

PRESS RELEASE

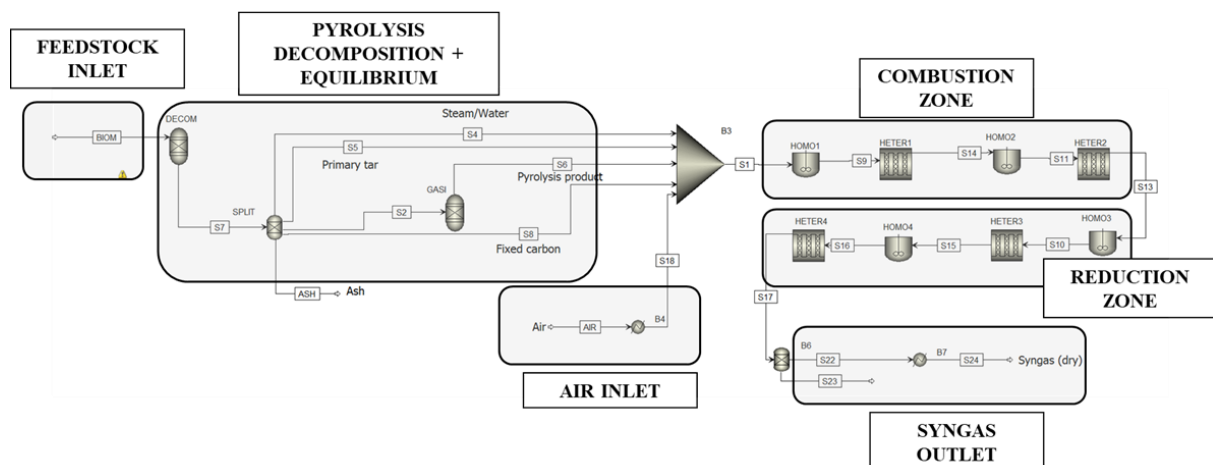
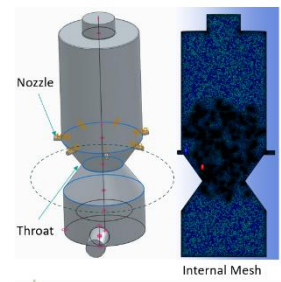
Munich, Germany, 23rd October 2025

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

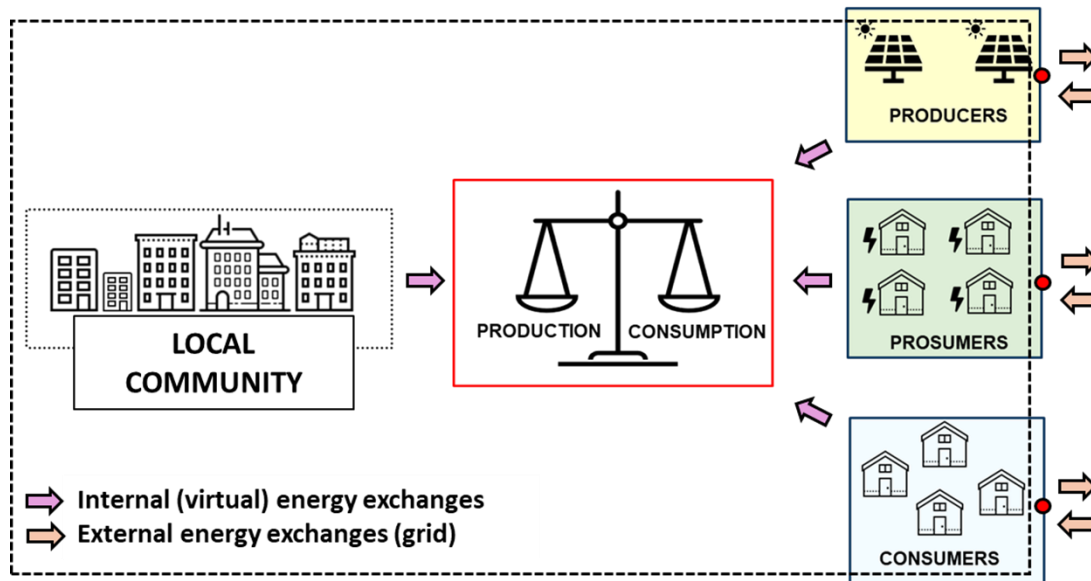
The 3rd General Assembly of the EU funded SUPREMAS project (website: www.supremas.eu) took place in Munich, at the WIP's premises on 23rd October 2025.



This GA focuses on the activities related to the optimisation of the **gasification process** for bio-syngas production, going into the details of the steady-state and dynamic modelling supporting the optimisation of the gasifier design. Further, the modelling activities also included the **integration of the process within renewable energy communities (RECs)**, investigating the direct exploitation of the heat and power obtained by feeding an ICE (Internal Combustion Engine) or a SOFC (Solid Oxide Fuel Cell) with the bio-syngas generated by the gasification of RECs own waste.



SUPREMAS has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement no. 101160713



The outcomes achieved so far in the SUPREMAS project will be discussed in practical terms during the upcoming co-creation workshop to be held at the renewable energy community of Guardabosone in Italy. During the workshop, the participants will evaluate the impacts of syngas application on the community and assess the challenges and solutions regarding the biomass supply chain.

During the General Assembly the partners had also the opportunity to start the activities on **Life Cycle Assessment (LCA)** of the syngas production process.

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. 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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Contact

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