For Immediate Release

Vitrealab and poLight Partner to Tackle Coherence Artifacts in Laser-LCoS AR Displays

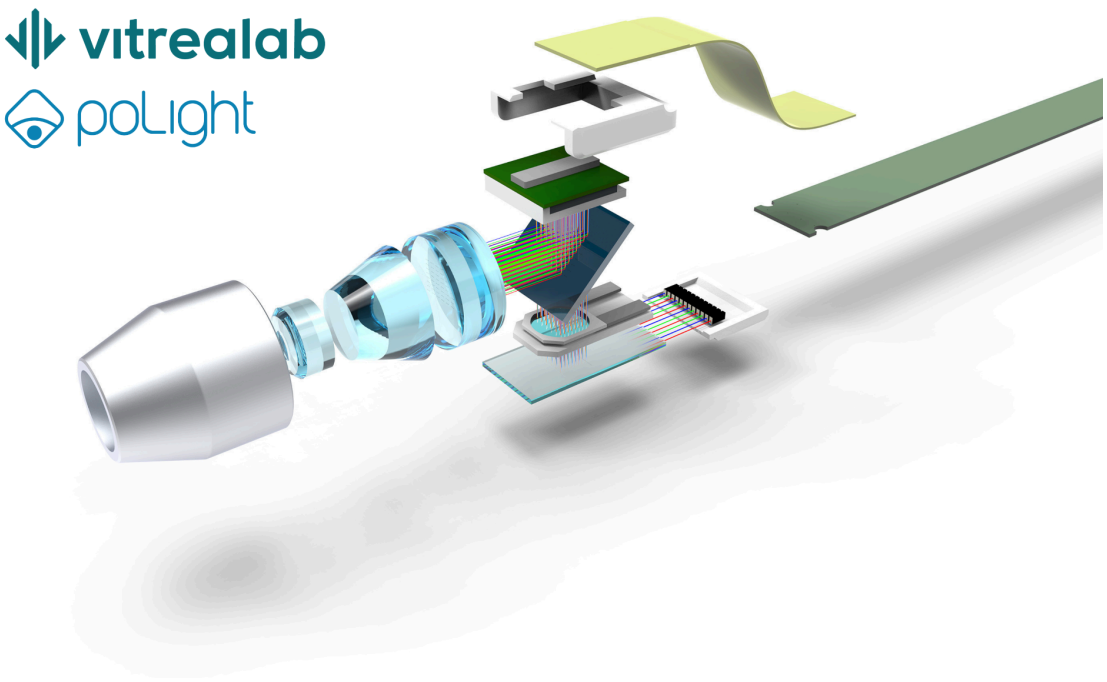
Vienna, Austria and Tonsberg, Norway, – April 23, 2026

Vitrealab GmbH and **poLight ASA** today announced a collaboration to advance laser illumination architectures for LCoS-based augmented reality (AR) displays, with a focus on mitigating coherence-related image artifacts while preserving system efficiency and compactness.

Laser-based illumination offers clear system-level **advantages for LCoS based AR light engines**, including high optical efficiency due to intrinsic polarization, improved etendue utilization, and scalability to high brightness levels. However, coherence artifacts, manifesting as speckles and fringes, have remained a primary barrier to adoption in LCoS-based near-eye displays.

In past years, Vitrealab has developed a proprietary technology called **Quantum Light Chip (QLC)** to reduce coherence artifacts below visibility in AR light engines. This novel laser matrix illumination increases efficiency and brightness at a small form factor.

poLight contributes its **TWedge®** wobulation technology, a piezo-actuated transmissive tunable device that dynamically modulates the optical wavefront and reduces perceived coherence artifacts.



“The TWedge® wobulator from poLight helps us to improve light engine architectures with its transparent design.” said **Chiara Greganti, CEO and Co-Founder of Vitrealab**. “poLight’s solution simplifies the light path and increases the efficiency of our **Quantum Light Chip** compared to our previous MEMS approach.”

“Laser and LCoS represent a powerful combination for AR displays,” **said Oyvind Isaksen, CEO of poLight ASA.** “By providing low power, ultra compact tunable optics to Vitrealab’s Quantum Light Chip, we are excited to help create a higher performing, more compact, and more manufacturable AR system. This collaboration signals progress both for laser-based LCoS engines and TWedge® technology.”

The cooperation will include joint development, prototype demonstrations, and coordinated commercialization efforts.

About Vitrealab GmbH

Vitrealab GmbH is a Vienna-based Deeptech company driving innovation in Photonic Integrated Circuits (PIC) for laser-based display technologies. Its proprietary Quantum Light Chip delivers new levels of brightness, efficiency, and optical quality for AR systems. Originating from the University of Vienna, the team combines decades of experience in photonics research, laser integration, and system architecture to translate academic advances into industrial solutions. With dedicated manufacturing equipment and proprietary direct laser writing techniques, Vitrealab develops and fabricates its own photonic devices, ensuring precision, reproducibility, and rapid development cycles. This vertical integration enables seamless scaling from prototype to mass production, supporting both flexibility in design and consistency in performance.

About poLight ASA

poLight ASA (listed on the Oslo Stock Exchange: PLT) offers a patented, proprietary tunable optics technology, starting with its first product, TLens® which replicates “the human eye” experience in autofocus cameras used in devices such as smartphones, wearables, barcode scanners, machine vision systems and various medical equipment. poLight’s TLens® enables better system performance and new user experiences due to benefits such as extremely fast focus, small footprint, no magnetic interference, low power consumption and constant field of view. poLight is based in Tønsberg, Norway, with employees in Finland, France, UK, US,

China, Taiwan, Japan, and the Philippines. For more information, please visit https://www.polight.com

Media Contacts

Marcia Barnett
Corporate Marketing poLight ASA
marcia.barnett@polight.com

Hartmut Schneider
VP Business Development Vitrealab GmbH
hartmut.schneider@vitrealab.com