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Coatema Coating

Machinery GmbH, Germany

BL NanoBioMed, Greece



Hellenic Organic & Printed Electronics Association, Greece



APEVA, Germany

Granta Design, UK

Project Information

Call: H2020-DT-NMBP-08-2019 Type of action: Research and Innovation action (RIA) Acronym: RealNano Title: In-line and Real-time Nano-characterization technologies for the high yield manufacturing of Flexible Organic Electronics Duration: 42 months (03/2020-08/2023)

Contact Us

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In-line and Real-time Nano-characterization technologies for the high yield manufacturing of Flexible Organic Electronics

www.realnano-project.eu



This project has received funding from the European Union's HORIZON 2020 research and innovation programme under Grant Agreement No 862442.

About

RealNano is an ambitious 36-month project that will develop novel and fast real-time nano-characterization materials tools & methodologies based on Spectroscopic Ellipsometry, Raman Spectroscopy, Imaging Photoluminescence and Laser Beam Induced Current Mapping that will be integrated to in-line R2R (Roll-to-Roll) Printing and OVPD (Organic Vapor Phase Deposition) Pilot-to-Production Lines (PPLs) for characterization of Organic & Printed Electronics (OE) nanolayers, devices & products during their manufacturing.









Fully printed OPVs

Fully printed OLEDs

Objectives

- Develop rapid and real-time nanoscale, multi- modal & scale characterization tools/methodologies for OEs
- Integrate the non-destructive nanocharacterization tools in in-line R2R printing and OVPD Pilot to Production Lines
- Develop characterization protocols and Data Management for interoperability across industries
- Demonstrate the tools in industrial OE processes for improvement of quality and reliability of products





Multiwavelentgh Spectroscopic Ellipsometry and Raman Spectroscopy









In-line Imaging PL tool



- Validation of OE product quality and manufacturability on commercial applications
- Effective Transfer of results to industry by Open Innovation (Dissemination, Training, Networking/Clustering) and Management



Automotive (OPVs for exterior, OLEDs in interior)



CRF CENTRO RICERCHE FIAT



Printed biosensor devices (Troponin, COVID-19)

Printed biosensing Devices



🛐 Nans (Biomed