

STREAM

4TH NEWSLETTER | October 2024

Welcome to the fourth edition of the STREAM Project Newsletter! As we reach the midpoint of this journey, we reflect on our achievements and look ahead to the promising developments on the horizon. Here's an update on our latest milestones!

5TH GENERAL MEETING IN TERNI ITALY

Following a successful first review meeting in Spain last May, the consortium met again on October 8th and 9th in [Terni](#), Italy to advance key project objectives.

A central topic was the progress of STREAM's core tools: the sGRID and sPLAN tools for grid planning and management, the sSMART tool for advancing local energy markets, and the sDATA platform, which supports secure data sharing among DSOs, TSOs, and market operators. The sDATA platform is currently being implemented across pilot sites throughout Europe, with testing underway to optimize its real-world functionality.

The meeting concluded with a forward-looking discussion on STREAM's milestones and plans for the next General Meeting, set for March 2025 in Tampere, Finland.

Following two days of productive discussions, the team took a break to visit Marmore Falls, one of the tallest man-made waterfalls globally — a fitting symbol for STREAM's commitment to blending sustainable innovation with natural resilience.



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ENLIT EUROPE 2024: STREAM'S CONTRIBUTION TO RETHINKING FLEXIBILITY MARKETS

At [ENLIT Europe 2024](#) in Milan, STREAM joined over 15,000 energy professionals, researchers, and innovators to explore advancements shaping Europe's sustainable energy landscape. As part of this event, STREAM's project coordinator shared insights during a session titled **"Rethinking Flexibility Markets: What's the Secret to Navigating Regulatory Challenges and Customer Needs?"** held on October 23rd in the EU Projects Zone Hub.

This panel discussion offered a comprehensive look at the vital role flexibility markets play in enhancing grid resilience and adaptability. STREAM, alongside [BeFlexible](#), and [ENFLATE](#), showcased pioneering solutions aligned with regulatory frameworks while also prioritizing consumer needs. Project Coordinator Dr Tomi Medved underscored STREAM's dedication to adaptive, consumer-centric market solutions that build a robust and flexible energy network.

Throughout ENLIT Europe, the STREAM team also participated in discussions addressing critical topics such as energy transition, digital transformation, and market integration.



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STREAM PROJECT SHOWCASED AT THE 6TH INTERNATIONAL CONFERENCE ON SMART SYSTEMS AND TECHNOLOGIES

The STREAM project was recently featured at the International [Conference on Smart Systems and Technologies](#) (SST), held from October 16th to 18th, 2024, in Osijek, Croatia. This bi-annual gathering unites experts, students and researchers to discuss advances in smart grids, AI, and digital energy.

In a special session that focused on the role of flexibility in **low-voltage grid management within widening European regions**, STREAM Deputy Project Coordinator Mr Jan Jeriha presented STREAM's innovative solutions for enhancing grid flexibility across Europe. The session also highlighted collaboration with other EU-funded projects in order to promote knowledge sharing and networking. Presentations from projects like [SynGRID](#), [OPENTUNITY](#), and past successful H2020 initiatives such as [COMPILE](#) and [X-Flex](#) underscored STREAM's commitment to collective progress.



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STREAM AT THE CINEA SMARTGRIDS PCI SUMMIT

The STREAM Project made an impactful appearance at the [CINEA SmartGrids PCI Summit](#) held in Budapest this September. Prof. Andrej Gubina from the University of Ljubljana shared insights from STREAM and the H2020 COMPILE projects, focusing on **flexibility provision and innovative business models**.

Drawing from the [BRIDGE Business Models](#) Working Group, Prof. Gubina contributed to discussions on overcoming regulatory and financial barriers and leveraging AI and machine learning to optimize grid operations and renewable integration. These insights are expected to shape future projects, supporting the EU's climate and energy objectives for 2030 and beyond.



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ITALIAN PILOT SITE

During the General Meeting in Terni, consortium members visited ASM Terni's headquarters to discuss the deployment of STREAM's sSMART and sDATA tools within the Italian pilot site, and here's a closer look at its innovative features.

The STREAM project's Italian pilot site in Terni is setting the stage for a sustainable energy future by integrating advanced energy management systems within Citizen Energy Communities (CEC). This initiative focuses on two Local Energy Communities: a residential building with 50 members and the ASM district headquarters, incorporating IoT-based smart meters, electric vehicle charging stations, battery storage, and photovoltaic plants.

Additionally, a larger CEC encompasses six public schools, residential consumers, and smart homes equipped with local generation, storage, and smart meters. These energy communities are designed to reduce energy consumption at the local level, optimize energy trading, and promote renewable energy use.

A standout feature of the Italian pilot is the "Energy Community-On-The-Move", which includes 12 electric vehicles provided by EMOT, equipped with real-time State-of-Charge monitoring. This system allows for advanced energy flexibility forecasting, further enhancing the efficiency of the grid.



[ASM Terni](#), which operates the local distribution network, plays an important role in this project. While ASM manages the broader power and water infrastructure for the city, their work with the STREAM

project focuses specifically on advancing renewable energy integration, flexibility management, and local-level energy optimization. Their grid, serving 65,000 customers, already integrates 72 MW of installed capacity, with 200 GWh of annual electricity supply from distributed energy resources, including 30 GWh from intermittent renewable sources like photovoltaics.

Key technological partners [COMSENSUS](#) and [INDEN](#) are pivotal to the Italian pilot site's development. COMSENSUS, a high-tech SME specializing in remote monitoring and control systems for the energy sector, leads the pilot's overall deployment and technology development. Their involvement spans end-user empowerment, tool development, and commercialization efforts. Meanwhile, INDEN leads the data infrastructure, responsible for the information technology architecture and open platforms that support data-driven decision-making and enhanced energy control. Their interdisciplinary approach ensures advanced solutions for increased transparency, traceability, and control over energy processes.

This pilot, involving both technological advancements and community engagement, aims to provide a blueprint for how energy communities can reduce costs, improve sustainability, and ensure a more resilient local grid. Terni's efforts are creating a model for other European cities to follow, making local communities key players in the future of energy management.





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