



press release

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## **Hera Group and Saipem's CO<sub>2</sub> capture project selected to receive nearly €24 million in funding from the EU Innovation Fund**

*Saipem's Bluenzyme technology is expected to be applied to capture CO<sub>2</sub> emissions at the waste-to-energy plant of the subsidiary Herambiente in Ferrara. It will be the first industrial-scale example of CCS applied to a plant of this type in Italy. The project is one of the main decarbonization levers in the multi-utility's Climate Transition Plan to reduce internal emissions*

Capturing carbon dioxide emitted from the waste-to-energy plant's chimneys and storing it in depleted natural gas fields, thereby significantly reducing plant emissions while contributing to the decarbonization of local areas. This is the goal of the pioneering project for the Ferrara plant - proposed by Hera Group, as the lead partner, in collaboration with Saipem - that has been selected to receive funding under the fourth call for mid-scale projects from the EU Innovation Fund. Once the allocation is finalized, the funding for the CO<sub>2</sub> emission capture project will amount to nearly €24 million.

This industrial CO<sub>2</sub> capture project is the first of its kind in Italy designed for waste-to-energy plants and among the first in Europe. It involves the application of Bluenzyme™, Saipem's proprietary and modular solution based on "CO<sub>2</sub> Solutions", an innovative enzymatic technology for capturing carbon dioxide in industrial processes of small and medium emitters.

The initiative was selected by European authorities for its high level of innovation, and its potential replicability in other waste-to-energy plants and other hard-to-abate industrial sectors in Italy, and more generally across Europe. The European Funds will cover a significant portion of the €53 million planned for the construction of the CO<sub>2</sub> capture plant. Depending on opportunities arising from changes in the regulatory framework, the plant is expected to be operational by 2028.

### **The project will fully abate CO<sub>2</sub> emissions from the Ferrara waste-to-energy plant**

CO<sub>2</sub> capture is a crucial decarbonization tool for waste-to-energy plants, and for now, the Herambiente plant in Ferrara has been identified as the most suitable. The project will enable, in fact, the capture of approximately 90% of the emissions from one of the plant's two lines, amounting to 64 thousand tons of CO<sub>2</sub> per year (equivalent to the annual emissions of around 37 thousand cars), which represent the entirety of the CO<sub>2</sub> emitted, making the entire energy production from the waste-to-energy process sustainable. The remaining share of the CO<sub>2</sub> emitted by the plant is biogenic in nature and therefore environmentally neutral. The captured CO<sub>2</sub> will be transported via pipeline and stored in the depleted gas fields of the Adriatic.

The new CO<sub>2</sub> capture plant will ensure high standards of safety and innovation, while maximizing energy efficiency. It will be entirely green, as it will exploit renewable energy, both generated from the waste-to-energy plant itself and from geothermal heat delivered through the multiutility's district heating network. The enzymatic capture process, with a low environmental impact, can be powered by low-temperature heat, such as geothermal heat. Further CO<sub>2</sub> emissions will therefore be avoided.

### **Hera Group's commitment to decarbonization and the Climate Transition Plan**

With this initiative, Hera Group, one of the main multiutilities in Italy, reaffirms its commitment to fostering and supporting the ecological transition of the areas it serves, leveraging its extensive plant network and the expertise developed in various sectors. The company confirms itself as a pioneer in pursuing carbon neutrality, a central theme in its strategy: this project represents, in fact, one of the main internal levers outlined in the Hera Group's Climate Transition Plan aimed at reducing emissions with the goal of achieving Net Zero by



2050. Out of the €4.4 billion in investments planned by Hera Group in its industrial plan for the period 2023-2027, more than 30% are dedicated to projects that support decarbonization.

*“We achieved the highest score in the European Innovation Fund call: this confirms the highly innovative nature of this initiative. This is a very significant achievement, which sees us as pioneers in Italy with this industrial-scale CO<sub>2</sub> capture solution, applied to waste-to-energy plants. As leaders in the environmental sector, we are paving the way for innovation in this field, leveraging investments and expertise. This is a safe technology and replicable in other plants in Italy and abroad, which combines circular economy activities aimed at material recovery with decarbonization processes. With this solution, in a crucial sector like waste treatment and energy generation, we extend the lifespan of plants while increasing their resilience. This technology is among the main internal levers for reducing Scope 1 emissions outlined in our Climate Transition Plan. We are the first multiutility sector player in Italy and among the first in Europe to declare the Net Zero target for 2050 across all three Scopes: while being deeply rooted in the areas we serve, we feel more than any other company the need to create value, fostering sustainable community development and increasing the resilience of our assets through the enabling power of new technologies”* – declared **Orazio Iacono, CEO of Hera Group**.

*“The recognition from the EU Innovation Fund confirms the high level of innovation in Saipem’s Bluenzyme™ technology for the decarbonization of small and medium emitters in hard-to-abate sectors with a unique project for Italy and in Europe that strengthens our company's role in supporting its clients in their journey towards carbon neutrality”,* declared **Alessandro Puliti, CEO of Saipem**.

#### **Hera Group**

*Hera Group is one of the largest multi-utility companies in Italy, operating in the environment, energy, and water sectors, with over 10,000 employees. More than 7.5 million citizens receive at least one service provided by the Group. Listed since 2003, it is among the top 40 Italian companies by market capitalization (part of the Ftse Mib index) and, since 2020, has been included in the Dow Jones Sustainability Index, World and Europe. The subsidiary, Herambiente, with around one hundred certified plants, over 2,000 specialized operators, and a dedicated commercial structure, is the main Italian operator in the waste management sector, operating in both the national and international markets.*

*For further information: [www.gruppohera.it](http://www.gruppohera.it) - [www.herambiente.it](http://www.herambiente.it)*

Head of Media Relations: Cecilia Bondioli

+39 051 287595

[cecilia.bondioli@gruppohera.it](mailto:cecilia.bondioli@gruppohera.it) – [ufficiostampa@gruppohera.it](mailto:ufficiostampa@gruppohera.it)

#### **Saipem**

*Saipem is a global leader in the engineering and construction of major projects for the energy and infrastructure sectors, both offshore and onshore. Saipem is “One Company” organized into business lines: Asset Based Services, Drilling, Energy Carriers, Offshore Wind, Sustainable Infrastructures, Robotics & Industrialized Solutions. The company has 6 fabrication yards and an offshore fleet of 21 construction vessels (of which 17 owned and 4 owned by third parties and managed by Saipem) and 15 drilling rigs, of which 9 owned. Always oriented towards technological innovation, the company’s purpose is “Engineering for a sustainable future”. As such Saipem is committed to supporting its clients on the energy transition pathway towards Net Zero, with increasingly digital means, technologies and processes geared for environmental sustainability. Listed on the Milan Stock Exchange, it is present in more than 50 countries around the world and employs about 30,000 people of over 120 nationalities.*

*For further information: [www.saipem.com](http://www.saipem.com)*

Website: [www.saipem.com](http://www.saipem.com)

Phone: +39 0244231

Media relations



*E-mail: [media-relations@saipem.com](mailto:media-relations@saipem.com)*

*Investor Relations*

*E-mail: [investor.relations@saipem.com](mailto:investor.relations@saipem.com)*

*Contact for individual investors*

*E-mail: [segreteria.societaria@saipem.com](mailto:segreteria.societaria@saipem.com)*