

Growing
ideas
through
networks

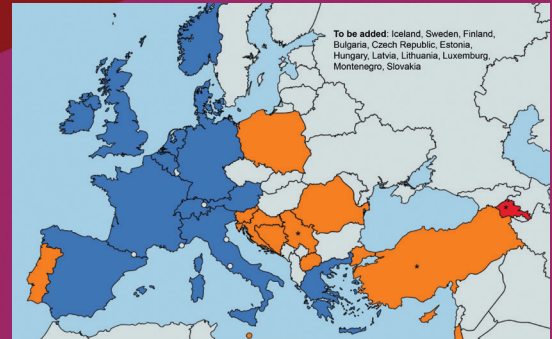
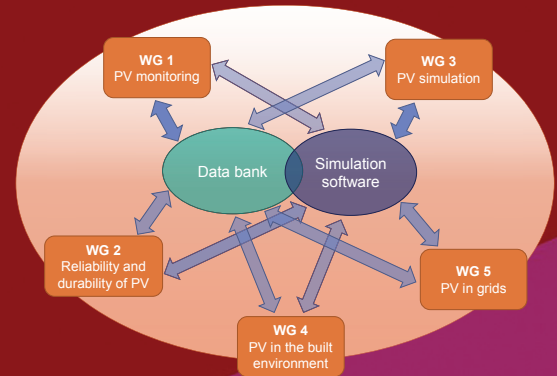
P  A R L P V

COST Action 16235:
Performance and Reliability of Photovoltaic Systems:
Evaluations of Large-Scale Monitoring Data (Pearl PV)

What is Pearl PV?

Pearl PV is an acronym for **Performance and Reliability of Photovoltaic Systems**, a European-wide scientific and technology knowledge platform, established to improve the energy performance and reliability of photovoltaic (PV) solar energy systems in Europe leading to lower costs of electricity produced by PV systems by a higher energy yield, a longer life time eventually beyond the guaranteed 20 years as specified by manufacturers, and a reduction in the perceived risk in investments in PV projects.

This objective will be achieved by analyzing data of the actual monitored long-term performance, defects and failures in PV systems installed all over Europe to quantitatively determine the absolute influences of components rated performance, key design of systems, installation, operation, maintenance practice, geographic location and weather factors on the performance, performance degradation over time and failure modes of these PV systems.



Countries involved in PEARL PV January 2018
25 European Countries and 1 NNC

Parties

Our Action entails the formation of an inclusive network of PV system researchers, data resources that will be analyzed by researchers, forming **the largest-ever agglomeration of PV systems performance**

data in Europe, and experts that can include more-nuanced evidence-based reliability in PV system evaluation methods and simulation and design tools.

Working Groups

The five Working Groups are:

- WG 1: PV monitoring
- WG 2: Reliability and durability of PV
- WG 3: PV simulation
- WG 4: PV in the Built Environment
- WG 5: PV in grids

Special Activities

- Short Term Scientific Missions (STSMs) or visits aimed at supporting individual mobility
- ITC Conference Grants
- Training Schools

COST Actions

COST is the longest-running European framework supporting trans-national cooperation among researchers, engineers and scholars across Europe. COST Actions are a flexible, fast, effective and efficient networking instrument for researchers, engineers and scholars to cooperate and coordinate nationally funded research activities.



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