

# Micro Quantum Dot-Light Emitting Diode and Organic Light Emitting Diode Direct Patterning (MILEDI)

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In this work, some of the advances on the European project MILEDI ([www.miledi-h2020.eu](http://www.miledi-h2020.eu)) are reported and commented.

The MILEDI goal is to demonstrate that the combination of the laser/electron beam technology and the quantum dots (QDs) optical properties are suitable for the micro-LED (mLEDs) and micro-OLED (mOLEDs) manufacturing. MILEDI project will merge nanotechnology and photonics as building blocks that arranged in a proper way give rise to a robust technology that will be applied for industrial production of RGB mLEDs/OLEDs.

Photonics and nanomaterials and their application on device manufacturing are the key issues of the project that will lead to the realization of a micro-display.

The micro-display is then integrated to create a rear projector for the automotive interior. The direct integration of rear projection screen on geometrically complex surfaces is the proposed use of the patterned micro-displays prototypes in MILEDI.

In the first year of the project, the chemistry of the precursor synthesis and decomposition was studied and the implementation of the direct laser patterning and e-beam for the generation of QDs was explored as a suitable alternative for the fabrication of hybrid organic/inorganic QDs [1, 2].

## **Bibliography**

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