



# TECNALIA showcases, at the European energy sector fair ENLIT, an innovative virtual laboratory for smart grid testing.

*The TECNALIA applied research and technological development centre is exhibiting its services in the energy and smart grids sector at ENLIT Europe (Milan, 22-24 October) from today, and as a novelty, the virtual laboratory with simulated equipment*

**October 2024.** With a focus on energy sector companies, the applied research and technological development center TECNALIA presents its technological innovations at ENLIT Europe 2024, the international strategic forum for the energy sector. From today until Thursday, October 22-24, it will be present in Milan, in the Energy Cluster pavilion (Stand 7.F10), with products and services related to digitalization, cybersecurity, quality assurance and interoperability, network optimization, customer management, big data, transmission, distribution, measurement and monitoring systems.

New this year, TECNALIA introduces an **automated test laboratory for secondary substation equipment and AMI** (Advanced Metering Infrastructure) system testing with virtualized data models. The objective is to demonstrate the benefits of virtualizing equipment (at the data model level), enabling innovative communication tests between AMI system equipment and secondary substation devices, while incorporating new flexibility metrics.

This virtual laboratory allows for performance testing with over one hundred devices without the need for physical equipment, reducing the cost and space required for validation. It also includes central system simulators and control centers, eliminating the need to integrate them during tests and minimizing cybersecurity risks.

In addition to the laboratory, TECNALIA will showcase at ENLIT Europe testing tools and platforms related to various communication protocols and functionalities used in the intelligent measurement and automation of smart grid equipment, as well as protocol certification and functionality evaluation.



TECNALIA will also showcase its R&D&I activities and projects for utilities and equipment manufacturers, including analysis, modeling, and simulation of electrical systems, applications **for optimizing the planning, operation, maintenance, and energy management in electrical grids, cybersecure electronic solutions** for electrical networks, and power converters and tools for the integration of distributed energy resources into the grid.

## About TECNALIA

TECNALIA is Spain's largest applied research and technological development center, a European leader, and a member of the Basque Research and Technology Alliance. It collaborates with companies and institutions to improve their competitiveness, enhance people's quality of life, and achieve sustainable growth. This is made possible by a team of more than 1,500 professionals committed to building a better world through technological research and innovation. TECNALIA's research has a tangible impact on society, generating benefits in terms of quality of life and progress.

Its main areas of action include smart manufacturing, digital transformation, energy transition, sustainable mobility, health and food, urban ecosystem, and circular economy.

In the latest European Research Survey (ERS) 2022, TECNALIA ranked first in brand recognition for R&D&I.

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