



## Firm PV Power – introduction to Task 16

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Webinar – 16.08.2022

# What is IEA PVPS?

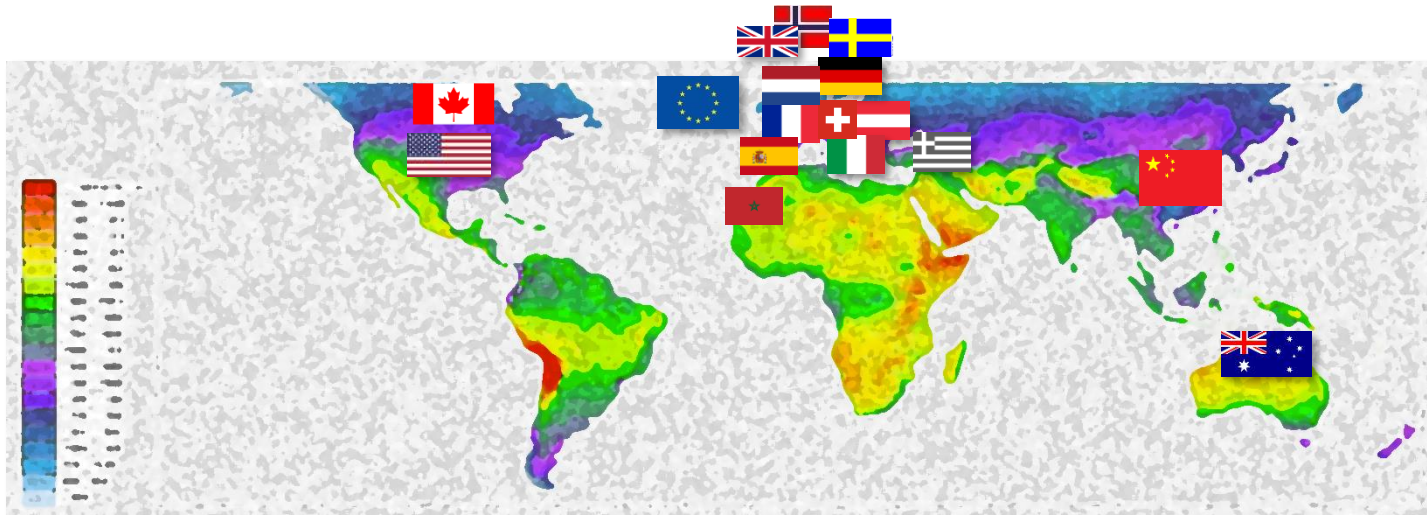


- The International Energy Agency (IEA), founded in 1974, is an autonomous body within the framework of the Organization for Economic Cooperation and Development (OECD).
- The **Technology Collaboration Programme (TCP)** was created with a belief that the future of **energy security and sustainability starts with global collaboration**.
- The Photovoltaic Power Systems Programme (PVPS) is one of the TCPs established within the IEA in 1993.
- The objective is to facilitate the role of photovoltaic solar energy as a **cornerstone in the energy transition**.

# International Collaboration of Task 16



- Universities, research organizations, met services, and service providers
- 19 countries



Global horizontal irradiance. Source: [www.meteonorm.com](http://www.meteonorm.com) Version 8.0

# Why a Solar Task?



- Solar resources are the fuel of PV, CSP and solar thermal energy
- Big PV and high penetration need high quality of meteorological information
- Added values
  - Independent benchmarks
  - State of the art descriptions
  - Lower uncertainties → lower costs of implementation → **more PV**
  - **Main outcome: Solar Resource Handbook<sup>1</sup> – updated regularly**



<sup>1</sup> <https://iea-pvps.org/key-topics/best-practices-handbook-for-the-collection-and-use-of-solar-resource-data-for-solar-energy-applications-third-edition/m>

# Task organization



- Subtask 1: **Measurements & Models** (M. Sengupta, NREL, S. Wilbert, DLR)
  - Ground based methods models, benchmarking framework
- Subtask 2: **Enhanced data & bankable products** (P. Blanc, Mines Paristech)
  - Quality & format, long term variability, PV at urban scales, data for bifacial modules
- Subtask 3: **Solar forecasting techniques** (E. Lorenz, Fraunhofer ISE)
  - Regional forecasts, Probabilistic forecasts, All sky imagers, **Firm PV power**
- Subtask 4: Dissemination & Outreach (J. Remund, Meteotest)
  - Reports, Papers, **Update of Solar Resource Handbook**, Workshops, **Webinar**, online code archive