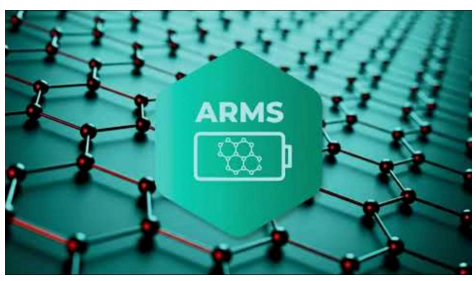
The ARMS project was also presented at the **Graphene Week 2025,** held in Vicenza, Italy, from September 22–26. Project representatives showcased the progress in integrating 2D materials into energy systems. At the ARMS booth, our consortium representatives engaged with researchers, industry experts, and fellow EU-funded projects, sharing insights into sustainable energy storage innovations. The event reinforced ARMS's visibility within the European research landscape and its role in shaping the future of energy through 2D materials. Read more

From June 29 to July 4, the **Carbon 2025 Conference** took place in Saint-Malo, France. Project ARMS was represented at this gathering by researchers from the Latvian State Institute of Wood Chemistry (LSIWC), Ance Plavniece and Aleksandrs Volperts, who delivered a presentation on advanced activated carbon materials and their applications in electrochemical energy storage, with a focus on supercapacitors (electrochemical double-layer capacitors, EDLCs). Read more

From June 22 to 25, 2025, the Project ARMS representative Chirag Mevada from Tampere University (TAU) had the opportunity to participate in the **IEEE International Conference on Flexible and Printable Sensors and Systems (FLEPS 2025)**, held at the National University of Singapore (NUS). During the event, he showcased ARMS latest research in a poster presentation, "Long-Term Performance of Activated Wood Carbon Printed Supercapacitors: A Sustainable Alternative to Conventional Activated Carbon". Read more

Project ARMS consortium partners from the University of Southern Denmark, Ciprian Cipman and Suiting Ding, represented our project at the **12th International Conference on Industrial Ecology (ISIE2025)**, held from July 1-4, 2025, at the National University of Singapore.

At the conference, Ciprian Cipman delivered a presentation on our latest work applying Safe and Sustainable by Design (SSbD) principles to the development of next-generation electrochemical energy storage devices. Read more

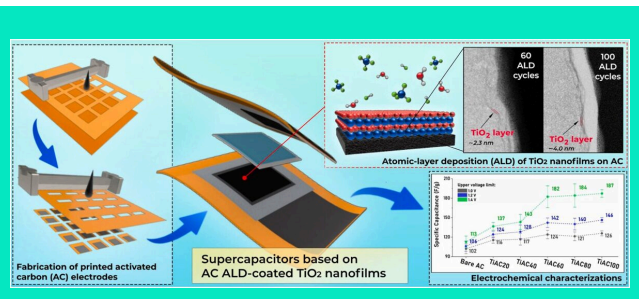


In October, ARMS premiered its first video—watch it here.

On May 26, Hamed Pourkheirollah (Tampere University) represented ARMS at **the 9th EU-Korea Workshop in Strasbourg.** His presentation highlighted ARMS's progress in optimizing graphene-enhanced carbon materials for printed supercapacitors, achieving energy densities of 49.8 Wh/kg and long-term performance. The workshop fostered international collaboration and knowledge exchange between European and Korean experts**.** Read more

On May 15, Suiting Ding (University of Southern Denmark) presented ARMS's SSbD-based approach to energy storage at the Graphene Flagship's digital workshop. The talk focused on integrating 2D materials into supercapacitor design and applying tools like VEGA, ECETOC-TRA, and SimaPro for safety and sustainability assessment. Read more

In October, ARMS published a **scientific article in the Journal of Power Sources (662 (2026); 238691; DOI 10.1016/j.jpowsour.2025.238691)**. The article, titled ***Interfacial engineering of conformal titanium oxide nanofilms on porous carbon supercapacitor electrodes via atomic layer deposition***, presents an advancement in the development of high-performance, sustainable energy storage devices. Read more



UPCOMING EVENTS

Meet at the JEC World 2026, which is the world's leading international event for composite materials, showcasing innovations, technologies, and applications across industries like aerospace, automotive, energy, and construction.

Beyond the Lab Coat

In October and November, **a new interview series "Beyond the Lab Coat"** will be published on the ARMS website. In the interviews scientists share the personal stories behind their professional paths.

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