



Agenda

Competitiveness Conversations Across America: The Indiana-Illinois Innovation Corridor— Chips, Qubits, and Molecules

Location

Purdue University
Purdue Memorial Union
101 North Grant St
West Lafayette, IN 47906

September 9, 2024 (All Times Eastern)

- 8:15 am – 9:00 am: Breakfast & Registration (**Faculty Lounges**, 2nd floor)
- 9:00 am – 12:30 pm: Competitiveness Conversation Programming (**North Ballroom**, 1st floor)
- 12:30 pm – 1:30 pm: Lunch (**North Ballroom**, 1st floor)
- 1:30 pm – 4:45 pm: Competitiveness Conversation Programming (**North Ballroom**, 1st floor)
- 4:45 pm – 6:00 pm: Networking Break and Reception (**Faculty Lounges**, 2nd floor)
- 6:00 pm – 8:00 pm: Competitiveness Conversation Dinner (**North Ballroom**, 1st floor)

The Indiana-Illinois Innovation Corridor— Chips, Qubits, and Molecules

Monday, September 9, 2024

8:15 AM BREAKFAST & REGISTRATION

9:00 AM WELCOME

Dr. Mung Chiang, President, Purdue University

**9:10 AM A PERSPECTIVE ON INNOVATION AND LEADERSHIP:
A KEYNOTE FROM CONGRESS**

The Hon. Jim Baird, United States Congressman (R-IN, O4)

**9:25 AM PUTTING COMPETITIVENESS IN CONTEXT—
CHALLENGES AND OPPORTUNITIES**

Leadership will share the policy vision for the “[Competitiveness Conversations Across America](#)”—under the auspices of the [Council on Competitiveness “National Commission on Innovation and Competitiveness Frontiers”](#)—in the context of the economic, global, and political realities facing Indiana and Illinois, as well as the United States.

Key questions to consider:

- What key features of the region have made it a hotbed of innovation for “chips, qubits, and molecules?”
- How have public-private collaborations bolstered the industrial base (whether semiconductors, quantum, and/or biosciences) in the Indiana-Illinois region? What are the key lessons learned?
- What is your vision of how the region can be a global leader in basic research around biosciences and in extending the “healthspans” of Americans and citizens around the world?
- There are few topics hotter than quantum computing. What are the most immediate and applicable opportunities emerging through the tremendous explosion of investment in the space?
- Aside from the individual discipline and domain revolutions “chips, qubits, and molecules” will drive, can you share how their entanglement and interactions will trigger unexpected innovations, opening new frontiers for innovation?

- One key theme of the Council’s “Competitiveness Conversations Across America” is “radical collaboration.” How are stakeholders in and across your states collaborating radically?

Dr. Mung Chiang, President, Purdue University

Dr. Robert J. Jones, Chancellor, University of Illinois Urbana-Champaign

Dr. Paul Kearns, Director, Argonne National Laboratory

Moderator: The Hon. Deborah L. Wince-Smith, President & CEO,
Council on Competitiveness

10:10 AM LEADERSHIP INSIGHT ON THE U.S. DEPARTMENT OF COMMERCE’S ROLE IN SHAPING AMERICA’S INNOVATION ECOSYSTEM: A FIRESIDE CHAT WITH THE DIRECTOR OF NIST

The Hon. Laurie Locascio, Under Secretary of Commerce, Standards and Technology; Director, National Institute of Standards and Technology (NIST)

10:30 AM DEVELOPING THE PILLARS OF THE INDIANA-ILLINOIS INNOVATION ECOSYSTEM

Leaders on this panel will explore the key pillars of innovation driving the region’s innovation ecosystem. They will highlight key challenges and opportunities in Illinois, Indiana, and the Midwest, as well as suggest best practices to scale inclusively and nationally, with a goal of dramatically increasing the nation’s innovation capacity.

Key questions to consider:

- How are leaders in Indiana, Illinois, and across the Midwest rethinking traditional models to define, coordinate, and support local, state, and regional innovation hubs? What policies and partnerships are foundational for a place-based innovation economy?
- What major investments in infrastructure and technology are shaping the Indiana-Illinois innovation ecosystem?
- How are key stakeholders aligning to identify and develop the workforce of the future?
- What are leaders across the region doing to leverage technological disruption to compete in the global marketplace and to solve grand challenges?
- What are the distinctive opportunities for this region to define its “place” in the national and global economy?
- How does the growing innovation ecosystem in the region affect the broader community and people, especially those who may not directly work in the STEM workforce?

Dr. Brooke Beier, Senior Vice President, Purdue Innovates,
Purdue Research Foundation, Purdue University

Mr. Adam Berry, Vice President, Economic Development Tech Policy,
Indiana Chamber of Commerce

Mr. Christopher Day, CEO, Elevate Ventures

Dr. Meera Raja, Senior Vice President, Deep Tech, P33 Chicago

Moderator: Ms. Megan Clifford, Associate Laboratory Director,
Argonne National Laboratory

11:15 AM NETWORKING BREAK

**11:30 AM “CHIPS” – TAKING THE PULSE OF THE
HEARTLAND’S CHIP BOOM**

This panel of visionary leaders will unpack the Indiana-Illinois Innovation Corridor’s ascension as a dominant force in semiconductor research, design, and manufacturing. Looking forward, they will also explore the region’s pivotal role in fulfilling the objectives and addressing the hurdles of the ambitious CHIPS & Science Act, which aims to solidify to America's microelectronics resurgence.

Key questions to consider:

- What factors have positioned the Indiana-Illinois Innovation Corridor as a hub for the research, design, and manufacture of advanced semiconductors?
- What roles have critical stakeholders—from research institutions and universities, to companies, to public sector leaders—played in this development, and what roles will they play going forward?
- What challenges are leaders across the ecosystem facing in the quest to expand the research, design, and manufacture of semiconductors?
- What are the benefits and adjacent opportunities to the growth of semiconductor design and manufacturing in the region?
- How can chips power economic growth, investments, and job creation?

Mr. Bill DeVries, NAM Sales Vice President – Industry Transformation & Customer Success, Dassault Systèmes

Ms. Cristina Farmus, Interim Vice President, Industry Partnerships and Vice President, Special Projects, Purdue University

Dr. Supratik Guha, Professor, Pritzker School of Molecular Engineering, University of Chicago; Senior Advisor to Physical Sciences & Engineering, Argonne National Laboratory

Dr. Woong Sun Lee, Senior Vice President, Head of Advanced Packaging & Module Technology, SK Hynix

Mr. Patrick Wilson, Vice President, Government Relations, MediaTek

Moderator: Dr. Valerie Taylor, Director, Mathematics & Computer Science Division, Argonne National Laboratory

**12:15 PM TECH TALK:
THE MIDWEST’S NEW ‘NEW ELECTRONICS’ OPPORTUNITY**

Dr. Mark Lundstrom, Chief Semiconductor Officer, Purdue University

12:30 PM LUNCH

**1:30 PM “QUBITS” – SCALING THE PROMISE OF QUANTUM
FROM RESEARCH TO REALITY**

Quantum science has shifted our understanding of the fundamental nature of reality, leading to groundbreaking technologies with potential applications in computing, energy, and many other industries. This panel of leaders will discuss the transformative journey of quantum science from theoretical research to practical applications, illuminating the groundbreaking innovations poised to reshape society, and the economies of Indiana and Illinois.

Key questions to consider:

- What is “quantum?” And what are the most viable, near-term use cases of quantum science and quantum applications?
- What are the key factors contributing to the Indiana-Illinois Innovation Corridor’s emergence as a hub for quantum science, technology, and innovation? Does the region have competition – domestic and/or global?
- What are the biggest hurdles slowing innovation in quantum science?
- How is the region growing a quantum workforce?
- How will becoming a global leader in quantum science magnetize and grow related or tangential industries in the Indiana-Illinois Innovation Corridor?

- What roles have collaborations and partnerships played in the development and adoption of quantum science and quantum technology hitting the marketplace?

Dr. Yong Chen, Director, Purdue Quantum Science and Engineering Institute; Karl Lark-Horovitz Professor of Physics and Astronomy; Professor of Electrical and Computer Engineering, Purdue University

Dr. Brian DeMarco, Professor & Director, Illinois Quantum Information Science & Technology Center (IQUIST), University of Illinois Urbana-Champaign

Dr. Jay M. Gambetta, IBM Fellow & Vice President, IBM Quantum, IBM

Ms. Rima Oueid, Senior Commercialization Executive, Office of Technology Transitions, U.S. Department of Energy

Moderator: Mr. Matt Wells, President & CEO, One Region, Inc.; Chief Engagement Officer, Purdue University Northwest

2:15 PM TECH TALK: THE ILLINOIS QUANTUM AND MICROELECTRONICS PARK

Dr. Harley Johnson, Associate Dean, Research, Grainger College of Engineering, University of Illinois Urbana-Champaign; Director, Illinois Quantum & Microelectronics Park

2:30 PM NETWORKING BREAK

2:45 PM “MOLECULES” – TRANSLATING CUTTING-EDGE BIODISCOVERY TO EXPANDING HEALTHSPANS

Indiana and Illinois have robust industry clusters in sectors like pharmaceuticals, medical devices, agricultural biotechnology, and bio-manufacturing—positioning the region to become a significant global hub in bioscience research, technology, and innovation. This panel will discuss how the Indiana-Illinois Innovation Corridor strategically aims to lead in bioscience innovation and, in doing so, positively transform the world.

Key questions to consider:

- What are the opportunities on the horizon for biosciences across industries?
- What key factors have contributed to the Indiana-Illinois Innovation Corridor becoming a robust hub for the bioscience industry?
- How are collaborations between universities, private companies, and government entities fostering innovation in the bioscience sector?
- What roles do public-private partnerships play in driving bioscience advancements in the region?

- What are the biggest challenges facing the bioscience industry in the region and nationally, and how are they being addressed?
- What are the safeguards to the privacy, security, and even ethical concerns regarding bioscience? How are they being overcome?
- How are advanced technologies such as AI or quantum spurring innovation in the biosciences?

Dr. Andrew Adams, Group Vice President, Molecule Discovery;
Director, Lilly Institutes of Genetic Medicine, Eli Lilly and Company

Dr. Khalid K. Alam, Founder & CEO, Stemloop, Inc.

Dr. Joanna Groden, Vice Chancellor for Research, University of Illinois Chicago

Mr. Vince Wong, President & CEO, BioCrossroads

Moderator: The Hon. John Fernandez, Senior Vice President,
Innovation & Strategic Partnerships, The Mill; Regional Innovation Officer,
Heartland BioWorks

3:30 PM TECH TALK: ENGINEERING THE FUTURE OF BIOTECHNOLOGY

Dr. Nadya Mason, Dean, Pritzker School of Molecular Engineering,
University of Chicago

3:45 PM NETWORKING BREAK

4:00 PM LEVERAGING THE CONVERGENCE OF “CHIPS, QUBITS, AND MOLECULES” TO CONVEY COMPETITIVE ADVANTAGE

The future of innovation will rely increasingly on integrated, multidisciplinary, and multi-domain partnerships—that span and connect research, development, and deployment at speed and scale. This panel will share insights on the strategies over the next 25 years to build—bit by bit, qubit by qubit, molecule by molecule—the semiconductor, quantum, and bioscience industries of the future. Leveraging the information from the previous industry panel talks, the panel will discuss the future of innovation in the region.

Key questions to consider:

- What do you envision as the most significant opportunities for the Indiana-Illinois Innovation Corridor’s economic competitiveness over the next 25 years? Will chips, qubits, and molecules be the defining troika for the region—or do you already see other vectors for growth?
- What steps are you, your organizations, and your strategic partners undertaking to ride the innovation wave?

- As you look ahead, what hurdles do you see on the short-term and long-term horizon? And please try to address this by looking locally, regionally, nationally, and globally.
- In your mind, what is the most important action, policy, or partnership your organizations must implement to secure the future economic growth and innovation capability for Indiana and Illinois?
- As you also scan the national and global horizon, what role will this region play in solving some of the “grand challenges” we face—climate change, doubling or tripling food production, providing the energy to power sudden spikes in energy demand, creating pathways not only for longer but healthier lives?

Dr. Paul Kearns, Director, Argonne National Laboratory

Dr. Karen Plaut, Executive Vice President for Research, Purdue University

Dr. Jay Walsh, Vice President for Economic Development & Innovation, University of Illinois System

Moderator: The Hon. Deborah L. Wince-Smith, President & CEO, Council on Competitiveness

4:45 PM COMPETITIVENESS CONVERSATION RECEPTION OR BIRCK NANOTECHNOLOGY CENTER TOUR

Following the general session and before dinner, you have two options: feel free to relax and join our reception — a chance for deeper conversations and to connect with fellow participants. Or, take a guided tour of Purdue’s leading academic research center for advanced R&D on semiconductors and other technology at the atomic scale, the [Birck Nanotechnology Center](#). Pre-registration is required for the tour due to limited space; please see the registration desk if you have not registered but would like to attend.

6:00 PM COMPETITIVENESS CONVERSATION DINNER

DINNER KEYNOTE: “BRINGING INNOVATIONS TO MARKET: DOE’S PERSPECTIVE ON ACCELERATING TECH COMMERCIALIZATION”

The Hon. Vanessa Chan, Chief Commercialization Officer, and Director, Office of Technology Transitions, U.S. Department of Energy

8:00 PM DINNER CONCLUDES