

### **Weekly News**



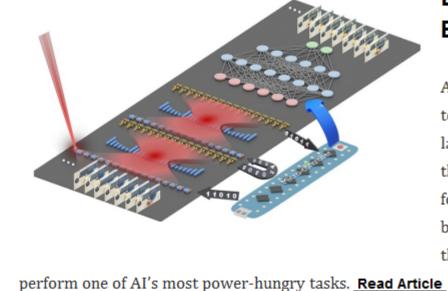


# Efficiency 100-Fold, \$1B Investment in ΑI

Light-Based Chip Boosts Al Power

A new light-based chip promises to boost AI energy efficiency 100x. Researchers may have found a solution to chromatic aberration in ultra-flat optics. Quantum companies are pulling in billions of dollars from investors. ASML is partnering with Mistral AI to apply AI models across their platform. And smart windows could help keep you cool in the summer and warmer in the winter. These stories on a new edition of Photonics Spectra Now! Sponsored by QED Technologies.

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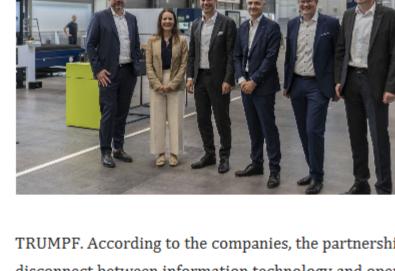


## Efficiency 100-Fold Artificial intelligence systems are increasingly central to

**Light-Based Chip Boosts Al Power** 

technology, powering everything from facial recognition to language translation. But as AI models grow more complex, they consume vast amounts of electricity — posing challenges for energy efficiency and sustainability. A new chip developed by researchers at the University of Florida could help address this issue by using light, rather than just electricity, to

Siemens and TRUMPF Partner on



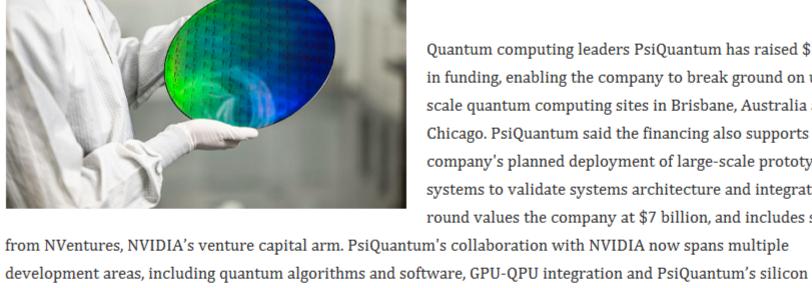
production efficiency and innovation. Read Article

### Siemens and TRUMPF have established a partnership to elevate industrial production by harnessing advanced digital

Digital Manufacturing, Al Readiness

manufacturing solutions. The collaboration reportedly joins Siemens' Xcelerator portfolio with TRUMPF's machinebuilding and software expertise, and builds on regular exchanges among development teams at Siemens and TRUMPF. According to the companies, the partnership addresses a critical challenge in modern manufacturing, the disconnect between information technology and operational technology systems which has historically hindered

PsiQuantum Raises \$1B, Collaborates with NVIDIA

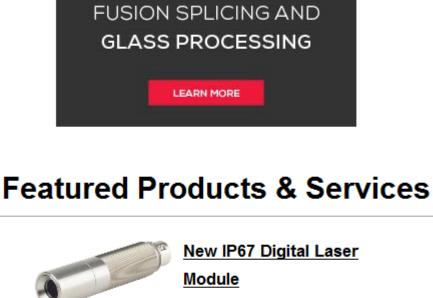


photonics platform. Read Article

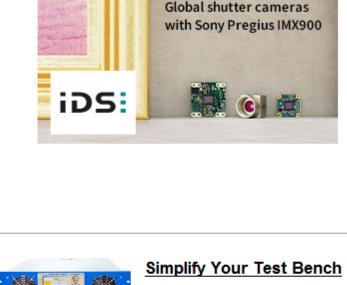
### Quantum computing leaders PsiQuantum has raised \$1 billion in funding, enabling the company to break ground on utilityscale quantum computing sites in Brisbane, Australia and

Chicago. PsiQuantum said the financing also supports the company's planned deployment of large-scale prototype systems to validate systems architecture and integration. The round values the company at \$7 billion, and includes support

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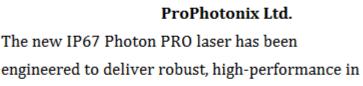
ADVANCED LASER



small size

Power Requirements

### ProPhotonix Ltd.

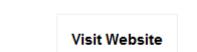


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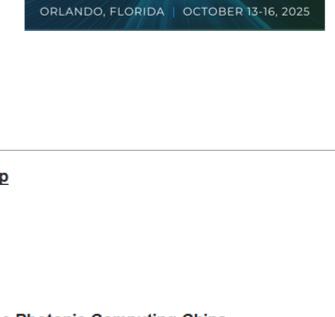
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# **Latest Webinars**



# Metrology in Manufacturing: How Smart, Inline Metrology Can Set Your Optical Assembly Program Up for Success

Wed, Sep 24, 2025 11:00 AM - 12:00 PM EDT

A successful optical assembly program depends on meeting goals for quality, cost, and delivery. This session examines how optical metrology—when strategically integrated throughout the manufacturing process—can directly support these objectives. From incoming component inspection to in-process checks and

final functional testing, participants will explore where

metrology adds the most value and where it may introduce unnecessary cost or complexity. The presentation will offer a balanced view of both benefits and limitations, empowering manufacturers to make informed decisions about metrology deployment. Real-world case studies will illustrate practical

Register Now Metasurface Optics for Information **Processing and Computing** Thu, Oct 9, 2025 1:00 PM - 2:00 PM EDT Metasurface optics-ultrathin, nanostructured elements capable of precise light manipulation—are revolutionizing optical information processing. By co-designing optical hardware with

computational algorithms, these systems enable complex operations like spatial convolutions directly in the optical domain. This hybrid analog-digital approach offers new

possibilities for faster, more efficient imaging and vision systems, while posing exciting challenges at the intersection of photonics, machine learning, and device integration. Sponsored by Moxtek.

Register Now

OIF at ECOC 2025 — With Nathan Tracy and Mike Klempa In the lead-up to the European Conference on Optical Connectivity 2025 in Copenhagen, "All Things Photonics" chats with OIF board president Nathan Tracy and board member Mike Klempa. The discussion focuses on the Forum's agenda for the conference, including a multi-vendor demonstration with 35 members from its partner ecosystem.

Current networking and connectivity bottlenecks are also

featured in the conversation.

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All Things Photonics



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