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## PRESS RELEASE

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### **IMPULSE 2025: Teréga announces its partnership with EPFL and UPPA**



**To mark the launch in Paris of the 10th European Utility Week, an annual international event dedicated to Smart Grids and the sustainable use of energy, Teréga, a key player in the energy transition, has entered into a partnership with the École Polytechnique Fédérale de Lausanne (EPFL) and the Université de Pau et des Pays de l'Adour (UPPA) to support the development of the IMPULSE 2025 demonstrator (Innovating and Mobilising to Unify Power Systems).**

“Teréga is pleased to combine its expertise with the skills of leading specialists in energy systems. We are united around the same goal: the execution of the IMPULSE 2025 project, a necessary new approach to the energy system. This project will allow us to demonstrate that it is through the optimisation of existing resources that we will meet many of the challenges of the ecological and energy transition.”

**Dominique Mockly – Chief Executive Officer of Teréga**

In France, every energy system generates an average of 25% to 60% loss. Local energy accelerator Teréga seeks to implement innovative solutions that will build tomorrow's energy models and optimise energy consumption. A collaborative project, IMPULSE 2025 aims to roll out a multi-energy system with a mission to launch operations in 2025 on several industrial sites such as the Lacq basin in Béarn.

This facility is part of the “Territoire d'industrie” initiative: a vast support system for sectors with a strong industrial dimension linking Lacq, Pau (64) and Tarbes (65).

## IMPULSE 2025, a central link in the energy system of tomorrow

*"Different energies can no longer be thought of in isolation. Teréga is committed to innovating and rethinking the current energy system to integrate all networks. The gas network has a major role to play at the heart of these systems thanks to its storage capacities: the IMPULSE 2025 project is a testimony to these initiatives."*

**William Rahain – Researcher in Teréga's Strategies & Innovation department**

The IMPULSE 2025 project involves a new approach to energy systems, made possible thanks to industrial and digital technologies. With IMPULSE 2025, Teréga aims to promote the recovery of lost energy for an appropriate use at the right time for the consumer through a circular economy approach. IMPULSE 2025 will thus provide the possibility of:

- sharing several energy sources and delivering them to new users
- **reducing** energy waste by **storing** these sources for later use or by **transforming** them into a more in-demand energy source.

Backed by Teréga, the IMPULSE 2025 project will eventually create new synergies and maximise interconnections to present the various energy networks (gas, electricity, heat) as a unified and connected system.

Thanks to the adaptability of the infrastructures and the optimisation of existing energy resources, the benefits of this project will be **economic** but also:

- **environmental**: the IMPULSE 2025 project is fully in line with Teréga's cross-cutting environmental programme: **BE Positif**. In the long term, this project aims to reduce greenhouse gas (GHG) emissions, and to promote the integration of renewable energies that meet the energy efficiency improvement targets set by the Paris Agreement (2015),
- **energy-related** thanks to the complementary nature of the networks,,
- **operational** thanks to the real-time management of this future dynamic network.

## IMPULSE 2025, a three-pronged partnership driven by Teréga

On the initiative of the IMPULSE 2025 project, Teréga wanted to combine the expertise of scientists, namely:

- that of **LaTEP** (Laboratory of Thermal Engineering, Energy and Processes): associated with the University of Pau and Pays de l'Adour, the partner team worked as part of this project on aspects related to energy conversion.
- and that of **IPESE** (Industrial Process and Energy Systems Engineering): part of the École Polytechnique Fédérale de Lausanne, this research group led by Professor **François Maréchal**, an international leader in the field of multi-energy optimisation, has worked on the multi-objective optimisation software for energy systems (OSMOSE).

These partnerships will allow Teréga to strengthen its expertise and develop the tools that will allow the project to become a reality.

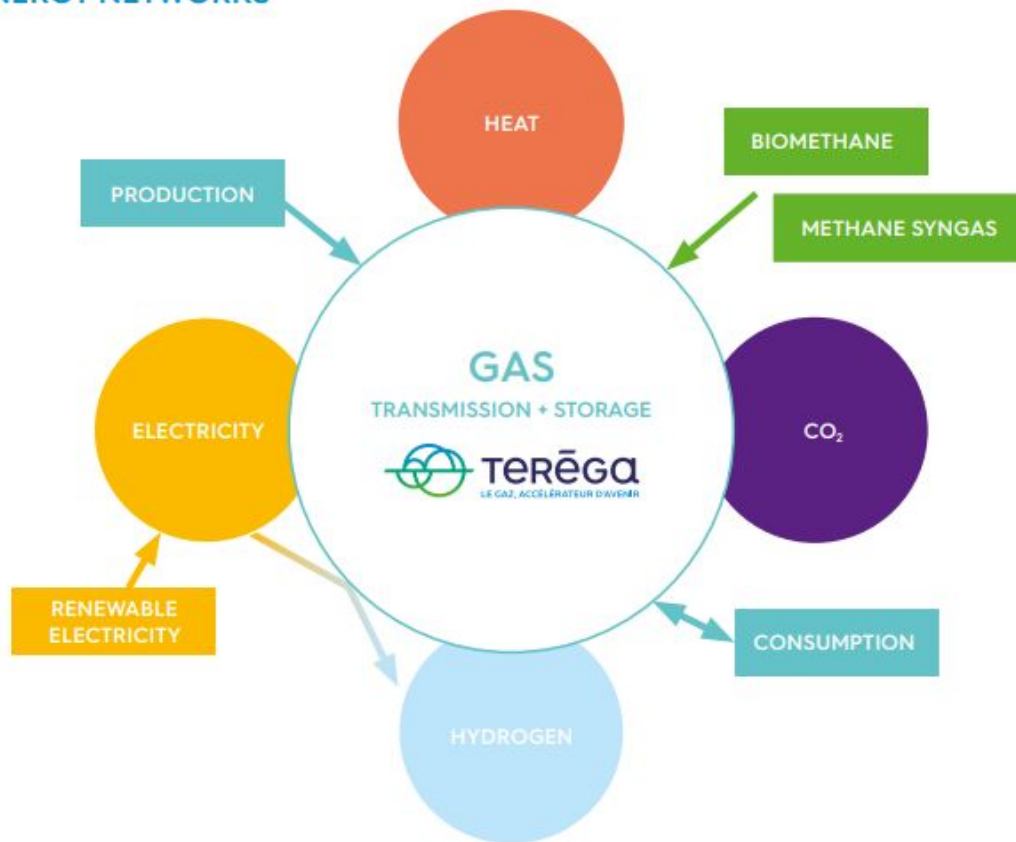
"LaTEP is proud to work with Teréga on this major project which is at the heart of the world's major energy challenges: for several months now, our team has been working on this scientific, technological and technical challenge in synergy with IPESE's teams."

**Jean-Michel Reneaume, Professor and researcher at LaTEP and Director of ENSGTI, UPPA**

"Our contribution to the IMPULSE 2025 project is really very exciting. It allows us to explore new horizons in the field of intelligent multi-energy systems and to extend our methods to previously unexplored concepts and dimensions."

**François Maréchal, Professor and Director of the IPESE laboratory, EPFL**

## TERÉGA INFRASTRUCTURES AT THE HEART OF ENERGY NETWORKS



## About Teréga

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Established in South-West France, at the crossroads between major European gas flows, Teréga has shared exceptional know-how for over 70 years in the development of gas transport and storage infrastructure. Today, it continues to develop innovative solutions to overcome the major energy challenges facing France and Europe. A true accelerator of the energy transition, Teréga operates over 5,000 km of pipelines and 2 underground storage reservoirs representing 16% of the French gas transport network and 24% of national storage capacities. In 2017, the company generated revenues of €471 million and had more than 580 employees.

## About L'EPFL (École Polytechnique Fédérale de Lausanne)

EPFL is a world-renowned university specialising in the field of science and technology that is located in Lausanne.

The research group partner of the project, IPESE (Industrial Process and Energy System Engineering) led by Professor Maréchal, specialises in decision-making support for the design of integrated energy systems and has developed the multi-objective energy system optimisation software (OSMOSE).

## About LaTEP (Laboratoire de Thermique, Énergétique et Procédés)

Affiliated with the Université de Pau et Pays de l'Adour (UPPA), LaTEP works on the issue of energy transition and conducts research in the area of energy and environmental processes engineering. The laboratory's scientific expertise resides in the areas of experimentation, modelling and simulation.

## About European Utility Week

Created in 1999, European Utility Week (EUW) is an annual event dedicated to the field of sustainable energy use. Every year, it brings together around 400 exhibitors and more than 10,000 visitors from the fields of energy services, research, innovation and technological development in sustainable energy. This year the show will be held over 3 days, from 12 to 14 November in Paris.

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