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Council on
Competitiveness

Competitiveness Conversations Across America

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

Purdue University
West Lafayette, Indiana
September 9, 2024



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Letter from The Hon. Deborah L. Wince-Smith, President and CEO, Council on Competitiveness

Dear Council Community,

Expanding the innovation economy to more people and places is vital for U.S. competitiveness. Traditionally, innovation has been concentrated in a few coastal hubs, an increasingly untenable trend given rising geopolitical rivals—including China—and unprecedented societal challenges. Fortunately, regions across the United States are tapping their distinctive strengths to develop dynamic innovation ecosystems, dramatically increasing participation in the tech-driven economy.

In 2024, the Council on Competitiveness launched a new leadership series aimed at uncovering regional best practices in cultivating high-performing innovation ecosystems outside established hotspots. Under the auspices of the Council's flagship National Commission on Innovation and Competitiveness Frontiers, we hosted three editions of the "Competitiveness Conversations Across America" series in 2024, including our third event at Purdue University's West Lafayette, Indiana campus, on September 9. The goal of the Competitiveness Conversations is to gain a deeper understanding of the dynamics that underpin a region's innovation economy, catalyze additional growth, and elevate the best—and next—practices for broader national application.

During our third Competitiveness Conversation, "The Indiana-Illinois Innovation Corridor—Chips, Qubits, and Molecules," regional leaders from business, higher education, the U.S. Department of Energy National Laboratories, nonprofits, and government of all levels convened to discuss how the heartland is emerging as a powerful hub for three pivotal sectors of our nation's expanding innovation economy: semiconductors, quantum sciences and technology, and the biosciences. Following a day of high-level discussions, I took away six key lessons from the Indiana-Illinois Corridor that warrant broader consideration:

- 1. The Convergence of "Chips, Qubits, and Molecules" Will Ignite a New Era of Innovation:** Semiconductors, quantum computing, and advanced bioscience are all individually leading to extraordinary discoveries and improving lives, but the convergence of these three technologies is set to unleash an unprecedented wave of groundbreaking innovation. The integration of these technologies will enable a range of applications that boost productivity, enhance security, and improve overall prosperity for Americans.

- 2. “Curated Densification” Strengthens the Industrial Base of Indiana and Illinois:** This approach emphasizes the region’s distinctive strengths and identifies key areas where it can achieve global leadership. Recognizing that no region can excel in every aspect, it is crucial for regions to strategically focus their efforts to remain competitive on a global scale. A prime example of this is Purdue Research Park, which is specifically designed for semiconductor production, serving as a central hub for semiconductor education, industry collaboration, suppliers, and manufacturing. This model of curated densification is vital for establishing a thriving innovation ecosystem, and the Indiana-Illinois region must be intentional in identifying and promoting its areas of expertise.
- 3. Rapid Change and Adaptation Elevates the Indiana-Illinois Corridor as a Semiconductor Hub:** The Indiana-Illinois Corridor has rapidly advanced from being a relatively minor player in the semiconductor sector to a leading force in semiconductor technology, particularly in the wake of COVID-19 and the passage of the CHIPS & Science Act. This transformation illustrates that with a committed and engaged community, swift adaptation and growth can be achieved in high-tech, capital-intensive sectors.
- 4. Emerging Quantum Technology Promises Creative Disruption:** The region is emerging as a powerhouse for quantum research and engineering, supported by collaborative efforts among universities and Argonne National Laboratory, such as the Chicago Quantum Exchange. While the United States is still in the early stages of developing and deploying quantum technologies, the foundational scientific work underway in the Indiana-Illinois Corridor offers a glimpse into the immense potential of this field.
- 5. Partnerships Propel Innovation and Progress Across Medical Fields and Beyond:** Innovative technologies from the Indiana-Illinois Corridor are transforming various sectors, particularly medicine, as seen in groundbreaking gene therapies that restore hearing for those with hearing impairments. Close collaboration between industry and academia is accelerating progress, positioning the region as a leader in healthcare advancements, including nanomedicine.

6. A Collaboration Culture is Key to Success in the Indiana-Illinois Region: The collaborative culture within the Indiana-Illinois region—spanning industries, institutions, and individuals—facilitates seamless partnerships, providing the region with a distinct competitive advantage. This environment not only fosters innovative projects but also attracts top talent from across the country. The community takes pride in its vibrant atmosphere and high quality of life, which collectively draw innovators eager to make a meaningful impact.

I would like to extend my gratitude to my fellow Co-hosts—President Mung Chiang of Purdue University, Director Paul Kearns of Argonne National Laboratory, and Chancellor Robert J. Jones of the University of Illinois Urbana-Champaign—for this important edition of our Council’s Competitiveness Conversation series. Their expertise and support has enriched our understanding of why the Indiana-Illinois Corridor stands out as an admirable model of place-based innovation.

We look forward to continuing our collaboration with the many innovative organizations in Indiana and Illinois, and we are eager to share the valuable insights gathered from this discussion with the Council Community and broader audience.

Sincerely,

The Hon. Deborah L. Wince-Smith
President and CEO
Council on Competitiveness

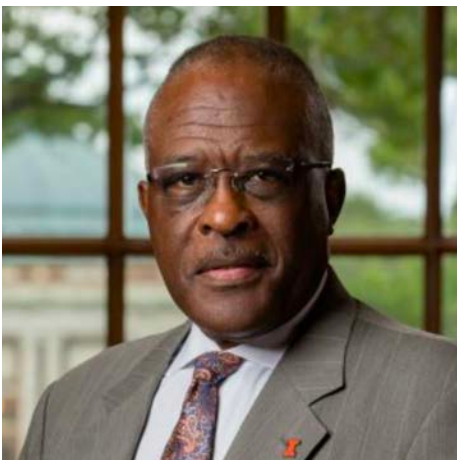
Indiana-Illinois Conversation Leadership



Mung Chiang
President
Purdue University



Paul K. Kearns
Director
Argonne National Laboratory



Robert J. Jones
Chancellor
University of Illinois Urbana-
Champaign



Deborah L. Wince-Smith
President and CEO
Council on Competitiveness

Agenda

MORNING

8:15 Breakfast & Registration

9:00 Welcome

Dr. Mung Chiang
President, Purdue University

9:10 A Perspective on Innovation and Leadership: A Keynote from Congress

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

9:25 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 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 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 Networking Break

11:30 “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

AFTERNOON

12:15 Tech Talk: The Midwest’s New “New Electronics” Opportunity

Dr. Mark Lundstrom

Chief Semiconductor Officer, Purdue University

12:30 Lunch

1:30 “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 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 Networking Break

2:45 “Molecules”—Translating Cutting-Edge Biodiscovery to Expanding Healthspan

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 Tech Talk: Engineering the Future of Biotechnology

Dr. Nadya Mason

Dean, Pritzker School of Molecular Engineering, University of Chicago

3:45 Networking Break

4:00 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 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 Competitiveness Conversation Dinner

Dinner Keynote

Bringing Innovations to Market: DOE’s Perspective of Accelerating Tech Commercialization

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

8:00 Conversation Concludes

Creation of the Competitiveness Conversations Across America Initiative

For nearly four decades, the Council on Competitiveness has served as the leading nonpartisan, private-sector voice advocating for a policy agenda that puts American economic competitiveness first and promotes innovation as the cornerstone of our country's security and prosperity. A membership group of industry executives, university leaders, labor union presidents, and national laboratory directors, the Council on Competitiveness has played key roles in helping chart a positive economic and innovation course for the nation.

Five years ago, the Council began to recognize dramatic innovation change waves. Multiple technological revolutions suddenly began to come to a head, and it became clear we were entering a period of heightened opportunity and risk for our country. Breakthroughs with the potential to solve huge global challenges were suddenly on the horizon, alongside the potential for these innovations to be turned to the advantage of our adversaries. A business-as-usual approach would no longer suffice. America needed a policy agenda ready to meet the growing disruption and discontinuity within the innovation-driven economy head-on, and there was no better group to lead the charge than the Council.



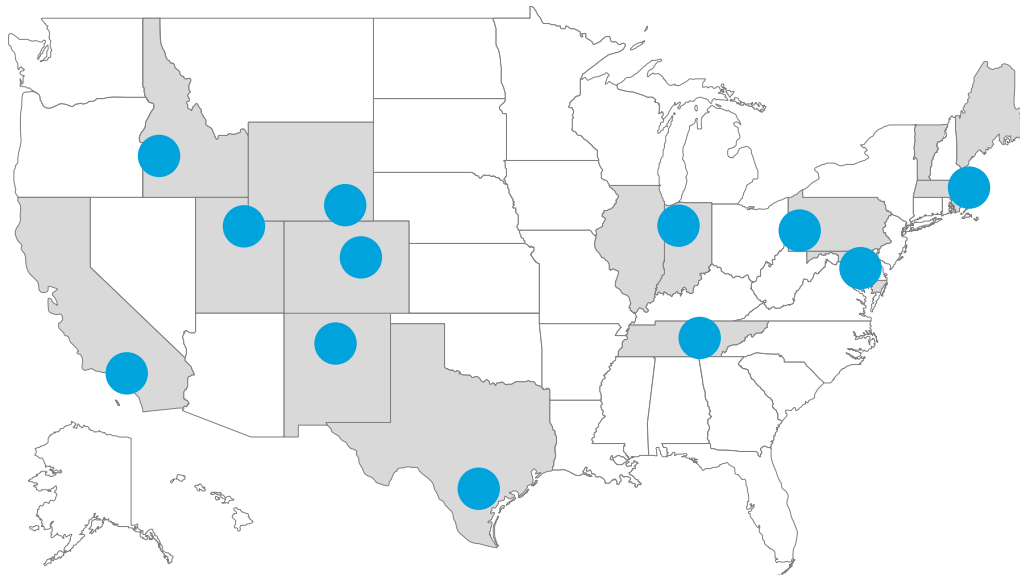
AUTHOR

Mr. Chad Evans
Executive Vice President
and Chief Operating Officer
Council on Competitiveness

The Council stood up the [National Commission on Innovation and Competitiveness Frontiers](#) (Commission), a landmark initiative to drive U.S. innovation forward to ensure long-term productivity, security, and inclusive prosperity. The first phase of work occurred during the Covid-19

National Commission on Innovation & Competitiveness Frontiers

Competitiveness Conversations Across America

**2022 Conversation**

Jun. 21–22 Laramie, WY

2023 Conversation

Mar. 27–28 Davis, CA

2024 Conversations

Apr. 25–26 Nashville, TN

Aug. 6–8 Boise, ID

Sep. 9 West LaFayette, IN

2025 Conversations

Mar. 10–11 San Antonio, TX

Mar. 30–Apr. 1 Boulder, CO

May 5–6 Santa Fe, NM

Jun. 5–6 Boston, MA

Sep. 18–20 Salt Lake City, UT

Oct. (TBA) Pittsburgh, PA

2026 Conversations

Jan. (TBA) Baltimore & College Park, MD

pandemic, when the capability of the American people to innovate with speed and scale was redefined. This inspired the Commission to put forth recommendations challenging the country to increase its innovation capacity tenfold—10x—to meet the needs of the coming decades, when innovation capacity will be the determining factor of national success.

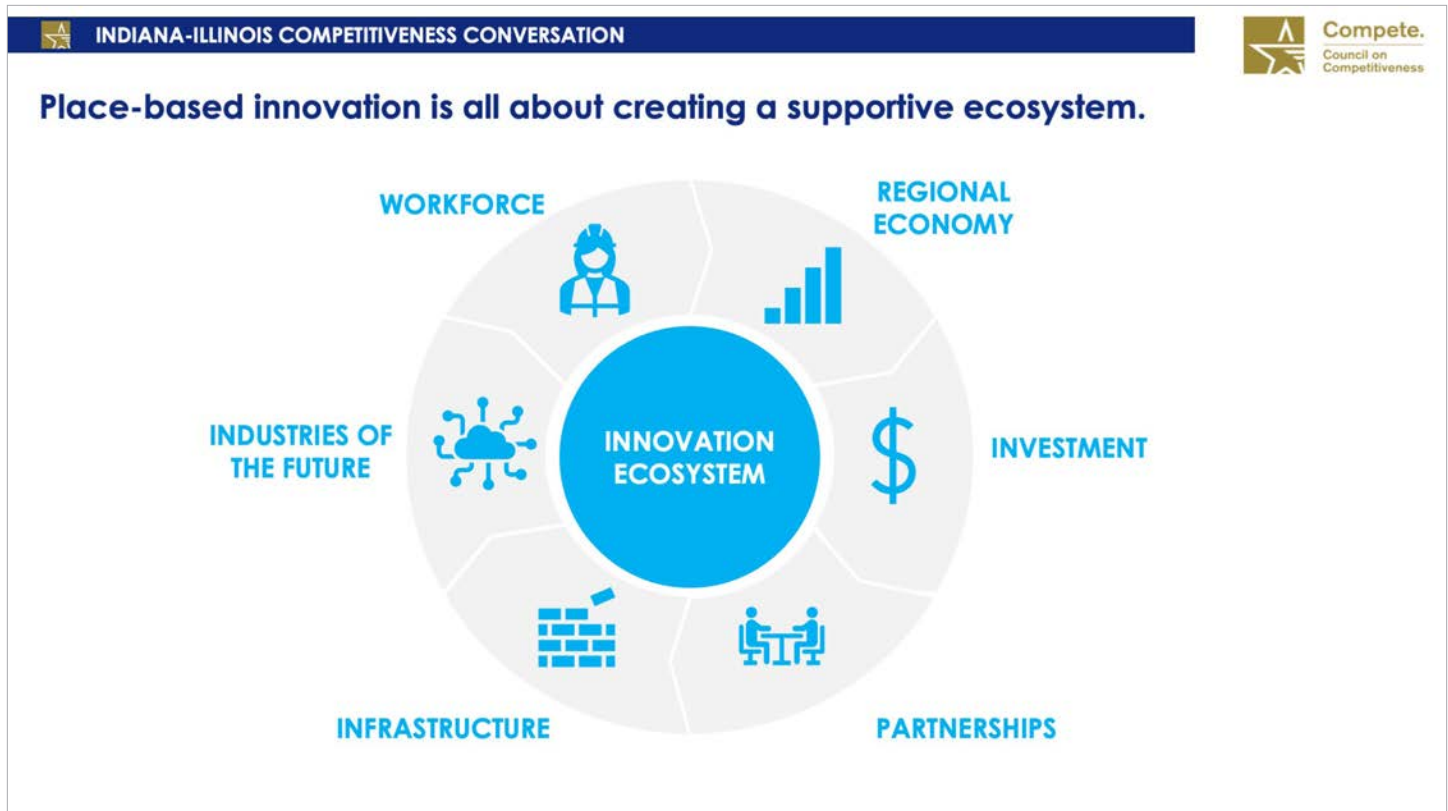
This call to action set the rationale and framework for the Commission's newest effort and platform for engagement, the [Competitiveness Conversations Across America](#)—which are meant over the coming years to help define and grow the concept of place in the context of innovation. This effort will explore how to support and amplify local efforts to spur innovation, while also elevating to the attention of policymakers the need for investments that expand the footprint of the U.S. innovation ecosystem.

In 2024, we hosted three Competitiveness Conversations, concluding with the Indiana-Illinois Conversation in West Lafayette. In 2025, an additional six Competitiveness Conversations are scheduled, and more to come in 2026.

As leaders across the country face a historic influx of place-based and place-making funding through the Inflation Reduction Act (IRA), the CHIPS & Science Act, and other investments, understanding where and how to direct funding is very important. The Council's goal with each Competitiveness Conversation and beyond is to build the next generation toolkit to empower local, state, and regional leaders to assess their communities, capitalize on opportunities, and build vibrant innovation ecosystems—and to help national policymakers understand the complexity, diversity, and vibrancy of our “system of systems,” ensuring investment flows to strategic opportunities, no matter the ZIP code.

First Look: Innovation & Competitiveness— The Indiana-Illinois Corridor

The following First Look is a snapshot of some fundamentals underpinning the Indiana-Illinois Innovation Corridor—serving as a primer for the Competitiveness Conversation. It lays out some of the broad regional trends and themes I see driving growth and change today. By better understanding the conditions on the ground, we will be better able to both understand how the region has achieved incredible growth and prepare for what lies ahead in the years to come.



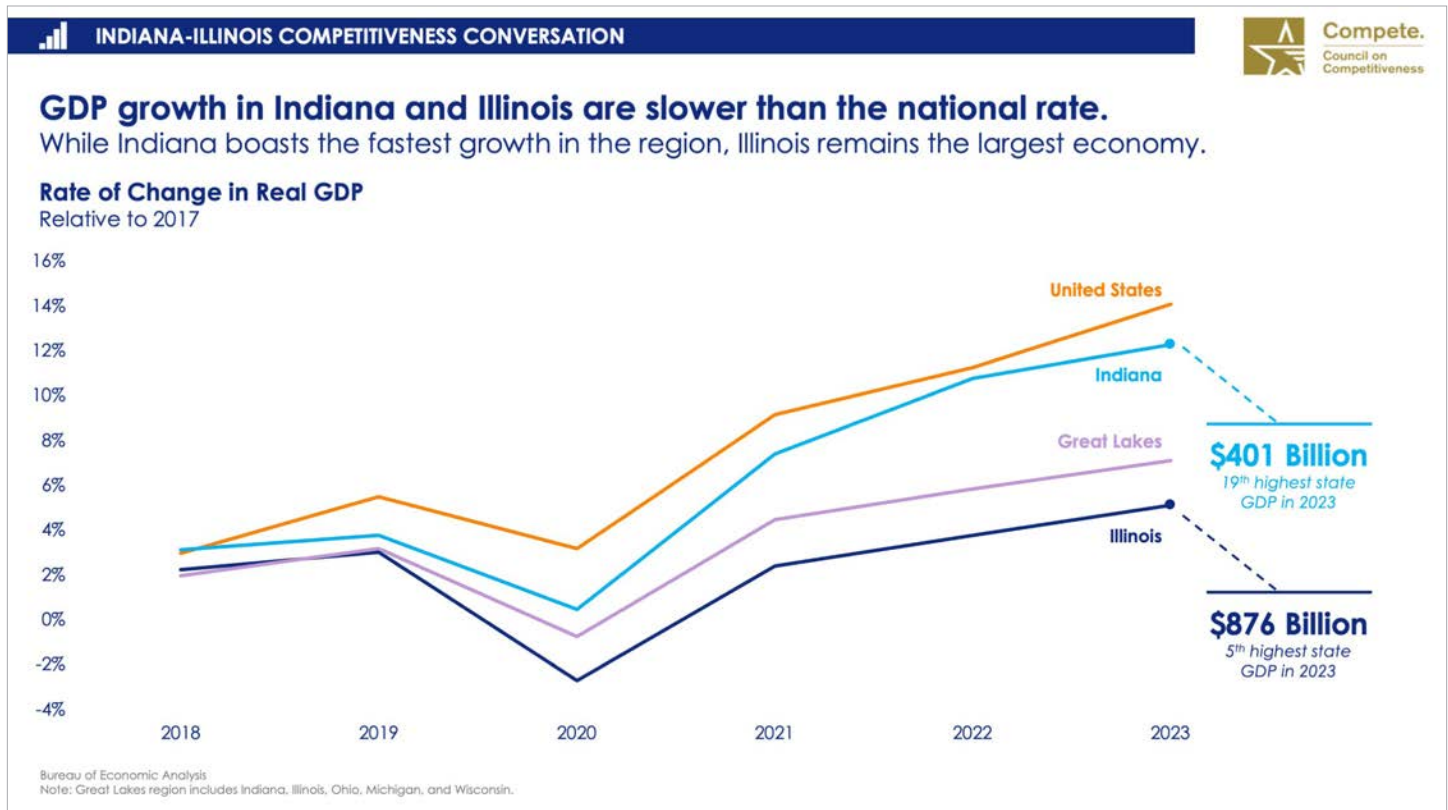
To set the stage for this Competitiveness Conversation, we have built out this ecosystem snapshot, to understand better the specific supporting environment that undergirds this region's successes—and also highlighting key challenges to overcome.

The Indiana-Illinois Region’s Innovation Ecosystem



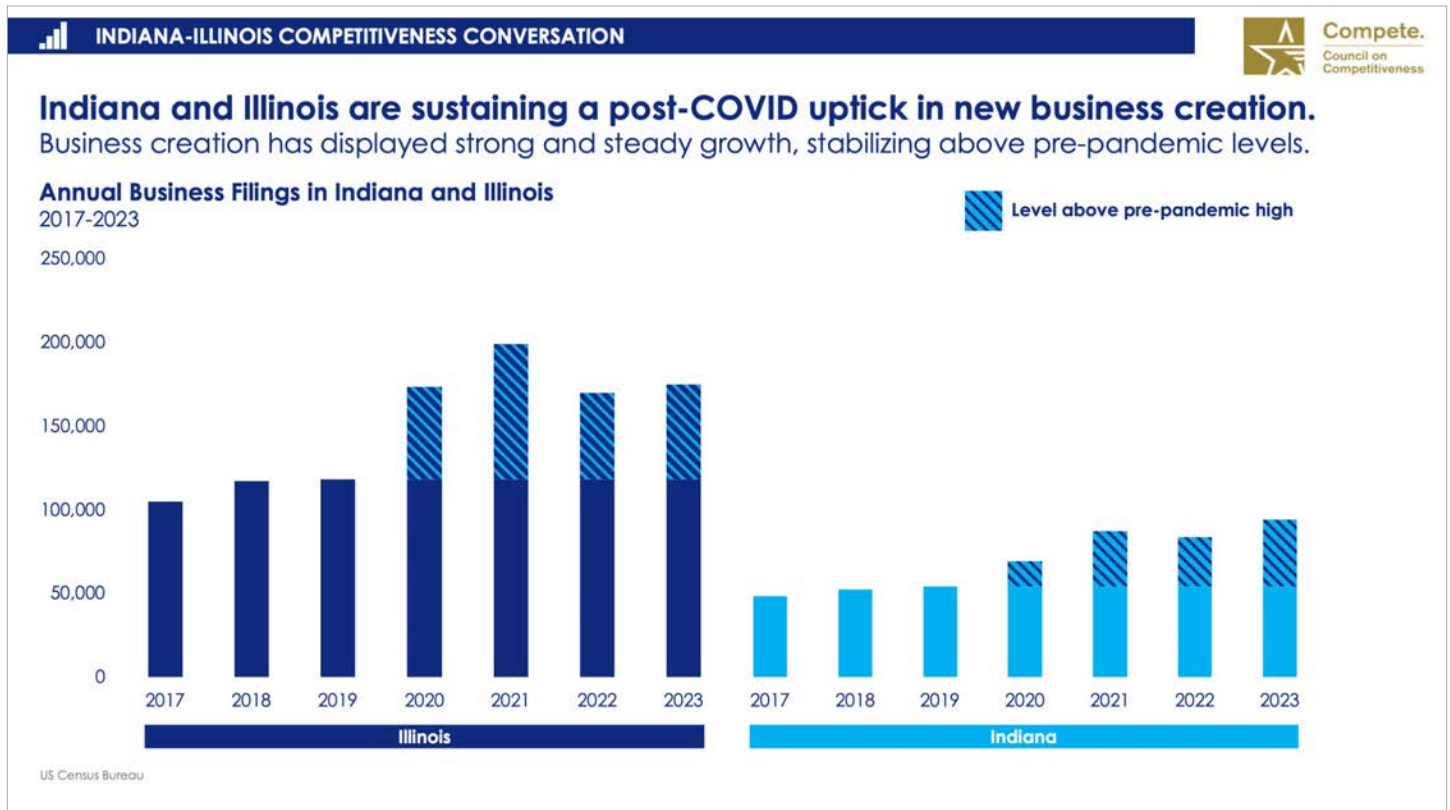
- Summarized here, the data clearly show the Indiana-Illinois Innovation Corridor is home to a robust innovation ecosystem with distinctive strengths. The region has continued its tradition as America’s industrial heartland, and is leading the development of emerging industries from semiconductors to quantum computing. However, the region must overcome workforce and infrastructure challenges to truly capitalize on its innovative momentum. Let’s dive deeper.

GDP growth in Indiana and Illinois



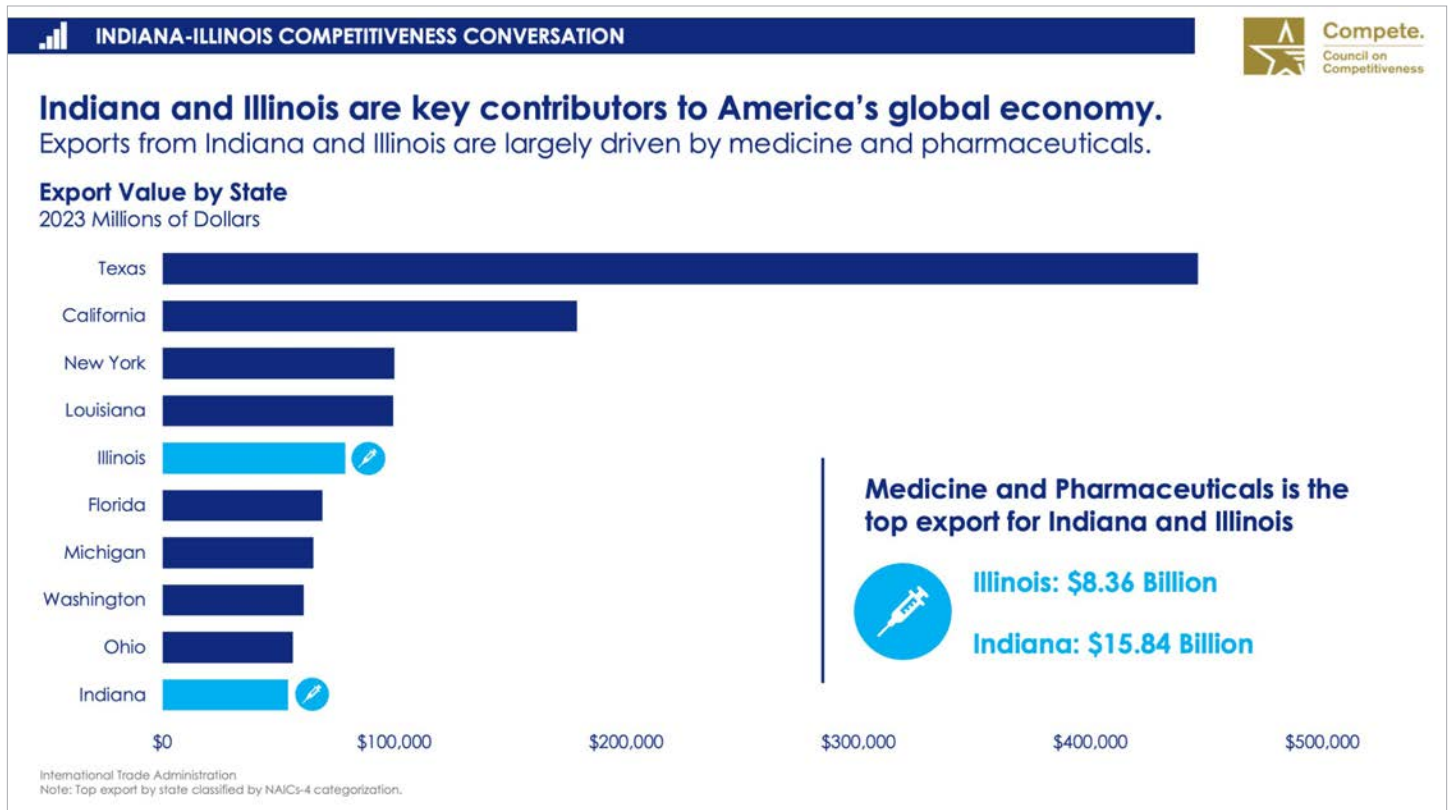
- Indiana and Illinois—along with neighboring Great Lakes states Michigan, Ohio, and Wisconsin—experienced a strong post-pandemic recovery. While growth sometimes lags behind the nation, economic signals are consistently positive.
- Indiana and Illinois are experiencing positive but slow real GDP growth, coming in slightly below the nation's rate. Indiana boasts the highest growth rate within the Great Lakes region, while Illinois holds the largest economy. In fact, with \$876 billion in GDP in 2023, Illinois had the fifth largest economy in the nation.

Success in Indiana and Illinois Post-Covid



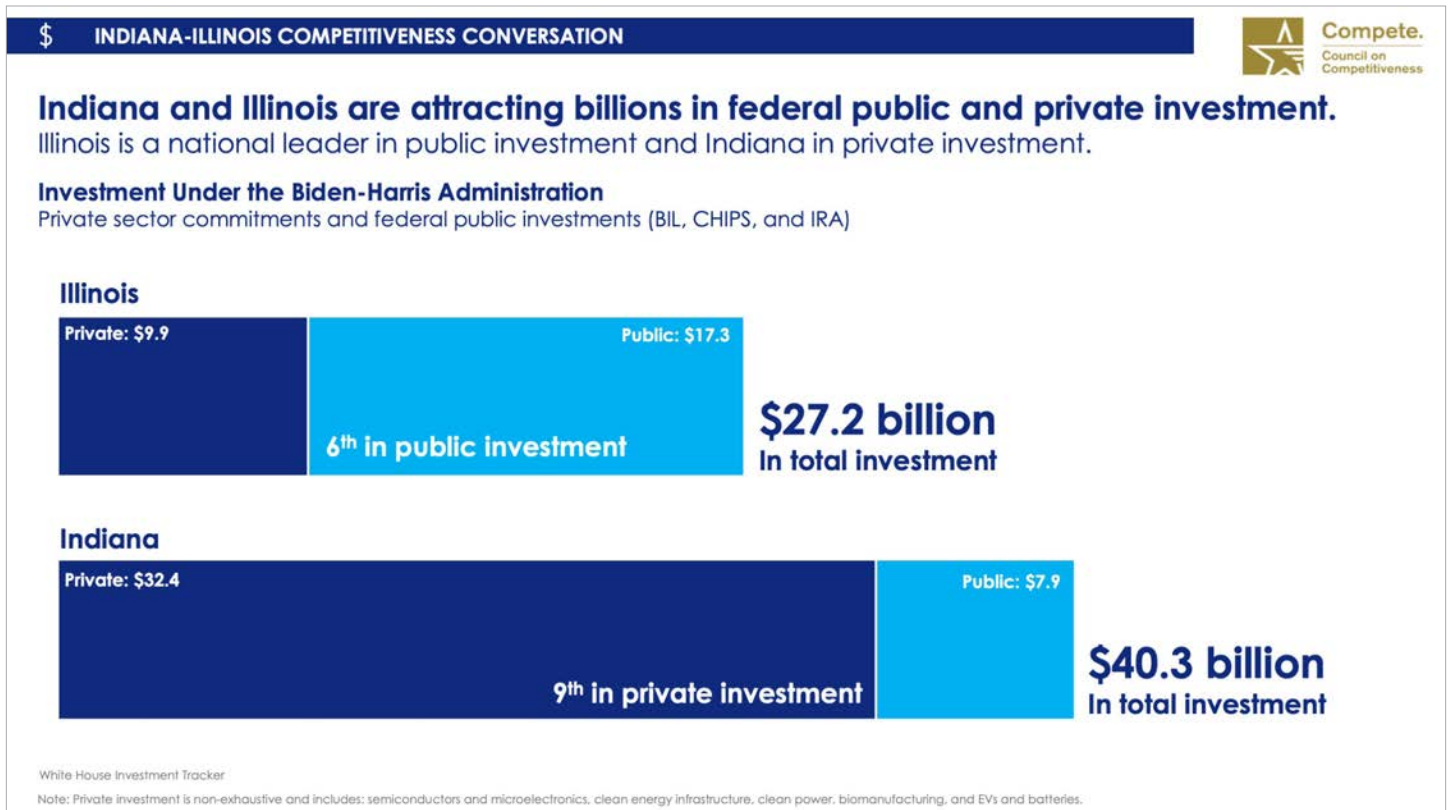
- Indiana and Illinois are sustaining a post-COVID uptick in new business filings. Since 2017, filings are up 70 percent in Indiana and almost 100 percent in Illinois, signaling a new normal of increased business activity in the region.

Indiana and Illinois in The Global Economy



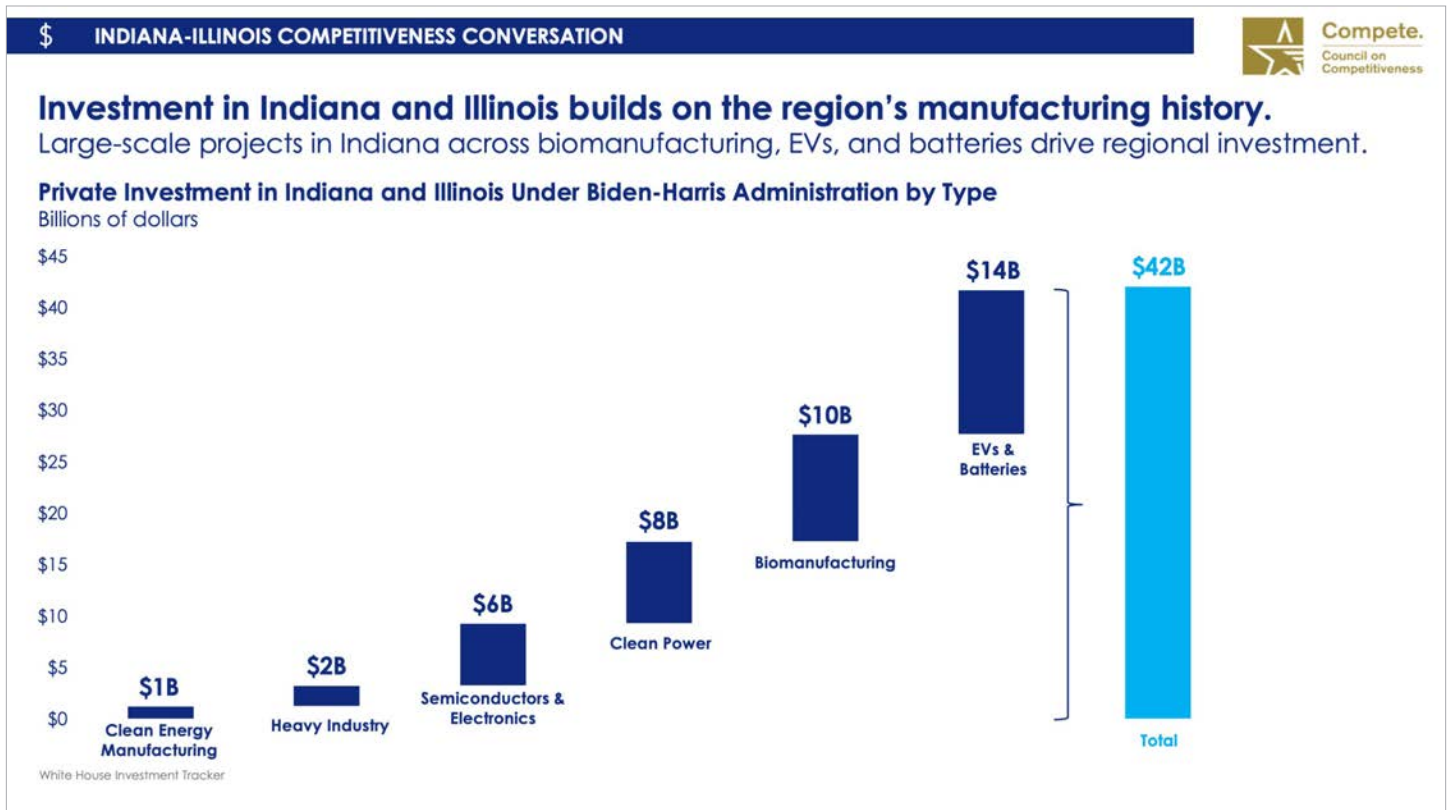
- Indiana, Illinois, and the broader region have a significant presence in the global economy. Indiana and Illinois are both in the top ten exporting states, as are neighboring states Ohio and Michigan. Medicine and pharmaceuticals drive exports in Indiana and Illinois, at almost \$16 billion and \$8 billion respectively.

Growth in Public and Private Investment



- Indiana and Illinois have attracted incredible public and private investment, in part supported by federal policy incentives. From new manufacturing plants to cutting-edge research facilities, the region is already benefiting from a robust investment environment.
- Both Indiana and Illinois harnessed the investment appetite encouraged by recent federal legislation with almost \$70 billion in investment between the two states. Illinois is a leader in attracting public funding while Indiana is excelling in private investment.

Continued History of Manufacturing in the Region



- Private investment in the region is supporting an impressive suite of technologies, from biomanufacturing to semiconductors. Electric vehicles and batteries are attracting the largest share of investment at \$14 billion so far. Much of this investment is driven by large-scale projects in Indiana across biomanufacturing and battery manufacturing.

Indiana and Illinois are Leaders in Chips, Qubits, and Molecules

 INDIANA-ILLINOIS COMPETITIVENESS CONVERSATION


Indiana and Illinois are national leaders in chips, Qubits, and molecules.
Research partnerships and large-scale investments have driven growth across key industries.

The newly announced **DARPA-Illinois Quantum Proving Ground** is the latest and largest investment continuing the region's history of quantum excellence.



Indiana is home to **Silicon Crossroads Microelectronics Commons hub**, a federally designated, 10-acre microelectronics hub.



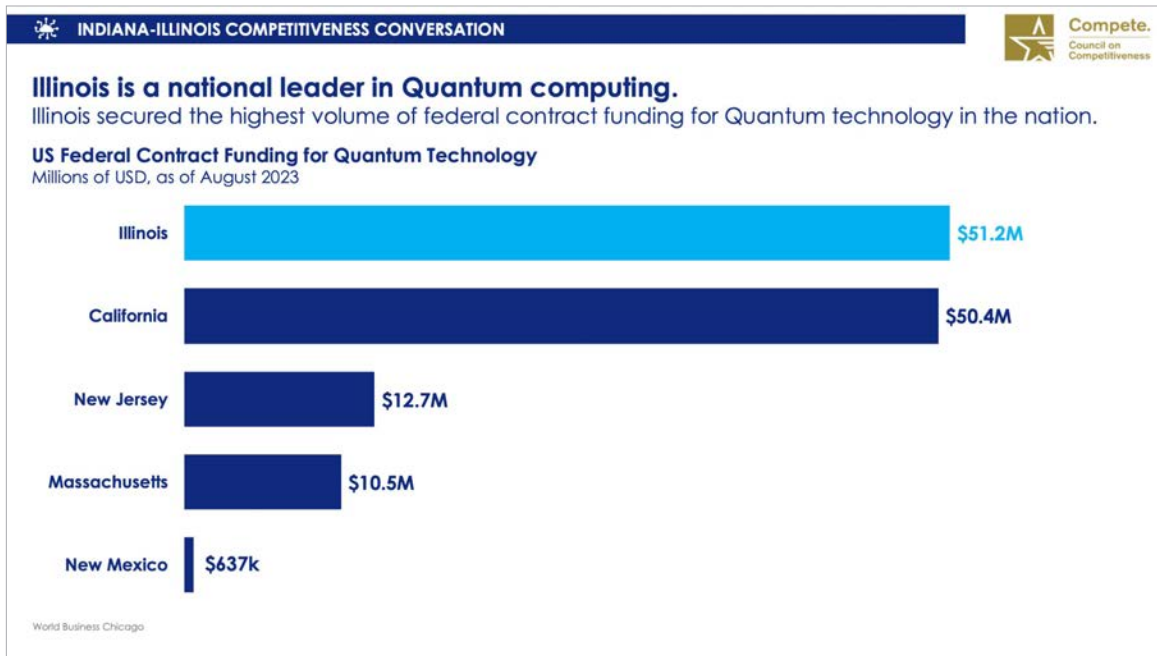
Eli Lilly announced **\$9 billion** in funding for a new drug manufacturing facility in Indiana, plus an additional **\$1.2 billion** investment to update existing plants.



World Business Chicago

- Indiana and Illinois are leaders in an array of emerging industries, securing funding and building support for quantum computing, semiconductors, and advanced life sciences. Pro-innovation policies and consistent state support have helped secure the region's global leadership in these industries.
- Research partnerships and large-scale investments are driving growth across these industries.
- The newly announced DARPA-Illinois Quantum Proving Ground is the latest investment continuing the region's history of quantum excellence. DARPA and the State of Illinois will jointly fund the initiative to research and test quantum technology prototypes, generating an estimated \$60 billion in economic impact.
- The federally designated Silicon Crossroads Microelectronics Hub is helping the region's semiconductor ecosystem continue to grow, leveraging partnerships to support innovation, infrastructure, and workforce development. Another key is the Purdue Research Park, which recently attracted a \$4 billion semiconductor factory built by SK Hynix and supported with federal CHIPS funding.
- Indiana and Illinois are also major developers, manufacturers, and exporters of pharmaceuticals and medicines. With more than \$10 billion invested in manufacturing sites by Eli Lilly alone, their leadership in the industry is only growing.

Illinois' Leadership in Quantum Computing



- Illinois is a national leader in quantum computing. As of August 2023, Illinois secured the highest volume of federal contract funding for quantum technology in the nation. Illinois also boasts the second most quantum startup deals, and has developed quantum patents across a uniquely diverse portfolio of technologies.

What's Next?

 INDIANA-ILLINOIS COMPETITIVENESS CONVERSATION 

MISSION: Chart a path to advancing the Indiana-Illinois innovation ecosystem.
Participants can chart a path forward to capitalize on opportunities and address challenges in the region.

-  **BUILD A ROBUST WORKFORCE TO POWER THE INDUSTRIES OF THE REGION'S FUTURE**
-  **EXPAND REGIONAL AND NATIONAL PARTNERSHIPS**
-  **CAPITALIZE ON INVESTMENTS IN CUTTING EDGE RESEARCH AND TECHNOLOGY**
-  **ADDRESS INFRASTRUCTURE GAPS AND COST OF LIVING BARRIERS**
-  **EMPOWER NEW BUSINESSES AND ENTREPRENEURS**

- The path forward for the Indiana-Illinois Innovation Corridor. Indiana, Illinois, and its neighbors is to continue investing in a thriving ecosystem, but do more to capitalize on the region's innovative potential. Be on the lookout for the full final summary report and next steps from this final 2024 edition of the Competitiveness Conversations Across America.



Cross-Cutting Themes and Big Ideas from the Indiana-Illinois Competitiveness Conversation

- 1. The convergence of “Chips, Qubits, and Molecules” is igniting a new era of innovation.** Semiconductors, quantum computing, and advanced bioscience are all individually leading to extraordinary discoveries and improving lives, but the convergence of these three technologies is set to unleash an unprecedented wave of groundbreaking innovation. The integration of these technologies will enable a range of applications that boost productivity, enhance security, and improve overall prosperity for Americans.
- 2. “Curated densification” strengthens the industrial base of Indiana and Illinois.** Regions cannot be good at everything, so to be globally competitive, they must focus strategically based on their distinctive capabilities and resources in a process Purdue University President Mung Chiang called “curated densification.” For example, the Purdue Research Park is strategically focused on semiconductor production—bringing together talent, technology, infrastructure, and investment to create a global hub and rich ecosystem for this next-generation technology.
- 3. The Indiana-Illinois Corridor is becoming a global leader in semiconductor manufacturing.** By harnessing the opportunities presented by the CHIPS & Science Act and focusing on emerging technologies, the Indiana-Illinois region is establishing itself as a leading center for semiconductor manufacturing, design, and research. Twenty percent of leading chips manufactured in the United States by the end of the decade are projected to come from the region, which is part of a broader strategy to secure the chip supply chain. Today, a vibrant industry is being built that unites universities, industry, nonprofits, Argonne National Laboratory, and government to build a next-generation semiconductor hub in the heartland.
- 4. Industry, government, and academia must collaborate to ensure research goals are aligned, thereby fostering an innovative environment.** Many challenges in society are too complex for any single entity to solve independently, and partnerships are essential for discovering optimal solutions. The collaboration between SK Hynix and Purdue University, supported by the CHIPS & Science Act, is an example of how partnerships can support innovation ecosystems.

- 5. To ensure American security and prosperity, we must implement sufficient safeguards for future disruptions caused by technology.** Technology is society's biggest ally for addressing large-scale challenges, but it is also a massively disruptive force. As we approach the era of quantum computing, it is increasingly critical to prepare for its implications and the wave of creative destruction it will unleash. By anticipating and initiating safeguards like post-quantum cryptography standards in technology, the United States can build a framework that fosters innovation while protecting the security and well-being of all Americans.
- 6. Clearly defined intellectual property (IP) rights are essential for promoting innovation and sustaining America's national security.** Addressing IP and data-sharing issues must be a priority for innovation leaders, as effective IP management is paramount for successful public-private partnerships and a robust startup community.
- 7. Developing abundant, greenhouse gas-free baseload energy is essential for the United States and Indiana-Illinois Innovation Corridor's future.** The Indiana-Illinois Corridor is exploring sustainable energy solutions, including hydrogen (including the Hydro-

gen Hub in Illinois), solar, wind, and modular nuclear reactors. These efforts are ramping up as large-scale manufacturing and computing infrastructure in the region require greater amounts of clean electric power.
- 8. Building the next-generation workforce is crucial for Indiana and Illinois to remain competitive in the industries of the future.** Purdue University, the University of Illinois System, and the University of Chicago are actively preparing a skilled workforce for high-value jobs in semiconductors, quantum technology, and advanced biology through innovative summer camps and internship programs. To attract and retain this talent, the Indiana-Illinois Corridor is also strategically promoting its strengths and working to enhance its appeal.
- 9. Innovative approaches to education and work drive innovation.** New education models and interdisciplinary approaches are driving innovation. For example, the Pritzker School is organizing degrees around themes rather than traditional departments, and Eli Lilly is working with interdisciplinary research teams to bring RNA medicines to bear for treating diseases like Alzheimer's.

Welcome Address



SPEAKER

Dr. Mung Chiang
President, Purdue University

Session Overview

To open the Indiana-Illinois Competitiveness Conversation, Purdue University President Mung Chiang shared how the region is growing as a global leader in innovation and workforce development across three pillar and converging technologies: semiconductors, quantum computing, and advanced biology. He highlighted Purdue's initiatives, including launching the nation's first large-scale semiconductor degree program and building a \$3.9 billion fabrication facility for AI memory chips.

Key Session Insights

In his opening statement, President Mung Chiang of Purdue University welcomed participants and distinguished guests. He was delighted by the opportunity to host a Competitiveness Conversation at Purdue. He began on the topic of semiconductors, and particularly Purdue's achievements in semiconductor education and research, including launching the nation's first large-scale semiconductor degree program. He also shared how the CHIPS & Science Act is supporting [Purdue and the Microelectronic Commons Program](#), which is now fostering research partnerships between the university and industry. The announcement of a new \$3.9 billion fabrication facility for advanced packaging of AI memory chips, in partnership with South Korean semiconductor manufacturer SK Hynix, marks the latest and largest example. According to Dr. Chiang, this facility illustrates Purdue's dedication to reshoring manufacturing and shoring up chip supply chains in the United States.

On the topic of quantum technology, President Chiang pointed out Purdue's leadership as part of several national centers dedicated to quantum research and innovation. He also commented on the robust collaboration happening between Indiana and Illinois in quantum, including the [Quantum Corridor](#), which is being

built to connect the region's research hubs in Urbana-Champaign, Chicago, West Lafayette, and Indianapolis. With this regional collaboration, the Corridor is growing as a global hub for quantum computing.

Shifting focus to the third pillar of the Competitiveness Conversation—advanced biology—Dr. Chiang noted Purdue's contributions to drug discovery and green chemistry, as well as its close collaborations with industry.

As an example, Eli Lilly, one of the largest pharmaceutical companies globally and a notable Purdue partner, has committed \$9 billion to develop a manufacturing facility near Lebanon, IN, which will serve as both a production site and a training center in partnership with Ivy Tech Community College and Purdue. This investment is designed to enhance drug production capabilities and create a pipeline of skilled workers in the pharmaceutical sector, yet another example of the interconnectedness of innovation and workforce development.

Dr. Chiang also boasted about the economic development happening in the Indiana-Illinois Corridor driven by innovation. The area stretching from Indianapolis to Chicago is one of the top ten regions in the United States for economic vibrancy based on innovation according to the U.S. Department of Energy and the U.S. Department of Commerce. This is a testament to the collaborative efforts of the leaders and institutions in this corridor, and it is a sign of the region's potential for continued growth and innovation.

Given the region's growth, and the innovations happening on Purdue's campus, it is not surprising the university has achieved record application numbers, with selectivity at an all-time high for both undergraduate and graduate programs. Total enrollment across the Purdue system has

“Purdue University, with its excellence at scale, plays a significant role in this ecosystem. We have seen record application numbers and selectivity, with our system now encompassing over 110,000 students. This excellence at scale reflects our commitment to elevating lives, creating jobs, and ensuring national competitiveness.”

Dr. Mung Chiang

President, Purdue University

surpassed 110,000 students, and the institution's commitment to academic excellence has never been greater.

Dr. Chiang concluded with a note of gratitude to the various partners and collaborators—including government entities, foundations, and industry—for their support in advancing the mission of the Indiana-Illinois Innovation Corridor. The success of this region is built on the collective efforts of all stakeholders and their collaborative spirit and commitment to innovation, which defines this dynamic ecosystem.

A Perspective on Innovation and Leadership: A Keynote from Congress



SPEAKER

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

Session Overview

In the morning keynote, Congressman Jim Baird made the case for why the United States needs to regain its competitive edge on the global stage, particularly in the semiconductor industry. He celebrated the Indiana-Illinois Corridor's advancements in semiconductor technology and the significant investments and initiatives focused on higher education and advanced manufacturing that promise to further strengthen the region's position as a national leader in innovation.

Key Session Insights

Congressman Jim Baird opened by remarking on the importance of the Competitiveness Conversation, underscoring the value of having a meeting held in the heart of the Midwest focused on maintaining the United States' competitive edge. As a Vietnam veteran, the Congressman has deep affection for the country, saying, "I love this country, and I have little patience for those who don't appreciate its greatness..." and it is the United States' responsibility to offer hope to cultures around the world. "When hope fades, there's little motivation to get out of bed each morning and strive for something better." That is why Congressman Baird works from his political leadership position to help the United States accelerate technological advancements and invest in innovation to remain competitive and dominant on the world stage.

This work and investments are being realized in the region. As an example, Congressman Baird noted the tremendous strides taken to build a semiconductor ecosystem in the Corridor. "In just the past few years, Indiana has secured several multi-billion-dollar investments to establish semiconductor chip research and production facilities. Not only do these investments establish the Midwest's role in the forefront of American innovation and ingenuity, but they are critical to our national security."

“Thanks to entrepreneurs, innovators, scientists, and leaders like you, Indiana and Illinois are poised to be the Silicon Heartland.”

The Hon. Jim Baird

United States Congressman (R-IN, O4)

In a celebratory moment, Congressman Baird expressed support for the bipartisan CHIPS & Science Act.

He highlighted that the United States, once a leader in semiconductor manufacturing, now produces only 10 percent of these essential components, while East Asia accounts for 75 percent. Now, “In the past two years, funds for this bill have been used to spur investment, incentivize, and develop semiconductors.” These investments secure supply chains for products critical to modern life, such as cell phones and automobiles, with modern vehicles alone containing over 1,500 chips.

The Congressman also mentioned the critical role of technology in precision agriculture, which is getting more people excited about agriculture as a career path. Given the importance of farming to the economy and culture of Indiana, the marriage of agriculture and chipmaking is both natural and important to the state.

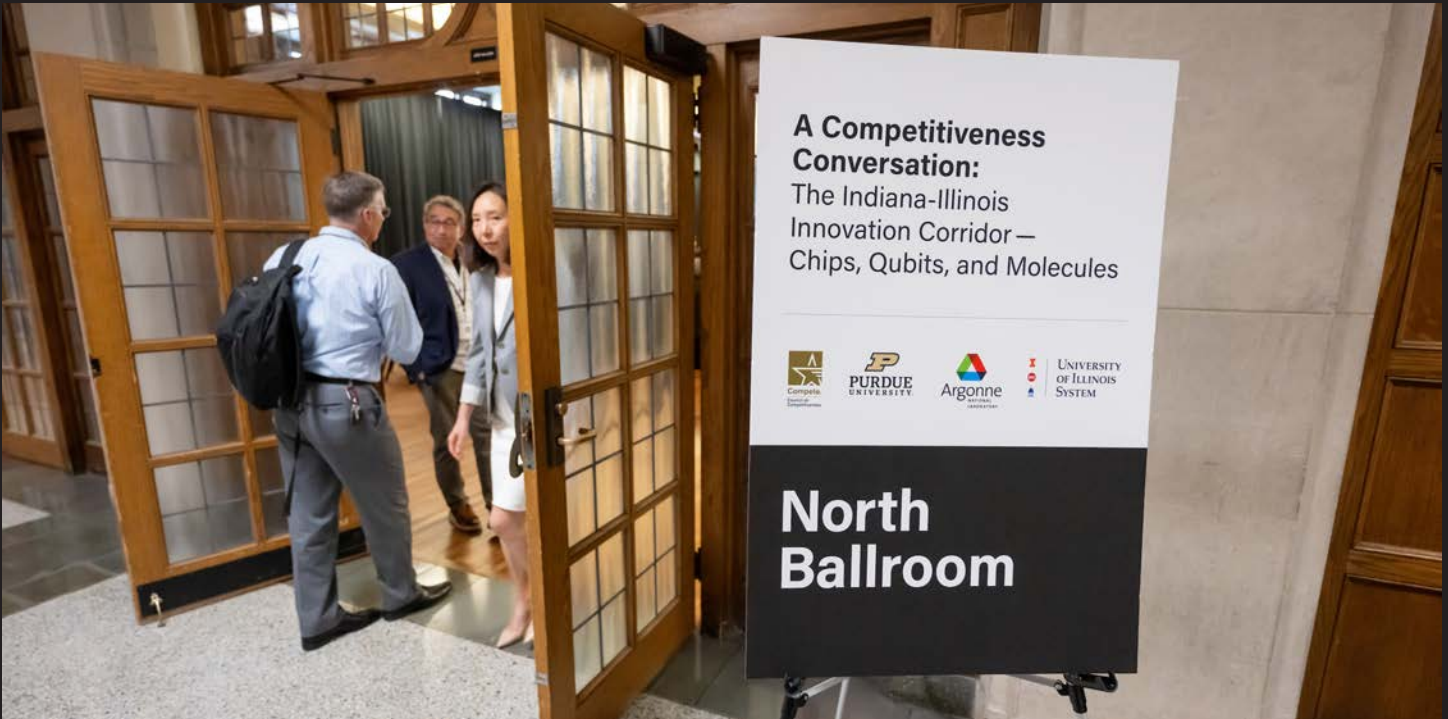
Congressman Baird commended the progress made within the Indiana-Illinois Innovation Corridor in reviving the American semiconductor industry, including Purdue University’s launch of its first semiconductor degree program, which aims to put a dent in the projected industry shortage of approximately 70,000 workers over the next decade. The Congressman also noted as examples Purdue’s partnership with Skywater

Technologies to build a \$1.8 billion fabrication plant—expected to create 750 jobs—the collaboration with MediaTek to establish a semiconductor chip design center in Indiana, and SK Hynix’s investment of approximately \$3.8 billion to build an advanced memory packaging facility.

Congressman Baird also addressed broader Congressional efforts to enhance American innovation, referencing the reauthorization of the National Quantum Initiative, focused on research in quantum computing. Given the strong presence of quantum research across the Indiana-Illinois Corridor, this initiative will further bolster the region as an innovation leader.

The Congressman concluded with a note of appreciation and call to action for attendees to share and commercialize their discoveries with the public to enhance U.S. competitiveness, security, and prosperity.

Behind the Scenes







PANEL

Putting Competitiveness in Context— Challenges and Opportunities

**PANELISTS**

Dr. Mung Chiang
President, Purdue University

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

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

Dr. Paul Kearns
Director, Argonne National Laboratory

Session Overview

This Indiana-Illinois Competitiveness Conversations' opening panel discussion highlighted the importance of strategic focus, collaboration, and innovation in maintaining and enhancing U.S. competitiveness. The speakers, each leaders of institutions with innovation central to their identity, advocated for leveraging regional strengths and fostering partnerships to address societal challenges.

Key Session Insights

The Hon. Deborah Wince-Smith, President and CEO of the Council on Competitiveness, opened the panel by expressing her gratitude to Purdue University President Mung Chiang, University of Illinois Urbana-Champaign Chancellor Robert J. Jones, and Argonne National Laboratory Director Paul Kearns for their leadership and participation in this important conversation.

Dr. Chiang then shared a reflection, crediting his decision to join Purdue to the legacy of former president and longtime Council Member Dr. Mitch Daniels, and the university's commitment to excellence. He noted that Purdue's focus and winning streak in national competitions for regional tech hubs, hydrogen hubs, and electronic commons are testaments to both its strength and the Indiana-Illinois Corridor collaborative culture, collective resources, and capabilities and potential for the highest levels of innovation.

Dr. Kearns built upon Dr. Chiang's comments by sharing the unique characteristics of the DOE National Laboratory System—particularly Argonne National Laboratory—which includes not only pivotal discoveries but also scientific leadership and scale. He also built on the idea of collaboration and partnership in the region, particularly between Argonne and Purdue, which is only



“America’s competitive advantage will not come from just one technology, but from the melding of many.”

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

growing. As an example, Dr. Kearns shared that Purdue is the most active user of the [Advanced Photon Source](#) at Argonne.

The three institutions—Purdue, Argonne, and the University of Illinois System—are anchors of a robust ecosystem that harnesses advanced user facilities to support research in materials science, energy, computing, and biology.

Dr. Jones also added that the region's six R1 universities strengthen the innovation ecosystem by conducting cutting-edge research. He also pointed to the rapid growth of the agricultural sector in Illinois as a critical component of innovation, reinforcing that agriculture remains the state's largest industry and exporter, harmonizing with Congressman Baird's earlier comments.



“The DOE national laboratory system is a tremendous asset for the nation. At Argonne, for instance, national user facilities, like the Advanced Photon Source, bring thousands of researchers each year to the Midwest to conduct groundbreaking experiments and drive new innovations and partnerships.”

Dr. Paul Kearns

Director, Argonne National Laboratory

Throughout the discussion, several themes surfaced from the panelists.

The Co-hosts underscored the necessity for the United States to expand the geographic reach of innovation to places like the Indiana-Illinois Innovation Corridor. Ms. Wince-Smith noted that many Americans are not fully participating in the innovation ecosystem, which dramatically limits the nation’s collective capabili-



“Most challenges in society are too complex for any one entity to solve alone. So, we need these public-private partnerships to find the best and most sustainable solutions.”

Dr. Robert J. Jones

Chancellor, University of Illinois Urbana-Champaign

ties and competitiveness. However, bringing more people into the innovation economy is something being directly worked on in the region.

Regarding building an innovation ecosystem, Dr. Chiang provided a critical idea he referred to as “curated densification.” Regions cannot be good at everything in the world, he argued, so to be globally competitive, regions must be strategic in where they invest. Dr. Chiang identified the Purdue Research Park as a point of success for this curated densification approach. It is focused on semiconductor production, centralizing semiconductor education, research, and manufacturing in the research park. The recent SK Hynix announcement to build a major FAB for AI chips at Purdue Research Park is bolstering this densification.

Dr. Jones emphasized the importance of public-private partnerships in driving effective and sustainable solutions.

He highlighted the need for universities to partner with the private sector to not only spur innovation but also coordinate workforce development to support emerging industries. Dr. Chiang echoed the Chancellor's sentiment, and he was excited to announce a collaborative memorandum of understanding (MOU) signed with Argonne National Laboratory earlier that day—underscoring the value of strategic partnerships.

The Chancellor also argued that complex societal challenges cannot be solved by a single entity.

He reflected on a significant collaboration that resulted in the establishment of the [Chicago Quantum Exchange](#), where universities united to secure \$200 million in funding for quantum research. The Quantum Exchange is also an interesting case in collaboration, as its objective is to unify researchers from across institutions to foster innovation in quantum technology. With over 50 organizations now participating—including Argonne, the University of Illinois, and Purdue—the Quantum Exchange is already facilitating valuable interactions between researchers and industry leaders.

Dr. Kearns, on the topic of quantum, touched on the role of Argonne in national quantum research. He noted the lab's leadership in the Q-NEXT, one of the five Department of Energy National Quantum Information Science Research Centers focused on quantum interconnects, and highlighted Argonne's partnerships with IBM and Verizon that allow for the integration of fundamental science and industry applications.

Another theme was the need to improve health outcomes, which again is being addressed through institutional collaboration in the region.

Dr. Jones shared the Chan [Zuckerberg Biohub](#), as an example. The Biohub is a partnership between the University of Illinois, the University of Chicago, and Northwestern University that focuses on interdisciplinary research to address major health challenges like inflammation. Dr. Kearns then shared how the Advanced Photon Source at Argonne National Laboratory—the world's brightest high-energy x-ray light source—is crucial for understanding complex biological processes. The facility's advanced imaging capabilities can enhance drug design and therapeutic approaches, making it an invaluable resource for researchers aiming to make breakthroughs in the biosciences.

As this opening panel concluded, it was evident that all co-hosts shared a strong commitment to “radical collaboration” across institutions to drive growth in the Indiana-Illinois Corridor. This focus on interdisciplinarity will enable the region to build a more productive, secure, healthy, and prosperous future.

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



SPEAKERS

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

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

Session Overview

In this fireside chat, The Hon. Laurie Locascio, Under Secretary of the U.S. Department of Commerce for Standards and Technology and Director of the National Institute of Standards and Technology (NIST) highlighted her Department’s pivotal role in shaping the innovation landscape, focusing on maintaining competitive edge, fostering public-private partnerships, and preparing the U.S. innovation ecosystem for future technological advancements.

Key Session Insights

To kick off the conversation, The Hon. Laurie Locascio explained the crucial role of the National Institute of Standards and Technology (NIST) in fostering innovation. “Standards are really hard, and they underpin trillions of dollars of trade in the United States.” As China vies to supplant the United States as the global standards-setter, American inventors are encountering growing challenges in a rapidly shifting global market.

Ms. Wince-Smith then asked about NIST’s responsibilities related to the implementation of the CHIPS & Science Act. This bipartisan initiative had allocated \$52 billion, with \$50 billion managed by NIST, aimed at enhancing both manufacturing incentives and research and devel-

opment efforts. An important goal of the CHIPS & Science Act is to galvanize additional private investment to secure U.S. chip R&D and manufacturing. That is indeed happening. The Undersecretary noted, “[NIST has] announced \$30 billion in manufacturing incentives...[and] unlocked \$300 billion in private investment,” illustrating how public dollars have sparked far larger private sector investments. And an additional \$9 billion is still being rolled out.

Due to these investments, the U.S. production of advanced semiconductors is set to increase from zero percent to 20 percent by 2030. This shift is vital to sure up supply chains—a need that became evident during the COVID-19 pandemic when a lack of chips is attributed to 30 percent of inflationary costs in the automotive sector alone.

Another benefit of the CHIPS & Science act has been the national scope of these investments. Specifically, Dr. Locascio noted how strong public-private partnerships are supporting a growing number of semiconductor clusters across the Indiana-Illinois Corridor, Texas, Ohio, Idaho, and many other states. In fact, the CHIPS Act has spawned 26 manufacturing projects across 16 states, fostering entirely new supply chains.

The conversation then turned to the topic of quantum computing, which NIST has been at the forefront of from a research perspective since

“We need to think more about standards, because for all scientists in the room, they can impact your innovations.”

The Hon. Laurie Locascio

Under Secretary of Commerce, Standards and Technology;
Director, National Institute of Standards and Technology
(NIST)

2016, working closely with universities and other global experts. This long-term effort has helped prepare for the challenges posed by quantum computers, particularly when it comes to data security. Dr. Locascio also commented that NIST recently released new encryption standards to ensure sensitive information remains secure as quantum technology advances.

To wrap, Dr. Locascio left the audience with the tremendous opportunities becoming available through CHIPS. Growth in the semiconductor industry will become increasingly pivotal for future U.S. technological advancement and competitiveness. To conclude the fireside, Ms. Wince-Smith then noted how necessary it is to have bipartisan commitment to ensure the full appropriation of the science component of the CHIPS & Science Act.

PANEL

Developing the Pillars of the Indiana-Illinois Innovation Ecosystem

**PANELISTS**

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

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

Mr. Christopher Day
CEO, Elevate Ventures

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

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

Session Overview

Leaders on this panel explored the key pillars of innovation driving the region's innovation ecosystem. They highlighted both challenges and opportunities in Illinois, Indiana, and the Midwest to dramatically increase the region's—and nation's—innovation capacity.

Key Session Insights

Ms. Megan Clifford, Associate Laboratory Director at Argonne National Laboratory, kicked off the discussion by framing it around four key pillars of competitiveness: community engagement, science and technology, partnerships, and workforce development.

She made a particularly powerful case for engagement in her opening remarks, stating, “We need to engage communities at the start, not at the end of the innovation life cycle.” This message is important to the Council's mission, too, so that all communities can share in the benefits of a growing economy, particularly as scientific and engineering advancements emerge from institutions like Argonne.

During the discussion, Dr. Meera Raja, Senior Vice President for Deep Tech at Chicago, also highlighted the significance of community engagement in place-based innovation, referencing the Innovate Illinois initiative, which aims to coordinate efforts around federal initiatives. According to Dr. Raja, innovation now requires collaboration across organizations and sectors.

Mr. Adam Berry, Vice President for Economic Development and Tech Policy at the Indiana Chamber of Commerce, further built on Dr. Raja's points, stressing the importance of identifying a community's specific goals to establish effective collaborations. He cited the [Regional Electric Vehicle \(REV\) Midwest initiative](#), aimed at devel-



“Culture underpins the pillars of innovation. Culture in this case encompasses the environment that students expect in order to thrive, and that researchers need to do their best work. Culture is about shared values between partners.”

Ms. Megan Clifford

Associate Laboratory Director, Argonne National Laboratory

oping an electric vehicle network, and the [READI initiative](#) by the Indiana legislature as examples of successful outcomes of regional innovation strategies.

Dr. Brooke Beier, Senior Vice President of Purdue Research Foundation, discussed the importance of higher education and industry, sharing a successful case study of a radiopharmaceutical compound developed through Purdue's initiatives led to a significant acquisition by Novartis. Dr. Beier's point was that Purdue's programs are directly aligned with industry needs, including a new master's program aimed at addressing workforce shortages in the pharmaceutical sector.



“When you think about regional place-based innovation, it is no longer about a single university or state or city; it is really about how we all come together to drive innovation and move the needle.”

Dr. Meera Raja

Senior Vice President, Deep Tech, P33 Chicago

Mr. Adam Berry, Vice President for Economic Development and Tech Policy at the Indiana Chamber of Commerce, discussed the importance of workforce development. One strategy that has led to Indiana’s success in attracting a remote workforce through incentive packages, with companies like Make My Move working closely with the Indiana Economic Development Corporation to bring in nearly 1,000 remote workers over the past three years.

Mr. Berry also highlighted the Indiana Chamber of Commerce’s efforts to support workforce development. He explained that the General Assembly passed a bill allowing local governments to identify surplus unused funds and transfer them into



“Purdue University, the University of Illinois, and our other regional research institutions play pivotal roles. We are creating the workforce of the future.”

Dr. Brooke Beier

Senior Vice President, Purdue Innovates, Purdue Research Foundation, Purdue University

a workforce retention and recruitment fund. This initiative enables local governments to promote community marketing and offer cash incentives for talent attraction. According to Mr. Berry, the economic impact talented workers bring to a community far surpasses the investment required to bring them into that community.

Dr. Raja brought up the importance of workforce planning, especially in emerging fields like quantum technologies. Citing initiatives like the [Illinois Quantum Microelectronics Park](#) and the tech hubs program, she outlined strategies for creating inclusive pathways into these fields. “How can we think about where we are recruiting from and how people can get into those training programs?” she asked, making the case to broaden access to training and education.



“The economic impact to a community from innovation, entrepreneurship, and new business creation is substantial. A rising tide lifts all boats.”

Mr. Adam Berry

Vice President, Economic Development Tech Policy,
Indiana Chamber of Commerce



“Food, water and shelter. Those used to be the three things that were required for us to survive. There is a fourth prerequisite now—intellectual property.”

Mr. Christopher Day

CEO, Elevate Ventures

Dr. Beier transitioned the discussion to the importance of commercializing innovations emerging from universities. She highlighted Purdue University’s impressive track record, noting that the institution received around 450 invention disclosures last year and was ranked fourth in the United States for issued patents from universities. Her point focused on how with funding for federal science under pressure, a return on investment will be increasingly important to demonstrate to ensure continued revenue streams. To that end, Mr. Christopher Day, CEO of Elevate Ventures, noted the importance of a growth-stage fund in Indiana to retain local companies and support their expansion.

STEM education is a crucial component of future technological development. Mr. Day shared the anecdotal views of his children on STEM, noting they view STEM as reserved for “smart kids.” That mental barrier stands in the way of developing a workforce capable of meeting future technological demand.

Mr. Day summed up the sentiment shared by all on stage, that due to the tremendous institutions and talent and the culture of collaboration, the Indiana-Illinois Corridor has become an “innovation capital of the world.”

PANEL

“Chips” — Taking the Pulse of the Heartland’s Chip Boom



PANELISTS

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

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

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

Mr. Patrick Wilson
Vice President, Government Relations,
MediaTek

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



“Hearing about the important partnerships in the Indiana-Illinois Corridor is excellent. And it is critical to look at the people empowering these partnerships.”

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

Session Overview

This experienced group of leaders explored the dynamics that led to the Indiana-Illinois Innovation Corridor’s ascension to becoming a dominant force in semiconductor research, design, and manufacturing. They also looked ahead at what it would take for the region to fulfill the objectives of the ambitious CHIPS & Science Act.

Key Session Insights

The \$52 billion investment from the CHIPS Act has created a sense of urgency in reclaiming U.S. leadership in chip manufacturing, and the Indiana-Illinois Innovation Corridor is poised to play a key role. But how did that happen? Dr. Valerie

“Why would a company like MediaTek be in Purdue? The answer is vision. Visionary people in Indiana.”

Mr. Patrick Wilson
 Vice President, Government Relations, MediaTek

Taylor, Director of the Mathematics and Computer Science Division at Argonne National Laboratory, opened the conversation by asking her fellow panelists what factors positioned the region to become a hub for advanced semiconductor research, design, and manufacturing.

Mr. Bill DeVries, Vice President for Industry Transformation & Customer Success at Dassault Systèmes, highlighted the importance of academia-industry partnerships. He cited the success of Dassault Systèmes’ collaboration with Purdue University, which has enabled the company to tap the university’s talent and expertise to drive innovation. “A university’s role is not only to educate but also to innovate,” Mr. DeVries said. “And innovation is driven by partnerships that foster research and development.”



“The time is now for us collectively to leverage these regional strengths and build up a Midwestern innovation pillar.”

Dr. Supratik Guha

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



“We will not be competitive by simply doing the process the same old way; we need the people to do it more efficiently, more effectively, and in a cost-friendly way.”

Mr. Bill DeVries

NAM Sales Vice President—Industry Transformation & Customer Success, Dassault Systèmes

Mr. Patrick Wilson, Vice President for Government Relations at MediaTek, discussed the region’s ability to attract a strong talent pool. “Indiana’s quality of life and strong educational resources make it an attractive location for companies like ours,” he said.

Ms. Christina Farmus, Interim Vice President for Industry Partnerships and Vice President for Special Projects at Purdue University, discussed the university’s significant investments in semiconductor research. “We’ve attracted over \$20 billion in industry investments over the past year and a half,” Ms. Farmus said. “This surge in interest

underscores the confidence that companies have in our corridor’s potential to lead in semiconductor innovation.”

As the conversation turned to the challenges of scaling semiconductor manufacturing, Dr. Woong Sun Lee, Senior Vice President and Head of Advanced Packaging & Module Technology at SK Hynix, noted the importance of building a comprehensive ecosystem of suppliers and partners. “You need to have a robust supply chain in place to support operations,” Dr. Lee said. He also discussed the dual focus of the semiconductor industry: scalability and advanced packaging.



“We need resources to develop disruptive technology. SK Hynix alone does not have enough resources for these innovations. That is why we are happy with the work we are doing with Purdue.”

Dr. Woong Sun Lee

Senior Vice President, Head of Advanced Packaging & Module Technology, SK Hynix

“If we can do something to attract students to stay in Indiana, that would contribute tremendously to how competitive we are, and how innovative we are. So that’s our goal. To train and retain them.”

Ms. Cristina Farmus

Interim Vice President, Industry Partnerships and Vice President, Special Projects, Purdue University

Dr. Supratik Guha, Professor at the Pritzker School of Molecular Engineering at the University of Chicago and Senior Advisor to Physical Sciences & Engineering at Argonne National Laboratory, expanded the conversation to include the strength of the region’s broader technological landscape, which intersects, influences, and is powered by semiconductor technology, with the integration and convergence of classical and quantum computing happening in the corridor as an example.

The panel also addressed challenges such as energy consumption within the semiconductor industry and workforce development. Dr. Guha pointed out that as we scale up to meet growing demands, we need to innovate in energy effi-

ciency. The speakers stressed the importance of long-term research, collaboration among industry, academia, and national labs, and alignment of industry needs with educational resources.

In conclusion, Dr. Taylor invited each speaker to provide final thoughts on the future of the semiconductor industry in the region. Each was optimistic—a feeling that stemmed from the region’s commitment to innovation, workforce development, and partnerships. As Mr. DeVries said, “This is going to anchor where we’re headed.”

TECH TALK

The Midwest's New "New Electronics" Opportunity

**SPEAKER**

Dr. Mark Lundstrom
Chief Semiconductor Officer, Purdue
University

Session Overview

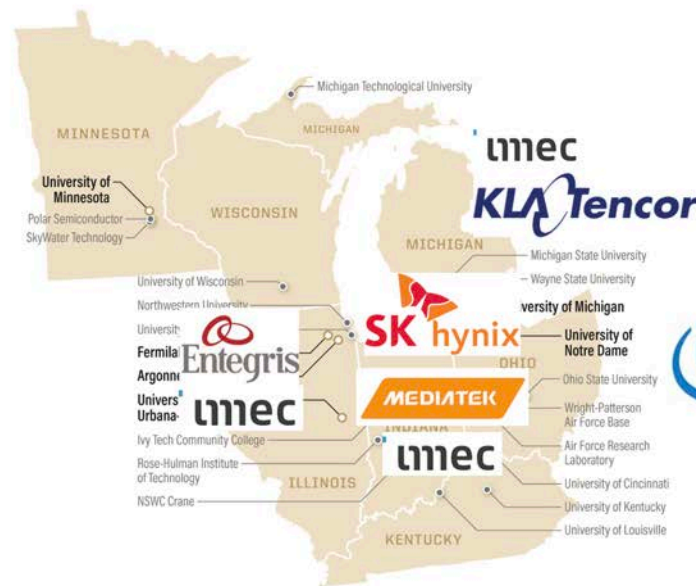
In this Tech Talk, Mark Lundstrom shares about the Midwest's unique position to capitalize on the growing semiconductor industry, driven by advancements in education and technological innovation.

Key Session Insights

Purdue University Chief Semiconductor Officer Mark Lundstrom began with a history lesson, drawing upon the historical figure Frederick Emmons Terman, a significant electrical engineer often referred to as the "father of Silicon Valley." In a speech given in the 1960s, Terman noted the essential role of education in technological development. Terman believed that "education is a raw material," and proximity to educational institutions was more vital for industry growth than location near markets, raw materials, or labor forces.

Dr. Lundstrom then went on to discuss the implications of the recently enacted CHIPS & Science Act, which is uniting education, researchers, and industry, including on Purdue's campus. The bill includes \$39 billion in incentives for companies to construct factories in the United States and is projected to stimulate over \$300 billion in private investments, which may lead to a tripling of semiconductor factories (FABs) by 2032. The Act not only addresses manufacturing but also focuses on research and innovation, with \$11 billion earmarked for R&D initiatives. According to Dr. Lundstrom, the CHIPS & Science Act is critical to positioning the Midwest as a leader in the semiconductor ecosystem, especially through partnerships in initiatives like the Silicon Crossroads Microelectronics Commons hub that includes collaborations between Illinois and Indiana.

2024: An emerging semiconductor ecosystem



“Semiconductor technology is foundational because everything else depends on it. We live in a digital world. No other technology will be as crucial as semiconductors.”

Dr. Mark Lundstrom

Chief Semiconductor Officer, Purdue University

Highlighting the growing semiconductor ecosystem in the Midwest, Dr. Lundstrom pointed to the region's 26 universities with engineering programs, including three of the nation's top ten graduate engineering programs and three of the top ten producers of PhDs in engineering and computer science. He also noted that the region conducts over \$1 billion in research annually and is home to major national laboratories and research centers, creating a robust environment for innovation and talent development.

Why is this important? Dr. Lundstrom believes the semiconductor industry is entering a fourth wave of innovation characterized by heterogeneous integration, which involves combining various chips and multiple technologies within a single package, a crucial development for meeting the increasing demands of artificial intelligence and advanced computing. The Indiana-Illinois Corridor is at the heart of this innovation and transformation.

As he concluded his remarks, Dr. Lundstrom's eyes shone with enthusiasm. He believed the future of semiconductor technology was bright, and that the Midwest was poised to play a leading role. With companies like SK Hynix and MediaTek already establishing a presence in Indiana, the signs were promising.

“We are not just talking about building factories,” Dr. Lundstrom said. “We are building an ecosystem. And I believe that with collective effort and determination, we can create a thriving semiconductor industry here in the Midwest.”

PANEL

“Qubits” — Scaling the Promise of Quantum from Research to Reality

**PANELISTS**

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

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

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

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

Session Overview

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 discussed 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 Session Insights

President & CEO of One Region, Inc. and Chief Engagement Officer of Purdue University Northwest Matt Wells set the stage by highlighting the profound significance of quantum science. With the power to both reshape our understanding of the universe at the smallest of scales and transform fundamentally the way we build and use computers, quantum science will touch the life of every person in the United States. Harnessing this incredible potential is a national imperative for the coming decades.

IBM Fellow and Vice President of IBM Quantum Jay Gambetta framed Quantum Computing as revolutionary, saying, “I often think of it as... the first time in the history of computing that it’s branched.” This branching opens access to powerful new mathematical principles previous computer architectures could not support, drastically reducing computation times for certain types of complex problems. These potential applications have already moved beyond the theoretical; Dr. Gambetta noted that practical applications like material simulation and database searching are already attracting commercial interest. The marriage of quantum and classical computing and other novel computing technologies like AI are



“Part of the reason I think we are so well positioned to be the Quantum Valley is all the people in the institutions we have. We have these great research universities in Indiana and Illinois, two national labs; all of which are guided by the vision of visionaries.”

Dr. Brian DeMarco

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

also converging and accelerating discovery and innovation, taking computing in fascinating new directions.

Professor & Director of the Illinois Quantum Information Science & Technology Center (IQUIST) at the University of Illinois Urbana-Champaign **Brian DeMarco took the opportunity to discuss the ambitious Illinois Quantum and Microelectronics Park, a \$500 million initiative on Chicago’s South Side aimed at creating a thriving quan-**



“I think we are partnering broadly, widely, and strategically. We believe in constructive interference so we can do more, and we are looking forward to working with many colleagues here to continue those partnership.”

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

tum ecosystem in an area disproportionately in need of economic development. “The whole reason this Park is going to work and succeed is because it’s a whole of Illinois effort,” he said, emphasizing the collaboration among research universities, national laboratories, and state initiatives that made the Park viable. He envisioned the park as an incubator for emergent quantum technologies, highlighting a Defense Advanced Research Projects Agency (DARPA) program aimed at demonstrating pathways to utility-scale

quantum computing. This initiative and others like it are vital for developing sustainable quantum technologies that are economically viable.

Dr. Demarco noted, however, that the Illinois Quantum and Microelectronics Park has competition, both domestically and abroad. With the potential rewards of quantum science investment so high, Illinois is not alone in wanting to lead the nascent industry. yet, he remained confident that the Illinois effort would succeed, thanks to the collaborative ecosystem, investment from forward-thinking leaders like Governor Pritzker, and the efforts of organizations like the Chicago Quantum Exchange, stating, “I think we have something really special here.”

Director of the Purdue Quantum Science and Engineering Institute, Karl Lark-Horovitz Professor of Physics and Astronomy, and Professor of Electrical and Computer Engineering at Purdue University Yong Chen brought attention to the way that collaboration has also been a key factor in Purdue’s quantum science efforts. Partnerships with institutions like Oak Ridge National Lab and Fermilab, like Quantum Science Center, are pivotal for the development of basic quantum science nationwide. Looking more regionally, Dr. Chen also praised the success of efforts like the [Midwest Quantum Collaboratory](#), a consortium between Purdue, the University of Michigan, and Michigan State, in building tightly knit ecosystems capable of producing research and innovations at a stunning scale.

Dr. Gambetta noted IBM’s longstanding commitment to building quantum computers openly and with the collaboration of partners worldwide. IBM has successfully placed quantum computers on the cloud, granting any researcher with an internet connection unprecedented access to this cutting-edge technology. This initiative has already borne fruit, with over



“For me to build a technology and to make it useful, it cannot happen without partnerships. As we go forward, we are partnering with many different institutes.”

Dr. Jay M. Gambetta

IBM Fellow & Vice President, IBM Quantum, IBM

three trillion circuit executions and countless academic papers generated. Reflecting on the ethos of open collaboration for a stronger technological ecosystem, he stressed, “If we’re going to build a technology, we’re not going to build it in isolation.” Partnerships with institutions like the University of Chicago, with an ambitious goal of engaging 40,000 students with quantum machines over the next decade, will both generate new ideas for quantum usage and encourage the next generation of quantum engineers to step into the field, something that would be impossible in a more siloed industry.

Dr. DeMarco also reaffirmed the importance of the Indiana-Illinois quantum corridor as a pillar of the region’s quantum innovation competitiveness. He noted, “To get a large-scale quantum computer may require networking many computers,” implying that collaboration across institutions was

not just an advantage but an imperative in the success of any large-scale quantum venture.

Senior Commercialization Executive at the Office of Technology Transitions for the U.S. Department of Energy **Rima Oueid stressed the necessity for creativity and a willingness to challenge existing paradigms, asserting, “We have to be willing to almost commit heresy in science and technology.”** The fundamentally new and different capabilities offered by quantum science mean that preexisting notions of what is or is not possible or practical no longer apply. The inquiry that might have seemed ridiculous or impractical yesterday might lead to a revolutionary breakthrough tomorrow.

Ms. Oueid identified the energy sector as a prime candidate to benefit from quantum computing, enhancing grid management through optimization and contingency analysis. Novel approaches to grid balancing, like using plugged-in electric vehicles as a reservoir of power, may be beyond the limits of traditional computing, leaving quantum computing as the only means of pursuing these new strategies.

Asked about education requirements for emerging occupations, **Dr. DeMarco highlighted the importance of nurturing a broad talent pool, asserting that accessibility to quantum education must be prioritized.** “We need to make it accessible, bringing quantum computing to more people at a younger age,” he insisted, citing initiatives like a quantum-focused degree at the University of Chicago aimed at attracting diverse talent.

Dr. Chen echoed these sentiments, showcasing Purdue’s leadership in quantum technology through collaborative research centers, which connect academia with industry needs to better match education to the needs of employers. “Quantum education is not just about PhDs”—talent is needed at every level to support a full



“We are reaching a point where we need a positive feedback loop, where we are both commercializing technology while also doing the fundamental science. Today, this is an imperative. There is no handoff. It is a virtuous cycle.”

Ms. Rima Oueid

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

quantum ecosystem. Ms. Oueid agreed, noting, “Companies are telling me they need technicians. They need people that can weld.”

While the creation of quantum-focused programs was a positive step, Dr. Chen reminded participants that universities also had a responsibility to attract people to those programs. For many students, STEM subjects are particularly intimidating courses of study. Universities must do a better job of encouraging STEM career paths without sacrificing the rigor of the education students

receive. Simple efforts, like the Quantum Game Club at Purdue could make a world of difference in the uptake of STEM subjects among students. Ms. Oueid echoed this sentiment as the parent of a child who struggled with math; the negative disposition many students have towards STEM needs to change. “It is about understanding patterns. It is about identifying order amid chaos,” she said.

As quantum technology develops, its geopolitical implications continue to grow. Given the dynamic nature of the field, the United States must remain on the cutting edge to attract and retain the best quantum talent. He cautioned against overly restrictive policies on critical technologies like quantum that could hamper innovation in the name of security, asserting, “We cannot close everything.” Dr. Gambetta agreed, underscoring the critical role of government in developing technologies with national defense implications and the need for a collaborative triad across industry, academia, and government to support both research security and industry best practices.

Mr. Wells asked each panelist to provide their best estimate regarding the timeline for scalable commercial applications of quantum computing. For Dr. Gambetta, advancements in hardware were not the primary concern; instead, the real challenge lies in developing the necessary algorithms. He predicted that by 2029, quantum computing’s error correction capabilities would be operational, and by 2033, quantum machines could perform a billion operations. He stressed the need for more computer scientists to engage in quantum algorithm research, stating, “That’s what gives me the error bar, not the technology.”

Echoing Dr. Gambetta, Ms. Oueid highlighted AI as an innovative approach to algorithm development that quantum tech may soon be able to exploit. She also pointed out that while quantum sensing and secure communications are emerging areas, there are already practical applications available like quantum key distribution, meaning that the quantum age has already arrived.

Dr. Chen referenced Richard Feynman, underscoring the importance of understanding atomic structures and how to put them to human use. He expressed optimism about quantum computing’s potential to facilitate the creation of new materials and atoms that conventional research cannot find, saying “I think that will happen within my lifetime.”

As the panel concluded, Mr. Wells pointed out that with the spectrum of timelines proposed—from immediate advancements to those projected decades into the future—the one certainty is exciting developments lie ahead. While challenges remain, the promise of quantum computing is a shared source of hope among experts in the field.



“The spirit of the CHIPS & Science Act is to ignite a new moonshot for our nation’s scientific-industrial complex.”

Mr. Matt Wells

President & CEO, One Region, Inc.; Chief Engagement Officer, Purdue University Northwest

TECH TALK

The Illinois Quantum and Microelectronics Park

**SPEAKER**

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

Session Overview

Associate Dean for Research at the Grainger College of Engineering at the University of Illinois Urbana-Champaign and Director of the Illinois Quantum & Microelectronics Park Harley Johnson explored the [Illinois Quantum and Microelectronics Park](#), a groundbreaking public-private partnership focused on investing in the future of quantum computing. The park, strategically located on a former United States Steel site on the South Side of Chicago, has \$500 million in support from Governor J.B. Pritzker and the State of Illinois, and will feature unique infrastructure like a shared cryogenic facility, providing high-end equipment and facilities to those in the region looking to enhance their research. It will host key tenants like Psi Quantum, which aims to build a utility-scale quantum computer and will include a Workforce Development Center, a Quantum Algorithm Center, and the DARPA-Illinois Quantum Proving Ground (QPG) to drive research and innovation in the region.

About the URO

- **A single-member LLC:** the “member” is the Board of Trustees of the University of Illinois
- Purpose of the LLC is to **manage and operate** the IQMP...modeled after the University of Illinois Research Park, LLC
- Led by a **Board of Managers**, with reps from:
 - Public Sector
 - Private Sector
 - Universities
 - National Labs
- Purpose: **oversight, approval of financials, agreements, strategic leadership**



Key Session Insights

Associate Dean for Research at the Grainger College of Engineering at the University of Illinois Urbana-Champaign and Director of the Illinois Quantum & Microelectronics Park (IQMP) Harley Johnson hailed the establishment of the IQMP as a leap forward for the state, the region, and the nation in terms of its ability to lead in quantum science and microelectronics. This public-private partnership will be a cornerstone of the nation's drive to remain the global leader in computing technologies.

The IQMP will be an entirely new campus dedicated to the scaling of quantum computing and related manufacturing and research. Dr. Johnson expects to have part of the facility operational within just two years, a testament to the level of investment, interest, and perceived importance of the IQMP's work. The project has garnered support from Illinois state leadership, par-

ticularly Governor Pritzker, who committed \$500 million towards the initiative as part of the FY2025 budget to attract federal and private dollars. Dr. Johnson noted that the park will be managed by a university research organization (URO) under the University of Illinois, which will serve as the central convener for the park, establishing governance and operational guidelines while fostering collaboration among various research institutions.

The park will be located on a 128-acre site along Lake Michigan, formerly a U.S. Steel plant, which has remained idle for decades.

This strategic location will revitalize a historically industrial part of Chicago that has seen challenges in recent decades and become a new anchor within the burgeoning Illinois-Indiana quantum corridor. Being so close to a host of potential end-users in the Chicago metro area and the wider Midwest, the IQMP will attract talent and interest from across industries.

“We are excited about the opportunity to revitalize this area through a brand new industry.”

Dr. Harley Johnson

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

A central feature of the IQMP will be its user facility, which Dr. Johnson likened to similar facilities at national labs. This space is designed to foster collaboration among researchers and companies by providing access to shared resources that they would otherwise have a difficult time securing, including a large-scale cryogenic facility necessary for quantum computing operations. He stated that this facility will offer industrial-scale cooling, capable of reaching temperatures down to millikelvin, with “Five times or ten times the capacity of all of the current cryo capacity in the state of Illinois.”

Psi Quantum is the park’s first anchor tenant, which plans to construct the first utility-scale, fault-tolerant quantum computer. Dr. Johnson noted the unique requirements of Psi Quantum’s technology, which relies on silicon photonics and necessitates extensive cooling capabilities that the park is specifically designed to provide. In addition, he announced a partnership with

DARPA, which sought to use the IQMP as a hub for their Quantum Benchmarking Initiative. Under this agreement, DARPA would contribute funding that the state of Illinois would match with \$140 million. This funding is intended to incentivize companies and researchers to establish themselves at the park and to develop large-scale prototypes that will benefit from the shared cryogenic facilities. Additionally, the park will host a quantum algorithm center, where research activities will include the development of algorithms, software, and compiler technology.

Dr. Johnson also discussed the planned workforce development center at the park, which aims to equip a new generation of employees for the quantum industry. This center will cater to a wide range of educational backgrounds, training individuals from high school graduates to advanced-degree candidates, thereby helping address the pressing need for skilled workers of all skill levels in the rapidly evolving field of quantum technology.

In closing, Dr. Johnson reiterated the importance of interdisciplinary collaboration to unlock the full potential of quantum technology. The IQMP represents an exciting opportunity to bridge the fields of microelectronics and quantum computing, which would fuel the greater innovation ecosystem of the region.

PANEL

“Molecules”—Translating Cutting-Edge Biodiscovery to Expanding Healthspans



PANELISTS

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

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

Mr. Vince Wong
 President & CEO, BioCrossroads

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

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

Session Overview

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 discussed how the Indiana-Illinois Innovation Corridor strategically aims to lead in bioscience innovation and, in doing so, positively transform the world.

Key Session Insights

To support economic partnerships, a culture of innovation—like the one present in the Indiana-Illinois Innovation Corridor—is needed to unify academia, industry, and government.

Vice Chancellor for Research at the University of Illinois Chicago Joanna Groden pointed out that the cultural attributes of the Chicagoland and Illinois-Indiana corridor are crucial to the innovation capacity of the region. The region’s collaborative spirit, anchored in a robust university network, creates an environment ripe for addressing significant scientific questions. Dr. Groden cited the [Chicago Biomedical Consortium](#) as a model of successful collaboration, enabling the transition of discoveries from major universities into entrepreneurial ventures.

Group Vice President for Molecule Discovery and Director of the Lilly Institutes of Genetic Medicine at Eli Lilly and Company Andrew Adams detailed his company’s strategic research partnership with Purdue University as another example of robust and fruitful collaboration. Dr. Adams illustrated the importance of addressing technical challenges associated with new medicines, particularly RNA-based therapies, which gained attention during the COVID-19 pandemic. Eli Lilly anticipates RNA medicines becoming more prevalent for diseases like Alzheimer’s, but scaling this technology will require advancements in other supporting scien-



“When we think about radical collaboration, thinking big works out.”

The Hon. John Fernandez

Senior Vice President, Innovation & Strategic Partnerships, The Mill; Regional Innovation Officer, Heartland BioWorks

tific research, such as a better understanding of how the flow of cerebrospinal fluid works, and the company is working with Purdue University on this problem and others like it, paving the way for future medical advances that could benefit millions.

Dr. Adams articulated a vision for leveraging genomic technologies and nanomedicine as pivotal areas for innovation. In one notable case, a child with profound deafness had their hearing restored by genome therapy. Similarly, advancements in nanomedicine could position the region as a leader in delivering complex treatments, with Dr. Adams arguing that while Boston currently leads in this space, Indiana’s investments in this area could change that narrative.

Collaboration is also crucial in the Midwest’s health system, especially when serving disadvantaged and underrepresented populations. Dr. Groden shared that the University of Illinois Chicago health system primarily serves



“We used gene therapy to treat a child who was born completely deaf. After exposing this child to novel gene therapy, he now has hearing better than most of the people in this room.”

Dr. Andrew Adams

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

minority families from underserved communities. Because of its location, the health system gathers essential health information from minority groups, which can otherwise be tricky—data that informs predictive algorithms but also provides access to diverse populations for research studies. Dr. Groden noted, “Genetics can be individual, but it can also be population-based.” By taking advantage of a varied population, the health system is learning more about the effects of chronic health problems and shaping ways to address them.

Collaboration could also be seen in initiatives like AnalytXIN, a partnership amongst Lilly, the Indiana University School of Medicine, Indiana University Health, the Indiana Biobank, and the Indiana Health Information Exchange, focusing

on creating a robust clinical genomic database. President & CEO of BioCrossroads Vince Wong explained that the repository currently holds 35,000 sequenced human samples linked to phenotypic data through IU Health, the largest health system in Indiana. This collaboration allows for significant discoveries in areas such as diabetes and cardiometabolic therapy development. Mr. Wong asserted, “The spirit of collaboration across universities, health systems, pharmaceutical companies, and philanthropy allows us to develop a pretty compelling asset.”

While new advances could generate huge benefits for patients, they also raise privacy concerns. Dr. Groden highlighted the necessity of ensuring privacy for participants in clinical trials, especially vulnerable populations, saying, “The ethics of using new technologies are always open for discussion and important.” This sentiment was echoed by Mr. Wong, who mentioned how Notre Dame has become a center of excellence on studying the ethical implications of application technology in healthcare.

Founder & CEO of Stemloop Khalid Alam then shifted to the broader scope of life sciences, and the importance of considering planetary and economic health alongside human health.

Specifically, the [One Health concept](#), which integrates human, plant, and animal health, is a perspective that underscores the interconnectedness of various health sectors and their potential to drive economic growth.

Dr. Adams brought artificial intelligence into the conversation, noting that AI has already

been responsible for improvements, with new systems like AlphaFold able to better find new molecules and medicines than traditional methods of search. However, these systems are not yet perfect, with challenges like how to account for the dynamic nature of proteins remaining.



“This panel is about expanding healthspans. What about planetary and economic healthspans?”

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

Still, he noted, “If you look over the course of a decade, I think you’ll see that the field has shifted dramatically.”

Addressing the labor challenges facing the Midwest, Adams pointed out the importance of retaining talent within the region. Many skilled individuals come to the area for training at its elite universities but often relocate elsewhere for better career opportunities. To counter this trend, Dr. Groden suggested the Midwest needs to do more to market itself as an attractive place to be for high-skill workers. Advantages like a high quality of life, low living cost, and opportunities in high-tech industry often go unrecognized or downplayed, leading to the talent outflow. Instead, the Midwest must be portrayed as a thriving center of life sciences and innovation.



“The Midwest is a little too modest about the assets it has. Marketing is a key ingredient for bringing a larger workforce here and making people appreciate the quality of life the Midwest brings.”

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

Mr. Wong agreed with the call for a more robust regional marketing strategy. Echoing Dr. Chiang’s earlier call for curated densification, Mr. Wong stated, “We need to be really focused on where we can be the epicenter of the world”—promoting key areas of expertise like neurodegenerative diseases and cardiometabolic health.

However, while the Midwest has several world-leading centers of innovation, early-stage startups still struggle with a lack of funding. “Ambitious people want to work ambitious jobs, and they tend to gravitate towards startups,” Dr. Alam pointed out. While large cor-

porations with vast resources may solve certain kinds of problems, startups remain a critical piece of the innovation ecosystem. Unfortunately, while federal and state investments have increased, venture capital in the region remains cautious, particularly concerning deep tech companies with long development timelines.

This is an acute problem for bioscience startups, according to The Hon. John Fernandez, Senior Vice President of Innovation and Strategic Partnerships at The Mill, and Regional Innovation Officer at Heartland BioWorks. With such a lengthy regulatory process, finding investment for projects that may take decades can be an uphill battle, with most investors looking elsewhere for more immediate opportunities. As Mr. Fernandez put it, “The runway is just too long.” In response, Mr. Wong acknowledged ongoing efforts to address the challenge, noting that organizations like Elevate Ventures are working to fill crucial funding gaps for startups, even if it is slow.

Dr. Adams concluded the conversation by sharing his experience during the COVID-19 pandemic, when unprecedented collaboration led to rapid advancements in antibody development. “What usually takes us several years, we did in six months.” With a unified approach to investment, marketing, and talent retention, the Indiana-Illinois Corridor and broader Midwest stand poised to become global leaders in bioscience research and development, harnessing its strengths to address pressing health challenges.



“We need to focus our regional messaging on what we are amazing at accomplishing. As a region, the best thing we could do is to focus on those issues where we can be the global epicenter of excellence.”

Mr. Vince Wong
President & CEO, BioCrossroads

TECH TALK

Engineering the Future of Biotechnology

**SPEAKER**

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

Session Overview

In Dean of the Pritzker School of Molecular Engineering at the University of Chicago Nadya Mason's Tech Talk, she outlined how her school innovates by organizing research thematically and focusing on interdisciplinary approaches. She also shared how AI and machine learning are helping to advance vaccine R&D.

Key Session Insights

Dr. Nadya Mason is the Dean of the [Pritzker School of Molecular Engineering](#) at the University of Chicago, which was established in 2011 as the university's first school of engineering. As Dr. Mason explained it, "We aim to address global challenges and societal problems by translating advances in basic physics, chemistry, and biology,"

The Pritzker School is unique in that it does not have traditional departments but instead focuses on themes. As the thinking goes, a system of organization designed in the 19th century is ill-equipped to solve 21st century problems. Themes covered by Pritzker includes quantum engineering, biological engineering, immuno-engineering, and material systems for sustainability. Each field crosses over with the others, so the school is set up to allow for the cross-pollination of ideas.

Dr. Mason recounted the Pritzker's history, detailing its growth from a single individual to a thriving institution with 45 faculty members. "In the past couple of years alone, part of our collaborations and our work has contributed to over \$1 billion in investment in the region." Dr. Mason highlighted Pritzker's relationship with Argonne National Laboratory, just 20 miles away, where over 20 professors are joint faculty members.

Entrepreneurial Activity

2 decades of venture creation through the Polsky Center for Entrepreneurship and Innovation



This connection enhances research capabilities, allowing for shared resources and collaborative projects.

Dr. Mason also pointed out the importance of fostering an entrepreneurial spirit at the University of Chicago, which historically had a greater focus on academia over commercialization, as a way of ensuring that the work being done at the Pritzker School strengthens U.S. competitiveness.

One area the Pritzker School is having an impact is in immune-engineering. Atherosclerosis, for example, is a significant cause of cardiovascular-related deaths, and Pritzker scientists and engineers developed nanoparticles for RNA therapy that target plaque in arteries, effectively reducing inflammation. Vaccine science is also advancing under this framework. Novel vaccines for fighting cancer and delivering immunotherapies are showing promise, and AI-powered efforts

“At Pritzker, we do not have departments. Instead, we focus on thematic areas on which our researchers can focus. We cannot solve modern problems with departments invented one hundred years ago.”

Dr. Nadya Mason

Dean of the Pritzker School of Molecular Engineering,
University of Chicago

to halt adverse vaccine reactions are underway. So-called “inverse vaccines,” those that condition a body’s immune system to accept something rather than reject it, have the potential to inhibit the immune responses that create conditions like celiac disease. Treatment combinations are also being examined at scale, accelerating the speed at which effective therapies with multiple components can be widely deployed.

The Pritzker School’s commitment to entrepreneurship is one of the attributes that makes it stand out at the University of Chicago. Companies attached to the school have raised over \$1.2 billion, meaning that the innovations coming

out of Pritzker have a viable way to make it to market. This has been helped by the involvement of the Polsky Center, the University of Chicago’s entrepreneurial arm, and will continue to attract talent to the school and increase its reputation as a premier center of innovation.

While the Pritzker School has done much to enhance Chicago’s innovation ecosystem, there is still much work to do. Compared to the coastal tech hubs, Chicago is still behind. But new investments in laboratory spaces in Fulton Market and Hyde Park aim to provide more space to innovators, and a new biomanufacturing center in Washington Park, in partnership with the City Colleges of Chicago, will bring new opportunities to the historically underdeveloped South Side.

Dr. Mason’s talk was helpful in understanding the transformative potential of interdisciplinary collaboration and investment in biotechnology. The Pritzker School model should be considered by other universities to address global challenges through innovation.

PANEL

Leveraging the Convergence of “Chips, Qubits, and Molecules” to Convey Competitive Advantage

**PANELISTS**

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

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

Dr. Paul Kearns
Director, Argonne National Laboratory

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

Session Overview

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 focused on the regional place-making strategies to build—bit by bit, qubit by qubit, molecule by molecule—the semiconductor, quantum, and bioscience industries of the future.

Key Session Insights

In the final panel of the Indiana-Illinois Competitiveness Conversation, Council on Competitiveness President & CEO **The Hon. Deborah Wince-Smith** reflected on the strides that the **Indiana-Illinois Innovation Corridor** has taken to become a nationally and globally recognized hub for innovation, including embracing the ethos of “radical collaboration”—a theme that has emerged in all of the Council’s Competitiveness Conversations held in burgeoning innovation powerhouses. The friction between innovators across institutions—whether universities, laboratories, or industry—in some parts of the country is smoothed out in the region by the need driven by resource constraints to collaborate to solve global problems.

The Indiana-Illinois Corridor innovation ecosystem is driving economic growth in the region, as well. Key investments like the \$4 billion Illinois Quantum and Microelectronics Park and the \$450 million in federal incentives for SK Hynix are just two stand-out examples. These investments have driven research and an influx of jobs, creating greater economic opportunity for those living in and moving to the Corridor, both now and into the future.

The local venture capital network has also grown since 2014, Ms. Wince-Smith noted, surpassing the national growth rate and providing a local



“The rivalries we sometimes see between universities and national laboratories are not present here in the Indiana-Illinois Innovation Corridor. This is a competitive advantage.”

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

source of much-needed investment in new capital-intensive industries. A 70 percent increase in business filings in Indiana and a nearly 100 percent increase in Illinois since 2017 signals a post-pandemic resurgence in business activity. This comes on top of the two state’s already strong economic figures, with Indiana having the highest GDP growth in the Great Lakes region and Illinois’ \$876 billion economy coming in at 5th in the nation.

Ms. Wince-Smith emphasized the importance of maintaining this momentum and preparing for the future in a competitive global landscape. She called for a future-oriented discussion among the panelists about how the Indiana-Illinois Innovation Corridor can continue to thrive amid ongoing competition for investment, talent, and labor.

Ms. Wince-Smith opened the panel discussion with an exploration of the Indiana-Illinois corridor’s future potential in the industries of “Chips, Qubits, and Molecules.”

Argonne National Laboratory Director Paul Kearns kicked off, expressing optimism about the future of the region and suggesting it might evolve into a “Beyond Silicon” center. He also noted that while leading in cutting-edge technologies is crucial, the region’s existing strengths in agriculture, energy, and transportation must also be woven into its economic tapestry of future long-term, sustainable success.

However, as Purdue University Executive Vice President for Research Karen Plaut framed it, “Chips, Qubits, and Molecules” are to advance sectors like transportation and agriculture that are traditionally thought of as low-tech. She also raised the important point that innovation must go hand-in-hand with responsible stewardship of natural resources, giving the need for improved energy management and more efficient water usage in biomanufacturing as examples.

Vice President for Economic Development & Innovation for the University of Illinois System **Jay Walsh stated that success could not be built from one sector alone; the entire interconnected infrastructure picture needs to be taken into account.** He warned that without robust energy infrastructure, the ambitious dreams for the region could crumble. The panel advocated for a diversified energy portfolio, including novel technologies and techniques—from investing in small modular nuclear reactors, to integrating solar panels with farmland, to taking advantage of the synergies between food, energy, and water.

Dr. Kearns was optimistic about the future of energy in the region and nationwide. He mentioned Argonne’s collaboration with TerraPower, one of two companies selected by the Depart-



“When we think of chips, qubits, and molecules, I consider them to be backbone technologies.”

Dr. Karen Plaut

Executive Vice President for Research, Purdue University

ment of Energy for its Advanced Reactor Demonstration Program that as an example of how innovations like TerraPower’s sodium-cooled reactor called Natrium will pave the way for a nationwide rollout of a new generation of reactors. With this and other advanced nuclear and small modular reactors under construction in the United States, Dr. Kearns believed that the shift towards innovative nuclear solutions for the country’s growing energy appetite is already underway.

Small modular reactors have uses beyond electricity production, and Walsh made the case for using this technology to transform industries. He gave the example of the Champaign-Urbana Mass Transit District, which has recently acquired buses that run on hydrogen. If a small modular reactor could be linked to a hydrogen plant, the entire transit system could be made far more sustainable. Illinois already derives 55 percent of its energy from nuclear, among the highest in the nation. When combined with solar and wind



“Innovation is all about people, and we have great people in this part of the country.”

Dr. Paul Kearns

Director, Argonne National Laboratory

resources, Illinois can lead the nation and the world in sustainable energy. And in addition to nuclear, corn-derived ethanol is another growth opportunity for the region.

Some of this diversification in the region’s agriculture may be driven by the growth of biomanufacturing, including through the Indiana Soybean Alliance and the establishment of the Illinois Fermentation and Agricultural Biomanufacturing Hub (iFAB), one of twelve federally recognized and funded tech hubs. The initial funding catalyzed significant collaborations between startups and established companies, with Walsh noting that the grant money that came in was greater than the total amount of money put in by the state.

Dr. Kearns pointed out the necessity of cultivating a robust pipeline of skilled workers to support the growing sectors that would sustain the region’s next economy. Long-term funding will be needed to create and maintain the



“We need students to realize what we all know: technology is a lot of fun. And it can change the world.”

Dr. Jay Walsh

Vice President for Economic Development & Innovation, University of Illinois System

mechanisms that turn students into skilled workers ready to enter the “Chips, Qubits, and Molecules” workforce. Walsh advocated for a greater focus on STEM at the K-12 level, noting how building an interest in STEM subjects early would make it easier for them to pursue science and technology-based careers later. Dr. Plaut also advocated for better science communication, which could lead to increased public support for new technologies and scientific investments. As she put it, “If we don’t figure out more creative ways of changing that dialogue, we won’t have the support we need for some of these technologies.”

Argonne recently completed an \$815M dollar upgrade to The Advanced Photon Source. The project, completed on time and without safety incidents, replaced the current electron storage ring with a state of the art machine and increased X-ray brightness by up to 500 times.

Ms. Wince-Smith then made the case for alternatives to four-year degrees, as skilled trades like pipefitters are a crucial component for any buildout of high-tech industry, and they are high-paying careers paths. She advocated for engagement with workforce boards to fill these needed jobs, taking advantage of federal funds that already exist to do so.

Dr. Walsh added that collaboration between educational institutions and manufacturers like John Deere is needed to ensure a prepared workforce. “We’re not going to be able to get these high-tech companies to move forward unless their whole supply chain has the talent they need,” he said. And Dr. Plaut similarly advocated for an integrated approach across educational and industrial sectors to supply workers at all skill levels, saying, “It is going to take everyone, and it is going to take all levels to change that ecosystem.”

Dr. Kearns gave a concrete example of the importance of growing the skilled technical workforce at Argonne, which has a close relationship with organized labor, and doing so has been greatly beneficial. A recent \$850 million project built with union labor, for example, surpassed design expectations and without safety incidents.

As the conversation moved on to the complex issue of inequality in the region, **Walsh laid out a stark statistic: in Chicago, a three-mile distance can mean an eighteen-year difference in life expectancy.** This is not just a gap in health outcomes, but a canyon. With such a significant problem, cooperation between partners in the region, the country, and globally would be a prerequisite to finding solutions.

Dr. Plaut then stressed that region has a critical role in tackling food security at home and abroad. Indiana has 82 percent of its land dedicated to agriculture, and Illinois has 75 percent. Beyond their sheer production capacity, each also is home to institutions with world-leading gene editing capabilities, giving them the tools to radically enhance crop resilience and productivity. By joining researchers with farmers, the region is poised to lead a new Green Revolution, bolstering local agricultural output and economic growth while providing solutions to global hunger.

Ms. Wince-Smith invited final thoughts on the Indiana-Illinois Innovation Corridor’s contributions to national competitiveness. All panelist agreed that the collaborative spirit in the region is what’s growing the thriving innovation ecosystem of the region. By learning to work cohesively as a region and competing as a whole, the Corridor’s industries, universities, labs, and governments have crafted a dynamic innovation hub with the promise to lead the world in “Chips, Qubits, and Molecules.”

DINNER KEYNOTE

Bringing Innovations to Market: DOE's Perspective on Accelerating Tech Commercialization

**SPEAKER**

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

Session Overview

In her address to participants, The Hon. Vanessa Chan highlighted the Indiana-Illinois Innovation Corridor's potential to tackle national challenges in bioscience and clean energy. While discussing the importance of the crucial innovations in "Chips, Qubits, and Molecules" coming out of the region, Chan stressed the need to ensure these technologies are also commercially deployed.

Key Session Insights

For Chief Commercialization Officer and Director of the Office of Technology Transitions in the U.S. Department of Energy The Hon. Vanessa Chan, the Indiana-Illinois Innovation Corridor is one of the most promising emerging ecosystems in the country with the potential to tackle national challenges in bioscience, advanced computing, and clean energy. Investments and innovations being made here have the potential to fundamentally transform the region's economy while simultaneously benefitting the whole United States.

Chan emphasized the vulnerable state of the American microelectronics supply , pointing out that "as of 2023, only 47 percent of R&D, 27 percent of design, 12 percent of front-end fabrication, and less than 2 percent of assembly, test, and packaging occurred in the U.S." She described these statistics as "sobering," but positioned them as an opportunity for innovation and growth. An opportunity the Indiana-Illinois region is seizing, with collaborations between universities, laboratories, and the private sector dovetailing with significant investment to grow a new mecca of semiconductor manufacturing in the United States.

Relaying her personal passion for quantum computing, Chan highlighted how the DOE is advancing the technology towards wider deployment. Five quantum innovation science centers, with \$625 million in funding, are doing basic and applied research on superconducting quantum materials and how to network quantum computers. Two of these centers are in the Midwest, at Argonne National Laboratory and Fermilab, ready to take advantage of partnerships with leading university quantum research programs at Purdue, the University of Illinois, and others to bolster the growing quantum ecosystem in the Midwest. By focusing on the commercialization of quantum science, these centers will soon be changing the way industry across the region, the country, and the world compute.

All of this is a part of the DOE's larger focus on commercialization and technology transfer, taking science from the laboratory to commercial and industrial users. Chief among the strategies to achieve this is de-risking technologies through federal investment, as Chan made clear, "the government does have a lot of money, but it pales in comparison to the trillions of dollars that the private sector has."

Much of this work has been accomplished by leveraging the legislative frameworks passed in the past few years, namely the Inflation Reduction

Act and the Bipartisan Infrastructure Law. These laws gave the DOE a wider mandate and greater resources for the demonstration and deployment of new technologies, giving them the bandwidth to cover the entire commercialization process, from research to development, demonstration, and deployment.

As an example, Chan highlighted the DOE's innovative approach to catalyzing demand for hydrogen, detailing how a billion dollars of funding aims to create mechanisms for guaranteed pricing to reduce risks for early adopters. Those willing to take the first steps to adopt hydrogen face higher risks, so to encourage early adoption, DOE support was crucial. The Midwest's hydrogen hub, one of seven clean hydrogen hubs selected nationally, is expected to produce hydrogen from renewable and low-cost energy sources. This initiative anticipates creating 13,600 jobs, including 12,100 construction jobs and 1,500 permanent jobs. But beyond the immediate economic effects, the DOE investment has spurred the beginnings of a hydrogen supply chain, something that will be crucial to implement before most investors are comfortable betting big on hydrogen as a viable energy source for tomorrow.

As important as building new commercial ecosystems is creating the workforce needed to supply them. Chan highlighted the DOE's efforts to create and engage with the next generation of innovators through initiatives like university prizes, offering an incentive for students to pursue new ideas. In one case, a University of Rochester team was able to secure seed funding for a low-carbon-cement startup due to the DOE's initial support, showing how small early investments can pay future dividends.

In the final points of her address, Chan emphasized the necessity of understanding market needs rather than solely focusing on technology development. To facilitate this understanding, she introduced the concept of Adoption Readiness Levels (ARLs), a framework designed to address factors beyond technology risk that impact commercialization, such as cost, supply chain, and community acceptance. She urged the audience to familiarize themselves with ARLs, encouraging them to consider the broader market implications of their research as they move from basic science towards a product for the wider world.

Chan's keynote underscored the pivotal role of government support in fostering an ecosystem conducive to the growth of emerging technologies, ultimately aiming to enhance the economic viability of regions like Indiana and Illinois in the evolving landscape of innovation.

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About the Council on Competitiveness

For more than three decades, the Council on Competitiveness (Council) has championed a competitiveness agenda for the United States to attract investment and talent, and spur the commercialization of new ideas.

While the players may have changed since its founding in 1986, the mission remains as vital as ever—to enhance U.S. productivity and raise the standard of living for all Americans.

The members of the Council—CEOs, university presidents, labor leaders and national laboratory directors—represent a powerful, nonpartisan voice that sets aside politics and seeks results. By providing real-world perspective to Washington policymakers, the Council's private sector network makes an impact on decision-making across a broad spectrum of issues—from the cutting-edge of science and technology, to the democratization of innovation, to the shift from energy weakness to strength that supports the growing renaissance in U.S. manufacturing.

The Council's leadership group firmly believes that with the right policies, the strengths and potential of the U.S. economy far outweigh the current challenges the nation faces on the path to higher growth and greater opportunity for all Americans.