

# **OUR MISSION**

The eFORT project aims to make Europe's electricity system more secure, reliable and sustainable in the future.

eFORT will develop a range of secure-by-design technologies and strategies for identifying, preventing, and mitigating risks and vulnerabilities in power grids.

The solutions will be demonstrated at four pilot sites across Europe, covering the whole value chain.



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**MAKING EUROPEAN** POWER GRIDS MORE RESILIENT AND SECURE



This project has received funding from the European Union's Horizon Europe Research and Innovation programme under Grant Agreement No 101075665.

# **CHALLENGE**

European grids, currently under digitisation and modernisation, require urgent upgrading against failures, physical disturbances, cyberattacks, and data privacy issues.

# SOLUTION

eFORT will provide a clear picture of the vulnerabilities and major threats and put in place a set of solutions to address attacks and disruptive events.

# **INNOVATIVE TOOLS**

eFORT develops enhanced tools for analysing and mitigating Electric Power and Energy Systems risks and vulnerabilities.

# **01** ASSET MANAGEMENT

SecureBox, an edge device for security management, TSO-DSO data exchange procedures, and IoT security.

# **02** DIGITAL TECHNOLOGIES

Digital twins of interconnected power grids, blockchain for grid resiliency, intrusion detection and prevision systems, edge computing and IoT.

# **03** INTELLIGENT PLATFORM COMPRISING SOFTWARE TOOLS

Self-healing and islanding algorithms, dynamic risk assessments, intrusion detection systems, and interactive visualization tools.

# FOUR PILOT SITES SHOWCASING THE eFORT SOLUTIONS

# **SPAIN**

Cuerva leads the demo, providing information from the site and the distributed resources. It will provide data from critical network infrastructure, such as the substation, to deal with threats. The aim is to assess what devices are cybersecurity-critical and implement problem-solving techniques above grid infrastructure.

### **ITALY**

The demo site, led by SELTA-DP, is a distribution system located in Northern Italy, in a remote and mountainous area. The goal of the site is to demonstrate the developed grid islanding algorithms to avoid potential power outages and ensure the quality of the grid service.

# THE NETHERLANDS

The demo, led by TenneT and TU Delft, aims to secure the interconnected power grids in Europe and make them resilient to cyberattacks. It will demonstrate strategies and tools to defend against cascading failures and restore the interconnected power grids from a potential European-wide blackout.

### UKRAINE

The fourth demo, led by JSC and iSolutions Labs, takes place at Iltsi substation. The aim is to contribute to the enhancement of critical infrastructure cybersecurity technologies, by securing a digital substation and applying advanced information technologies in system development and operation.