



# SmartGuide

## Defining Planning and Operation Guidelines for European Smart Distribution Systems

” SmartGuide intends to derive new planning principles to reinforce European distribution networks cost efficiently

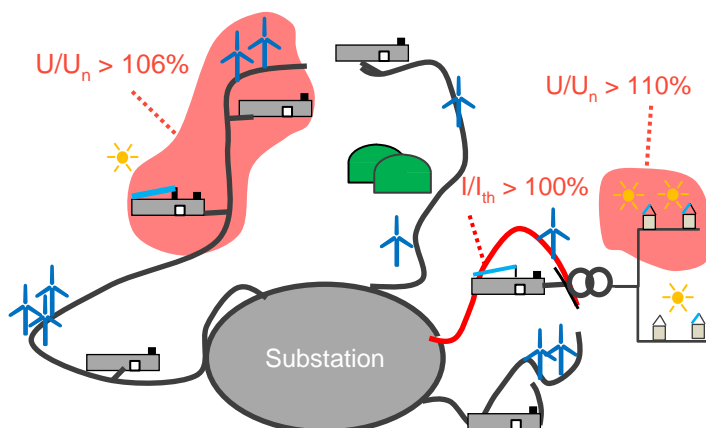
**ERA-NET Smart Grids Plus SmartGuide is a research project with five project partners and four associated partners from Norway, Portugal, the United Kingdom and Germany.**

The main objective of the project SmartGuide is the development of improved and generalised planning and operating guidelines for European smart grids (SG), considering renewable energy sources and the demands that arise from smart market applications (e.g. demand response, ancillary services like frequency control).

The associated distribution system operators (DSO) will provide network data in order to analyse smart grid technologies used in actual distribution networks. On this basis country specific planning and operation principles will be derived. In a further step those principles will be abstracted to form a European planning guideline for using smart grid technologies in distribution networks.

During the project all partners will develop different software frameworks to identify increased requirements for network reinforcements and possible SG solutions in order to upgrade existing distribution networks cost efficiently.

Distribution grids need to be reinforced to fulfil future requirements:



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### Project Duration

01.04.2016 – 31.03.2019

### Project Budget

Total Budget: € 3,148,843.-

Funding: € 1,957,593.-

### Project Coordinator

University of Wuppertal (Germany)

### Project Partners

- INESC Porto (Portugal)
- SINTEF Energi AS (Norway)
- Skagerak Nett AS (Norway)
- Smarter Grid Solutions Ltd (UK)

### Associated Partners

- Avacon AG (Germany)
- MITNETZ Strom GmbH (Germany)
- UK Power Networks (UK)
- Westnetz GmbH (Germany)

### Project Website

<http://smartguide.uni-wuppertal.de>

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## From Local Trials towards a European Knowledge Community

<http://www.eranet-smartgridsplus.eu>

### Main Objectives

- Analysis and comparison of country specific smart grid technologies and solutions
- Analysis of country specific conditions (regulatory, legal, technical) for the use of smart grid technologies and smart market applications
- Analysis of country specific legal and regulatory conditions for the promotion of renewable energy sources
- Review of specific planning strategies of the involved DSOs and of additional European DSOs
- Development of different simulation and planning tools for the country specific planning process
- Development of country specific planning and operation guidelines for smart grids considering smart market applications
- Comparison of country specific planning and operation guidelines in the smart grid era
- Development of improved and generalised planning and operation guidelines for European smart grids
- Derivation of regulatory guidelines for DSOs to reduce barriers for the application of smart grid technologies and smart market applications

### Main Results

The project has just started and results will be added in the further progress of the project.



This project is part of the 1st Joint Call for transnational RDD projects of the ERA-Net Smart Grids Plus initiative. More than EUR 31 million of funding have been made available to 21 projects from 19 regions/countries.

**ERA-Net  
Smart Grids Plus**

