



Funded by
the European Union

PROJECT SPEC SHEET (EN)

METHAREN – INNOVATIVE BIOMETHANE SYSTEM INTEGRATION BOOSTING PRODUCTION WHILE MANAGING RENEWABLE ENERGIES INTERMITTENCY

Project n°: 101084288

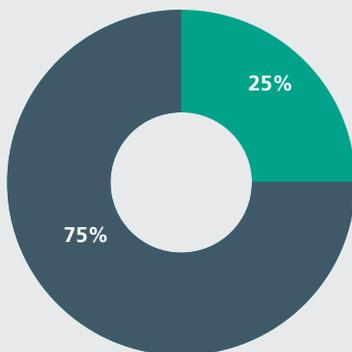
Funding Program and Agency:
HORIZON Innovation Actions -
European Climate, Infrastructure and
Environment Executive Agency

Execution Period: 01/11/2022 –
31/10/2027

Total eligible cost: 13.758.322,25 €

EU Funding: 10.361.053,13 €

National/regional funding: N/A

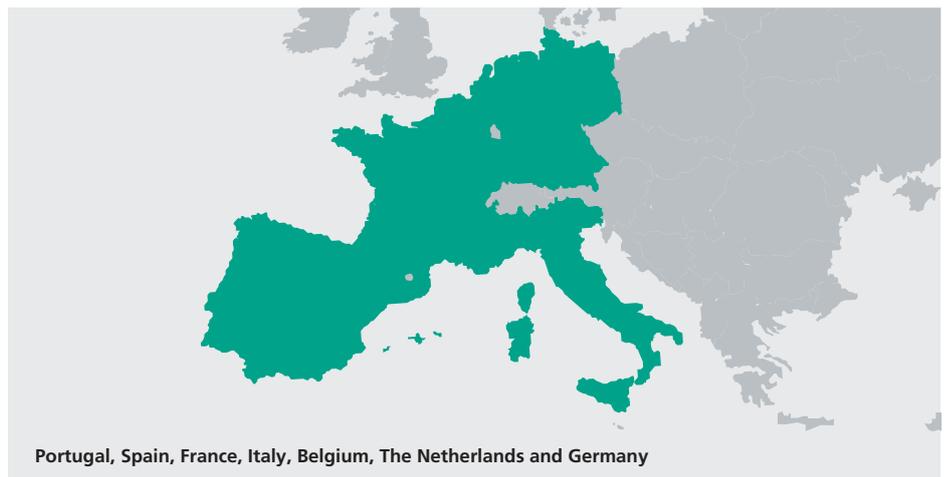


■ COPROMOTORS FUNDING
■ EU FUNDING

Project's overview

Gathering 18 partners from 8 countries, METHAREN aims to demonstrate a cost-effective, innovative, more sustainable and circular biomethane production system enabling renewable energy sources' intermittency management. To do so, METHAREN is providing improvements beyond the state-of-the-art along four main axes related to i) the biogas plant efficiency; ii) flexibility and energy management for RES integration; iii) the circularity approach for sustainable production and iv) innovative business models and adapted policies.

The consortium will use the results of the engineering specifications (WP1) to develop the technologies related to the gasification plant (WP2), the methanation plant (WP3) and the development of the circularity (WP4) in the various processes as METHAREN will reuse water, O₂ from the electrolysis, and heat to foster overall efficiency and sustainability. All individually developed and tested systems will then be integrated and tested in a pilot site (WP5) before being operated and optimised for more than a year (WP6). In parallel, the market uptake and exploitation of solutions will be carried out all along the project to



Portugal, Spain, France, Italy, Belgium, The Netherlands and Germany

ensure that the technologies developed will answer market needs (WP7) while dedicated communication and dissemination activities (WP8) will ensure that the results of the project are known and used by relevant stakeholders. Coordinated by a European industrial engineering world leader, the management of the project (WP9) will also be ensured by WP leaders, who all have strong experience and excel-

lent expertise in their fields as research and technical centres, engineering development companies, or industrials.

This combined expertise will allow METHAREN to demonstrate an increase of cost-effectiveness by at least 20% while reaching a carbon conversion rate from biowaste to methane higher than 80%, a reduction of GHG emission compared

to the current process by 50% and the potential of replication on at least 30 other sites in Europe.

Keywords:

Biomethane, Gasification, Catalytic methanation, Biogas, Integration, Operation, Pilot demonstration, Gas market, Business models.

Photos, videos and other dissemination materials



Website: available soon | **Cordis:** <https://cordis.europa.eu/project/id/101084288> | **Linkedin:** <https://linkedin.com/company/metharen>

Partners:

T.EN NETHERLANDS B V (The Netherlands) – Coordinator / TECHNIPI ENERGIES ITALY SPA (Italy) / COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES (France) / ACEA PINEROLESE INDUSTRIALE SPA (Italy) / GAZOTECH (France) / HYSYTECH SRL (Italy) / EUROQUALITY SARL (France) / POLITECNICO DI TORINO (Italy) / EUROPEAN RENEWABLE GAS REGISTRY (Belgium) / LOMARTOV SL (Spain) / FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV (Germany) / DBI GAS UND UMWELTECHNIK GMBH (Germany) / DELAUNAY ET FILS (France) / ASSOCIAÇÃO FRAUNHOFER PORTUGAL RESEARCH (Portugal) / ENAGAS TRANSPORTE SA (Spain) / TECHNIPI ENERGIES FRANCE (France).