ROM-PV: Reducing the photovoltaic operation and maintenance (O&M) costs through an advanced online platform

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The ROM-PV Project

ROM-PV

Objective

- To develop a PV platform for preventive, corrective and predictive maintenance

Scope

- To optimise PV energy production and reduce O&M (operation & maintenance) costs

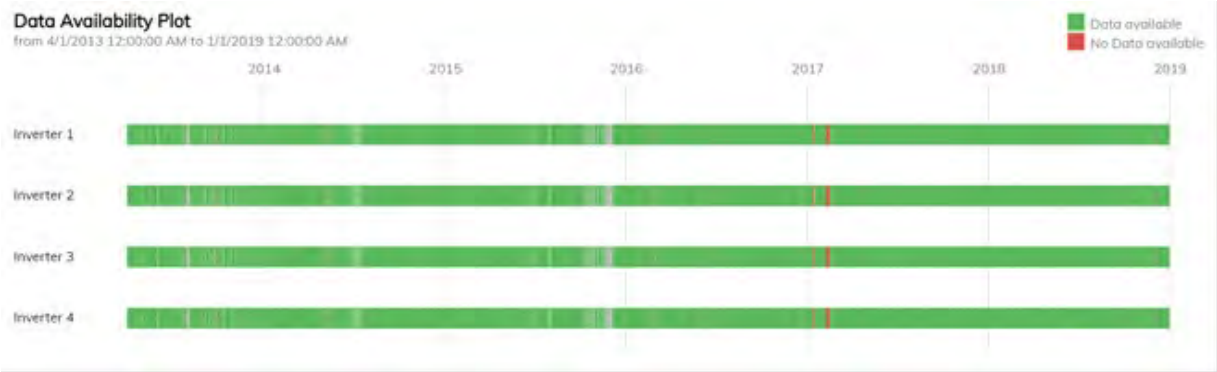
Consortium

Partner Name	Group/Lead	Role	Organisation Category	Country	Funding agency
University of Cyprus	PV Technology Laboratory, FOSS Research Centre for Sustainable Energy Prof. George E. Georghiou	Coordinator	Research Organisation (University)	Cyprus	RESEARCH & INNOVATION FOUNDATION
University of Jaén	AdPVTech Research Group, Centre for Advanced Studies in Energy and Environment (CEAEMA) Dr. Eduardo F. Fernández	Partner	Research Organisation (University)	Spain	GOBIERNO DE ESPAÑA · MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD
Alectris Hellas IKE	Mr. Vassilis Papaeconomou	Partner	Enterprise (O&M company)	Greece	GSRT GENERAL SECRETARIAT FOR RESEARCH AND TECHNOLOGY

Scientific, technical and commercial challenges addressed

Scientific and technological

- Data availabilities > 95%



- Failure detection accuracies> 98.5% and classification accuracies > 92%
- Lower the LCOE (levelized cost of electricity)

$$\downarrow LCOE(€/MWh) = \frac{CapEx + O\&M \downarrow}{Lifetime\ energy\ yield \uparrow}$$

Scientific, technical and commercial challenges addressed

Commercial

- Improve the commercial readiness of Alectris' cloud-based product
- Product designed to optimise the PV performance and field O&M strategies

Key outcomes, results and benefits

Project outcomes and results

- Development of software algorithms for fault diagnosis, prognosis and soiling extraction
- Early and accurate fault diagnosis → minimization of power losses
- Optimization of O&M activities → reduction of O&M costs
- Unique O&M solution → improved services

Benefits

- New results advancing the knowledge in the PV field
- TRL progress of the product resulting in increased sales/customers
- Critical mass of generated knowledge and know-how contributed to the success of recently funded projects (e.g., “PHAETHON” teaming project with a total of €45 million budget)

Experiences gained in transnational set-up

- Improved knowledge transfer between partners by sharing PV site data, expertise and skills
- Enhancement of research and industrial synergies

Critical factors and lessons learned for future successful transnational R&I projects

- Transnational consortium to carry out ambitious project targets
- Complementary of the consortium skills for success
- Academia collaborating with industry
- Multitude of expertise by the collaborators to materialize successfully the project
- Sustainable collaboration between the partners, setting the ground for future proposals

Thank you for your attention

Open for collaborations for the **CETPartnership Joint Call 2023**

LET'S CONNECT

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ADVANCES IN PV Tech

ALECTRIS
SOLAR ASSET CARE INNOVATION.SM

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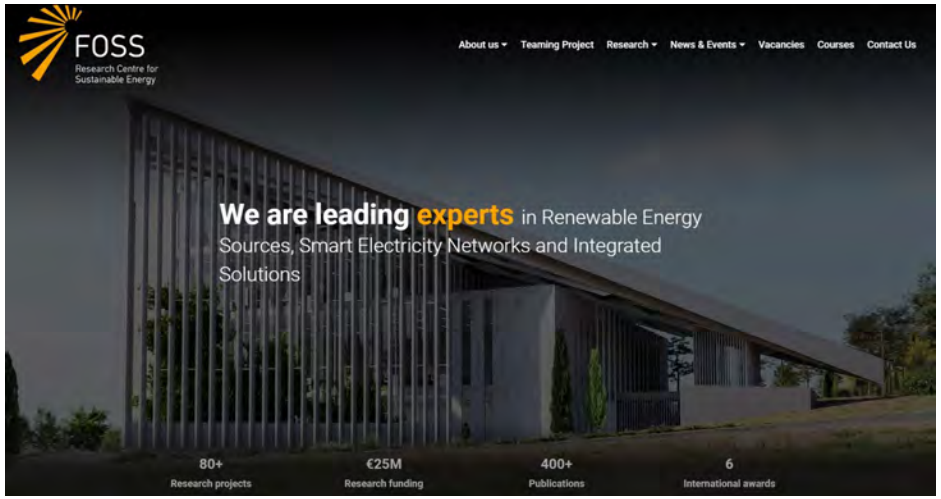
FOSS Research Centre for Sustainable Energy
is **upgrading** to **PHAETHON Centre of Excellence**
https://fosscy.eu/projects/rompv/



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