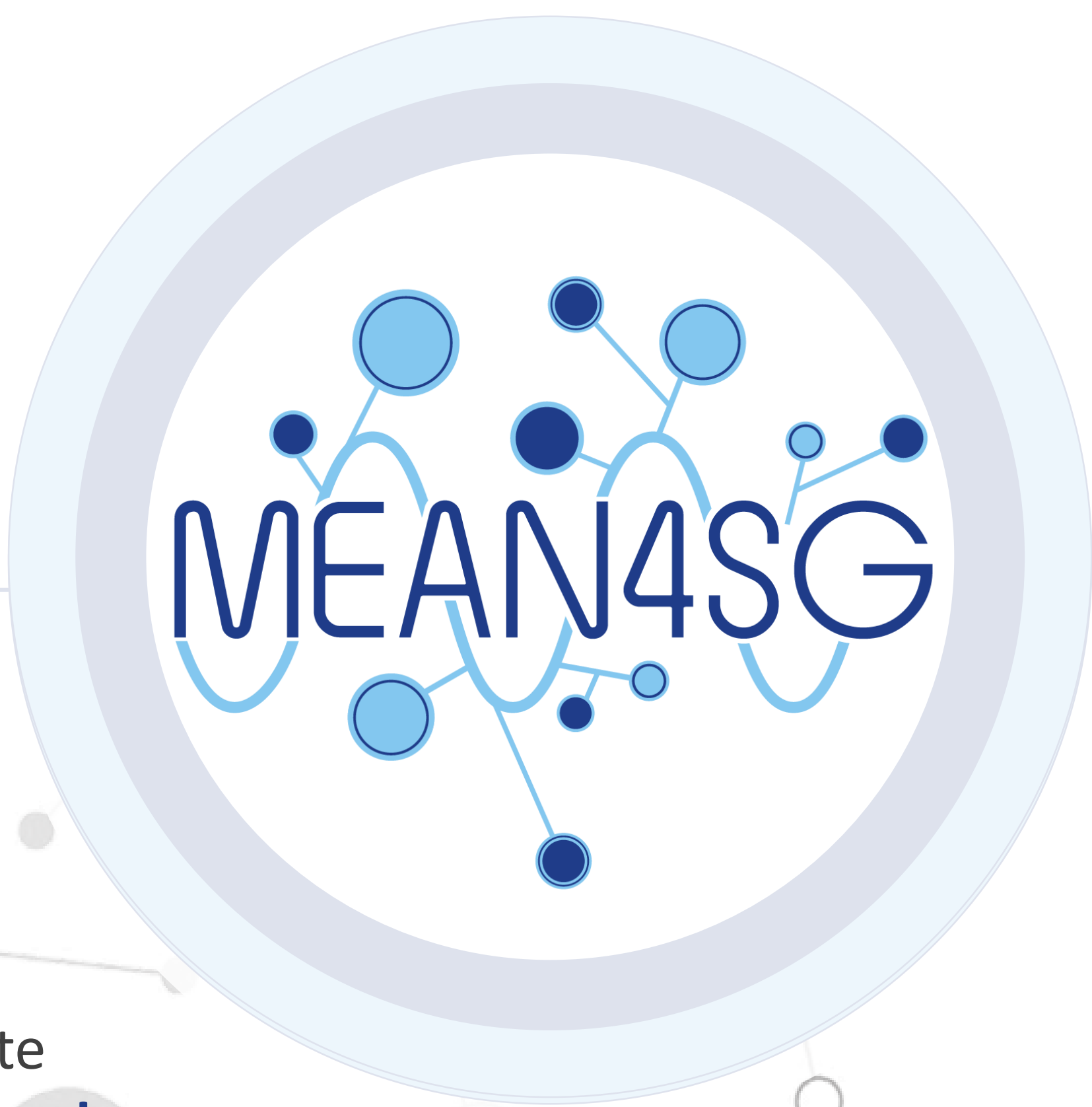


Improving today the smart grids of the future

MEAN4SG : Metrology Excellence Academic Network for Smart Grids



11
LINES OF
RESEARCH

The main goal of MEAN4SG is to shape a critical **mass of new expertise** with fundamental skills required to power the scientific and technological challenges of Smart Grids Metrology.

MEAN4SG network aims to educate **11 young researchers** in the **smart grids metrology field** by constructing a sustainable training network gathering the whole innovation value chain.

ESR 1
Flicker measurements
for newer lighting techniques
CIRCE

ESR 3
Development of tools for accurate
and reliable measurements of Smart
Grid Power Quality
LNE

ESR 4
Development of an integrated
model of electric systems
ENEL

ESR 6
Distributed Generation
Management through
Virtual Power Plant
concept
ENEL

ESR 7
Implementing world class PMU
algorithms on economic acquisition
for ubiquitous deployment
UNIVERSITY OF STRATHCLYDE

ESR 9
Smart Network Diagnostics:
Online Partial Discharge
Monitoring of Electrical Networks
ORMAZABAL

ESR 11
Smart DC power lines:
Predictive maintenance and
fault location through
partial discharge analysis
HAEFELY

ESR 8
PMU applications
in distribution grids
TU/e

ESR 10
Smart cable overshath
diagnosis in MV and HV grids
F²I²

ESR 2
Power Quality measurements and
propagation in distribution grids
TU/e

ESR 5
Metrology for Energy forecasting
on domestic installations with
Renewable Energy Systems
CIRCE

C H A L L E N G E S

Power quality analysis

Determination and further
analysis of those Power
Quality (PQ) parameters
affecting active customers

Smart grids modelling and management

Metrology for smart grids
modelling and monitoring,
to perform an accurate
energy forecasting at low
voltage levels

Advanced monitoring through PMU applications

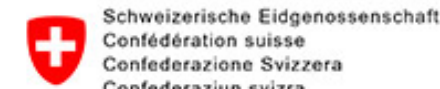
Cost-effective use of PMUs
for advanced monitoring
under the
IEEE C37.118.1a-2014
standard to cut down costs

Smart cable diagnosis

Development of smart
diagnosis tools for providing
information about the state
of the distribution grid
infrastructure and its
components

BENEFICIARIES

PARTNER ORGANIZATIONS



HR EXCELLENCE IN RESEARCH

The project beneficiaries and partner organizations are fully committed with the principles of EQUALITY, TRANSPARENCY, QUALITY, EFFICIENCY AND EFFECTIVENESS. The main ethical codes related to research, education, training and people management will be a beacon of light for MEAN4SG network, as it is expected from the "HR EXCELLENCE IN RESEARCH" strategy.

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