



**Research and Innovation activities
about energy storage integration in the electricity networks:
ongoing activities at national level and future needs**

Regional workshop (Germany and Poland)

Kultion Factory UG, Westendstraße 123 F, 80339 Munich, Germany.

9 and 10 March 2016

Background

This two-day workshop relates to the SET Plan activities within the Energy Union Framework.

The [Grid+Storage](#) service contract aims at providing the European Commission and the Member States with an upgraded version of the [Research and Innovation Roadmap for the electricity grids](#) as approved in 2013.

The novel features of this upgraded roadmap are three folds:

1. The roadmap will take into account an explicit description of Research and Innovation (R&I) activities recommended **about energy storage integration in the future electricity networks** (operations, maintenance, planning and market mechanisms) since energy storage is a way to increase the flexibility of the electricity system;
2. The roadmap upgrading process involves **the active participation of Member States**, by giving them the opportunity to show where and how public national funding addresses energy storage integration into grid activities: this contribution will reinforce the monitoring of national or regional Research and Innovation activities, thus helping to minimise the future risks of funding overlaps in EU28. And it will underline the role of the [ERA-Net Smart Grid Plus initiative](#) in catalysing more cooperative R&I activities between Member States.
3. The debates which are organised during nine “regional” workshops will favour the **involvement of national players in identifying needs for further research and innovation activities** at national and European level in order to accelerate the deployment of energy storage solutions throughout the electricity system.

This eighth workshop covers R&I activities in Germany and Poland: it is therefore a **unique opportunity to interact with network operators and energy storage stakeholders about the R&I results obtained so far, and the scope and contents of the future Research and Innovation roadmap.**

All stakeholders involved in R&I activities dealing with smart grids and energy storage integration in the power system are invited to attend this workshop. National R&I projects representatives are welcome to join a labelling process where the European added value of their activities will be identified jointly by the [ERA-Net Smart Grid Plus](#) and [Grid+Storage](#) teams.

One other regional workshop is scheduled in London on March 15, 2016, in order to share knowledge and agree about the future Research and Innovation activities needed for the next ten years.



Program

9 March 2016

09:30 REGISTRATION and WELCOME COFFEE

09:55 Welcome speech

Eric Peirano, Grid+Storage Project Manager, TECHNOFI

10:00 Energy Policy framework and the new SET Plan organisation

Michael C. Laubenheimer, DG Research, European Commission

10:15 Introduction to the activities of the Grid + Storage project

Eric Peirano, Grid+Storage Project Manager, TECHNOFI

10:30 The WEMAG 5 MW battery plant (Germany)

Wolfram Krause, Younicos

11:00 The M5BAT project (Germany)

Dr.-Ing. Christian Folke, Uniper

11:30 COFFEE BREAK

11:45 The Mega Watt battery on the PV Park Neuhardenberg

Dr.-Ing. Pio Alessandro Lombardi, Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg

12:15 First round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)

Interactions with the audience about the lessons learnt by the projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system

12:45 LUNCH BREAK

14:00 The Smart Grid Knowledge Sharing Platform

Daniel Hernandez Maldonado, Consultant, TECHNOFI

14:15 From local trials towards a European Knowledge Community: ERA-Net Smart Grids Plus

Helena Geißler, B.A.U.M. Consult

14:30 Alp Store: masterplan and implementation of Power2Heat (Germany) TBC

Florian Rothmoser, Rothmoser GmbH TBC

15:00 "Stadt als Speicher": using all built entities as storage potentials

Stefan Kippelt, Technische Universität Dortmund

15:30 The Flexible Energie Netze (Germany)

Prof. Monti Antonello, E.ON Research Center, RWTH Aachen

16:00 COFFEE BREAK

16:30 Effective Energy Storage System for photovoltaic RES and SMART GRID applications – ESME (Poland)

Krzysztof Czernek, S.A.M. Polska Sp. z o.o.

17:00 The ADELE project



Dr. –Ing. Pio Alessandro Lombardi, Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg

- 17:30** **Second round table** (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)
Interactions with the audience about the lessons learnt by the projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system
- 18:00** **END OF FIRST DAY**
- 19:00** **NETWORKING DINNER**

10 March 2016

- 8:25** **Introduction to the program of the day**
Eric Peirano, Grid+Storage Project Manager, TECHNOFI
- 8:30** **Energy storage operation in virtual power plants and future grids: Smart Region Pellworm and the DeCAS project (Germany)**
Simon Koopmann, Team Leader Distributed Energy Systems, RWTH Aachen University
- 9:00** **IRENE: managing an entire village with smart grids and storage (Germany)**
Klaus Meyer, egrid Applications and Consulting GmbH
- 9:30** **Verteilnetz2020, a practical approach to local grids (Germany)**
Markus Meyer, TU München
- 10:00** **Power-to-X - results from various projects on cross-sectoral energy storage and network coupling**
Prof. Michael Sterner, Research Center for Energy Networks and Energy Storage, OTH Regensburg University AS
- 10:30** **COFFEE BREAK**
- 11:00** **Third round table** (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)
Interactions with the audience about the lessons learnt by the projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system
- 11:30** **Final round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI, with participation of projects representatives and members of EASE, EDSO and ENTSO-E)**
- Impacts of the new knowledge presented by the twelve projects onto the Grid and Storage roadmap
 - Recommendations for future R&I activities and regional investments about grid and energy storage solutions
- 12:00** **LUNCH BREAK**
- 13:30** **END OF WORKSHOP/AOB**
- 13:30** **END OF SECOND DAY**



About Grid+Storage

[Grid+Storage](#) is a service contract for the European Commission (DG ENER), aiming at defining the European Research and Innovation roadmap integrating energy storage into grid activities.

[Grid+Storage](#) partners are:



About ERA-Net Smart Grids Plus

[ERA-Net Smart Grids Plus](#) is an initiative of 21 European countries and regions, aiming at enabling the right technologies, market designs and customer adoption in order to achieve the Smart Grids vision in Europe. It has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 646039.

[ERA-Net Smart Grids Plus](#) funding partners are:



About ETP SmartGrids

The [European Technology Platform for Electricity Networks of the Future](#), also called ETP SmartGrids, is European forum to shape technology research and innovation pathways which will make electricity networks smarter