QustomDot, a start-up in the microLED field, focuses on bringing unmatched colors to microLED displays through quantum dot (QD) color conversion. Our team combines QD synthesis, surface engineering and ink/photoresist formulation into patterned color conversion layers for microLED displays. Our key expertise is summarized in the 5 QustomDot Technology Pillars:

QustomDot exploits the aminophosphine route to InP-based **QD synthesis**. The technology developed by QustomDot yield QDs with unity photoluminescent quantum yield for red and green QDs, with narrow emission under 40 nm fwhm.

With respect to the **surface chemistry** engineering, QustomDot's expertise is a key factor in making QDs that are dispersible in resin formulations at extremely high solid loading while preserving unity PLQY.

In the **QD ink/photoresist** pillar, QustomDot develops formulations that are compatible with different deposition techniques, taking into account the photothermal stability of our QDs, a key parameter for next generation QD devices.

QustomDot combines its expertise in formulation and semiconductor process flows to enable **QD patterning** at high resolution, small feature size and suitable process compatibility.

For successful application development and prototyping, QustomDot's **QD device** pillar focuses on the integration of QD color conversion layers into devices. We take a broad perspective and take into account the post-processing steps in our customer's process flow.