

PRESS RELEASE

Zaragoza, Spain, 12th May 2026

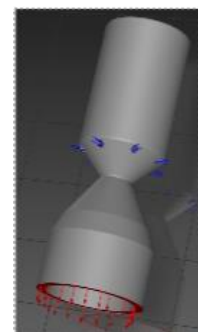
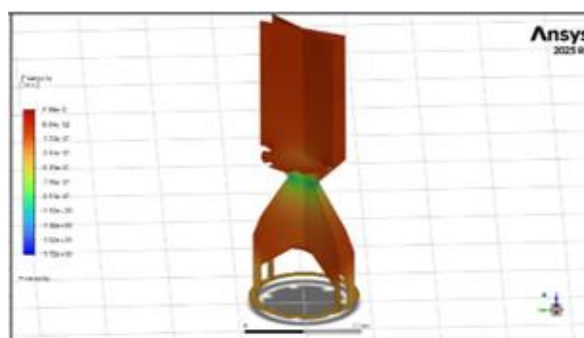
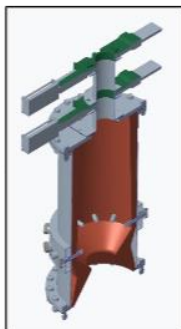
SUPREMAS – Syngas modular Units Providing Renewable Energy from Multiple wAstes and for different useS

The 4th General Assembly (GA) of the EU funded SUPREMAS project (website: www.supremas.eu) took place in Zaragoza, at the CIRCE's premises on 12th May 2026. On 1st of May 2026 the project successfully finalized the first two years of implementation, and this GA represented therefore the occasion to celebrate the achievement of this relevant milestone.



This GA focuses on the latest project developments, which were related to:

- The optimization of the **gasifier** to enable it running with several feedstocks such as dried, pelletised sewage sludge digestate of the demo in Porto and dried, pelletised biodegradable waste of the demo in Lugo.



- The development of the **multi-scale model of a SOFC (Solid Oxide Fuel Cell) unit**, from the single cell to the SOFC development.



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- The advancements related to the development of the **Decision Support System** and the **Planning Optimizing Tool** to support the collection of biomass and integration of the SUPREMAS mobile production units within the energy communities.
- The steps undertaken until now for the valorisation of **biochar** as **organic soil amendment**.
- The **impact** of the implemented actions via **LCA/LCC, Social LCA**.

During the GA an overview on the next steps for the **exploitation** of the SUPREMAS concept were also provided. The next replication workshop will take place in Lüneburg region, Germany, on 16th June 2026. This region shows a relevant potential for the implementation of the SUPREMAS technologies:

- Lüneburg district uses biomass as a relevant part of its renewable mix (~25%).
- Lüneburg district has the strategy to become a “100% renewable energy region” with local energy planning.
- Ongoing initiatives in Lüneburg already aim to develop climate-neutral heat supply.



The GA closed with the visit to the CIRCE environmental laboratories where the partners had the opportunity to see how the **biochar** is tested before being used as **soil amendment**, including investigating how biochar interacts with the soil, its leaching behavior, and its overall environmental impact.



Project summary

SUPREMAS is a project co-financed by the European Union with the aim of advancing the European technology leadership in bio-energy development, fostering decentralized bio-syngas systems development, and contributing to the energy transition for different use cases.



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SUPREMAS will develop cost-effective modular and movable syngas production units, particularly suitable to treat sewage sludge, digestate, and the organic fraction of municipal solid waste as well. The environmental sustainability and technical-economic viability of the proposed solutions will be validated through two demonstrators in Spain and Portugal. A deep replicability assessment will be done, and a pre-feasibility analysis developed in 10 further demo sites across all Europe. The project duration is 4 years, from May 2024 to April 2028.

Project consortium

The SUPREMAS consortium consists of 12 organizations from 7 different countries (IT, SE, FR, DE, ES, BE, PT). The multinational engineering consultancy company RINA-C coordinates the consortium, which includes a product design and manufacturing company RESET, Wastewater Treatment Plant and Waste Management companies (AE dP, AGROAMB), experts in ICT solutions development for energy management (ARTE), solutions adaptation to help market uptake (ENGREEN, WIP), as well as stakeholders' engagement, also guaranteeing proper dissemination of project results.



The consortium also has academic and research organizations (MDU, CIRCE, CIIAE), Associations (ERGAR), and innovation partners (SEZ), facilitating the exchange of knowledge between complementary forces (academia and companies), which consequently will be reflected in the quality of the developed work.

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