

# ORGANIC LEDs FABRICATION (OLEDs)

**Innovations and Benefits** - Low cost production devices, high energy efficiency, large emitting area, diffused light generation, no hazardous substances, low environmental impact of materials and manufacturing technologies;  
 Devices and processes on flexible, thin, plastic (PET, PEN, etc.) or glass substrates;  
 Application in diversified contexts (Lighting, Smart building, Agriculture);  
 Possibility of combining design and stylish features of the light elements with energy saving.

**Use** - Lighting in general: for human well-being in different interior environments ("smart lighting"), in smart buildings with low energy impact ("smart building"), in biomedical applications, in agriculture; for flat displays.

### Applications and ongoing Activities -

TRIPODE Public Private Laboratory (phase 1).

ALADIN Project (Industria 2015), Intelligent Lighting / Signaling Systems.

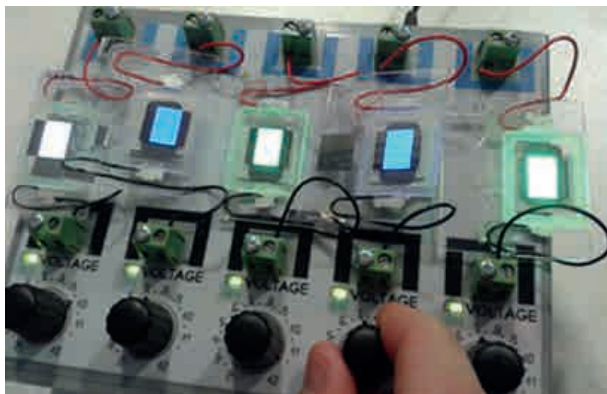
RELIGHT project (Research For Light) within the Public Private Laboratory TRIPODE (phase 2).

Program Agreement for Research on the National Electrical System.

The Laboratory adheres to international organizations such as the Organic Electronic Association (OE-A) and the lighting workgroup (WG4) of the European Photonics21 technological platform.

Collaborations with several Italian companies that deal with lighting and encapsulation (Vimar, Electrolux, BTicino, Saes Getters).

Collaborations with IMAST, ST Microelectronics, FIAT Research Center, Ferrania, VIMAR, Electrolux, Artemide, Gruppo FOS, BTicino, CNR, VTT, EVG, COATEMA, Polyera, CEA, CNRS, CSEM, Univ. of Thessaloniki, Univ. of Warsaw, Univ. of Lodz, Univ. of Naples and Univ. of Salerno.



OLED prepared on glass and on plastic by Laboratory SSPT-PROMAS-NANO



Deposition system for thin films for OLEDs, integrated with a glove box to reduce the Oxygen and moisture levels (O2 and H2O < 1 ppm).

