

Consortium



Lab for Thin films - Nanosystems & Nanometrology (LTFN), GR



Aristotle University of Thessaloniki (AUTH), GR



University of Patras, GR



University of Oxford, UK



University of Surrey, UK



University of Ioannina, GR



Centre National de la Recherche Scientifique (CNRS), FR



University of Stuttgart, DE



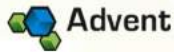
Fraunhofer - Gesellschaft (POLO), DE



Helmholtz Zentrum Berlin (HZB), DE



Horiba Jobin Yvon, FR



Advent Technologies, GR



COATEMA, DE



COMPUCON, GR



AIXTRON, DE



Oxford Lasers Ltd., UK



Centro Ricerche Fiat (CRF), IT



Organic Electronic Technologies (OET), GR



Swiss Center for Electronics and Microtechnology, CH



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 310229

At a glance

NMP Integrated Project

Duration: Jan 2013 - Dec 2016

Consortium: 17 partners / 5 countries

Total Budget: 11.6 M Euros

EC Contribution: 7.9 M Euros

Contact

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Development of Smart

Machines, Tools and

Processes for

Organic Electronics

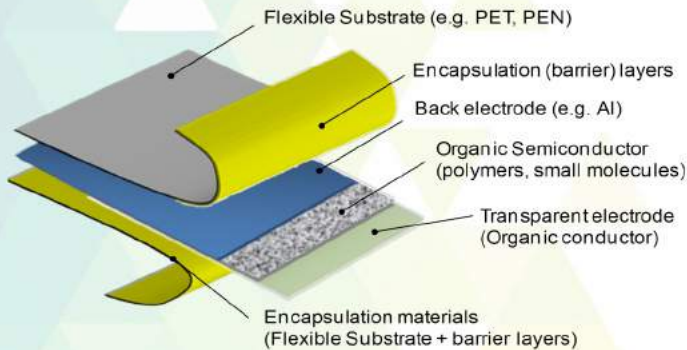
Production

www.smartonics.eu

Overview

Organic & Printed Electronics (OEs) is an emerging field that is expected to revolutionize conventional electronics, energy and photonic applications.

The target of Smartonics is the development of Pilot lines that will combine smart technologies with smart nanomaterials for the production of OE devices (Organic Photovoltaics-OPVs).



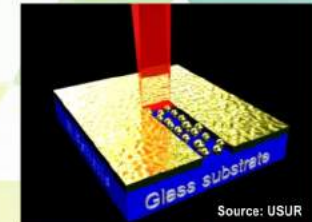
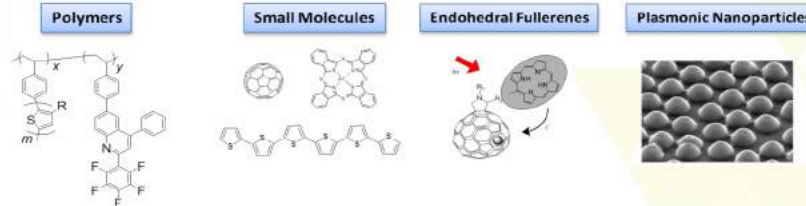
The Smartonics innovative approach will enable the cost-efficient production of several OE devices (e.g. OPVs, OLEDs, OTFTs, sensors) related to Energy, Photonics & Electronics.

In the long-term it will be employed to Nano-electronics, Nano-medicine, etc., advancing the competitiveness of European Organic Electronics and Photonics Industry.

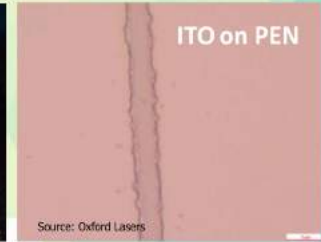
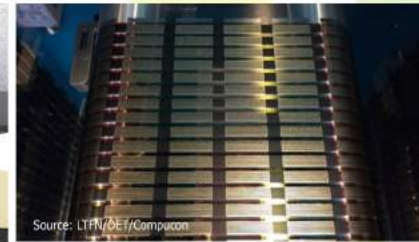
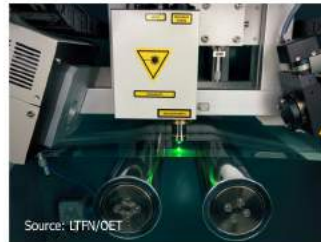
www.smartonics.eu

Objectives

- **Smart Nanomaterials for OEs** (polymer & small molecule films, plasmonic NPs and super-barriers) by Process and Computational modelling optimization



- **Smart Technologies for R2R Printing and OVPD Machines** combined with precision optical sensing & laser tools and processes



- **Development of 3 Pilot Lines (R2R, S2S, OVPD)** by the Integration of smart Nanomaterials & Technologies for the cost-efficient production of OPVs, OLEDs devices

R2R Printing Pilot & Production Line



OVPD Pilot Line



S2S Pilot Line



Applications

R2R OPVs /



S2S OPVs



Automotives

