NEWSLETTER

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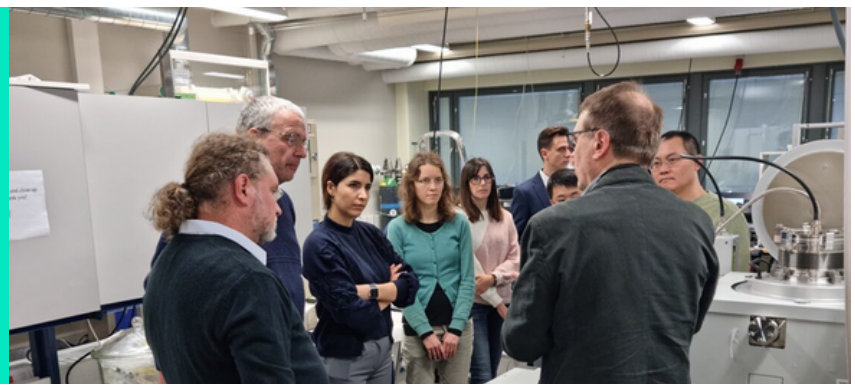
Welcome to the first edition of the ARMS Project Newsletter! In this issue, we delve into Project ARMS's efforts as it ventures into the realm of energy storage solutions fueled solely by eco-friendly plant materials. "ARMS has commenced with remarkable collaboration and exceptional momentum, already revealing promising early results that foreshadow imminent success," remarks ARMS project coordinator Matti Mäntysalo. Join us as we look back on the ARMS journey so far!

Can you imagine energy storage solutions entirely based on eco-friendly plant materials? Project ARMS is tackling this challenge head-on in its latest endeavours.

This EU-funded and Graphene Flagship-supported project, initiated in October 2023, held its kick-off event on November 13-14, hosted by the project coordinator, Tampere University. Representatives from academic institutions like Tampere University, KTH Royal Institute of Technology, Chalmers University of Technology, Institute of Solid State Physics, University of Latvia, Latvian State Institute of Wood Chemistry, and the University of Southern Denmark, alongside industry players such as CIDETEC, InnoCell ApS, AIMEN Technology Centre, Beneq Oy, and Lynxdrone gathered to initiate a collaborative venture aimed at developing eco-friendly supercapacitors. Across two dynamic days, participants delved into the project's intricacies, exchanging ideas and laying the groundwork for cooperation. Discussions extended beyond theory to practical collaboration, fostering understanding and establishing a strong foundation for the shared journey ahead, emphasizing the importance of a collaborative spirit for the project's success.

During the event at Tampere University, project partners had the opportunity to visit its Laboratory for Future Electronics (LFE). There, they explored cutting-edge research in energy autonomy, sensors, and wearable electronics. Highlighting themes such as flexible electronics and hybrid integration, LFE showcased its commitment to innovation. Equipped with state-of-the-art infrastructure, including various printers and specialized fabrication tools, the laboratory demonstrated its capability in advancing electronic technologies. Visitors also learned about LFE's crucial role in developing environmentally friendly supercapacitors, emphasizing its significance in projects like ARMS.



After the warm and convivial kick-off event held in Tampere, meticulously organized by our project coordinators, participants eagerly transitioned to their respective laboratories to embark on the initial tasks crucial to the development of eco-friendly supercapacitors. In the project's early stages, representatives from each work package diligently collaborated, convening in online meetings to engage in fruitful discussions regarding upcoming tasks and preliminary findings. Additionally, representatives from our esteemed ARMS partners enthusiastically engaged in numerous scientific gatherings, actively contributing to the discourse.

In January 2024, Project ARMS representative Dr. Hamed Pourkheirollah attended PRINSE'24, a seminar in Finland gathering global industry players. Through networking and training sessions, he enhanced the ARMS project's prospects, fostering collaborations and staying updated on industry trends, ensuring its forefront position in industrial technology.

Five researchers from the ARMS project also joined a Graphene Flagship meeting at Chalmers University of Technology in Sweden. Thirteen EU-funded initiatives collaborated to advance graphene technologies, discussing objectives, innovation, and EU funding strategies. The event emphasized the critical role of graphene in the EU's Innovative Advanced Materials initiative and fostered valuable face-to-face interactions to facilitate future collaborations.

At the 41st International Battery Seminar & Exhibition in Orlando, Dr. Andrew Cook presented on enhancing battery performance through advanced coatings, emphasizing Beneq's role in scaling up ALD technology for large-volume manufacturing within the ARMS consortium. This collaborative effort signals a significant step toward eco-friendly supercapacitors and highlights ongoing advancements in battery innovation.

Project ARMS proudly celebrates the achievements of its members, including Dr. Hamed Pourkheirollah, technical project manager from Tampere University, who defended his doctoral thesis in November 2023, and Dr. Phys. Gints Kučinskis, ARMS WP1 leader from the Institute of Solid State Physics, University of Latvia, who was awarded the Latvian Annual Energy Award for Young Scientists 2023. Congratulations to both scientists representing the ARMS project!

Looking ahead, mark your calendars for upcoming events! Join us at the IEEE FLEPS 2024 conference in Tampere, Finland, from June 30th to July 3rd, where Project ARMS, alongside SOLiD and SUPERIOT, will host a workshop on energy-autonomous self-powered wearable electronic devices. https://2024.ieee-fleps.org/

IEEE FLEPS 2024
IEEE International Conference on Flexible, Printable Sensors and Systems
Tampere, Finland // June 30 - July 3, 2024

Then, don't miss the chance to connect with Project ARMS at Graphene Week 2024 (October 14 – 18) in Prague, explore the forefront of science and innovation, and engage in stimulating discussions. https://graphene-flagship.eu/events-1/gw24-chairs-committee/gw24-abstract-submission/

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GRAPHENE FLAGSHIP

This project is funded by the European Commission's Horizon Europe programme and is part of the Graphene Flagship initiative, which advances technologies that rely on graphene and other 2D materials.