INNO4GRID

WHY INNO4GRID

Smarter Grids Matter

The growing use of solar and wind energy, electric vehicles, battery storage and other distributed energy resources is transforming electricity networks.
INNO4GRID addresses these challenges by working to:

- **Integrate more renewables** while maintaining secure grid operation.
- **Improve grid visibility** through advanced monitoring and sensing.
- **Anticipate challenges** with AI-based forecasting and security assessment.
- **Strengthen coordination** between transmission and distribution system operators.
- **Unlock flexibility f**rom energy storage, electric vehicles and demand response.

Together, these innovations can help build electricity grids that are more reliable, flexible and ready for a renewable-powered future.

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ABOUT THE PROJECT

Powering the Energy Transition

Europe's transition to clean energy requires electricity grids that can integrate increasing shares of renewable energy while maintaining security, stability and reliability.
INNO4GRID develops innovative technologies, software platforms and hardware solutions to support the operation of future renewable-based electricity systems.
By combining advanced forecasting, grid monitoring, flexibility management and intelligent control, the project aims to make electricity networks smarter, more resilient and better prepared for the energy transition.

Through research, innovation and real-world demonstrations, INNO4GRID supports a more secure, efficient and sustainable European energy system.

Reliable Grid, Secured Future

INNO4GRID

Innovative Technologies for Massive Renewables Integration into the Grid

Building **smarter**, more **flexible** and **resilient** electricity grids for a r**enewable energy future**.

Connecting innovation, digital technologies and energy systems for a more sustainable Europe.

Co-funded by the European Union

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TECHNOLOGIES & INNOVATION

- **INNO4GRID Workbench**: Integrated tools for smarter grid operation.
- **AI & Forecasting**: Predicting renewable generation and energy demand.
- **Grid Monitoring:** Improving real-time system visibility.
- **Security Assessment**: Anticipating grid risks and disturbances.
- **Grid Enhancement**: Optimising existing network capacity.
- **Flexibility Management**: Coordinating storage, EVs and distributed energy resources.
- **TSO–DSO Coordination**: Strengthening cooperation between grid operators.

INNO4GRID CONSORTIUM

37 partners from 14 countries
4 demonstration clusters

FOLLOW

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FOUR DEMONSTRATION CLUSTERS

NORWAY
Advanced grid monitoring and secure operation.

HUNGARY
Voltage regulation and grid security assessment.

WESTERN BALKANS
Regional coordination and grid stability.

TURKEY
Flexibility management and optimal system operation.

More renewable energy, smarter grid operation, improved reliability and a more resilient European electricity system.

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