MIDWEST MICROELECTRONICS CONSORTIUM

mmeconsortium.org :: info@mmeconsortium.org

OVERVIEW:

The Midwest Microelectronics Consortium (MMEC) leads the acceleration of microelectronic technologies and delivers solutions to establish a trusted and resilient domestic supply chain. The MMEC is the premier collaborative, public-private ecosystem that engages broadly across innovative partners in industry, academia, and government to rapidly advance defense and commercial applications. This unique environment empowers members to discover new technologies, share capabilities, develop a skilled workforce, and launch groundbreaking innovation into scalable commercial production for the benefit of National Security and economic dominance.

MISSION:

National Security through innovation from the heartland

VISION:

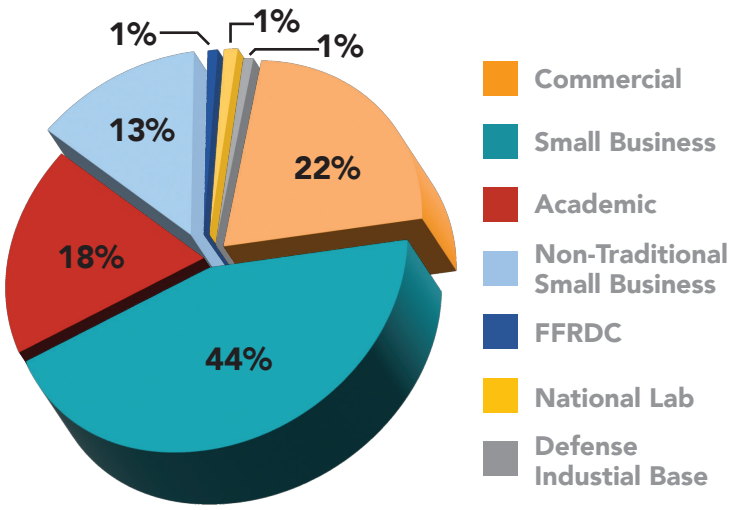
Accelerating the recapture of global leadership in microelectronics innovation, empowering organizations to create a robust and resilient domestic supply chain

CAPABILITY HIGHLIGHTS:

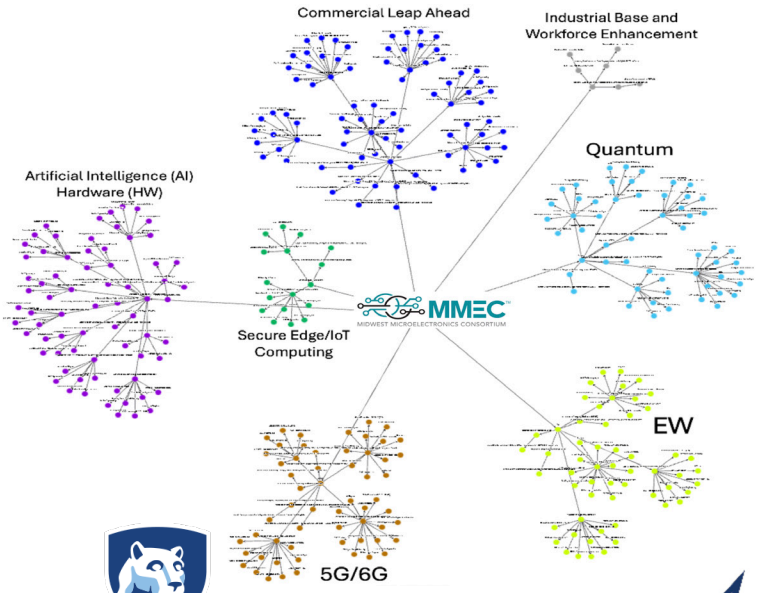
With a strong technical focus, MMEC's strategy is designed to accelerate innovation by enabling systematic, data-driven, feedback for rapid optimization of microelectronic development. Using the input of members, industry, core facility providers, academia, and government, the MMEC will provide a central hub for the development of a scalable and resilient microelectronics manufacturing ecosystem. MMEC capabilities include:

- CHES Initiative (Digital Backbone)
- OSU: MITEC and Characterization Lab
- PENN State Nanofabrication Facility and 2D Materials Innovation Platform
- DoD HPC and Emulation Foundry
- AFRL MOU access to microelectronics capabilities
- Scale-up and scale-out pathway and opportunities.
- Battelle APT, material processing, and microscopy

MEMBER CATEGORY



ONTOLOGICAL MAPPING



KEY MEMBERS:

BATTELLE intel OHIO STATE PennState LOCKHEED MARTIN

MMEC™

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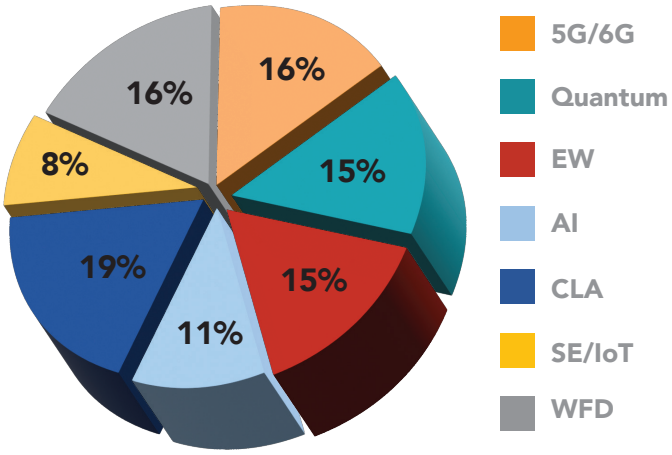
TECHNICAL FOCUS AREAS

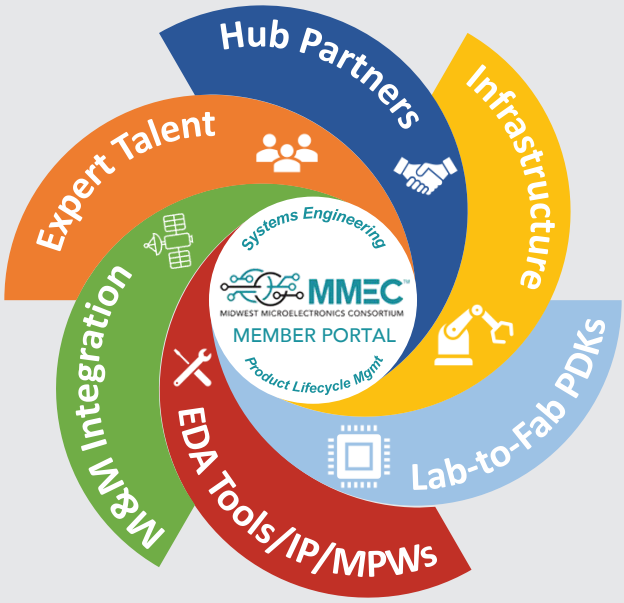


350+
MEMBERS

$7B
INFRASTRUCTURE LEVERAGE

$60M
COMMITTED COST SHARE

PROPELLING SUSTAINABLE MICROELECTRONICS INNOVATION



Accessibility Model: Access provided through Member Portal

- Members complete resource allocation request
- MMEC negotiates agreement with provider for access
- MMEC managed scheduled access between parties

EDA Tools/IP/MPWs: MMEC provides members with access to Electronic Design Automation (EDA) tools, intellectual property (IP), and application engineering support.

M&M Integration: To support mission and market transition, MMEC conducts independent compliance reviews and utilizes digital models for meticulous data capture and characterization.

Expert Talent: MMEC boasts a robust pool of expert talent to support member engagement and project execution.

Hub Partners: Leveraging the strengths of our hub members, MMEC clearly defines roles and responsibilities in every aspect of technology transition.

Infrastructure: MMEC lowers or removes barriers at member interfaces through established and professionally managed access models to existing infrastructure, facilities, design tools, and IP frameworks.

Lab-to-Fab PDKs: MMEC accelerates the lab-to-fab transition by utilizing robust modeling and simulation, developing and delivering Process Design Kits (PDKs), compact models, and process monitors.