About the Project

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 nanolayers, devices & products during their manufacturing.

REAL NANO

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

Project Coordinator

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Acronym: RealNano
Code: H2020-DT-NMBP-08-2019
Type of action: Research and Innovation action (RIA)
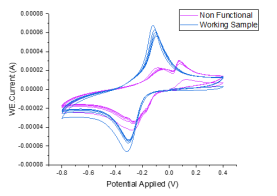**Duration: 36 months**
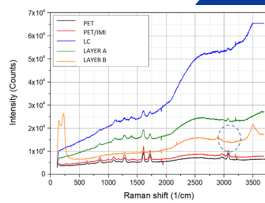
BL Nanobiomed's Outcomes

Development of printed Biosensors

In-Line Nano Characterization of printed biosensor functionalized nanolayers & materials

Eddy Current In-Line Testing on Nanolayers

Raman Spectroscopy Testing on Materials

Cyclic Voltammetry Efficacy Testing

Development, Biofunctionalization and Characterization of Rapid Tests for Covid-19 Detection

Partners

Nanotechnology Lab LTFN – Aristotle University of Thessaloniki (AUTh), Greece

SEMILAB, Hungary

InfinityPV, Denmark

Organic Electronic Technologies P.C., Greece

InfinityPV, Denmark

Centro Ricerche FIAT, Italy

Coatema Coating Machinery GmbH, Germany

Granta Design, UK

BL NanoBiomed, Greece

Hellenic Organic & Printed Electronics Association, Greece

Objectives

• Develop rapid and real-time nanoscale, multi-modal & scale characterization tools/methodologies for OEs

• Integrate the non-destructive nano-characterization 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

• 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