



pho
toki
pia

Semitransparent Organic & Printed Photovoltaics for Energy Efficient Mediterranean Greenhouses



HELLENIC REPUBLIC
MINISTRY OF
ECONOMY & DEVELOPMENT
SPECIAL SECRETARY FOR ERDF & CF
MANAGING AUTHORITY OF ΕΡΑΝΕΚ

ΕΡΑΝΕΚ 2014-2020
OPERATIONAL PROGRAMME
COMPETITIVENESS
ENTREPRENEURSHIP
INNOVATION



Co-financed by Greece and the European Union

www.photokipia.gr

Scope

PHOTOKIPIA Project developed an “Energy Efficient Greenhouse” based on Large Scale OPVs using Roll-to-Roll Printing techniques.

Targets & Objectives

- Development and Optimization of R2R Printed Transparent Electrodes (optical transparency > 90%, surface resistance < 12 Ohm / cm², thermal stability ≥ 300 ° C)
- Optimization of R2R Printing Processes for manufacturing large scale S-OPVs and Optical Engineering of nanolayers (6-7% Efficiency, optical transparency ≤ 30%, power ~ 40W/m², weight < 0.5Kg, life time 8 years)
- Development of a wireless monitoring system of MG and recording parameters of S-OPV panels
- Integration of H-OPV panels to MG and evaluation of their performance and impact on cultivation

Consortium

