



## AIM PHOTONICS FALL 2016 MEETING

October 31-November 2, 2016

# BUILDING AN INDUSTRY: PART II

## NAVIGATING THE INTEGRATED PHOTONICS TECHNOLOGY TRANSITION

Co-Organized By:

**AIM Photonics Institute • The MIT Microphotonics Center • INEMI**

*MIT Media Lab, E14, 6th Floor, 75 Amherst St., Cambridge, MA (Oct. 31-Nov. 1)*

*MIT Campus, Room 6-104, 182 Memorial Drive (Rear), Cambridge, MA (Nov. 2)*

### WHO SHOULD ATTEND?

*Integrated Photonics Professionals, Faculty, Students*

*Companies engaged in or entering the Integrated Photonics Marketplace*

*AIM Photonics Members*

### THE TECHNOLOGY TRANSITION TO INTEGRATED PHOTONICS

**Technology Transitions are built on a foundation of i) competency,**

**ii) vision, iii) prototypes, and iv) supervening applications.**

### MONDAY, OCTOBER 31 (MIT Media Lab)

#### SESSION 1: COMPETENCY

*The workforce originates from two industries: low volume photonics for communication and computing and high volume integrated circuits. What necessary skills are missing?*

The AIM Workforce Needs Assessment: skills and timelines

- presentations and industry panel
- Education Content and Delivery
- tutorials from the AIM instructional set: photonic materials and devices, design, and silicon photonics

#### SESSION 2: VISION

*Integrated Photonics System Roadmap*

*Defining key applications and challenges to high volume manufacturing*

- presentations by AIM MCE and KTMA leadership

#### ROADMAP WORKSHOP

*Joint breakout sessions of the Education, Workforce, Professional Society Affiliates, AIM MCE/KTMA and Roadmap TWGs*

#### NETWORKING RECEPTION AND POSTER SESSION



## TUESDAY, NOVEMBER 1 (*MIT Media Lab*)

### SESSION 3: PROTOTYPES

#### *Technical Presentations*

#### *Foundry options for monolithic, 2D and 3D Hybrid Integration*

- The AIM MPW Platform
- Integrated Photonic Subsystems
- Monolithic Electronic-Photonic Integration

### SESSION 4: SUPERVENING APPLICATIONS

#### *Data Centers – HPC – Automotive – IoT*

#### *What are timelines and prospects for cross-market platforms?*

- Automotive: LIDAR and Cabling
- On-Board Interconnection: Joint Development Consortium Models
- Chemical and Biological Sensing

### SESSION 5: INTEGRATED PHOTONICS ROADMAP

#### *Roadmap Workshop Report Back*

#### *Navigating the Integrated Photonics Technology Transition*

- IPSR Roadmap draft updates: TWG reports
- Workforce Roadmap: education ramp and workforce projections

### PANEL DISCUSSION

#### *Reviewing the ramps of the Workforce, Manufacturing and Markets*

- Evaluation of integrated photonics supply chain preparedness

## WEDNESDAY, NOVEMBER 2 (*MIT Campus, Room 6-104*)

### MORNING SESSION: THE MASSACHUSETTS INTEGRATED PHOTONICS MANUFACTURING SUPPLY CHAIN

- *Education and Workforce Development*
- *Commercial engagement in Integrated Photonics Markets*

### AFTERNOON SESSION: AIM ACADEMY ADVISORY COUNCIL MEETING