

## **Italgas and the University of Pavia: A Partnership to Enhance Network Security and Resilience**

*Milan, February 11, 2025* – Italgas and the University of Pavia have signed a collaboration agreement focused on enhancing the security and resilience of gas distribution networks, mitigating natural risks, network monitoring, and predictive maintenance.

The agreement was signed at the Italgas Digital Factory in Milan by Pier Lorenzo Dell’Orco, CEO of Italgas Reti, and Francesco Svelto, Rector of the University of Pavia.

This partnership will focus on the following key areas of research:

- Innovative solutions for gas distribution networks and strategies to mitigate the impact of natural hazards.
- Integrated monitoring and early warning systems for geohazards affecting the environment and urban areas where the network operates.
- Development of physical models and digital twins, including the application of trenchless technologies for upgrading existing pipelines.
- Experimental characterization of infrastructure components, with a particular focus on the seismic sensor integrated into Nimbus, the 4.0 smart gas meter developed by Italgas. The large-scale deployment of Nimbus will enable the collection of detailed seismic event data, currently unavailable at this level of granularity.

The activities under this agreement will be carried out in collaboration with the Department of Civil Engineering and Architecture (DICAr) at the University of Pavia, home to one of Italy’s largest structural engineering laboratories (the “Giorgio Macchi” Laboratory), and the EUCENTRE Foundation, a world-leading center for seismic engineering research. The University of Pavia is a founding member of EUCENTRE alongside Italy’s National Department of Civil Protection, the National Institute of Geophysics and Volcanology (INGV), and the IUSS Pavia Graduate School.

**Pier Lorenzo Dell'Orco, CEO of Italgas Reti, commented:** "Climate change and increasingly frequent natural events pose growing risks to infrastructure. To address these challenges, we must act proactively by investing in cutting-edge technologies that ensure network resilience and service continuity. Our collaboration with the University of Pavia, a center of excellence, aligns perfectly with this objective. By combining our expertise, we aim to develop innovative solutions that make the network even smarter, more efficient, and flexible—leveraging real-time data from the field and the knowledge of Europe's leading gas distribution company."

**Francesco Svelto, Rector of the University of Pavia, added:** "Today, the University of Pavia is establishing a new partnership with an outstanding company in a highly strategic sector. I am particularly proud of this initiative, as it opens new avenues for research and innovation while providing our students with valuable learning and career opportunities. Our university is strongly committed to bridging the gap between academia and industry—whether through structured internship programs like the 'Laurea Plus' track or by integrating corporate R&D centers within our campus facilities. This partnership will generate significant benefits not only for students but also for researchers and society as a whole. I am confident that this collaboration with Italgas will be both long-lasting and highly rewarding."