



## **UIDP Xurban Cornell 2022**

**June 7-9, 2022 | Ithaca, New York**

### **WORKSHOP AT A GLANCE**

Building on the work of the 2019 workshop, “U-I Engagement Outside Major Metropolitan Areas and Megacities,” UIDP Xurban Cornell convened thought leaders from academic, corporate, government, and non-profit sectors to consider practical and effective strategies to accelerate partnerships and advance local innovation ecosystems. Attendees explored topics in leveraging and enhancing university research strengths; managing strategic partnerships; accelerating university research translation and commercialization; making talent connections; placemaking; and advancing local economic development. Speakers presented their lessons learned to help propel industry innovation and workforce development goals while catalyzing the economic development missions of universities and state and regional government leadership.

Sessions focused on practical takeaways for everyone on the university-industry research partnership continuum, and a reception allowed workshop attendees to continue the important conversations and connect with their peers. The workshop provided ample opportunity for open discussion on current

challenges and contemporary solutions in supporting and maintaining innovation ecosystems outside of traditional environments.

UIDP was fortunate to secure expertise from 57 practitioners as presenters and speakers. Conference attendees can download materials from those sessions that utilized presentations through the UIDP Member Resource Center.

The workshop was marked by perspectives on enhancing ecosystem growth from across sectors. **Michael Reksulak, program director at NSF's Convergence Accelerator**, helped kick off day one and provided an update on the new Directorate for Technology, Innovation and Partnerships. **Emmanuel Giannelis, vice president for research and innovation at Cornell**, hosted a fireside chat with **Rich Vaia, chief scientist, Materials and Manufacturing Directorate in the Air Force Research Laboratory**, on the role partnerships play in supporting rising innovation ecosystems. The workshop closed with industry representatives, **Jeff Kohli, director of glass research at Corning**, and **Richard Muisener, director of research development & innovation for Evonik**, offering their perspectives on U-I relationships centered outside of major metropolitan areas.

Cornell University was gracious enough to host the event at the Statler Hotel, and UIDP is grateful to the other institutions and companies who supported this conference generously through sponsorship.



## Day 1 | Tuesday, June 7, 2022

### Welcome

*Speakers: Tony Boccanfuso, UIDP; Emmanuel Giannelis, Cornell University*

Co-located between NYC and Ithaca NY, Cornell has a rich history of engaging the private sector to advance its mission as a premier research university and land grant institution. Cornell's chief research officer Emmanuel Giannelis began the workshop with a quick synopsis of Cornell's contemporary approaches to corporate partnerships.

### Talent, Tech, and Entrepreneurship

*Moderator: Laura Batten, Cornell University; Speaker: Tracy Van Grack, Revolution*

Talent is equally distributed, but opportunity is not. As talent and capital move beyond the coastal tech hubs at an accelerated pace, founders, civic leaders, and startup champions can capitalize on these trends. Focusing on the intersection of tech, communications, and global entrepreneurship, this session spoke to the challenges and opportunities for startups and cities in the years to come.

#### Key Takeaways:

- **The goal of bringing coastal dollars to the middle of the country starts with branding the city.** Start with the right ingredients by leveraging unique strengths and taking risks with a level of fearlessness. Setting up incubators with resources to find unique talent along with broader innovation ecosystems helps to build success in growing cities.
- **University partnerships are key to success by incubating technologies while also giving talent a reason to stay.** Universities develop ground-breaking technologies, mentor start-ups, and shape talent in their communities.
- **It is critical to engage and inform policymakers.** State and local policies are just as important as federal policies to engage entrepreneurship. This is evident in recent federal efforts to send more dollars to smaller cities than larger ones.

### Legislative Update

*Speaker: Dianne Miller, Cornell University*

There are numerous federal initiatives with a direct impact on regional innovation ecosystems. This session explored the current status of these proposals.

#### Key Takeaways:

- **Science policy is of high interest in Washington, D.C.** Government concerns about the United States falling behind and losing its place as the world leader in innovation have been voiced for decades, and there is bipartisan support for R&D investment so we don't fall further behind.
- **Closing the loop between research and economic development is a challenge.** Multiple efforts to close this loop have been proposed (but not all passed) via trillion-dollar legislation, including

the American Rescue Act, the Build Back Better Act, the Infrastructure and Jobs Act, and the U.S. Innovation and Competition Act (USICA).

- **A joint House-Senate conference committee has been appointed to reconcile the differences between USICA and American Competes.** These bills authorize significant increases in funding for the NSF, DOE's Office of Science, and NIST, the creation of a network of regional economic development hubs across the country, and provide an emergency appropriation to boost the domestic production of semiconductors. The goal is to have a bill voted on by July 4, 2022, but there are significant hurdles ahead.

## Update on the Directorate for Technology, Innovation and Partnerships

*Speaker: Michael Reksulak, NSF*

Part of the charge to NSF's new Directorate for Technology, Innovation and Partnerships (TIP) is to support regions that have not experienced a high concentration of federal R&D support in the past. In this session, NSF shared how the directorate plans to answer the charge and implement key support through such methods as the Regional Innovation Engine program.

### Key Takeaways:

- **TIP aims to alter the funding landscape by focusing on development of real-world solutions-in-action.** To be funded by TIP, the first new NSF directorate in 30 years, collaborators must answer and be prepared to act on "which pressing societal and economic challenge(s) does your project address," and "with what partners will you make things happen?"
- **TIP will empower national acceleration of research toward impact through support for broad, inclusive partnerships.** Partnerships and projects must extend beyond academia and industry to intimately involve nonprofits, local and regional government, and civil society, and include diversity—not as an add-on term, but as an intrinsically woven thread in the development, conduct, evaluation, and sustainment of TIP-funded projects.
- **Driving new national economic growth will require investment in non-coastal regions, partner organizations not traditionally visible in broad-scale development, and novel solutions uncommon to higher education.** Two-year colleges, small businesses, minority- and women-owned businesses, civil society actors, and others are key potential contributors, as are non-traditional business practices such as joint appointments between industry and higher education as a method to foster strong collaborations.

## Leveraging Data and Analytics to Enhance the Societal Impact of University Research

*Speakers: Mark Hurwitz, Cornell University; Nick Fowler, Elsevier*

As universities seek to demonstrate the societal impact of their research enterprise, Cornell University and Elsevier have embarked on a collaborative project to better characterize and understand this nexus. Using data and analytics, their approach was illustrated with initial results related to Cornell's patent portfolio and doctoral alumni achievements. Implications of the study for other research resources were discussed.

### Key Takeaways:

1. **U.S. communities face myriad challenges that are often local variations of global challenges.** Universities can anchor partnerships leading to solutions in areas such as sustainable development and reducing hunger.
2. **Universities are making strategic choices about where and how to focus their resources to optimize the societal impact of their research enterprise.** The university should identify a pressing challenge (such as climate change mitigation), assess the ability of the university to make a difference, build an action plan to amplify impact, implement the plan, and measure progress.
3. **Cornell University and Elsevier are collaborating to test a hypothesis that data and analytics can inform the campus' efforts and investments around the societal impact of research with patent and alumni data.** The project examined about 75 engineering grads and found that approximately two-thirds of them took jobs in industry and one-third took jobs in academia. The second part of the project looked at Cornell's innovation potential by comparing its data with peer institutions regarding the number and type of patent areas and patent citations.

## Current Federal and State Initiatives Impacting Regional Innovation Ecosystems

*Moderator: Brian Darmody, AURP; Speakers: Judith Sheft, New Jersey Commission on Science, Innovation, and Technology; Michael Reksulak, NSF*

Various parties—nonprofits, economic development groups, universities, companies, and governments at all levels—seek to optimize their contributions to their communities and maximize impact. The session highlighted some current state and federal efforts and how they support research and commercialization collaboration efforts.

### Key Takeaways:

- **Regional Xurban ecosystems can be built by universities, federal labs, and research parks.** UIDP and related organizations all work to strengthen university-industry partnerships and tech transfer.
- **The New Jersey Commission on Science Innovation and Technology (CSIT) has \$20 to \$30 million in funding to develop incubators around the state.** CSIT, a state-funded initiative, is connecting people, providing capital via grants like SBIR matching, and helping applicants

leverage their capabilities. A voucher for up to \$25,000 was provided for start-ups to use at any university. CSIT must demonstrate impact to maintain legislative support and ensure its annual budget. One example of impact is that grant recipients raised 16 times more in funding than what they received from CSIT.

- **Federal funds from NSF are available for developing regional ecosystems.** The NSF's Regional Innovation Engines program is looking for proposals that address a societal challenge and come from a university with federal funding experience, available talent, and connected workforce development efforts.

## Day 2 | June 8, 2022

### Building Regional Teams to Win Federal Large-Scale Awards

*Moderator: Patrick Govang, Cornell University; Speakers: Heather Hage, Griffiss/Innovare; Per Stromhaug, Binghamton University; Jamey Jacob, Oklahoma State University*

The large-scale funding opportunities offered at the federal and state levels require significant planning to effectively compete. This session provided some specific examples of successful efforts and shared insights on how these teams were built to win.

#### Key Takeaways:

- **Large-scale awards require significant planning and investment.** Build on pre-existing strengths, competencies, and core partnerships, and then identify the additional resources and partners needed to succeed.
- **Shared vision is required to work through conflict with partners.** Discuss potential issues up front, establish priorities, and foster open communication and honesty to enable the collaboration to push through conflicts.
- **Leverage every effort.** Even if the team doesn't win this award, maintain a long-term vision and continue to build on the core strengths and competencies to succeed at the next opportunity.

### The Roux Institute: An Economic Opportunity Engine in Disguise

*Moderator: Dennis Fortner, Carnegie Mellon University; Speakers: Dawn Ng, Northeastern University; Jack Lesko, Northeastern University*

The Roux Institute was designed to spur innovation, build talent, and drive economic growth in Portland, the state of Maine, and the Northeast. Partnerships—with industry, academia, and government—set the education and research model apart. This session explored the unique origins of the Roux Institute and the two-year journey to create a partnership-driven environment for talent and innovation in Maine and beyond.

### Key Takeaways:

- **The Roux Institute was established in early 2020 with \$200 million in gifts from the Roux Foundation and the Harold Alfond Foundation.** The mission was to build expertise at the intersection of humans and machines, with a focus on AI, digital information, advanced life sciences and medicine, and to bridge the high-tech workforce gap.
- **The educational model is based on co-ops and experiential learning.** The focus is on “workforce upskilling,” the students’ ability to “choose your own adventure,” and curating highly specialized learning opportunities that will provide a talent pipeline for Maine.
- **Partnership is the foundation of the Roux Institute.** There are 10 partnership groups that meet with at least two or three partners per day. The most critical aspect of each relationship is to listen, understand their business challenges, and then match them with talent.

## Public-Private Partnerships for Emerging Innovation Ecosystems

*Moderator: Emmanuel Giannelis, Cornell University; Presenter: Richard Vaia, Air Force Research Laboratory*

Revolutionary technologies emerge not only from deep integration across disciplines, but also from teams with diverse perspectives, including science, engineering, entrepreneurship, manufacturing, business, markets, etc. Maintaining technological superiority and avoiding technological surprise is the foundation of the deterrence strategy of the United States Air Force (USAF) and Space Force (USSF), and thus its S&T enterprise must expand its presence and participation in these innovation hotspots. This session examined public-private partnerships out of the Air Force Research Laboratory for emerging material and manufacturing ecosystems, whose goal is to create a more physical, visible gateway to accelerate the discovery, innovation, and translation of technologies of interest into the U.S. supply chain.

### Key Takeaways:

1. **“Research is to innovation is what sin is to confession.”** Universities can have impact beyond academia and bring returns to federally funded programs. A strong research component is needed for innovation, and faculty should be immersed in industry rather than external consultants.
2. **Technological superiority must be connected to economics.** Strategic imperatives have been influenced by the pivot from the global war on terrorism to strategic competition, the changing economy, and the innovation landscape evolution. There is a need to adapt.
3. **AFRL has an interest and need for public-private partnerships and established hubs** as they are unable to keep up with costs in innovation and technology at the pace of DoD spending. They have launched a regional hubs pilot by creating a network of nodes to share facilities and capitalize on regional strengths.

## Translate University Innovations and Grow New Ventures

*Moderator: Alice Li, Cornell University; Speakers: Harl R. Tolbert, University of Rochester; John Alexander, The CBORD Group Inc.; Nadilia Gomez, Iowa State University*

Many universities are increasing their support to translate technology innovations from their research labs for commercialization, startup creation, and partnership. Creating startups for impact is a common goal across communities. This panel discussed programs and initiatives to nurture and finance to facilitate the creation and growth of university startups and shared real-world stories.

## Launching an Industry Engagement Hub

*Speaker: Hughes Miller, University of Mississippi*

In the fall of 2021, The University of Mississippi launched its Industry Engagement Hub, a website aimed at building partnerships, preparing students, and assisting communities throughout the region and beyond. This online portal showcases ideas, resources, and success stories, inspiring industry leaders to partner with the university in innovative ways. This session considered the portal's impact and lessons learned since its launch.

### Key Takeaways:

1. **Innovative programming with companies can happen outside of major metropolitan areas.** The University of Mississippi (Ole Miss) is located in an ecosystem dominated by successful small and medium businesses. They have thrived by creating an industry engagement hub (<https://industry.olemiss.edu/>) that connects industry to students, thought leaders, ideas, and strategic partnerships
2. **Identify the pillars of focus and what's important to industry partners.** Ole Miss created a deliberate and intentional framework that includes economic empowerment, student engagement, research and innovation, and thought leadership. This inclusive, high-level vision drives the industry engagement platform and contacts to align resources throughout the university.
3. **Tailor outreach and messaging to the constituents the institution wants to partner with.** Ole Miss chose the term "industry" instead of "corporate" to demonstrate a commitment to partnering with companies of many different sizes and sectors. Results have been seen in strategic philanthropy, hosting of new companies, community development, and research partnerships

## Leveraging Internal Collaborations to Build External Opportunities: Lessons Learned

*Moderator: Colleen Fitzgerald, North Dakota State University; Speaker: Cydney Johnson, Syracuse University*

Cydney Johnson has worked to build economic opportunity within and across institutions in numerous leadership positions in industry, government, public, and most recently private higher education. In this fireside chat, she spoke of lessons learned and shared across these sectors, including the importance of intra-institutional collaboration.

### Key Takeaways:

- **Creative and authentic partnerships are key to solving difficult problems in the community.** Cydney Johnson leads Syracuse University's Office of Community Engagement and identified the needs of local teachers who had to teach remotely at the outset of the pandemic. Her office brought together the local superintendent, private donors, and Blackboard, who partnered with the College of Professional Studies to offer training to over 300 teachers free of charge.
- **Government relations and local business are important partners when building strategic initiatives.** Syracuse deliberately engages its elected officials at all levels—city, county, state, and federal—as well as the hardware and software companies in the region to support its strategic cluster initiative in quantum information science.
- **Mission and values should guide partnerships and opportunities in the local community.** Syracuse's core competencies of education and research guide its efforts in engaging faculty, providing opportunities for staff, and building outreach partnerships for the long term. The goal is sustained impact and identifying strategic efforts that tie to the university's distinctive capabilities. Examples include bringing Syracuse City School children to campus every year so they can experience life as college students. The Go Local program operationalizes the university's commitment to leveraging the economic power of the institution to improve economic inclusion through building, hiring, and buying to strengthen community connections.

## Breakout – Digital Tools to Drive Collaboration

*Moderator: Rebecca Joffrey, Cornell University; Speakers: Jeff Dixon, Traction on Demand; Mark VanderZyl, Johns Hopkins University; Douglas R. Little, Georgetown University*

A number of universities have implemented Salesforce as a digital platform to enhance and grow engagements. This session examined their approaches and how leveraging digital tools contributed to their success.

### Key Takeaways:

- **College campus organizations are decentralized.** Understanding workflows and uses is critical for IT/Salesforce staff to successfully implement solutions.

- **Don't be intimidated by size and scope of a digital platform.** Find an immediate benefit applicable to the work and focus.
- **Seek to identify what team members do not have that a tool like Salesforce can provide.** This is an effective approach for senior leadership.

## Breakout | STEM and Social Sciences: Technology Partnerships for Thriving Rural Communities

*Speakers: Peter Dorhout, Iowa State University; Marie-José Montpetit, Iowa State University; Max Zhang, Cornell University*

This session discussed lessons learned from working with small businesses in rural communities, building strong partnerships, and improving access to technology through university-industry-community partnerships.

### Key Takeaways:

1. **Rural broadband access is needed for everyone, and public-private partnerships are a pathway.** Providing broadband access to rural communities is a great equalizer by making internet access available to all. One tactic is to advocate for public/private partnerships to resolve the issue because the ROI is not there for companies alone to serve low-population areas. Designing a state-wide internet system must include public resources and collaboration to ensure fair access.
2. **Engage industry in true partnership.** The university is a convener and connector role is valuable to industry. A true partnership engages stakeholders in the full process (including IP negotiation).
3. **Land grant universities should take advantage of extension programs.** Extension plays a critical role in rural universities and their partnerships. As established, trusted partners, extensions can bridge the gap between universities, industry, and the community at large.

## Breakout | Developing a Training Program for Faculty Collaboration with Industry

*Speakers: Heidi Medford, Washington State University; Brian Kraft, Washington State University*

Washington State University's Innovation and Research Engagement Office specializes in helping faculty develop industry research partnerships. To support these efforts, it created a four-part course to orient academic researchers to the unique aspects of working with the private sector. In this session, WSU provided an overview of course content and implementation, which can be personalized for other institutions.

### **Key Takeaways:**

- **UIDP resources can help member organizations to meet the institutional need to train people on best practices in university-industry relations.** Washington State’s Innovation & Research Engagement (IREO) team is customizing UIDP materials to provide entrepreneurial support to faculty as they develop partners in industry. These tools are designed to teach faculty “how to fish” and ask the right questions in industry engagement.
- **Training faculty in the basics of working with industry dually serves individual and institutional interests.** By teaching faculty proactive methods rather than relying on traditional reactive methods (e.g., hustling industry contacts versus waiting for a federal RFP to drop) and how to navigate institutional processes for industry relations, faculty will reduce mistakes in engagement and represent the institution well with new (or existing) industry partners.
- **Make training digestible, accessible, and engaging to enhance understanding and follow-on action.** IREO has made bite-sized chunks of material – four 90-minute sessions – to provide a quick overview and familiarity. Sessions include decoding business vernacular, understanding local (e.g., department/school/campus) processes, tools to identify partners and do background research before engaging, and best practices for initiating engagement.

## **Breakout | Fostering Startups, Venture Capital, and Local Innovation Communities**

*Moderator: Corine Farewell, University of Vermont; Speakers: Cynthia Sweet, University of Pittsburgh; Sean Luther, Innovate PGH*

Universities play an important role in generating new economic business development specifically relating to startups. This panel discussed the process used in Pittsburgh to identify new economic development opportunities and to strengthen the innovation ecosystem through new business creation.

### **Key Takeaways:**

1. **A Brookings Institute Study on Pittsburgh resulted in a call to the city to continue investing in tech.** Between the University of Pittsburgh and Carnegie Mellon, the city has twice the national average in computer science publications, but half the jobs. There is a gap between strong academics and few jobs; their pain point is talent attraction to the area.
2. **Innovate PGH is an acting economic development catalyst between academia and industry.** Their goals are for Pittsburgh to be viewed as a global tech center and for the universities (Pitt and CMU) to be included in the tech picture.
3. **A challenge of two universities collaborating is to sell a joint package.** For example, Keystone Space Collaborative saw an opportunity in space tech in Pittsburgh. Pitt and CMU have strong engineering schools, the network is there, but someone has to be the “ring leader” to make sure communication is open and the universities are engaged.

## Designing Transformational University-Industry Collaborative Workspaces

*Speaker: Chris Lambert, CannonDesign*

Collaborative centers allow innovators and startups to incubate ideas, test models, and benefit from the serendipity of working alongside other entrepreneurs and creatives. The right spaces with the right supports can accelerate the transition from lab to market and catalyze spinoff companies that contribute to economic growth in regions at all scales. This session introduced key takeaways and case examples of collaborative spaces that provide fertile ground for entrepreneurship and innovation in universities outside traditional urban centers.

### Key Takeaways:

1. **Collaborative space design can be a catalyst for transformation: Shared experimentation.** This can be facilitated by hosting activities in locations other than the university center, creating a sense of freedom from normal business activities. The University of Albany ETEC Center demonstrates this concept by housing collaborative activities on the borders of campus.
2. **Collaborative space design can be a catalyst for transformation: Distributed collaboration.** Addressing those not necessarily in urban centers is critical for distributed engagement. The University of Illinois Urbana-Champaign Data Science Center provides flexible space for external partners from major cities two to three hours away to come and operate comfortably, including addressing necessary security concerns, to enable their full off-site engagement.
3. **Collaborative space design can be a catalyst for transformation: Cross-cutting institutional boundaries.** Governance structure underpins environments and should be a consideration when initiating successful collaboration. Miami University supports cross-institutional collaboration with industry and government partners in an innovative shared space designed and jointly operated by four different schools, offering a seamless (and silo-less) lateral platform for joint work with the institution.

## Partnering with MSIs Outside Your Region

*Moderator: Kelly Freidenfelds, Princeton University; Speakers: Melissa Harrington, Delaware State University; Tiffany Fleming, Cornell University*

Many higher education institutions are keenly interested in partnering with minority-serving institutions; this is true even for schools located in areas where no MSIs exist. This session explored some contemporary approaches to developing effective collaborations that provide significant benefit to all parties.

### Key Takeaways:

- **The time it takes to build partnerships is significant and is an ongoing process that requires ongoing commitment.** Establish communication that is frequent, honest, and considerate of the people who are coming to the table.

- **Be cognizant of the power dynamics within a partnership and address them explicitly.** For example, consider differences in available staff and other resources.
- **Partnerships should never be one-sided.** Consider the needs of the partner and the resources they have available to support the partnership. An MSI partnership should not be pursued to simply check off a box. Consider how the partnership will be mutually beneficial and the places where interests overlap.

## Day 3 | Thursday, June 9, 2022

### Roadmap for Success: A Strategic Framework for Innovation Ecosystem Development

*Moderator: Mike Brizek, UIDP; Speakers: Tina Peterson, Regional Opportunity Initiatives, Inc.; Dan Peterson, Cook Medical; Tony Armstrong, Indiana University*

Implementation of an organizing roadmap is the key to building a cohesive and robust innovation ecosystem in a non-urban location. Such a framework is built by local representatives from business, government, and academia who understand regional complexities. It arises from analysis of current realities and by exploring the potential to strategically exploit the most compelling opportunities to achieve visionary outcomes. A strategic framework provides vision, programming, and action steps for physical place-making. This session explored the practical elements in the planning and development of the Naval Surface Warfare Center (NSWC) in Crane, Indiana, the anchor of a community of defense-related, industry, academic and economic development partnerships. The state of Indiana, Purdue University, and Indiana University each have a presence and developing partnerships with industry and NSWC.

#### Key Takeaways:

- **It takes vision, strategy, and investment to build a region that can leverage opportunities and assets.** Leaders should organize the region around key assets and create a vision and branding that the community can embrace.
- **Quality of place must be addressed.** This will ensure that the community is more attractive both to retain recent graduates and attract new talent. Regions should be deliberate about storytelling and marketing.
- **Don't wait for the talent pipeline to bear fruit.** Consider how the university and industry partners prepare young people for the opportunities that exist; address talent strategies and develop talent in STEM.

## Engaging State-Level Organizations

*Moderator: Kyle Tschepikow, University of Georgia; Speakers: Susan Shows, Georgia Research Alliance; Ryan Silva, New York State Economic Development Council; Ryan Anderson, University of Nebraska-Lincoln*

State governments have a keen interest in supporting R&D infrastructure. State-level support can come through state government agencies, quasi-governmental organizations, or non-government entities that play a coordinating role in the region. This session discussed contemporary state programs and how these programs can be leveraged to enhance non-urban innovation ecosystems.

### Key Takeaways:

- **Think about rural ecosystems as fluid.** Leaders must pivot to opportunities presented and navigate across boundaries. It's important to consider multi-state initiatives as well as regional opportunities.
- **State-level organizations** can focus on advocacy and policy development through collaborations with academic institutions while navigating a diverse population base.
- **Collaborate to grow the local economy.** Critical steps are to recruit startup talent, upgrade infrastructure, and launch start-up companies.

## Fireside Chat with the NSF Assistant Director of Computer and Information Science and Engineering (CISE)

*Moderator: Kavita Bala, Cornell University; Speaker: Margaret Martonosi, NSF*

Margaret Martonosi leads NSF's Computer and Information Science and Engineering (CISE) Directorate. With over \$1B in the annual budget, CISE is the predominant federal funding source in support of our Nation's leadership in computing innovation, research, education, and cyberinfrastructure. In this fireside chat, she discussed her vision of university-industry partnerships and the role CISE can play in fostering innovation and catalyzing transformative research.

### Key Takeaways:

- **CISE is the largest supporter of academic computer science research in the United States,** funding 80% of all academic research and salaries for 20,000 people per year (faculty, postdocs, graduate students, and undergraduate students). CISE is the largest non-defense funder of AI in the country.
- **NSF strategically looks to industry and non-profit partners to help fund and drive topics.** A current example is the AI Institutes. Industry joint funding stretches the NSF dollars available for research and offers industry a voice in research directions pursued.

- **Opportunities for the next Silicon Valley are broad across all states and regions, the right ingredients are required.** There is an increasing focus on interinstitutional teams and partnerships with diverse universities and colleges.

## **Corporate Perspectives on Engaging Universities in Xurban Environments**

*Moderator: Jack Thompson, West Virginia University; Speakers: Jeff Kohli, Corning Inc.; Richard Muisener, Evonik*

Research-intensive universities can be stellar partners to interested corporations, but companies often find there are unique challenges with tailored solutions to successfully build and sustain relationships with institutions located outside of major metro areas. In this session, industry representatives who have engaged universities in Xurban environments discussed their partnership journeys and what they learned along the way.

### **Key Takeaways:**

1. **Know the right contact point in a corporation; they are gatekeepers.** As a business technology scout for Evonik, Rick Muisener serves as an institutional liaison with a charge to bring R&D back to the United States. Professionals like him are conduits to the full spirit of technology across the numerous business lines in a company. Jeff, as Corning's director of glass research, seeks innovation opportunities for the company. Recruiting small, innovative companies is a current priority.
2. **Know the company's operations, where they participate/network, and how they conduct outreach.** Understanding the diversity of products across their platforms, where their operations are, and what products come from those locations is crucial. While Evonik searches major institutions for talent near areas of their operation, Corning does not have a particular focus on a type or location for its university innovation partners. For talent, Corning uses a number of approaches to engage faculty and students (conferences, scholarships, sabbaticals for faculty, etc.).
3. **Bring the company something they want.** For research partnership, connect to the company's areas of interest. The Glass Summit is a way for Corning to see what research is being done in areas of interest to it. Hosting faculty sabbaticals and providing scholarships are ways to support and involve those doing research of interest to Corning. Broad corporate efforts are also a potential area for research sponsorship; Evonik has a broad specialty chemical portfolio, but is also looking at how to shrink its carbon imprint.

The Xurban Cornell 2022 workshop report is not intended to be a detailed record of the entire proceedings. Contact UIDP at [info@uidp.net](mailto:info@uidp.net) for any questions or comments about this report.

### ***About UIDP***

UIDP is a solutions-oriented forum where academic and industry representatives find better ways to work together. Our membership, comprising top-tier innovation companies and world-class research universities, identifies issues affecting university-industry relations and seeks new approaches to partnership and collaboration. Together, we produce tools and resources to help members make a greater impact. We don't just talk about problems. We solve them. Learn more at [uidp.org](http://uidp.org).

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