

Press Release #02

STREAMS Project: 1st General Assembly

29/07/2024





1ST GENERAL ASSEMBLY OF STREAMS PROJECT

Sustainable Technologies for Reducing Europe's bAttery raw MaterialS project

[July 29, 2024] - The first General Assembly of the STREAMS Project, funded by the Horizon Europe Programme under Grant Agreement No. 101137771, marked a significant milestone. Held on June 13-14, 2024, at our partner's facilities <u>TÜBITAK RUTE</u> in Gebze/Kocaeli,Türkiye, this event represented a crucial step in this innovative initiative aimed at strengthening Europe's battery materials supply chain, reducing dependency on imported raw materials, and enhancing Europe's competitiveness and strategic autonomy in the global battery manufacturing industry.

A visionary project for Europe

STREAMS addresses the urgent need to bolster Europe's economic foundation for the green and digital transition, reducing dependence on Critical Raw Materials (CRMs) from third countries. Led by the AIT Austrian Institute of Technology GMBH, STREAMS focuses on sourcing critical raw materials for batteries, aligning with sustainable development goals for clean energy and climate action. By developing sustainable technologies for recovering raw materials, STREAMS aims to significantly contribute to Europe's battery independence.

Key Focus areas of STREAMS:

- **Strengthening the Domestic Supply Chain**: Enhancing Europe's battery materials supply chain to reduce dependency on imported raw materials and boost resilience, competitiveness, and strategic autonomy in the global battery manufacturing industry.
- **Comprehensive Technological Solutions**: Developing a portfolio of flexible and scalable technologies for the sustainable production of battery-grade precursors, anode, and cathode active materials.
- Utilisation of Diverse Material Streams: Promoting the use of various primary and secondary sources, along with recycled battery mass, to further decrease dependence on third countries.
- **Circular Models for Sustainability**: Developing circular models, manufacturing battery cells at pilot scale, and testing according to established standards to identify optimal conditions for future exploitation of project results.





Reviewing the first 6 Months and Looking Ahead

During the General Assembly, representatives from various partner organisations gathered to review the progress made in the first six months of the STREAMS project. The key highlights of the meeting included:

<u>June 13th:</u>

- Welcome and Opening Words by Project Coordinator Damian Cupid Austrian Institute of Technology GMBH (AIT), Murat Guler and Vildan Bayram Karakuşlu from TÜBITAK RUTE
- Work Package Discussions:
 - **WP1**: Coordination, financials and reporting (AIT)
 - WP8: Communication, dissemination, and exploitation (F6S)
 - WP2: Resources pre-processing and characterisation (Eti Gubre)
 - WP4: Production processes of transition metals precursors and battery active materials
- Lab Tour of TÜBITAK: The project's consortium had the opportunity to see firsthand the cutting-edge research and development taking place within TÜBITAK's Energy Storage Systems Group. The tour showcased TÜBITAK's comprehensive capabilities in battery technology, including the design and production of components for secondary batteries, material, cell, and battery module development, and the rigorous testing processes for various storage technologies. Attendees were particularly impressed with TÜBITAK's innovative solutions for primary and secondary lithium-ion batteries, nickel-metal hydride batteries, lead-acid batteries, and gel batteries, all developed through advanced R&D activities. The highlight of the tour was the demonstration of TÜBITAK's work on reduced-cobalt electrode and cell production from recycled materials, which aligns perfectly with the STREAMS project's goals of sustainability and reducing dependence on critical raw materials.

June 14 th:

- Summary of Day 1(AIT)
- Work Package Discussions:
 - **WP6**: Characterisation and electrochemical testing from active materials to pouch cells(AIT)
 - **WP7**: Sustainability, risk, and circularity assessments (ICL)





Key Milestones achieved and Deliverables submitted

During the first six months of the STREAMS Project, significant milestones have been reached, underscoring its commitment to advancing Europe's battery materials supply chain.

Key achievements include the successful delivery of the first batch of primary, secondary, and recycled battery mass sources, alongside the production of recycled graphite. These milestones mark pivotal steps towards reducing Europe's dependency on imported raw materials and enhancing its strategic autonomy in the global battery industry.

Moreover, the project has submitted critical deliverables essential for its progress and transparency. These include Project Plans, the Project Handbook, Data Management and Self-Assessment Plans, and reports on the initial characterization of primary resources. Additionally, the Dissemination and Communication Strategy has been crafted to effectively communicate STREAMS' developments and outcomes, fostering broader awareness and engagement within relevant stakeholders.

Continued efforts and achievements such as these underscore STREAMS' dedication to pioneering sustainable technologies that will shape the future of battery production in Europe and beyond.

About TÜBITAK RUTE:

The Scientific and Technological Research Council of Türkiye (TÜBİTAK) is the leading agency for management, funding and conduct of research in Türkiye. TÜBİTAK is responsible for promoting, developing, organising, conducting and coordinating research and development in line with national targets and priorities. TÜBİTAK not only supports innovation, academic and industrial R&D studies but also in line with national priorities develops scientific and technological policies and manages R&D institutes, carrying on research, technology and development studies.

TÜBITAK RUTE (Rail Transport Technologies Institute) is one of Research & Development institutes of TÜBITAK. TÜBITAK RUTE Energy Storage Systems Group designs components of secondary batteries, engages in material, cell, and battery module development, and conducts comprehensive tests for various storage technologies. Additionally, it produces innovative solutions for primary and secondary lithium-ion batteries, nickel-metal hydride batteries, lead-acid batteries, and gel batteries through R&D activities such as reduced-cobalt electrodes and cell production from recycled materials.

For more details, read the full article on <u>TÜBITAK</u>'s and <u>STREAMS</u> website highlighting the STREAMS General Assembly.





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Looking ahead

The STREAMS project continues to make significant strides towards securing Europe's battery materials supply chain and fostering sustainable technological advancements. The collaborative efforts and insights gained from this assembly will guide the next phases of the project, ensuring continued progress and innovation in the field.

STREAMS Team:

- AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH (AIT)
- ETI BAKIR ANONIM SIRKETI/MAZIDAGI SUBESI (Eti Gubre)
- GLOCK TECHNOLOGY GMBH (GTEC)
- SIPOW AS (SiPow)
- INSTYTUT SORBTSIYI TA PROBLEM ENDOEKOLOHIYI NATSIONALNOYI AKADEMIYI NAUK UKRAYINY(ISPE)
- OULUN YLIOPISTO (UOulu)
- ACONDICIONAMIENTO TARRASENSE ASSOCIACION (LEITAT)
- TREIBACHER INDUSTRIE AG (TIAG)
- UNIVERSITE DE LIEGE (ULIE)
- NANOPOW AS (NPW)
- TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU (Tübitak)
- SIEC BADAWCZA LUKASIEWICZ INSTYTUT METALI NIEZELAZNYCH (IMN)
- ENVIVA IDIOTIKI KEFAIOUCHIKI ETAIREIA/ENVIVA IKE (ENVIVA)
- F6S NETWORK IRELAND LIMITED (F6S)
- UKRAINIAN RESEARCH AND DESIGN INSTITUTE OF ELECTROTHERMAL EQUIPMENT (UNE)
- EVOLUTION ENERGY MINERALS LIMITED (EV1)
- AMERICAN ENERGY TECHNOLOGIES COMPANY (AETC)
- IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE (ICL)
- THE UNIVERSITY OF WARWICK (UoW)





Connect with STREAMS:

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- F6S: <u>https://www.f6s.com/streams-eu-project/</u>
- Linktree: <u>https://linktr.ee/streams_project</u>

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