

18 European Research Institutions Partner for Networking European Smart Grid Research Infrastructure

Intelligent power networks are urgently required to integrate the growing number of distributed energy sources and generators into our energy system. Under the leadership of AIT, 18 of Europe's top research institutions have joined forces in order to pool together their know-how and improve research infrastructures within the smart grid sector.

Vienna, Austria - Power grids, in their current form, will soon be unable to cope with the increased use of distributed and renewable energy sources. Since fluctuating wind and solar power generation seldom correlates with actual demand, better coordination between generators and consumers will be required in the future in order to secure both the power supply and quality. Continuous energy management can be achieved through the use of intelligent networks. The envisioned complex system of "smart grids" integrates sophisticated and diverse automation, information and communication technologies in order to provide new solutions for overcoming the enormous challenges for the future energy supply. Up to now, research has primarily focused on developing and monitoring specific and singular aspects of smart grids, while a holistic analysis and evaluation was often impossible due to the lack of suitable infrastructure.



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Concentrated know-how

In response to this situation, 18 European research institutions from across 11 different countries, and under the leadership of AIT, have joined forces in the transnational ERIGrid project (European Research Infrastructure supporting Smart Grid Systems, Technology, Development, Validation and Roll Out). Started in November, 2015, the ERIGrid project is scheduled to run for 4½ years and it is aimed to provide access to concentrated know-how and

European research infrastructure to scientists and companies involved in the development of smart grid concepts and components.

"We intend to make the innovative methods, concepts and processes developed within this top-class network available to other interested researchers, industrial enterprises, system operators and standardisation institutions," explains Thomas Strasser of AIT. This unique pan-European research infrastructure will be supplemented by the provision of optimised research services for the analysis and validation of new smart grid configurations.

From the field to the lab

"By networking European smart grid research infrastructure through the ERIGrid project, we are driving technological developments and the creation of intelligent networks in Europe," stresses Strasser, who was responsible for initiating and launching this pioneering project. Currently, several demonstration projects are already in execution within Europe so as to test smart grid concepts in the field. However, in future it will not be possible to validate all innovative approaches in the same manner, which is time and resource intensive. "That makes it all the more important to make the relevant research infrastructure available, including improved validation methods," says the expert. "In an effort to support and accelerate the innovation and development of new smart grid solutions and products, ERIGrid will provide assisted and free-of-charge access, for researchers, to the 21 state-of-the-art laboratories offered by the ERIGrid partners. Researchers from both industry and academia are encouraged to apply for this opportunity through the ERIGrid trans-national access calls that will be issued. As the ERIGrid project brings together Europe's best research institutions, the resulting dynamic should serve to further strengthen Europe's pioneering role within the energy sector."

For more information please visit www.erigrd.eu

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