

Galileo



CHALLENGES

- Electricity will rise to ~50% of total energy consumption by 2050 from a current ~20%.
- By 2050 RES will reach >65% of total energy supply and building's energy demand will double.
- High degree of uncertainty and variability into the future electricity network due to intermittent generation.
- New network operating systems that need to follow the basic principles of control theory: observability, controllability, and algorithms.
- Country regulations aimed at visibility and monitoring for medium-sized plants connected to the MV grid.

OUR SOLUTION

The Gridspertise Galileo solution is a platform to meet new observability requirements. Galileo enables observability of distributed energy resources connected to the MV grid and the communication of the related information in near real time to TSO.

It manages the direct measurements on the state of power plant performance acquired by the centralized plant controller (CCI) device through a dedicated remote terminal unit.

The CCI takes direct measurements on the performance of plants and enables monitoring, coordination, and presentation functionalities.

FEATURES ENABLED BY GALILEO



BENEFITS AND KEY DIFFERENTIATORS

- **Raw Data Extraction:** Search and visualize raw measures transmitted by each CCI/CA/IOA of every Galileo System.
- **Chart Visualization:** Visualization of charts for each Operative Center representing partial availability KPIs (one sample each 10 minutes) calculated for the Galileo system and TSO channels.
- **KPI Visualization and monitoring:** Search and visualize historical KPIs (daily, monthly, and yearly) availability calculated for the Galileo system and TSO channels.
- **Alarm flag for sub-threshold performance:** Each KPI has a flag alarm associated if its value is below the configured thresholds.
- **Controllability:** limiting the input power of the Service Delivery Point (roadmap 2024)
- **Dispatching:** optimized management of the plant participation in the Dispatching Services Market (roadmap 2024)

GRIDSPERTISE

Gridspertise offers end-to-end cloud-edge platform solutions and services to accelerate the digital transformation of electricity distribution grids in three main areas: metering and grid edge digitalization, network infrastructure digitalization, field operation digitalization. The Company's portfolio is designed as an open ecosystem, easy to integrate with legacy systems, combining intelligent grid devices with ready-to-use modular applications, running at central level as well as on the edge.

Born in 2021 leveraging on its parent company Enel's over 20 years of experience, Gridspertise today is jointly controlled by the Enel Group and the investment manager CVC Capital Partners. Gridspertise is present in different geographies, headquartered in Italy, offices in Spain, Brazil, India and the United States. Target markets include Europe, Latin America and North America. Asia-Pacific and Africa are in a second wave as they will drive infrastructure upgrade projects in the near future.