



Press Release
Valencia (Spain), 5 October 2022

Launched R2D2 project to improve the security and resilience of the EU grid

On 1st October 2022, the new project R2D2 on Reliability, Resilience and Defense technology for the grid, funded by the Horizon Europe Programme with €9.7 million and set for 3 years, was launched. As part of a consortium of 17 partners in 9 countries throughout Europe working on the project, ETRA I+D will coordinate the consortium.

R2D2 aims at improving the resilience and reliability of current Electrical Power and Energy Systems (EPES) against a growing number of threats and vulnerabilities that may affect such critical infrastructure, exposing weaknesses with harmful and damaging effects on different stakeholders and final customers.

This will be done through the deployment of four tools dedicated to the prevention, protection and restoration of EPES in two different independent but complementary scenarios in the energy value-chain – from regional coordination between TSOs, to privacy of LV customers. The project will build on top of strong energy coordination actions in South-East Europe (SEE), following EU legislation and in alignment with the recent activities promoted by ENTSO-E about cyber-security in transmission systems.

Through the demonstration and integration of the innovative solutions proposed by R2D2, it will be possible to achieve a more secure, reliable and resilient energy system in Europe, making a positive and tangible impact throughout the European EPES value chain. In this context, R2D2 will deliver a palette of complementary solutions synthesised into four Products: “Multi-risk assessment framework for power system”, “Resilience suite for TSO & DSO” , “Prevention Systems For Energy Infrastructures Security” and “Enhanced Assets Maintenance And Management Toolkit”.

R2D2 results will be tested and validated in 4 large-scale complementary demonstrators in Greece, Serbia, Spain, and Slovenia involving representative and complete value chains, a wide variety of energy sources, networks, systems and assets, and spanning heterogeneous climatic, geographic and socioeconomic conditions which will facilitate replicability, scale-up and eventual market launch.

Thanks to a smart, efficient end-to-end monitoring and control of power networks as the R2D2 tools do, EPES benefit from an overall system costs reduction coming from

reduced system power losses (technical and nontechnical), lower number and duration of outages or lower investment in disaster recovery.

About ETRA I+D

ETRA Investigación y Desarrollo, S.A. (ETRA I+D) is the hi-tech unit within ETRA Group, one of the leading industrial groups in Spain. ETRA's mission is putting technology to work for serving society in the fields of energy efficiency, mobility, security and communications. ETRA leads the 17 partners' consortium developing R2D2 project.

ETRA will contribute to improving the **resilience** and reliability of the power grid electricity grid, as well as reducing the number of failures and extending the useful life of the components. To do this, thanks to autonomous drones and artificial intelligence, it will develop new solutions that integrate automation and robotics in predictive maintenance and the optimal management of assets in electricity transmission and distribution networks.

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