

Partners



Project Information

Call: HORIZON-CL5-2022-D3-01

Type of action: Innovation Action (IA)

Acronym: Flex2Energy

Title: Automated Manufacturing Production Line for Integrated Printed Organic Photovoltaics



HORIZON EUROPE



Automated Manufacturing
Production Line for
Integrated Printed
Organic Photovoltaics

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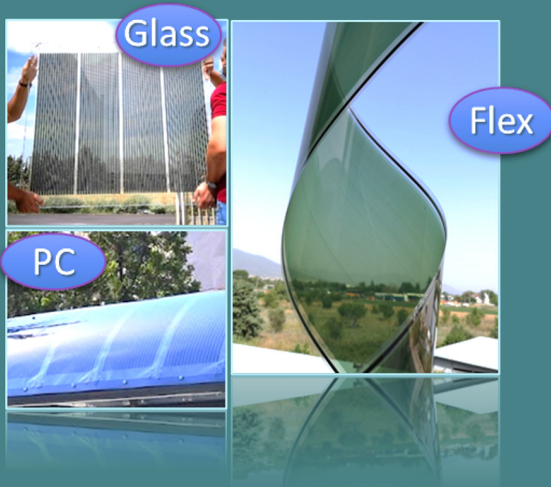
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About

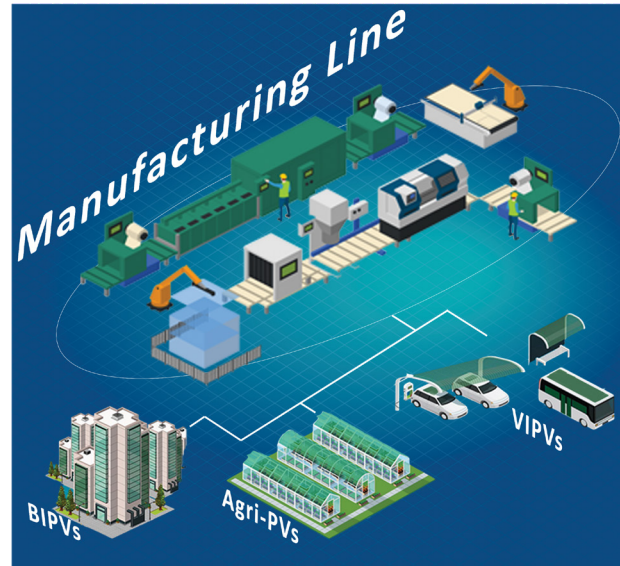
FleFlex2Energy is a 48-month project with the ambitious goal to manufacture reliable Integrated Photovoltaics (IPVs) with differentiated product design, through the development of the first-of-its-kind Automated Roll-to-Roll (R2R) Manufacturing Line for Organic PVs. The F2E Manufacturing Line consists of the R2R Printing & Automated Assembly Machines, enhanced with robust metrologies for inline quality & process control under Artificial Intelligence (AI) analysis, implementing industry 4.0 concept. F2E IPVs will comply with all the standards, codes and product requirements of use in Buildings, Agriculture and Automotive sectors.



Integrated Organic Photovoltaics (IPVs)

Objectives

- Develop and upgrade manufacturing tools for design and aesthetics of OPV products, inline process quality control techniques and easily adaptable equipment design for printed PV technologies
- Integrate tools, QC, equipment to Machines to build & demonstrate automated PL manufacturing of IPVs
- High efficiency manufacturing, durable printed IPV products at a competitive cost



- Demonstrate and Validate IPVs in energy efficient buildings, automotive and agriculture industries with minimum environmental and landscape impact
- Deploy Market Strategy and Bridge the gap between PV and Building sectors



Building Integrated Organic Photovoltaics (BIPVs)



Agriculture Integrated Organic Photovoltaics (Agri-PVs)



Vehicle Integrated Organic Photovoltaics (VIPVs)

