3rd Gen Semi-Transparent Flexible Photovoltaics:

A Game Changer for Green Industry & Green Energy (Agrivoltaics, Buildings, Smart Cities, Mobility, ..)

Contributing to the Energy & Food Crisis, and to a Climate - Neutral Economy

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sustainable solutions

Outline

- Towards a Climate - Neutral Economy:
  Complexity, Opportunities, Solution
- Semi-Transparent Flexible Organic PVs
- World 1st Automated (Nano)Manufacturing Line for OPVs,
  in Thessaloniki, Greece
- OPV Installations in AgriVoltaics, BIPVs, VIPVs, ……
- Looking for Collaborators/Investors to Boost our Global Strategy

Towards a Climate - Neutral Economy and Future: Complexity, Opportunities, the Solution

reduce Energy Poverty, grow Economies and Urban Population, protect Natural Systems & the Planet

Food Increases >7.5%

Water Scarcity

Cities Increase ~5% Population, Globe 10 Billion People in 2050

Energy Increases >10%

Climate Net Zero Emissions by 2050

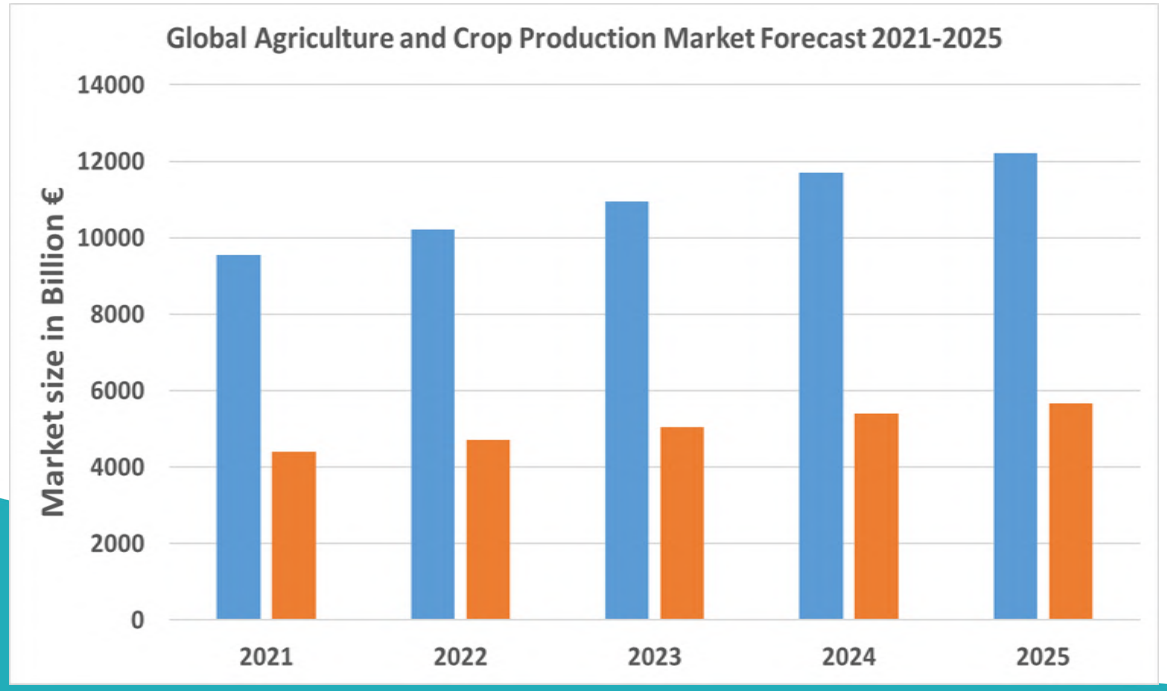
To a Climate - Neutral Economy and Future

Agriculture & Crop Production Markets increase >7.5%

BIPV Market increases > 20,1%

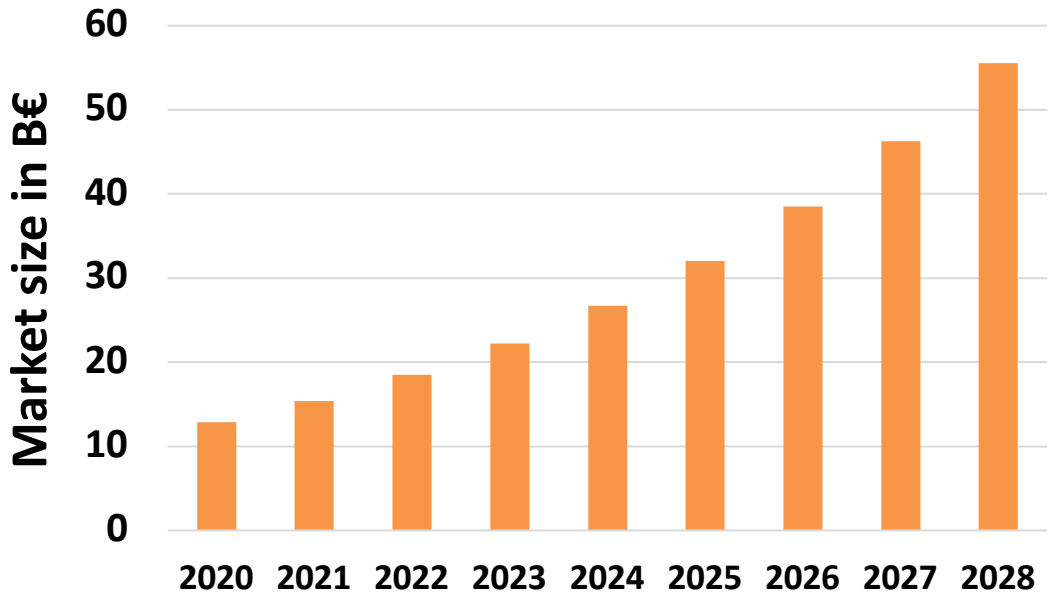
GreenHouses Market increase >11,3%

GH Market
50,6 B€
by 2025
with a CAGR
11,3%



55,5 B€
by 2028
with a CAGR
20,1%

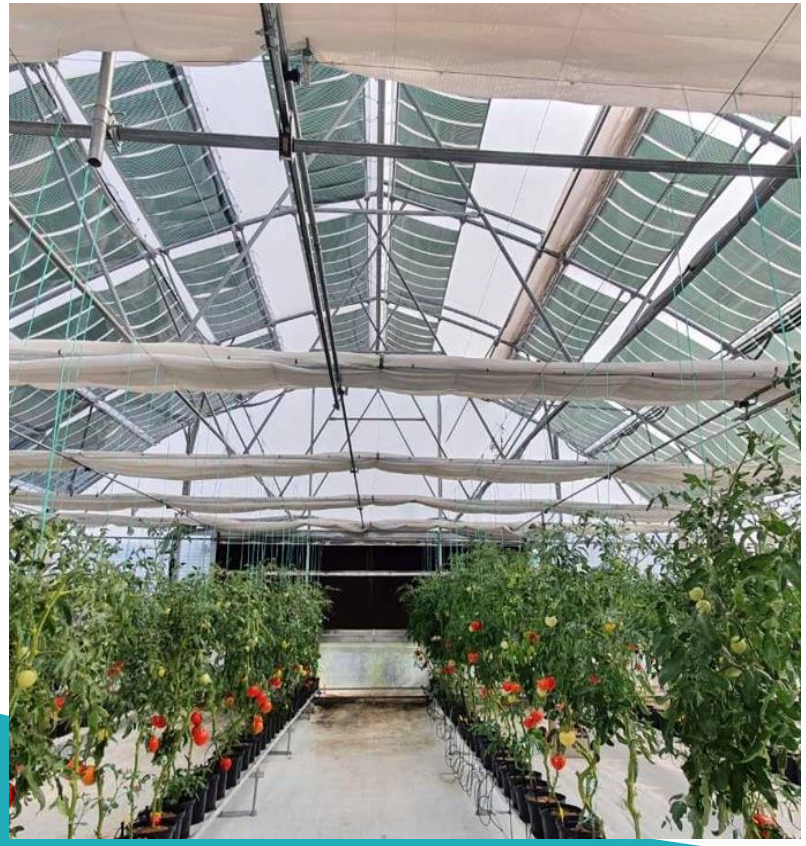
BIPV Market Forecast 2020-2028 in Facades



Semi-Transparent Flexible OPVs: Markets

Agri(O)PVs

OPVs for Agriculture

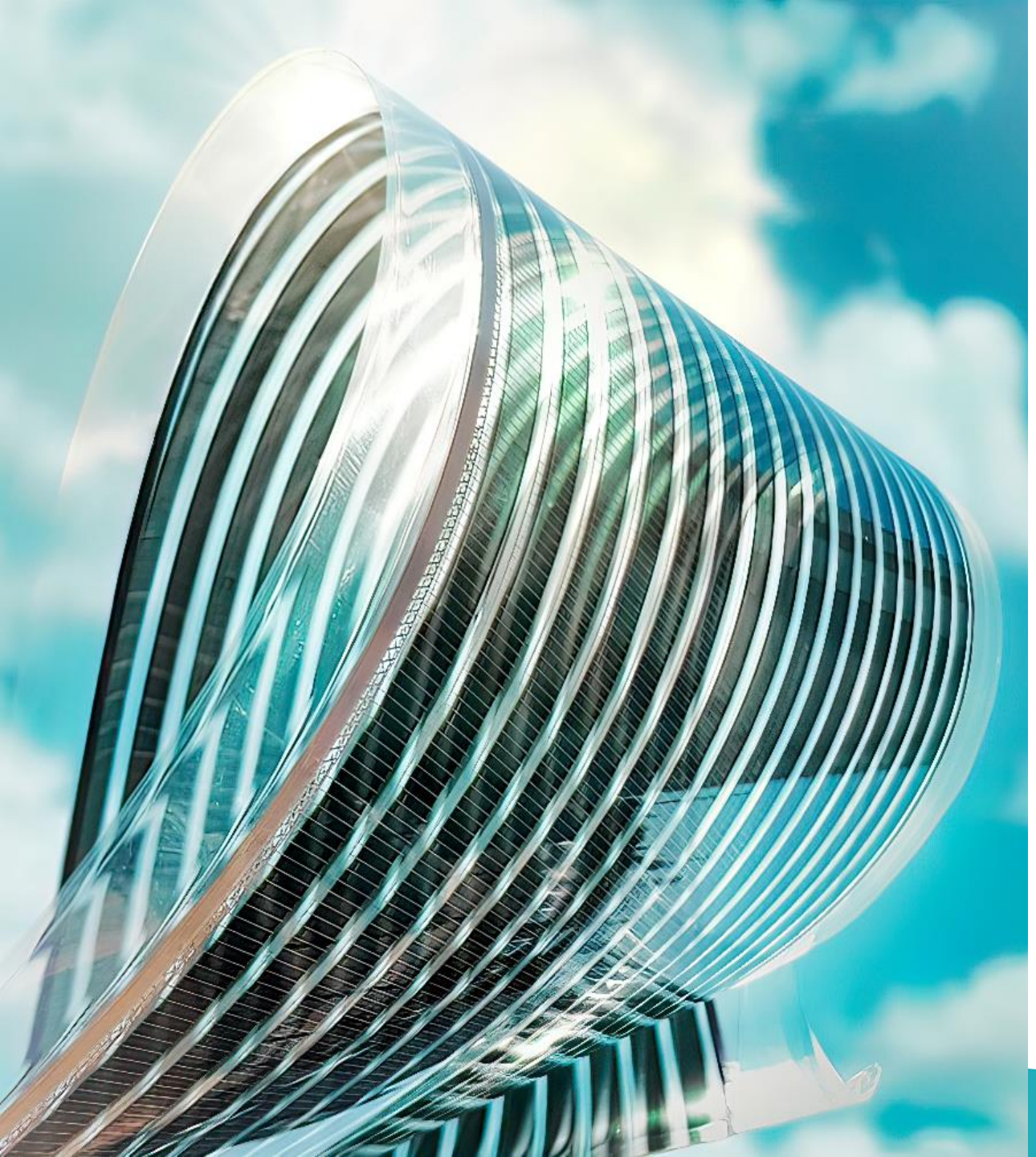


BI(O)PV

Building Integrated OPVs

VI(O)PV

Vehicle Integrated OPVs

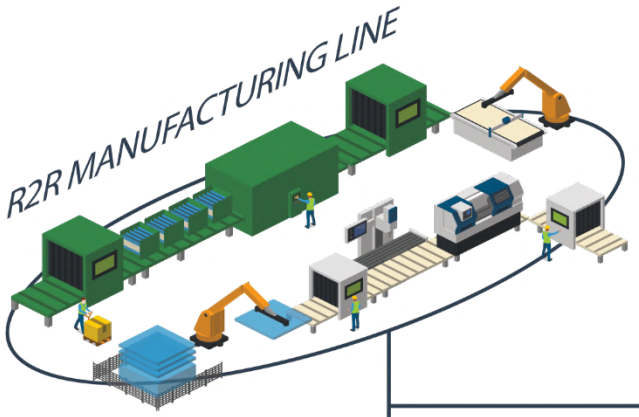


Why OPVs?

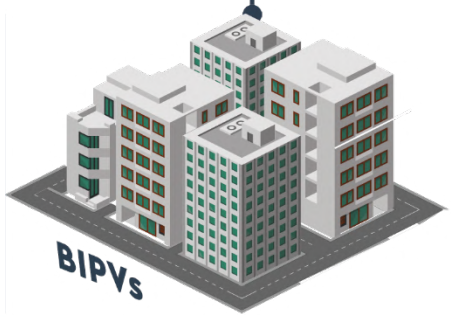
- Large Scale (Nano)Manufacturing R2R Printing in Air
- Low Cost Production
- PCE of OPVs Close to 20% [NREL]
- Semi- Transparent
- Freeform Design
- Variety of Colour
- Thin & Flexible
- Applied in any Surface
- Demand for Clean Energy Solutions
- Recyclable
- Minimal CO_2 Footprint

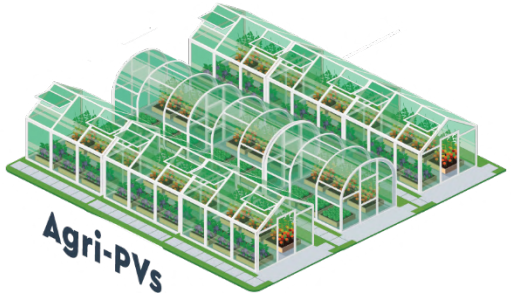
First Mass Production Line, 21.2M€ Investment from EU

World's 1st
R2R Automated
(Nano)Manufacturing
Line



Annual Capacity
>1.000.000 m²
100 MW



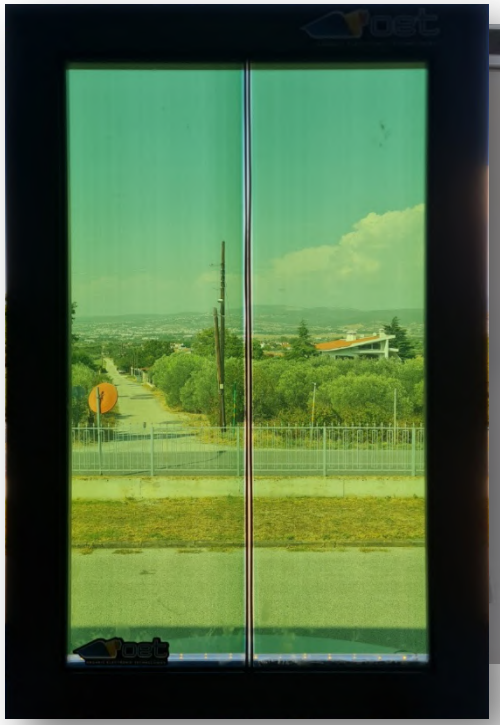


OET's OPV Case Projects

1. OPV Retrofitted

BIOPVs and Smart Cities

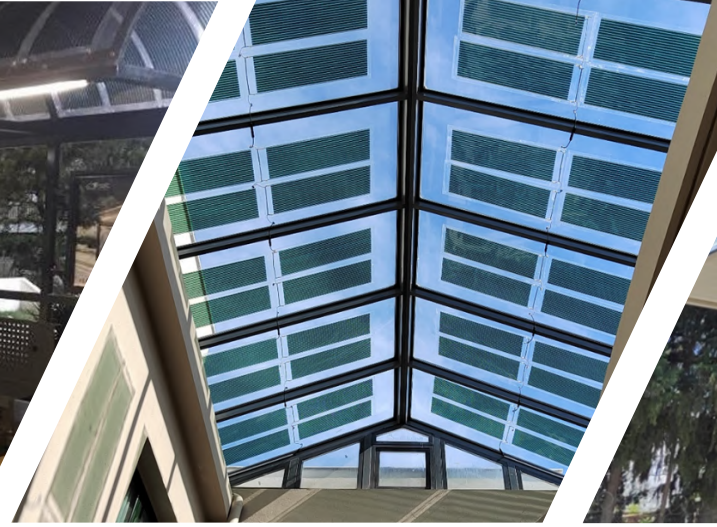
Is a Market able to provide an Aesthetic Window Film and Designs for Energy Positive Buildings and Cities with less Energy Usage



2. Solar Energy Window **3. Solar Curtain**

Embedded Final Solution with High Transparency






BI(O)PV

Building Integrated Organic Photovoltaics

Energy System

Providing Energy, Shadow, high Aesthetics and Zero Landscape Impact

We are looking for Collaborators in Architectural Engineering, Construction, Glass and BIPV Companies

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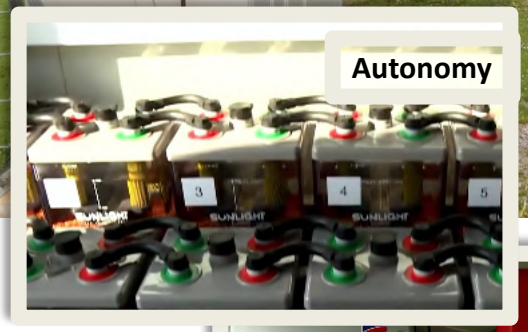
OPVs in GreenHouses

(Mediterranean & Glass)

Triple Use of Land

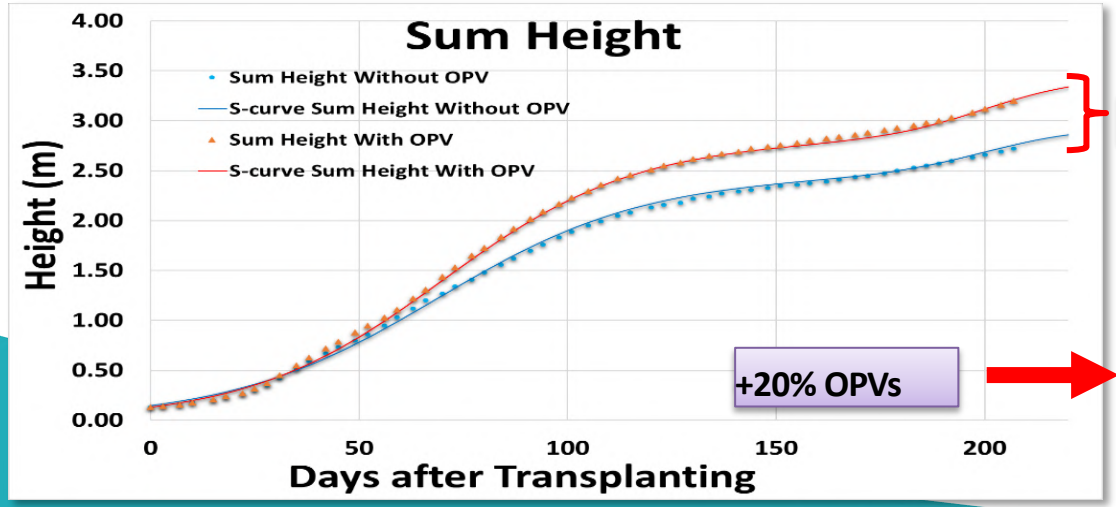
- Semi-Transparent OPVs
- UV Filter & Shading
  - Increased Crop Production
  - Energy Generation, Energy Autonomy
  - Reduce Water Use

Easy Installation without Metal Brackets/Supports

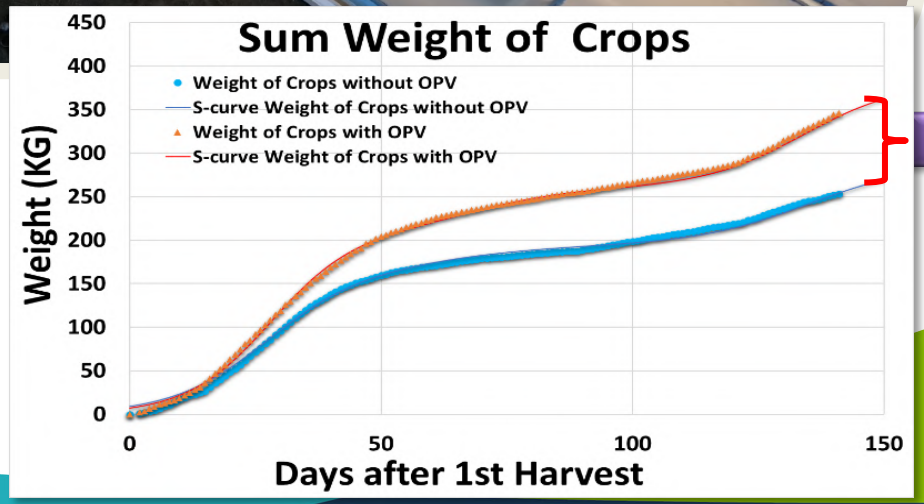


OPVs Enhance Crop Yields by Up to 30%

- ✓ Shading- Reduction of Indoor T °C in Summer Months
- ✓ Blocking UV Radiation
- ✓ Reduce Water Use - Reduction of Evapotranspiration



Increasing OPV Coverage from 60% to 80% Optimized Crop Development



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GHs and Open Field Cultivations: OPV Installations

Triple Use of Land

- 30% Increase Crop Production
- Energy Generation
- Reduce Water Use

Creating the Value Chain for OPV in Agriculture Installations

Agrivoltaics Installations

We are looking for Collaborators in OPV Installations

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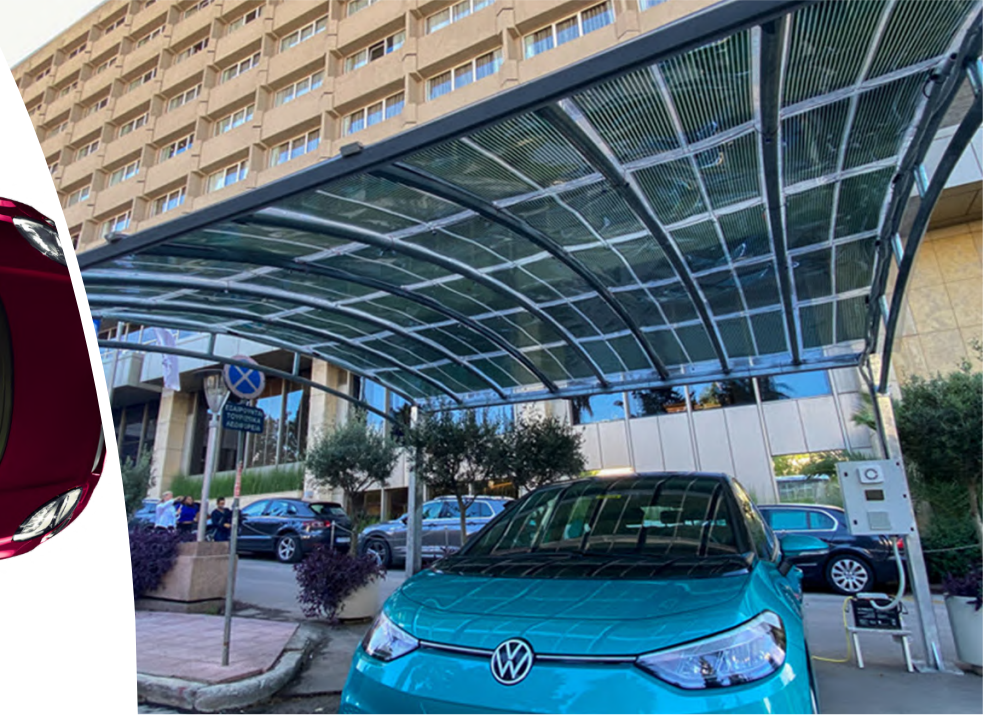
VIPV

Vehicle Integrated OPVs & Automotive applications

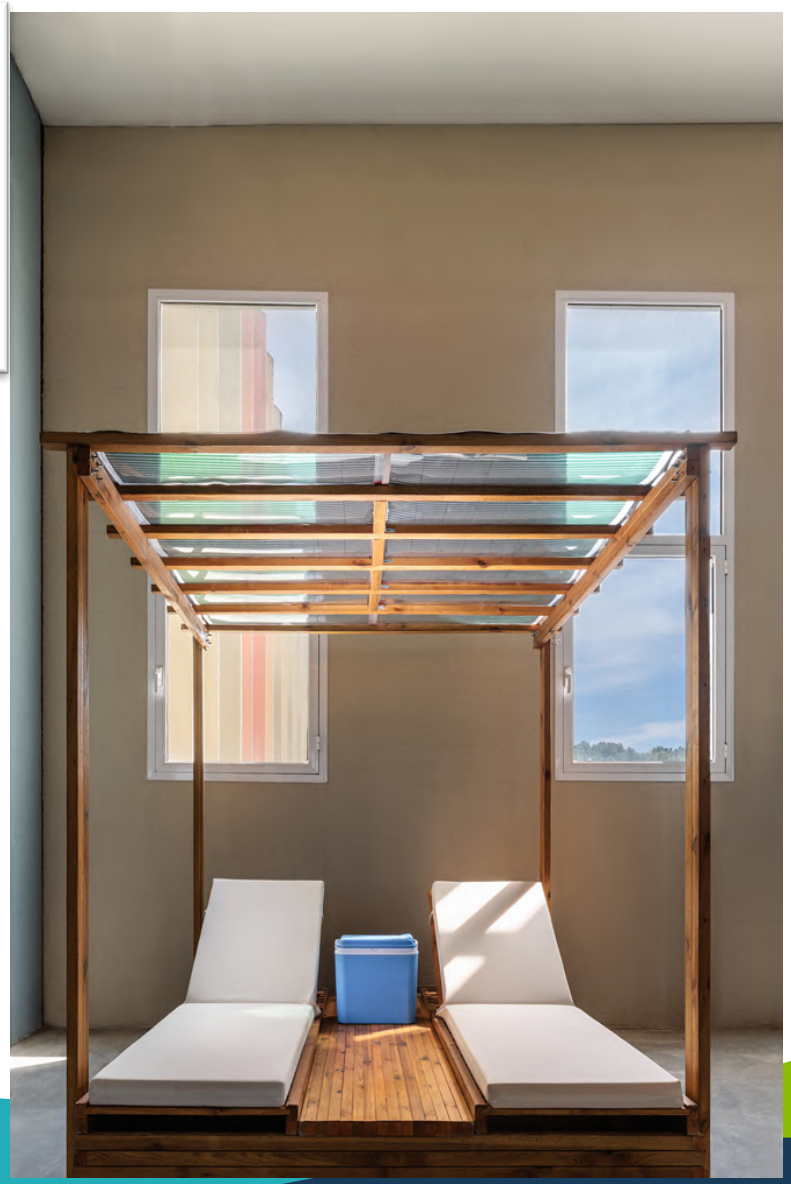


IIPV

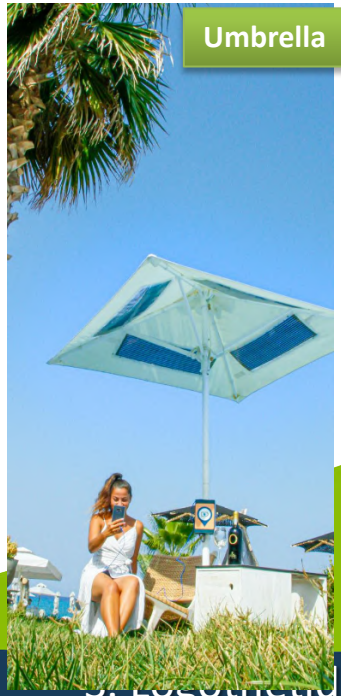
Infrastructure Integrated OPVs in Tourism Sector

We are looking for Collaborators in Tourism Sector Installations

Solar Pergolas



Sunbed



Umbrella

Upcoming Events:…4-6 November Athens

Thank you

We are looking for Collaborators in

- Agrivoltaics Installations
- Architectural Engineering, Construction, Glass and BIPV Companies

We are looking for Investors to accelerate

- OPV Manufacturing Plants
- Installation Hubs & Plans
- Growth Strategy

Join Us to Establish the New Green Industry & the European PV Value Chain, towards a Climate – Neutral Economy and Future

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sustainable solutions

The Fastest Energy Change and PV Installation in history for an Electrified Economy by 2050

- **Solar PV is Growing to dominate Electricity Production**
- **Solar will Provide ~60% of Total Energy (120 KTWh), ~ 75 TW**

Problems: **Where to Install >100X PV?** **How to Recycle the Panels?** **How will be the Cost?** **Who will Pay?**