ERIGrid 2.0 – European Research Infrastructure supporting Smart Grid and Smart Energy Systems Research, Technology Development, Validation and Roll Out – Second Edition

Project Overview and Research Infrastructure Access Possibilities
Motivation

- Planning and operation of the energy infrastructure becomes more complex
  - Large-scale integration of renewable sources (Distributed Energy Res./DER – like PV, wind, etc.)
  - Controllable loads (battery storages, electric vehicles, heat pumps, etc.)

- Trends and future directions
  - Digitalisation of energy infrastructure
  - Deeper involvement of consumers and market interaction
  - Sector coupling (linking electricity, gas, and heat grids) for higher flexibility and resilience
Advanced Community

- Long-term
- Pan-European cooperation

- **GA-ID 5189299**
  - FP6 NoE (01/2005-31/2011)
  - 4.1 Mio EUR funding
  - 12 partner
  - Networking of DER labs, pre-standardization

- **GA-ID 228449**
  - FP7 RI IA (01/2009-12/2013)
  - 6.7 Mio EUR funding
  - 16 partner from 12 countries
  - TNA to DER labs, pre-standardization

- **GA-ID 654113**
  - H2020 RI IA (11/2015-04/2020)
  - 10 Mio EUR funding
  - 18 partner from 11 countries
  - TNA to Smart Grid and DER labs, pre-standardization

- **GA-ID 870620**
  - H2020 RI IA (04/2020-09/2024)
  - 10 Mio EUR funding
  - 20 partner from 13 countries
  - TNA & VA to Smart Grid, Smart Energy Systems and DER labs, pre-standardization
Key Facts

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- 13 European countries involved
- 20 Partners from research and industry
- 21 top-class smart grid and smart energy systems laboratories
- 8 virtual facilities
- 4.5 years project duration
- 10 Mio funding
Integrated Smart Energy Research Infrastructure

- ERIGrid 2.0 stands for research and technology development in smart grids and smart energy systems
- It pushes digitalization with lab interfacing and data exchange for physical/virtual access
- It develops simulation, co-simulation, ICT and automation and controls for power and energy systems
Approaches for Smart Energy Technologies

- Validation of cyber-physical and multi-domain systems
- Tools and services for lab interfacing and data exchange
- Research infrastructure services combining real-time simulation, hardware-in-the-loop test setups and physical laboratories
Education and Training

- Education and Training for energy professionals
- Physical and remote workshops, webinars, tutorials, and training schools
- Open access laboratory education
- Provision of e-learning tools and open access resources
apply every 3 months for physical lab access

access virtual services anytime no application required

https://erigrid2.eu/lab-access/