LIGHTWAVELOGIC®

Investor Presentation

January 2026

Forward Looking Statements

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This slide presentation contains “forward-looking statements” and “forward-looking information” within the meaning of the Private Securities Litigation Reform Act of 1995. This information and these statements, which can be identified by the fact that they do not relate strictly to historical or current facts, are made as of the date of this presentation or as of the date of the effective date of information described in this presentation, as applicable. The forward-looking statements herein relate to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as “expects”, “anticipates”, “plans”, “projects”, “estimates”, “envisages”, “assumes”, “intends”, “strategy”, “goals”, “objectives” or variations thereof or stating that certain actions, events or results “may”, “can”, “could”, “would”, “might” or “will” be taken, occur or be achieved, or the negative of any of these terms and similar expressions) and include, without limitation, statements with respect to projected financial targets that the company is looking to achieve.

All forward-looking statements are based on current beliefs as well as various assumptions made by, and information currently available to the company’s management team. A more detailed description of the risks presented by those assumptions and other risks are more fully described by the company under the caption “Risk Factors” included in our SEC filings and other risks to which our company is subject, and various other factors beyond the company’s control.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that estimates, forecasts, projections and other forward-looking statements will not be achieved or that assumptions do not reflect future experience. We caution any person reviewing this presentation not to place undue reliance on these forward-looking statements as a number of important factors could cause the actual outcomes to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates assumptions and intentions expressed in such forward-looking statements.

The company does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by company or on behalf of the company except as may be required by law.

Imagine a flashlight turning on and off
100 billion times per second

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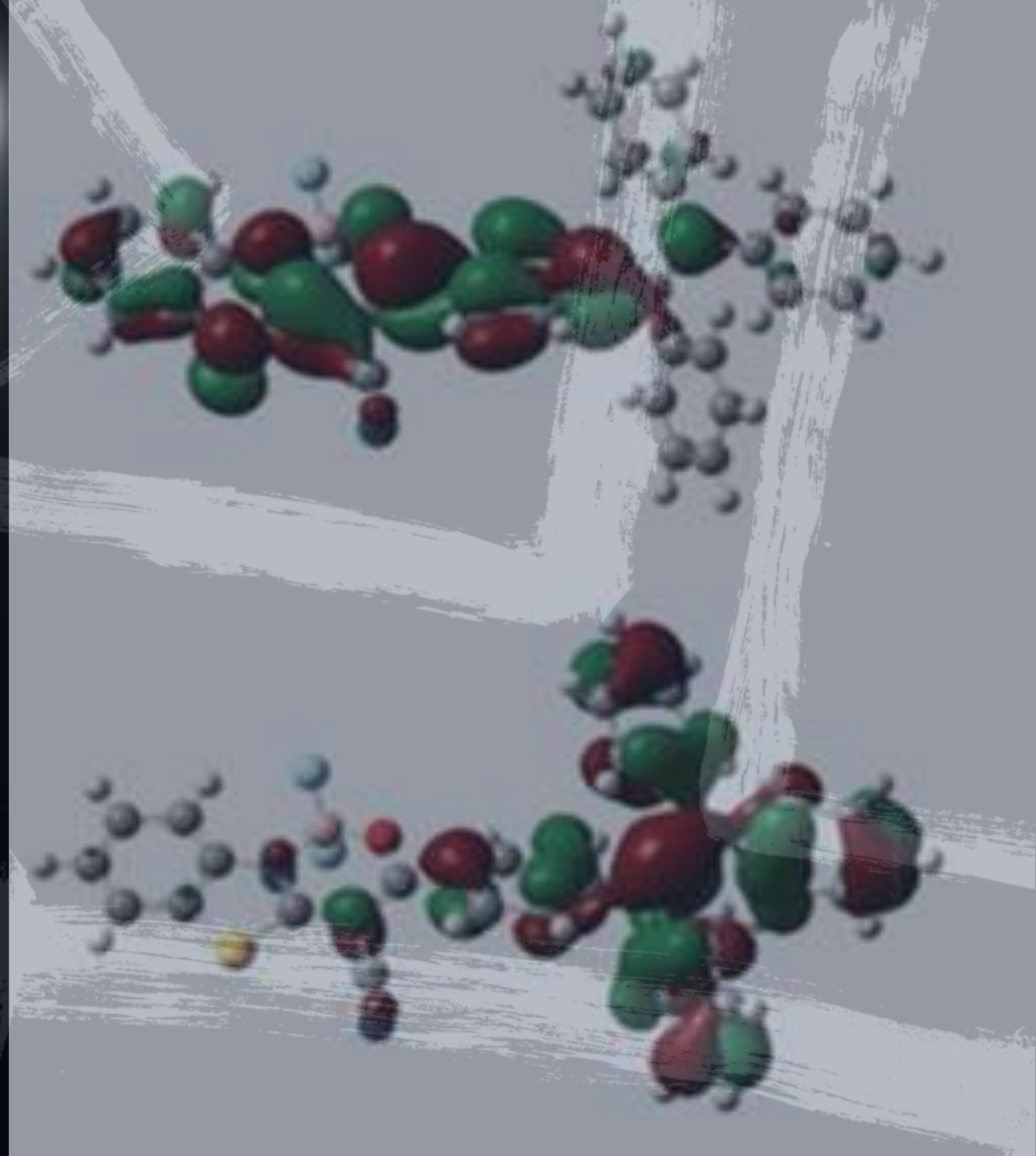
Perkinamine®
The Fastest Electro-optics Material



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Experienced Management Team

LIGHTWAVELOGIC®

Yves LeMaitre
Chief Executive Officer & President

LUMENTUM
IPG PHOTONICS
OCLARO

Dr. Aref Chowdhury
Chief Technology Officer & Head of Strategy

NOKIA
NOKIA Bell Labs
Alcatel·Lucent

Dr. Robert Blum
SVP, Sales & Marketing

APPLIED MATERIALS®
intel

Dr. Lance Thompson
VP of Engineering

COHERENT
LUMENTUM
SUMITOMO ELECTRIC

Realigned management team brings broad operational and research expertise across photonics ecosystem

AI Infrastructure Facing New Challenges

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- CONNECTIVITY
- BANDWIDTH
- POWER
- INTEGRATION

AI Cluster Opportunity (Scale X)

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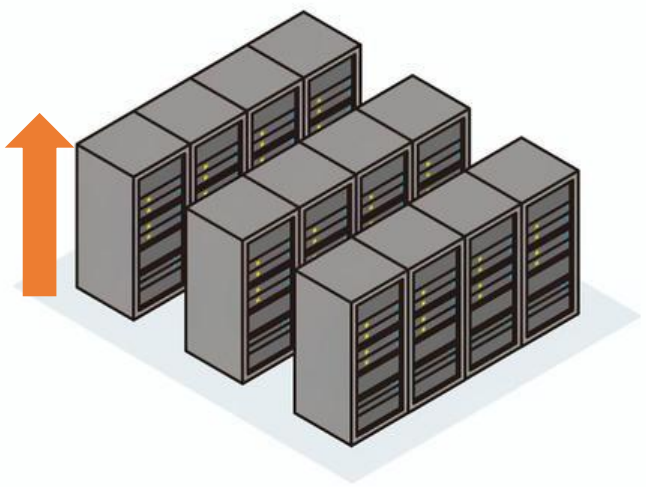
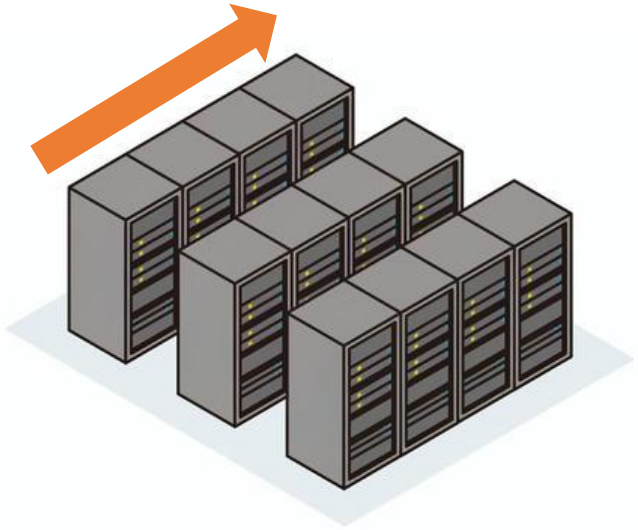
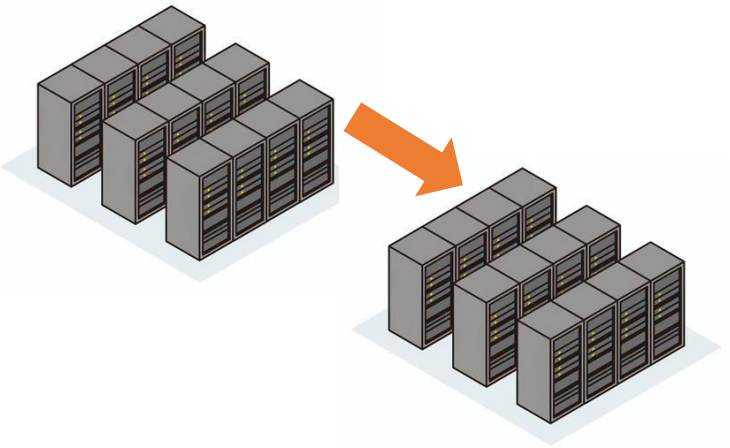
Scale Up
Within the Rack



Scale Out
Across Racks

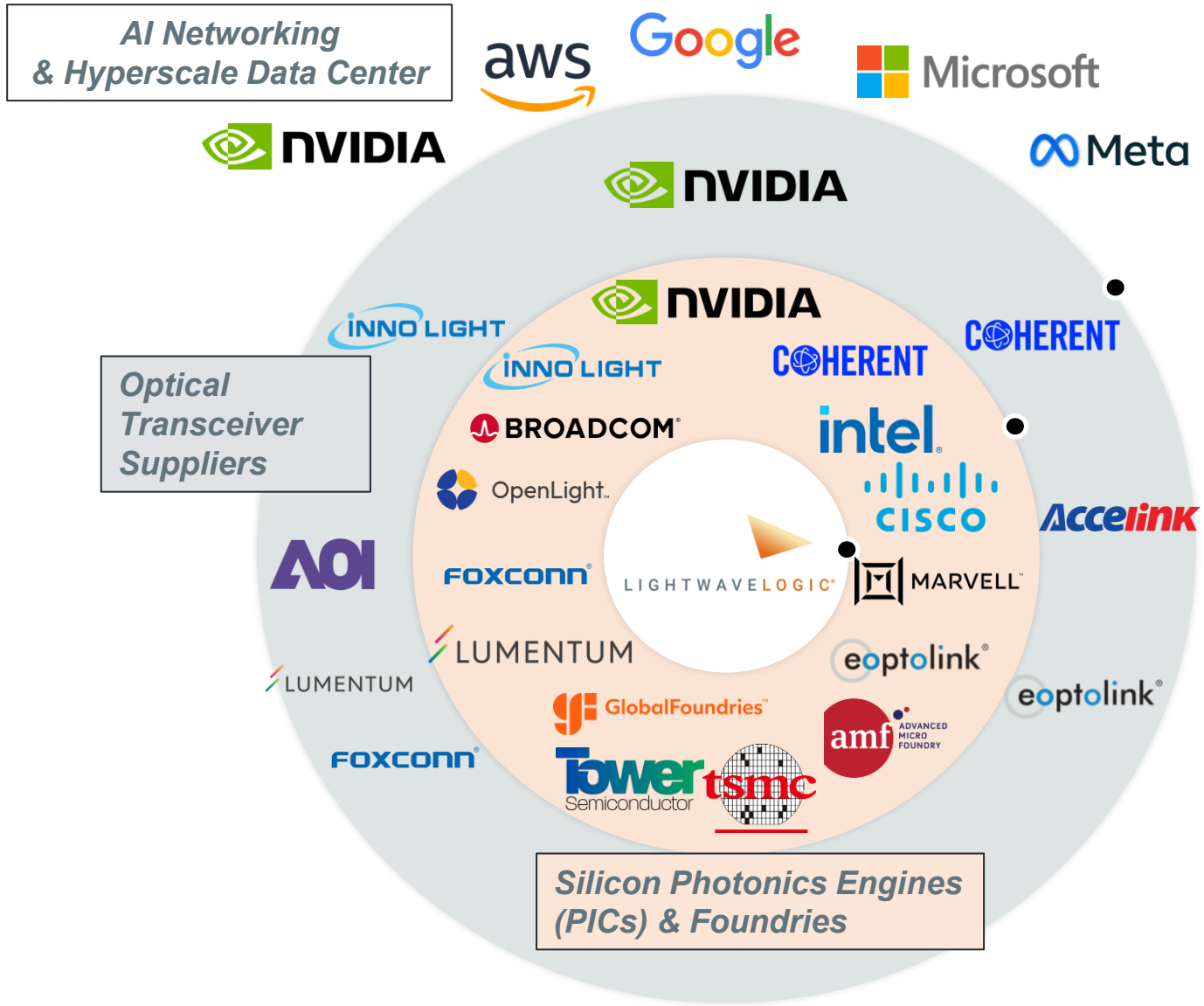


Scale Across
Between Data Centers



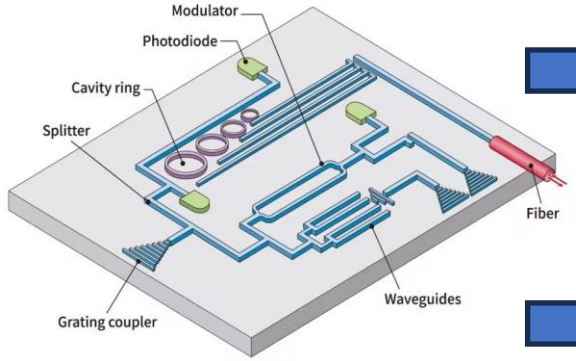
Our polymer technology can address each of these scaling challenges

Enabling AI Connectivity Ecosystem

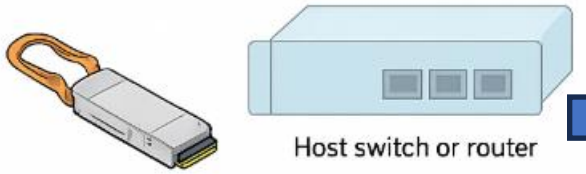


Note: Companies represent examples of established entities per segment only.

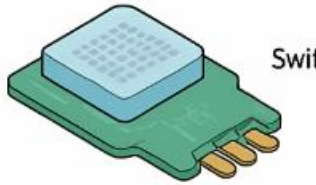
The Product Design Process



Optical Transceiver Modules



Co-Packaged Optics (CPO)



Perkinamine EO Polymer → Silicon Photonics PIC (Photonics Integrated Circuit) → Integrated Optical Module → Datacenter or AI Factory

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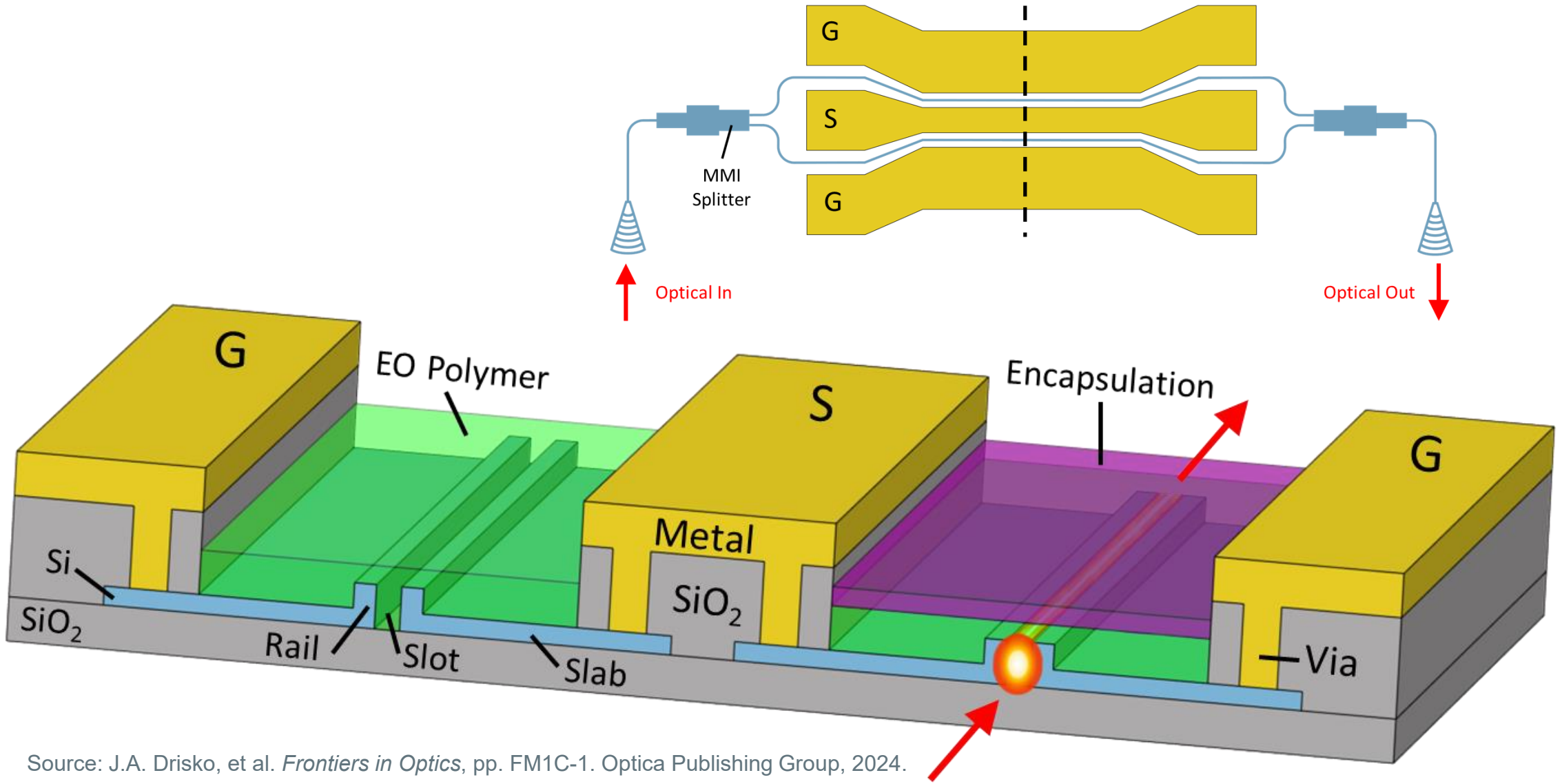
MARVELL · INNO LIGHT · intel · BROADCOM · Google · NVIDIA

COHERENT · LUMENTUM · INNO LIGHT · BROADCOM · NVIDIA

Google · aws · NVIDIA · Microsoft · Meta

Note: Companies represent examples of established entities per segment only.

Polymer Slot Modulators



Source: J.A. Drisko, et al. *Frontiers in Optics*, pp. FM1C-1. Optica Publishing Group, 2024.

Si Slot Waveguide Cross Sections

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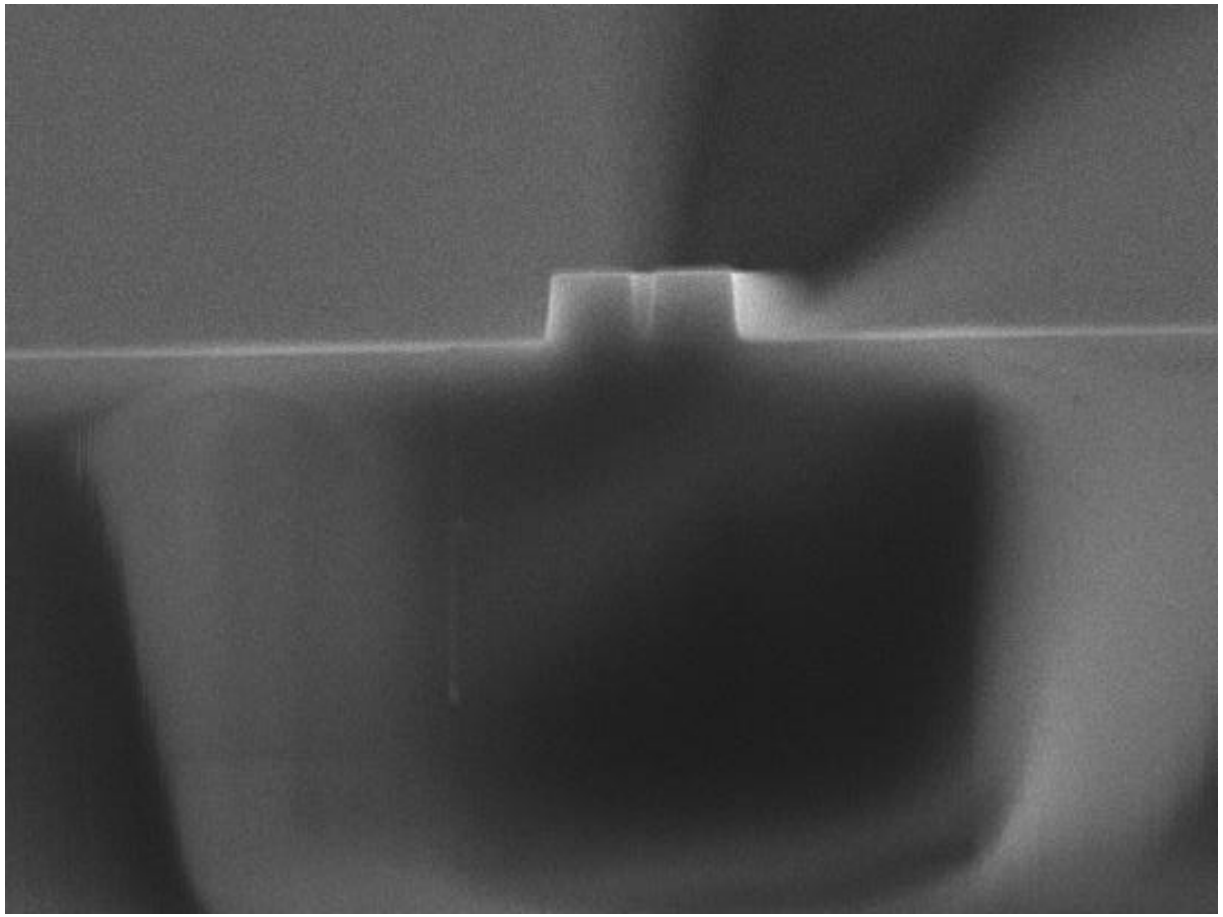
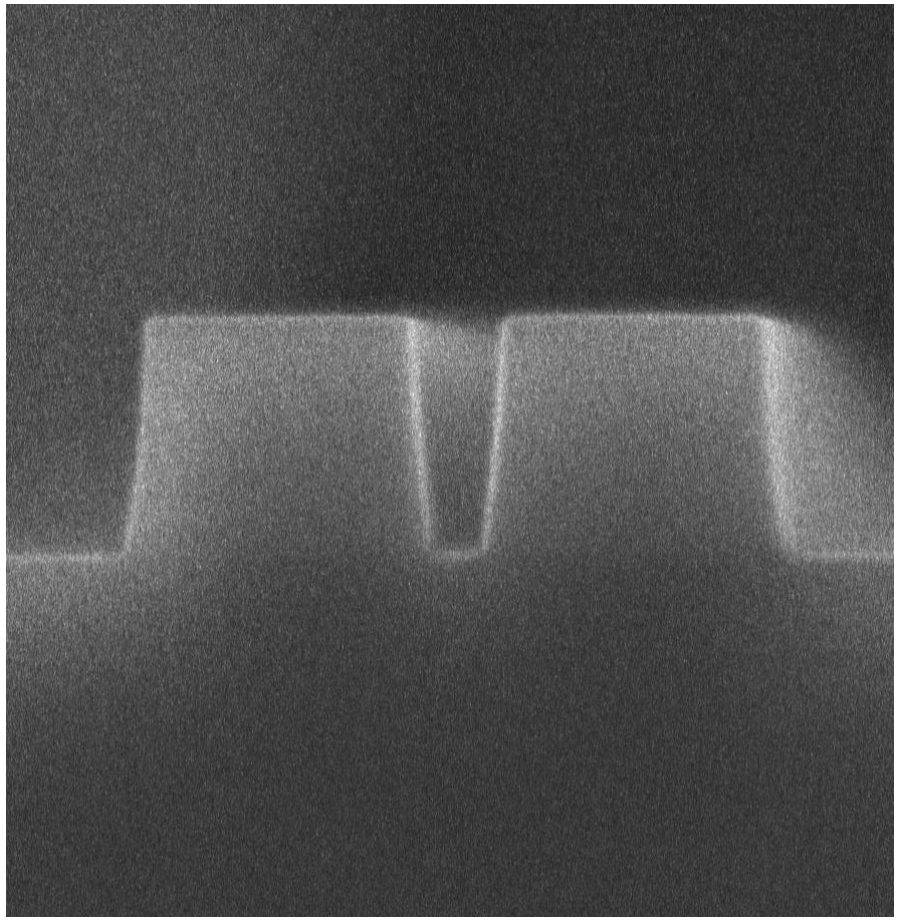


500 nm



100 nm

Clean, sharp, and smooth Si slots

Device after Polymer Integration

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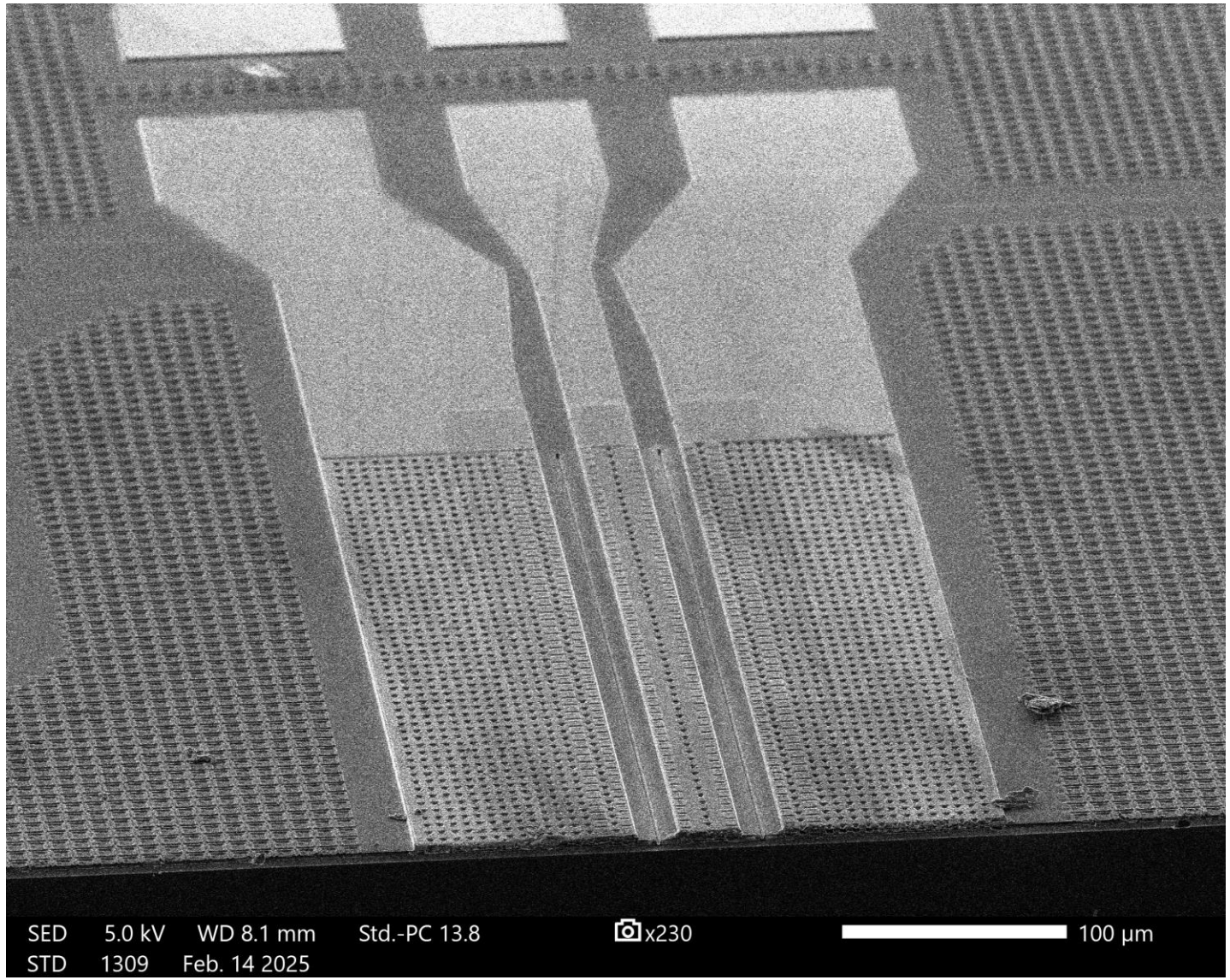

Strong Patent Portfolio

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80+ U.S. and international patents and applications that are issued or pending; Patent portfolio spans all major aspects of manufacturing and operations

Materials

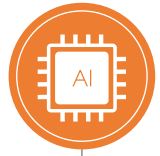
- Innovating new EO chromophores and molecular architectures to meet application needs such as high electro-optic activity and stability

Optical Devices

- Engineering ways to enhance device performance by means of device design and optimized controls as we demonstrate our materials in devices, such as modulators

Fabrication

- Materials innovations are followed by methods in which we or our partners can best work with the materials in the fabrication process



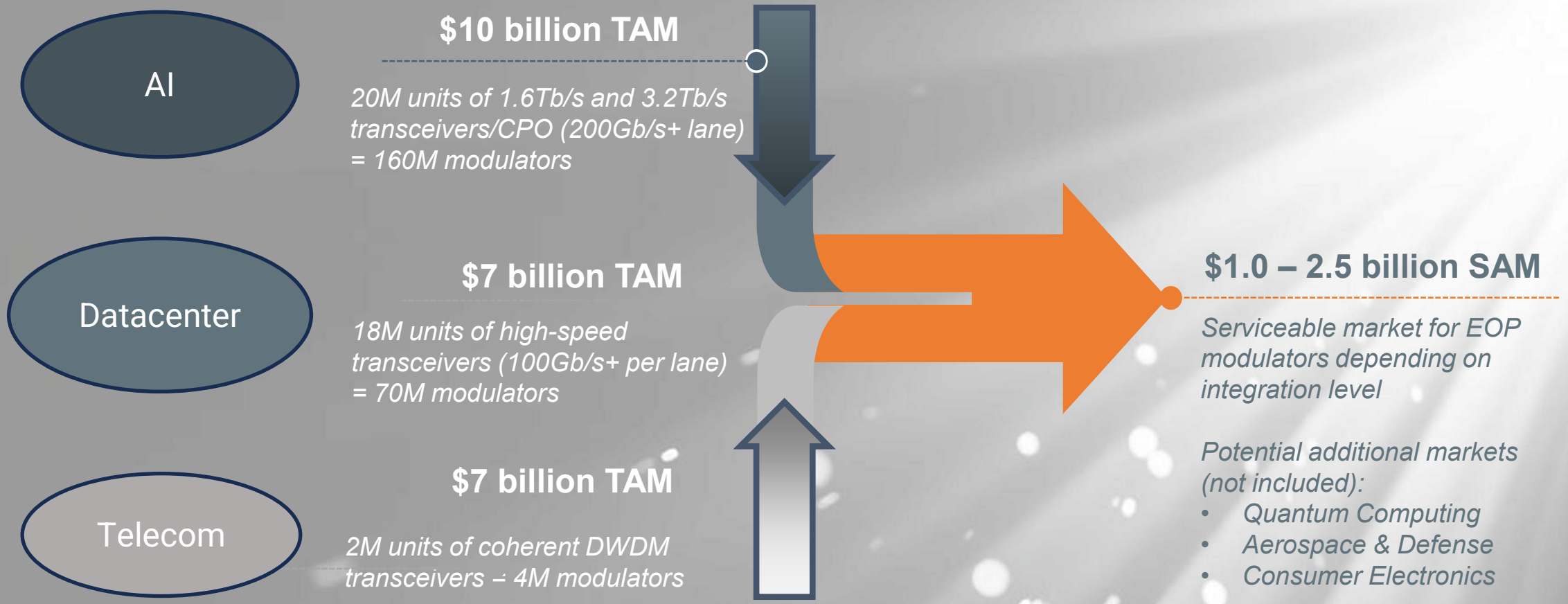
Integration

- Polymers can be used to add functionality to existing semiconductor devices to innovate how to get light from one material system into another with minimal losses

Packaging

- Key challenge of maintaining the quality of radio-frequency electrical signals and hermetic sealing of devices for durability (while still allowing light to go through)

2028 Estimated Total Addressable Market (TAM) & Serviceable Addressable Market (SAM)*



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* Source: LightCounting, internal company estimates

Electro-optic Polymers in Quantum Applications

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Quantum Computing
TAM 2035: $28B

Quantum Communications
$11B

Quantum Sensing
$7B

Lightwave Logic, Inc. and QPICs Announce Partnership to Advance the Use of Electro-Optic Polymers in Quantum Processors

01/15/2026

Companies to jointly develop PDK for PIC-based quantum solutions

ENGLEWOOD, COLORADO / ACCESS Newswire / **January 15, 2026** / **Lightwave Logic, Inc. (NASDAQ:LWLG) (the "Company")**, a technology platform company leveraging its proprietary electro-optic (EO) polymers to transmit data at higher speeds with less power in a small form factor, and **QPICs**, a newly established foundry dedicated to advancing Photonic Integrated Circuit (PIC) based quantum technology as part of the Quantum Tech Hub initiative in Colorado, today announced the signing of a memorandum of understanding (MOU) to accelerate the use of electro-optic polymers for the commercialization of photonic quantum circuits.

The MOU will enable QPICs to develop Process Design Kits (PDKs) with Lightwave Logic's proprietary polymer platform and encapsulation processes with the goal of accelerating PIC production timelines for quantum computing customers. The availability of the PDK will allow these customers to design custom solutions based on silicon circuits without the need for extensive modifications of PIC manufacturing processes.

"We look forward to collaborating with QPICs on photonic-based quantum solutions to advance this exciting new market," said Yves LeMaitre, CEO and President of Lightwave Logic. "Our shared cultures of disruptive innovation, along with the close proximity of our respective facilities, will allow us to collaborate efficiently to address the growing need of quantum computing and sensing customers for scalable, cost-effective, PIC-based solutions."

"QPICs goal is to establish the nation's leading quantum technology fab in Boulder as part of the US Department of Commerce's Tech Hub initiative that supports Colorado's Elevate Quantum eco-system," said Dr. Chris Myatt, QPICs Founder and CEO. "The ability to use silicon fab compatible materials from Lightwave Logic to develop quantum circuits is a critical step for us to further advance this vision. We're excited to partner with Lightwave Logic and look forward to our future collaboration."

QPICs

Source: Quantum Technology Monitor, McKinsey, 6/25

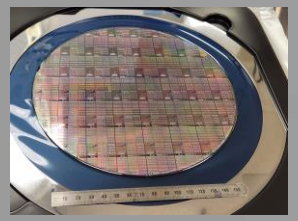
Our Business Model
Material + IP/Royalty Licensing Company

Foundational E/O Polymer R&D…

…For Creating Next-Gen Optical Modulators

…And Generating High Margin Revenues

E/O Polymer Composition & IP → **E/O Polymer Production** → **Material Sales**



Reference Designs & Polymer "PDK" IP → **IP & "PDK" Licensing & "Co-Design" Capability** → **Licensing &/or Royalty Fees**

60%+

Gross Margin at Scale

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Stage 1
Complete

Technology & Materials Development

Patents/IP, Polymers, Factory and Process

Stage 2
2025 + 2026

Customers & Products

Product Design-ins

Silicon Photonics Foundries

AI Ecosystem Integration

Stage 3
Starting 2026

Scale-up & Diversification

Production infrastructure
+
New markets and applications

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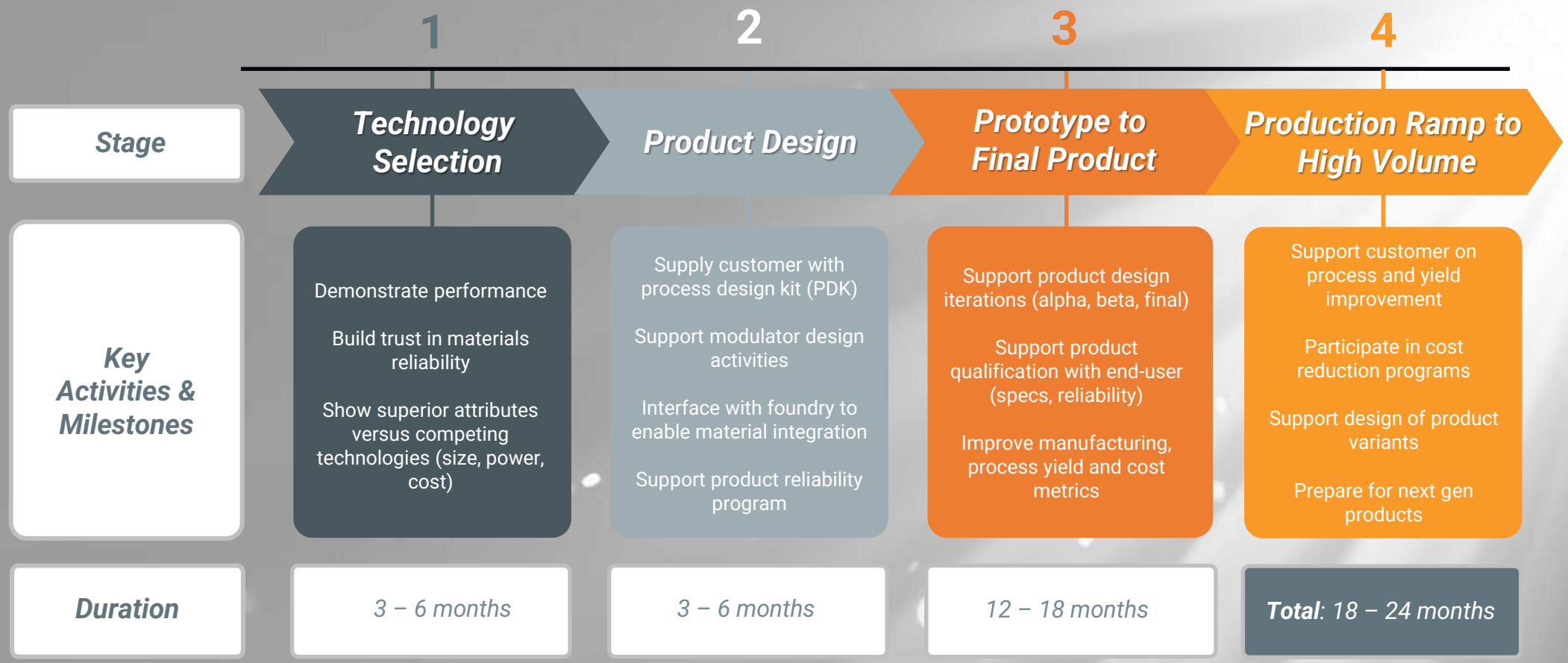
Design Win Cycle



Three customers currently in Stage 3; >15 in Stages 1 & 2

Key Takeaways

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Strong platform + favorable market dynamics to enable utilization of electro-optic polymers for high speed, low power AI and data center applications.

Unprecedented Accelerating Demand

- TAM of $24B and SAM of $1-2.5B by 2028 are growing quickly
- Driven by CapEx to address AI, quantum, datacomm & space comm requirements

Innovative EO Polymer Technology

- Disruptive technology enabler for future speed upgrades in data bandwidth
- Relieves key bottlenecks in AI infrastructure

Strong Patent Portfolio

- Protected by broad IP portfolio with over 80 patents
- Numerous patents pending

Deeply Experienced Leadership

- Management, Board of Directors, Advisory Board have 200+ years conceiving and launching products

Robust Balance Sheet

- Critical for execution
- $35M cash position provides significant optionality and execution runway *(as of 9/30/25)*
- Raised $35M in December 2025 through Public Offering

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