# AIM Photonics

Photo courtesy of Intel Corporation

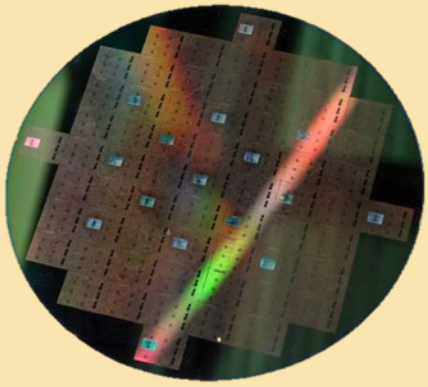
The **A**merican **I**nstitute for **M**anufacturing Integrated Photonics (AIM Photonics), is an industry driven public-private partnership whose goal is to emulate the dramatic successes experienced by the electronics industry over the past 40 years and transition key lessons, processes, and approaches to the photonic integrated circuit (PIC) industry.

AIM Photonics supports Small and Medium Enterprises, providing practical access and technology on-ramps for U.S. industry, government, and academic communities. We are creating a National PIC manufacturing infrastructure, widely accessible and inherently flexible to meet the challenges of the marketplace with practical, innovative solutions.


Vice President Joe Biden was joined by Governor Andrew M. Cuomo to announce $110 million federal grant for the SUNY Polytechnic-led American Institute for Manufacturing Integrated Photonics.

## What is Photonics?

Photonics is the science of using and controlling photons, which is the smallest unit of light. Photonics allow for faster transfer of data than traditional electronic circuits. Integrated photonics allow designers and manufacturers to put thousands of photonic components (such as lasers, detectors, waveguides, modulators, electronic controls, and optical interconnects) together on a single chip, allowing capabilities that were not previously possible.

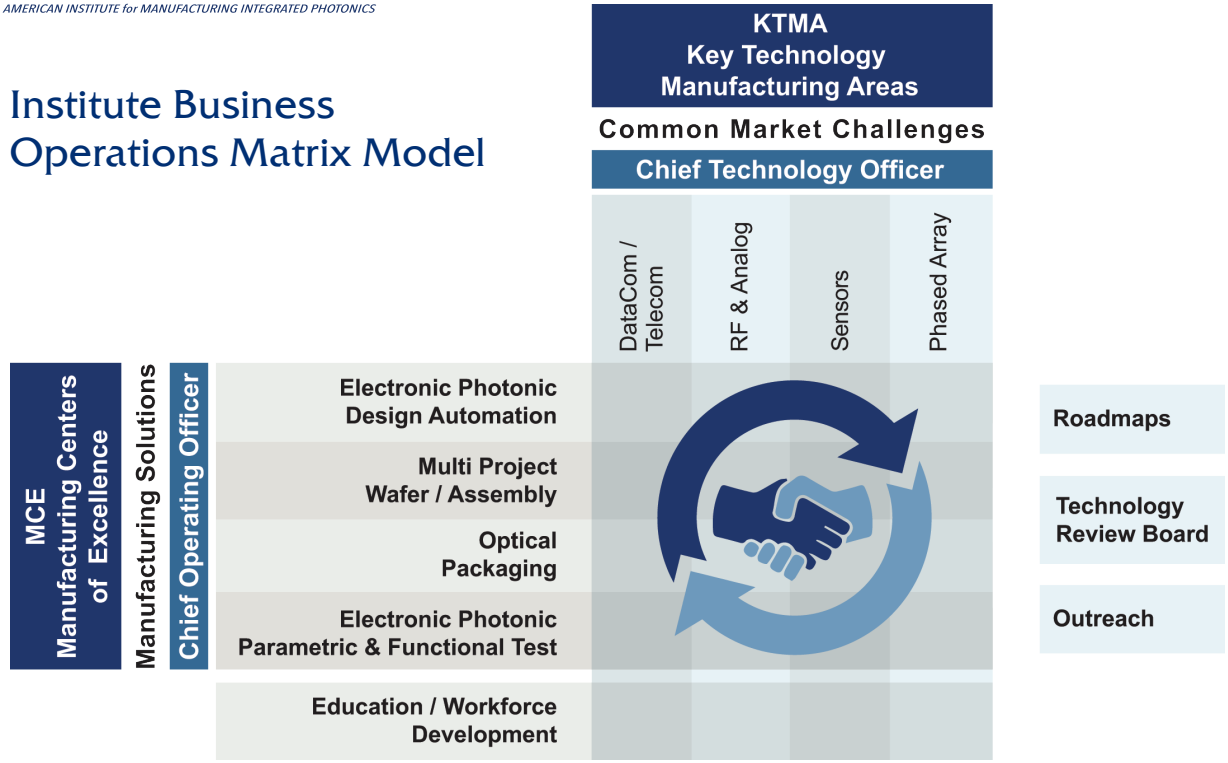


300mm
Si Photonics Wafer

## Government Partners:

AIMPHOTONICS.COM

# Institute Business Operations Matrix Model




## Matrix Operational Model:

- KTMA's leverage baseline capabilities of MCEs, but provide market-driven input to extend capabilities of MCEs
- MCEs target maximum impact for investments in each strata of the manufacturing ecosystem by seeking synergies across KTMAs
- Coordinated advanced project planning and project management between KTMAs and MCEs wherever possible
- New KTMAs possible going forward

## Role of Key Technology Manufacturing Areas (KTMAs):

- Function like "business units" in a corporation
- Bring photonic integration needs from different market application segments
- Use Technical Working Groups (TWGs) comprised of institute partners for inputs
- Each KTMA has industry, government, and academic co-leads
- Select projects that serve as drivers to advance AIM Photonics manufacturing capability

## Role of Manufacturing innovation Centers of Excellence (MCEs):

- Function like manufacturing & design platforms in a corporation
- Drive stratification/maturation of photonic integration industry ecosystem
- Provide baseline capabilities in each manufacturing support area (i.e., for foundry services)
- Select projects that maximize synergy across KTMAs and advance AIM Photonics manufacturing capacity
- Use Technical Working Groups (TWGs) comprised of institute partners for inputs
- Each MCE has industry, government, and academic co-leads