



UIDPConnect 2021 CONFERENCE REPORT

September 13-17, 2021



Strengthening
University-Industry
Partnerships

CONFERENCE AT A GLANCE

UIDPConnect 2021 convened more than 800 registrants representing 10 countries for a virtual conference bridging five days of curated content. Attendees played an active role watching, listening, and participating via live chat, Q&A, and in-app interactive tools. Our conference was anchored by five keynote sessions featuring various national thought leaders; UIDP was honored to host NSF’s Senior Advisor for Translation, Innovation, and Partnerships **Erwin Gianchandani**, as well as author and inventor **Dave Ferrera**, NIH’s All of Us Research Program CEO **Joshua Denny**, NOAA Administrator **Rick Spinrad**, and Lawrence Livermore National Laboratory Director **Kim Budil**.

UIDP was fortunate to secure the services of nearly 150 subject matter experts as presenters and speakers. Live presentations have been completed, and conference attendees can download materials and watch almost every session recording 24/7—whenever it is convenient for them.

UIDP also released three new resources in conjunction with the conference:

- **An emagazine:** UIDP’s newest publication traces the wide-ranging career paths of those working at the intersection of university-industry-government research partnerships. It highlights different roles—researcher, program leader, corporate/academic relations, tech scout or manager—to understand the goals and priorities across sectors for career advancement. Learn about the common threads of working in partnership roles across sectors and gain from thoughtful perspectives in 13 candid interviews in [U-I Connector Career Paths: Crossing Sectors, Creating Impact](#).
- **An article.** This year, UIDP invited Tevi Troy, former Deputy Secretary of the U.S. Department of Health and Human Services and a presidential historian, to research and author an article about lessons learned from the pandemic. In this article, he takes a hard look at the missteps and the victories, highlighting key learnings from the experience about public support for collaborative R&D Read [COVID-19 Lessons Learned: Collaboration Needed at All Levels, and a Path to Getting There](#).
- **An infographic:** UIDP Community Partner CannonDesign collaborated with us on a workshop last spring, "Re-Envisioning Collaborative Spaces," and created an infographic that expresses the key themes shaping how shared, collaborative spaces are created and re-created in a post-COVID world. Explore the influence of serendipity, trust, risk, balance, and inclusivity in design of shared spaces in [Re-envisioning Collaborative Research Environments](#).

Wendi Yajnik
Global Head of Academic Partnerships and External Innovation at Novartis Institutes for Biomedical Research (NIBR)

Explore to feed curiosity

Sometimes a career gives you everything you want, year in and year out. But then, something changes. You get curious about how things work in other sectors. You start to feel wanderlust, and you look for new knowledge. You open up to people beyond the periphery of your current environment.

That's what happened to Wendi Yajnik. She loved being at Brigham and Women's Hospital, bridging the gap between academic and industry scientists. But after 18 years (and after seeing her twins celebrate their 18th birthday), she realized it was time for a change. She was free to travel and learn something new while using the skills she had honed in academic research and licensing.

Yajnik began exploring large biotech and pharmaceutical companies in Boston. Wendi got one that she was looking for: a nice speaking fee, and headquarters began knocking on her door. Sanofi was looking for someone to revamp collaborations with academia. "I knew the players at Sanofi and liked their philosophy and the leadership," says Yajnik. While mulling over a decision to accept a position there, she considered potential into the NIBR pipeline. He created the position with the vision of hiring someone who wore both hats and Yajnik fit the bill.

It takes time to build credibility in each new position—the advice to anyone moving into an industry goes on is to "get to know the players, build credibility, become a resource," and worry less about the "moola" (i.e. how many weeks' vacation you get). "It's not just an important, in the long stretch."

Compensation in academia and industry "don't compare," says Yajnik. "In industry, there are elements beyond the base salary."

YAJNIK'S ADVICE FOR THOSE LOOKING TO JUMP FROM ACADEMIA TO INDUSTRY: LEARN TRANSACTION SKILLS.

UIDP

UIDP thanks our sponsor, Academic Analytics, for financial support of this event

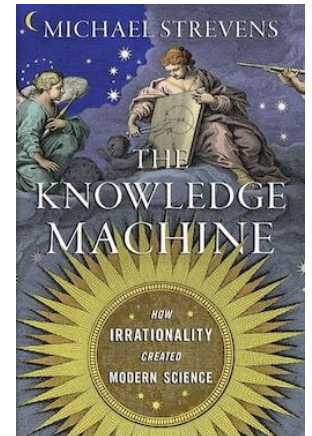
DAY ONE MONDAY – September 13, 2021

The Highly Effective Irrationality of Science

Moderator: Brad Lukanic, CannonDesign

Presenter: Michael Strevens, New York University

Additional Resources: [*The Knowledge Machine: How Irrationality Created Modern Science*](#)



Modern science has done extraordinary things: creating COVID-19 vaccines, sending humans to the moon, finding the ultimate nature of gravity. What makes it so powerful—and so different from the attempts to understand nature made by the philosophers and monks of old? Surveying the history of science from Aristotle to Einstein, from Darwin’s finches to the theory of quarks, Michael Strevens showed that much of science’s power derives from an epistemic limitation that can only be understood as irrational. The paradigmatic scientist is a paradigmatic reasoner in many ways, but in at least one way, their perfection as a scientist lies in the deliberate cultivation of a gaping intellectual blind spot.

Takeaways:

- **Much of science’s power is derived from an objectivist limitation that can only be understood as irrational.** The iron rule sees empirical testing as science’s only defining principle, thus creating a narrowness which only counts observable facts.
- **The iron rule has a negativity built into its perspective.** It does not allow for philosophical, religious, or aesthetic considerations to be considered. The iron rule also discourages the communication and publication of evidence.
- **The emotional lever in decision making is discounted.** While we incorporate beauty, intuition, and instinct into decision making when working rationally, the iron rule is irrational in that it demands exclusion of these facets. Additionally, science is given a veneer of objectivity through use of the passive voice.

Key Learnings from Public Support for Collaborative R&D during COVID-19

Moderator: Kelsey Evans, University of Texas at Austin

Presenter: Tevi Troy, The Bipartisan Policy Center

Additional Resources: [*Shall We Wake the President, COVID-19 Lessons Learned: Collaboration Needed at All Levels, and a Path to Getting There, UIDP COVID-19 Response Report*](#)

U.S. policy makers long had plans for responding to a dangerous new pathogen, and three layers of defense—international monitoring, testing, and stockpiling of countermeasures—to protect Americans from a pandemic. All three layers failed the test of COVID-19. But the tide turned through an unprecedented effort to remove barriers and work across sectors to find solutions. In the U.S., Operation Warp Speed capitalized on the power of triple helix collaboration—the ingenuity of scientific

researchers in both the private and academic sectors, the directional and financial support of the U.S. government, and the vaccine and logistical know-how of top biopharmaceutical companies--to create multiple effective vaccines in record time. This session presented an analysis of the key takeaways from this period and how they can be applied to solve significant challenges facing society.

Takeaways:

- **Lack of collaboration contributed to the failure to identify the Coronavirus pandemic.** Collaboration was missing both at the international level—lack of communication with China precluded failure of international monitoring—and at the national level—the CDC’s initial unwillingness to work with other sectors led to a lack of tracking, testing, and tracing initiatives.
- **The triple-helix collaboration model is important, and each entity plays a vital role.** Universities engage in basic research to identify problems and solutions; industry pursues and delivers on the solutions; and government provides funding and direction for problem solving. As important, nontraditional approaches (such as less emphasis on IP and pre-purchasing of yet-to-be-created vaccines) were vital to the success of this effort.
- **COVID-19 challenges provided lessons that can be translated to other urgent issues.** The lessons learned include: the need to anticipate better, the reality that group think does not allow for challenging established methods and thinking outside the box, and the necessity to focus on better technologies.

WestGate@Crane: Organizing Defense-University-Industry Partnerships in Non-Metropolitan Settings

Moderator: Kevin Byrne, TUFF

Presenters: Joe Carley, Indiana University; Jason Salstrom, Purdue Research Foundation; Stacey Mervyn, Naval Surface Warfare Center Crane; Duane Embree, Naval Surface Warfare Center Crane

Additional Resources: [UIDP Principled Partnerships Quick Guide](#), [NSF Workshop on University-Industry Engagement Outside Major Metropolitan Areas and Megacities: Identifying Issues and Finding Solutions](#)

The Naval Surface Warfare Center (NSWC) in Crane, Indiana is the anchor of a community of defense-related, industry, academic and economic development partnerships. Industry has located near the entrance to the highly secure Crane military base and the state of Indiana, Purdue University and Indiana University each have a presence in the region and are developing partnerships with industry and NSWC. Implementation of an organizing master plan is the key to building a cohesive and robust innovation ecosystem by providing vision, programming, and physical place-making. A panel discussion with representatives from NSWC, Purdue, Indiana and Industry highlighted the importance of organizing the partnerships in the region while aiding the men and women on the front lines of our nation’s defense.

Takeaways:

- **Ecosystem building is necessary for the resource environment when operating in a non-metropolitan area.** Creating alliances and relationships between university and industry partners is vital to building an effective, long-term, and sustainable ecosystem, especially in a geographically rural environment. **UIDP will host UIDB Xurban Cornell June 7-8, 2022, in Ithaca, NY.** The challenges of creating an innovation ecosystem in a non-urban area will be among the topics explored.
- **A diverse and talented workforce is not inherent to non-metropolitan areas.** Establishing collaborative relationships between industry and universities is essential to attracting the type of highly credentialed workforce normally found in metropolitan areas; this talent pool is necessary to the sustainability of the ecosystem.
- **Community economic development is both a precursor to, and a product of, ecosystem building.** Technology parks and other innovation centers in non-metropolitan areas lend their partnerships to the economic development of the region. Continued economic development in the community is cyclical and helps maintain the viability of the ecosystem.

Keynote | Expanding Partnership

Prospects: An NSF Perspective

Moderator: Randy Katz, UC Berkeley

Presenter: Erwin Gianchandani, NSF

Additional Resources: [NSF Advancing Innovation and Impact in Undergraduate STEM Education at Two-year Institutions of Higher Education](#), [NSF Historically Black Colleges and Universities – Undergraduate Program](#), [NSF Historically Black Colleges and Universities – Excellence in Research](#), [NSF NNRI Workshop Report](#)

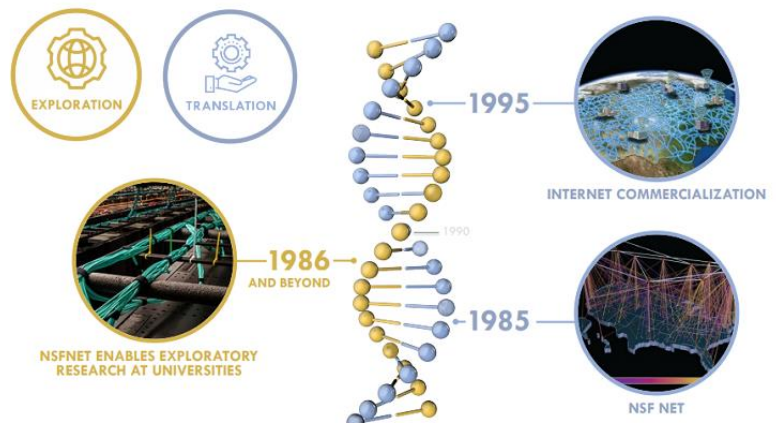


Image source: <https://www.aip.org/fyi/2021/panchanathan-makes-case-nsf-expansion-appropriators>

Since its founding in 1950, the National Science Foundation has sought “to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense.” NSF-funded research has advanced foundational, exploratory research, like the detection of gravitational waves validating Einstein’s general theory of relativity, as well as [use-inspired, solutions-oriented research](#), like the page-rank algorithm that became the basis for Google. In this session, Erwin Gianchandani, NSF senior advisor for translation, innovation, and partnerships, discussed the opportunity to enhance the synergies between exploratory and use-inspired research to meet today’s societal grand challenges, thereby improving the critical services that communities deliver to their residents, transforming higher education to meet the needs of tomorrow’s workforce, and advancing public policies.

Takeaways:

- **NSF may be charged with creating a new Directorship for Technology Innovation and Partnerships.** 1991 was the last time a new directorate was established, and legislation has been introduced in both the House and the Senate to advance this directorate. This trajectory signals NSF’s move toward more of a DARPA model (although not truly duplicative) and more milestone-driven projects.
- **NSF aims to translate research results into practice.** Companies and potential partners should look for broad agency announcements and dear colleague letters regarding new opportunities for strategic partnerships to advance this goal.
- **NSF is increasing investment in community on two fronts.** First, NSF is exploring regional scale innovation investment with a focus on workforce development and with the goal of attracting co-investment from other regional stakeholders. Second, NSF is increasing investment in infrastructure and experiential pathways for students and researchers at HBCUs and other minority serving institutions.

Caught in the Crossfire: How the Washington Spending Battle Ends

Moderator: David Norton, University of Florida

Presenter: Leslee Gilbert, Van Scoyoc Associates

Additional Resources: [Legislative Realities of the New Administration and 117th Congress](#)

As a follow-up to her February UIDP presentation, “Running to Stand Still: Legislative Realities for the 117th Congress and New Administration,” Leslee Gilbert assessed where we are currently with science, technology, and innovation priorities. Nine months into the new Congress and administration, emotions are running high as Congress attempts to enact many aspects of President Biden’s agenda. With little time left on the fiscal clock and limited room for compromise, the road ahead will not be easy, quick, or painless. This session explored the path ahead for science, technology, and innovation authorizations and discussed the landmines that await the amassing armies on both sides.

Takeaways:

- **The U.S. Congress is pushing the U.S. Innovation and Competition Act (USICA).** Spending implementation strategies have yet to be determined but will include considerations for research and development hubs and workforce development.
- **The Build Back Better Plan increases funding for research and development.** The Biden administration is focusing on shoring up spending on both infrastructure and research and development.
- **However how research and development spending will be prioritized is uncertain.** Because of continuing debate at both the legislative and executive levels, future appropriations for research and development through NSF, regional technology hubs, and the Endless Frontier Act are stalled.

Creating a National Network of Research Institutes (NNRI)

Moderator: Cheryl Martin, Harwich Partners

Presenters: Pramod Khargonekar, UC Irvine; Chris Ramming, VMware; Aimee Rose, Activate

Additional Resources: [NSF NNRI Workshop Report](#)

Current legislative and budgetary initiatives provide strong indications for major new opportunities for the science and engineering R&D community to make high-impact contributions to address urgent challenges in health, global technological leadership, economic competitiveness, national security, climate change mitigation and adaptation, and inclusive growth. In May 2021, individuals from academia, industry, government, venture capital, and nonprofit organizations met to define a distinct and compelling vision and implementation considerations for a new type of research institute model, the National Network of Research Institutes (NNRI). This panel discussed the need for new models of mutually beneficial, multi-sector strategic partnerships to achieve these transformative goals. It provided an opportunity for UIDP members to engage on elements this new model must address and to prepare to participate in potential opportunities.

Takeaways:

- **Forming the institutional pillars and defining the challenge is where the magic happens.** If everyone comes to the table with open minds, individual perspectives, and metrics for success, then they can have honest conversations that ensure the institute will feature partners with an equal voice in defining and shaping the agenda.
- **The notion of team building is vital to the creation of any institute.** If the UIDP community were to seed some partnerships and gather groups for visioning activities, new trajectories and teams will result.
- **The action plan is being rewritten.** Involved parties have the opportunity to redesign how collaboration and tech transfer occur and bring them closer to the university level.

Rethinking Multi-sector R&D Partnerships: Streamlining Innovation and Workforce Development

Moderator: Jacqueline Olich, Research Triangle International

Presenters: Theresa Mayer, Purdue University; Kelvin Droegemeier, University of Oklahoma; A.N. Sreeram, Dow Chemical Company

Additional Resources: [COVID-19 Lessons Learned: Collaboration Needed at All Levels, and a Path to Getting There](#), [UIDP COVID-19 Response Report](#)

The COVID-19 pandemic made clear that the U.S. R&D enterprise can operate with extraordinary speed and efficiency to accomplish amazing feats during a global crisis. It especially highlighted how multi-sector partnerships can be structured to succeed when regulations are streamlined or set aside, and new, creative approaches are used – all without compromising integrity, safety, and accountability. This session described lessons learned from the pandemic and a new framework for partnerships that will allow the United States to be much more effective in R&D and in developing the diverse workforce needed in today’s globally competitive environment.

Takeaways:

- **World-wide grand challenges can unite populations in a common goal irrespective of competition.** This unity can be challenging as we contemplate the competitive market space, but it is critical in times of a pandemic.
- **The pandemic proved that through investments in science and technology, we can progress at extraordinary speed.** It is vital that we retain this lesson learned, apply it to future decision making, and be willing to take risks and experiment.
- **Energy is at the heart of future progress.** Energy that is affordable, available, and reliable is fundamental to progress in innovation, the environment, and standards of living.

Companies and Universities: Adjusting to the Changing Funding Landscape

Moderator: *Suresh V. Garimella, University of Vermont*

Presenters: *Chad Harper, Raytheon Technologies; Lora Weiss, Penn State University; Gerard Bailley, Procter & Gamble*

Additional Resources: [Balancing competitiveness with freedom: Reflections on the U.S. Innovation and Competition Act](#)

Amid the debate around U.S. Senate passage of the U.S. Innovation and Competition Act and House consideration of similar legislation, industries and universities in the United States are faced with new challenges and opportunities in the wake of increased funding. This panel discussed how companies and universities can pivot to adjust to the new emphasis on innovation and funding for research and development.

Takeaways:

- **Partners have identified and overcome a tempo mismatch.** Universities are on a semester time scale, and industries are working with an eye toward hours, days, and weeks. Aligning the two gears was initially a struggle, but as students were incorporated as company employees, they gained an understanding industry pace.
- **As the landscape changes, it is imperative to understand strengths and weaknesses.** Performing a strengths, weaknesses, opportunities, and threats analysis and hiring to compensate gaps will help solve current and future problems.
- **Universities are not in the R&D space to compete with industry.** Rather, they can provide a bench of talented, specialized individuals for industry to pull from.

Iowa State Biosciences Innovation Program

Moderator: *Magan Lewis, Corteva Agriscience*

Presenter: *Peter Dorhout, Iowa State University*

Additional Resources: [Iowa State Biosciences Platforms](#)

The biosciences represent a significant segment of Iowa’s current economy and opportunities for growth in the future, as indicated by the state-commissioned [2017 TEconomy Report](#). Three priority

Bioscience platforms—Biobased Products, Digital and Precision Agriculture, and Vaccines and Immunotherapeutics—are large markets with significant growth potential and represent core strengths at Iowa State, which helps lead the state in capturing the economic value these platforms offer. In FY21, the university strategically invested nearly \$1 million that the Iowa Legislature allocated toward several key initiatives designed to foster greater university-industry collaboration and economic development through the support of innovation ecosystems around each Iowa-advantaged Bioscience platform.

Takeaways:

- **The biosciences represent a significant segment of Iowa’s current economy and opportunities for growth in the future, as indicated by the state-commissioned 2017 TEconomy Report.** As a result, nearly \$1 million was invested in innovation ecosystems around each bioscience platform to foster greater university-industry collaboration and economic development.
- **Three bioscience platforms were identified as representative of core strengths at Iowa State and priorities for significant growth potential.** Those three platforms are bio-based products relating to startups and commercialization, digital and precision agriculture enabling farmers to optimize outputs, and vaccines and immunotherapy preparing for outbreaks and animal culture.
- **Iowa’s Biosciences Innovation Program is a triple-helix model.** Iowa State University partners with fellow state institutions, industry liaisons, and county officials.

RISE: A Secured Research Information Environment to Support U-I Collaboration

Moderator: Liv Blackmon, MITRE

Presenters: Paul Lowe, Kansas State University; Cheryl Doerr, Kansas State University; Danny Sewell, Kansas State University; Jeremy Jackson, Anneal Initiative; Amy Billinger, Anneal Initiative

Additional Resources: [Research Information Security Enclave](#)

The Research Information Security Enclave (RISE) is a solution developed by Kansas State University (K-State) in partnership with Microsoft Corporation (Microsoft) to facilitate information security requirements associated with sponsored research. By leveraging the Microsoft Azure cloud (Azure), RISE meets the technical information security requirements established by the federal government. In addition, this solution may be deployed to facilitate a secure environment for working with, sharing, and storage of highly sensitive and proprietary information and data exchanged or generated through university-industry research collaborations. RISE is intended to not only support an institution’s ability to meet multiple information security standards, but also to provide a path of least resistance for the research community, thus fostering adoption of the RISE solution and alleviating the burden of information security from the research team.

Takeaways:

- **Information storage should be isolated from business and other networks.** Have a written policy and limit information access to individuals actively working on projects while supporting awareness and security culture.

- **Information security is seen as an IT problem but IT staff are task saturated.** Other industry challenges such as a steep threshold to entry, minimal seats, certifications, and costs prohibit competitiveness.
- **Third-party support for information security can address existing challenges.** Outside support entities can provide dedicated experts, an objective perspective, and ongoing risk analysis that allows for more proactive rather than reactive decision making.

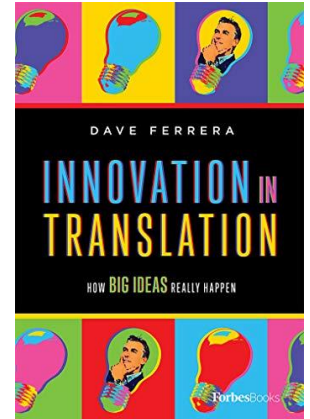
Twilight Keynote | Dave Ferrera, *Innovation in Translation*

Moderator: Jay Schrankler, University of Chicago

Presenter: Dave Ferrera, Author, Inventor, Entrepreneur

Additional Resources: [Innovation in Translation](#)

In his book, *Innovation in Translation*, Dave Ferrera debunks the myth that big ideas just happen and offers an adventure-filled guide to bringing new products from the drawing board to the market shelf. This session examined innovation, what it takes to go from idea to successful venture, and the role of developing the right partnerships and collaborators along the way.



Takeaways:

- **No one becomes successful by themselves.** As in baseball, building the right team is vital to innovation; everyone has a talent and does it well in their specific job.
- **Have a checklist to follow when solving a problem.** If an inventor believes they have a solution, they should protect the idea and patent it, pick their path to entrepreneurship, and explore funding options.
- **Relate to actors outside of the team.** To generate ideas for new innovations, talk to customers, attend relevant conferences, and comb through applicable journals. Work with university commercialization groups to encourage prototype funding.

DAY TWO TUESDAY – September 14, 2021

Harnessing Micro-Internships to improve engagement, diversity, and conversion outcomes

Moderator: Sandy Mau, UIDP

Presenters: Jeffrey Moss, Parker Dewey; Julia Gueron, HubSpot

Additional Resources: [Parker Dewey](#), [HubSpot's Education Partner Program](#), [It's Time to Officially End Unpaid Internships](#)

Since 2016, Parker Dewey has been at the center of creating relationships between college students, employers, and higher education through its micro-internship platform. Thousands of students and recent grads have utilized short-term projects to launch their professional careers, yet skeptics still ask: Is 10 hours enough? The short answer is “yes.” These opportunities provide just enough of a taste of industries and roles while also serving as a pathway to traditional internships and early-career recruiting programs. This session featured a discussion with industry client HubSpot to learn how micro-internships support all students and diversity, equity, and inclusion-focused employers alike.

Takeaways:

- **Micro-internships opportunities can be found everywhere, from one-person startups to Fortune 500 companies.** They are short-term, paid, professional projects completed by college students or recent graduates and range from 5 to 40 hours in length.
- **Piloting a small program is important to ensuring controlled growth and success.** HubSpot began with 20 micro-internship matches with the intent of expanding intentionally after proving the value of micro-internships to the business.
- **Micro-internships can lead to the development of a diverse recruiting pipeline.** Companies utilizing micro-interns can hire students to work independently on a professional project and compare and contrast finished products in order to make recruiting decisions outside of traditional considerations about school and grade point average.

Engaging HBCUs Beyond Talent

Moderator: Coleen Burrus, Princeton University

Presenters: Kory Hawkins, Microsoft; Lori Walton, Lockheed Martin; Russette Lyons, Novartis

Additional Resources: [Novartis pledges 10-year commitment with Morehouse School of Medicine, 26 Historically Black Colleges, Universities, Medical Schools and other leading organizations to co-create effective, measurable solutions for health equity | Novartis](#), [NIBR Global Scholars Program | Novartis](#), [Postdoc Program | Novartis](#), [Internship Programs | Novartis](#), [COVID-19 Lessons Learned: Collaboration Needed at All Levels, and a Path to Getting There](#), [UIDP COVID-19 Response Report](#), [Reference Articles on HBCU Engagement](#)

There are myriad ways for universities and industry to interact for mutual benefit. Talent development is one key area where industries have invested time and effort in partnership with historically black colleges and universities. But there is much to be gained by expanding the focus beyond talent. This session highlighted current examples of partnership value beyond talent and recruitment efforts, with a rich discussion of challenges, opportunities and benefits from leveraging partnership across the continuum.

Takeaways:

- **As COVID-19 led to the rise of virtual work platforms, companies experienced a greater level of flexibility in their ability to engage with HBCUs.** Industry efforts should be strategic and coordinated, however, as some well-known HBCUs are receiving an overwhelming amount of interest while others are neglected.

- **Not every HBCU is the same.** Companies need to understand the history of each potential HBCU partner as well as their specific research interests and capabilities; their outreach approach cannot be one-size-fits-all.
- **When building a partnership strategy for HBCUs, remember that long-term relationships are preferable.** Companies should identify strategies for sustainable partnerships, but if they are currently unable to maintain long-term relationships, there are other ways to engage with HBCUs through funding while considering a comprehensive approach in the future.

Introducing the International Science Reserves

Moderator: Lissa Matyas, Science&TechCollab

Presenters: Nick Dirks, The New York Academy of Sciences; Nancy Campbell, IBM

Additional Resources: [UIDP COVID-19 Response Report](#); Contact ISR@nyas.org for more information about ISR.

Nicholas Dirks, president & CEO, New York Academy of Sciences, and Nancy Campbell, director, government engagement, Office of the Director of IBM Research, introduced the International Science Reserve (ISR), a global network of scientific experts who are committed to collaborating across borders to accelerate solutions to help mitigate global crises. Spearheaded by the New York Academy of Sciences in partnership with IBM, the goal of the ISR is to accelerate and augment the response capacity of the global community to complex crises by facilitating access to specialized scientific and technical resources, conducting scenario planning exercises, and collaborating with scientists from around the world.

Takeaways:

- **We don't want to forget the lessons of the pandemic.** We want to be ready, not just for the next pandemic, but any number of global crises. The learnings from this 18-month pandemic need to be translated into a reserve that will prepare the world for the next crisis moment.
- **Scientists are inherently collaborative.** Scientists know that to develop new knowledge they need to tap into networks and potentially create new networks to enter the next stage of scientific discovery and knowledge. Unfortunately, some of the other institutions that play a role in supporting science don't always recognize the importance of collaboration, which could be due to national impediments as well as institutional ones.
- **Interested parties can reach out to nyas.org.** This is a nascent effort, and the New York Academy of Sciences will have a new website up and running soon that will allow visitors to sign up for various partnership initiatives.

Tech Translation and IP: Collaborating with the DOE National Labs

Moderator: Amanda Palumbo, Dow Chemical Company

Presenter: Brian Lally, DOE

Additional Resources: [Maximizing U-I Engagement with DOE National Labs Quick Guide](#)

The DOE's 17 national labs offer a range of specialized instruments and facilities, many of which can be found nowhere else in the world. With their emphasis on translating basic science into innovative products, materials and processes, collaboration with the national labs is sought by university and industry partners. This session explored the practical challenges and opportunities for doing research with the national labs with Brian Lally, DOE's assistant general counsel for technology transfer.

Takeaways:

- **National lab complexes are vast and provide opportunities for research advancement.** National labs offer a range of specialized instruments and facilities, but the process to access the facilities needs to be easy. Much time has been invested in making relevant information easier to access through services such as Lab Partnering Services.
- **Diversity, equity, and inclusion provides more funding opportunities.** Potential partners' diversity, equity, and inclusion initiatives may open the door to new relationships with and funding from the national labs.
- **Organizations outside of the lab gate play an important role in collaborative research.** Some labs gave established foundations to promote outreach and raises the possibility of additional funds and can provide systemic encouragement for STEM in early childhood education, women, and other groups.

UIDP-NSF Bioeconomy Workshops: Collaborative Research to Solve Society's Challenges

Moderator: Theresa Good, NSF

Presenters: David Berkowitz, NSF; Chris Hewitt, BASF; Jennifer Dunn, Northwestern University

[*Biotechnology Workshops Aim to Identify New Directions for Transformative Research*](#)

A new workshop series led by UIDP on behalf of NSF is leveraging the country's top scientific minds to identify biotechnology areas where strategic investments will accelerate the transformation of research into products, services, and new techniques that serve as the cornerstone for Industries of Tomorrow. This session discussed progress to convene thought leaders from academia, industry, and government and the efforts to identify research areas ripe for partnership and collaboration.

Takeaways:

- **Strategic investments in the biotechnology areas will accelerate the transformation of research into products, services and new techniques that serve as the cornerstone for Industries of Tomorrow.** NSF is positioned to cross fertilize, and scientists may need to communicate more broadly to incorporate regional outreach efforts.
- **The goal is to seek opportunities to solve some of the most pressing societal problems by delivering cost effective outcomes in the short and medium term and be receptive for consumer behavior.** The World Without Waste Workshop highlighted case studies and reported several takeaways: circular bioeconomy functions are necessary, machine learning and AI data sets are required for scaling and delivering impact and engaging multiple stakeholders across disciplines is key.

- **NSF initiative provides value and drives stakeholders to participate.** They can see the world from the other side and engage in cross-disciplinary partnerships. Funding is all under one roof, which allows the program to move quickly and provides benefit to the broader scientific community.

NSF Translational Research Opportunities – an update from IIP

Moderator: Mark Riley, University of Nebraska-Lincoln

Presenters: Jesus Soriano Molla, NSF; Crystal Leach, NSF

Additional Resources: [Partnerships for Innovation](#), [Industry-University Cooperative Research Centers](#), [Grant Opportunities for Academic Liaison with Industry](#)

The NSF's Directorate for Engineering's Division of Industrial Innovation and Partnerships (IIP) supports programs to accelerate NSF-funded and other federally-funded fundamental research into market opportunities and fosters public-private partnerships to advance technological innovation. IIP invests in high-tech small businesses and collaborations between academia and industry to transform discoveries into innovative commercial technologies with societal benefits. IIP supports a number of programs including the Innovation Corps Program (I-Corps), the Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR), Industry-University Cooperative Research Centers (IUCRC), and the Partnerships for Innovation (PFI) program. In addition to advancing cutting edge research, these programs support workforce development at multiple levels and offer a variety of opportunities for industry-academic collaboration.

Takeaways:

- **Partnership for Innovation (PFI) is translational.** This program takes the results of NSF-funded partnerships and brings them to the marketplace. The focus is to provide funding to applied research that is responding to a commercial hypothesis.
- **Industry-University Cooperative Research Centers (IUCRC) are a collaborative approach to partnering that connects many researchers with many industry partners, rather than a 1:1 relationship.** This allows members to work together to achieve outcomes that support societal needs. Those interested can join existing centers or submit a proposal to create a new one in a focus area that is not yet represented.
- **Grant Opportunities for Academic Liaison with Industry (GOALI) seeks to stimulate collaboration between academic research institutions and industry.** Under this program, academic scientists and engineers request funding either in conjunction with a regular proposal submitted to a standing NSF program or as a supplemental funding request to an existing NSF-funded award.

Update from the NSF Engineering Research Visioning Alliance

Moderator: Jennifer Carinci, Engineering Research Visioning Alliance

Presenters: Dorota Grejner-Brzezinska, The Ohio State University; Edl Schamiloglu, University of New Mexico; Charles Johnson-Bey, Booz Allen Hamilton

Additional Resources: [NSF Engineering Research Visioning Alliance](#)

The Engineering Research Visioning Alliance is an NSF-funded effort to identify and develop bold and transformative new engineering research directions and to catalyze the engineering community's pursuit of innovative, high-impact research that benefits society. In this session, ERVA's leadership provided updates on initial visioning themes, and the process that is underway to identify new areas of research.

Takeaways:

- **The first ERVA visioning event will start with a global challenge and work toward tackling more targeted global research areas.** ERVA's first visioning event, to be held Dec. 7-8, 2021, will focus on engineering's role in addressing climate change. A diverse group of stakeholders to convene to identify less-explored, basic and use-inspired research lines within this broad theme that are ripe for multi-disciplinary contributions from the engineering research community.
- **ERVA has created a list of potential visioning themes for discussion.** These themes include but are not limited to carbon neutrality, combating climate change, and foundational science.
- **Stay connected with ERVA and join the conversation.** Follow ERVA online through the ERVA website and [sign up](#) as an ERVA Champion to receive updates.

Alliance Managers and their Roles

Moderator: Manjula Donepudi, Pfizer

Presenters: Aditi Martin, Oregon Health & Science University; Linda Lohr, Pfizer

Playing a critical role in how organizations manage their R&D and commercial partnerships, alliance managers are more than the glue that can cement a relationship. They can create common ground from the differences between their organization and potential partners. This session featured a panel of alliance managers discussing the role they play and how they enable U-I partnerships to meet their goals.

Takeaways:

- **Alliance managers guide research and development relationships.** They assist their organizations by coordinating university-industry partnerships and enabling research contracts.
- **Alliance managers are most common in multi-disciplinary areas.** In spaces like biotechnology, alliance managers are useful in helping organizations communicate and explore innovative practices across diverse fields.
- **Alliance managers make communication in a complex arena simpler.** They work to solicit and form new, long-term relationships that build the foundation for opportunities like clinical research and biomedical advancement.

Decentralized Clinical Trials: Collaboration to Accelerate Adoption and Improve Access

Moderator: Ed Jones, Houston Methodist Research Institute

Presenter: Craig Lipset, Clinical Innovation Partners

Additional Resources: [CTTI Recommendations: Decentralized Clinical Trials](#)

As the clinical research community worked to deliver novel therapeutics and vaccines for COVID-19, it also maintained the global pipeline of new medicines across therapeutic areas. One of the key solutions to supporting clinical trial continuity during the pandemic has been to decentralize clinical trials, enabling participation from home or other locations away from a traditional research site. Decentralized trials can improve access, experience, and resilience for clinical research, but can the momentum be maintained beyond the pandemic? The session explored the range of collaborations across the community addressing global barriers to adoption and supporting sustaining change.

Takeaways:

- **Clinical-trial sponsors seek to make clinical trials faster and to improve the experience for patients and physicians.** Trial decentralization has emerged as a critical tool in this pursuit and brings an increasing proportion of a trial's activities to the patients rather than using the traditional paradigm of bringing patients to a trial site.
- **New technology supports decentralization of clinical trials.** With measurement devices that can capture data regardless of location, many clinical trials were able to continue despite COVID-19 restrictions. This option not only ensured patient safety, but also maintained confidence in data quality and integrity.
- **Decentralization comes with risks.** Concerns include risks to privacy associated with digital data capture, a lack of reciprocity and standardization among states, and disproportionate disadvantages to populations affected by the digital divide.

Leveraging the UIDP Career Center and Member Network

Moderator: Sandy Mau, UIDP

Presenters: Angie Taylor, UIDP; Michelle Lubaczewski, UIDP

Additional Resources: [U-I Connector Career Paths: Crossing Sectors, Creating Impact](#)

UIDP's new [Career Center](#) offers expanded capabilities for organizations seeking top partnership and collaboration talent, for training, and for identifying new career opportunities. Members of UIDP can also access a powerful platform, myUIDP, to connect with colleagues across organizations and build a strong network. This session provided an overview of these valuable resources.

Takeaways:

- **UIDP has a variety of resources available to members.** Resources cover a range of topics including contracting, government engagement and economic development, partnership management and research administration, and workforce management and student engagement.

UIDP Work Product: Do not cite, copy, or distribute without written permission. See UIDP Disclaimer on [UIDP.org](#) for details. Member organizations may share internally.

- **UIDP recently released a single sign-on feature for member access.** Members now have seamless access not only to member resources such as publications, podcasts, and surveys but also to MyUIDP – a LinkedIn type directory of UIDP member representatives.
- **UIDP has launched its new career center.** The career center provides a platform for posting and finding jobs as well as career path training.

Revolutionizing Technology Development Partnerships with Universities

Moderator: James Weyhenmeyer, Auburn University

Presenters: Abby Queale, Magnetics Corporation; Jeffery Whalen, Magnetics Corporation; Greg Boebinger, National High Magnetic Field Laboratory

Additional Resources: [MagCorp](#)

In a precedent-setting move, MagCorp, a for profit company, recently partnered with the National High Magnetic Field Laboratory and Florida State University to accelerate magnet technology development. This session highlighted MagCorp's novel business model that unifies the public and private sectors by removing the typical barriers to university-industry collaborations.

Takeaways:

- **MagCorp exists to address who can solve the problems of today.** It was formed by current and former employees of Florida State University and the National High Magnetic Field Laboratory to leverage their capabilities to meet industry needs by operating as a conduit to specialized expertise.
- **MagCorp creates solutions to IP conflicts.** MagCorp works to alleviate universities' anxieties around IP conflicts and indirect costs associated with contract negotiation.
- **MagCorp provides a proactive method to developing industrial relationships.** They have five-year agreement with FSU and the National High Magnetic Field Laboratory, allowing university researchers to work within their lab.

DAY THREE

WEDNESDAY – September 15, 2021

Partnering with Sanofi

Moderator: Richard Cowburn, Karolinska Institute

Presenter: Sridaran Natesan, Sanofi

Additional Resources: [Sanofi Innovation Awards](#)

Partnering with academic innovators across the globe is an important component of Sanofi's approach to bring transformative medicines to patients. Sanofi has multiple ways of partnering with academic innovators, all designed to create maximum value and a positive experience for our collaborators. Sanofi's new, customized approaches to academic partnership are contributing to our pipeline and supporting academic innovators to translate their novel ideas to drug discovery and/or development programs. The company continues to create and implement newer models for further partnership optimization, which will enable Sanofi scientists to collaborate more closely, share, and test ideas and advance them to the clinic in a timely manner.

Takeaways:

- **Sanofi utilizes a variety of academic partnership models.** They include iAwards (research focused), iDEA Awards (data and digital focused), iTech Awards (technology focused), strategic therapeutic area focused partnerships, sponsored research programs, academic scientist exchange programs, clinically focused partnerships, co-location of academic partners, academic advisory boards, and other flexible models.
- **The biggest challenge in partnerships is the duration of the partnership.** It takes several years to make a product pharma-ready, and not all partnerships can support the length of the project.
- **The pandemic taught us that many partnerships can be facilitated via video conference platforms.** This opens a whole new world of opportunities for global collaborations. For more information contact Karen Chandross, PhD, karen.chandross@sanofi.com and Wayne Rowe PhD, wayne.rowe@sanofi.com

NSF Engineering Update

Moderator: Tony Boccanfuso, UIDP

Presenter: Susan Margulies, NSF

In this fireside chat with the recently appointed NSF engineering leader, Susan Margulies, participants learned about her unique research, university, and startup experience, as well as her vision for the U.S. NSF Engineering Directorate.

Takeaways:

- **Investments in engineering research and education are critical building blocks for the nation's future prosperity.** Engineering breakthroughs address national challenges, such as smart manufacturing, resilient infrastructure, and sustainable energy systems. Engineering also brings about new opportunities in areas ranging from advanced photonics to prosthetic devices.
- **Research funded by the U.S. National Science Foundation's (NSF) Directorate for Engineering has enriched the understanding of natural systems.** It has also enhanced electronics, fortified the nation's infrastructure, and introduced the exciting possibilities of engineering to the next generation.
- **It is important to meet student learners where they are and to provide a supportive environment.** This helps students connect what they are learning with why they are learning it

and how it connects to the bigger picture. If possible, provide students with real-world experience.

Boeing's Benchmarking Process for R&D Collaboration with Universities

Moderator: Deborah Crawford, University of Tennessee, Knoxville

Presenter: Cindy Mahler, Boeing Company

Additional Resources: [Collaboration Metrics](#)

Boeing recently completed a benchmarking of university research and development (R&D) models and frameworks using a variety of resources available from UIDP and freely available materials available online. Boeing also held a number of one-on-one conversations with UIDP members to better understand lessons learned across industries for consideration into potential changes in its own university R&D model. This session shared the benchmarking process developed so others may continue to improve upon their processes as desired to meet their own needs regarding university R&D collaboration.

Takeaways:

- **Boeing's key technologies/capabilities include** autonomy, AI, quantum technologies, advanced microelectronics, high-rate composites, additive manufacturing, ATS, advance power and thermal, hypersonics, sustainability and future mobility, and digital engineering.
- **Ways to engage with Boeing:** These include strategic master research agreements (multi-year contract), work experience, co-location, request for proposals, and industry-university 10-year partnerships. There is no one-size fits all. Universities can engage with ad-hoc, standardized, customized, tiered, alliance, and consortium collaborations
- **Benefits of a university-industry collaboration include** human capital, educational, financial, operational, reputational, and intellectual property. These can lead to collaborative research, filling the talent pipeline, and leveraging resources. Interactions can be transactional, tactical, or strategic.

Keynote | Improving Health Through Technology, Huge Cohorts, and Precision Medicine

Moderator: Bruce Korf, University of Alabama Birmingham

Presenter: Josh Denny, National Institutes of Health All of Us Research Program

Additional Resources: [All of Us Research Program](#)

The All of Us Research Program includes nearly 400,000 participants who have contributed biospecimens, health surveys, and a willingness to share their electronic health information. Its Researcher Workbench allows registered researchers access to individual-level data and a suite of tools to analyze it. In this fireside chat, Josh Denny highlighted the role of government to enable partnerships with researchers across academia and industry to address complex health and societal challenges. He discussed how this investment to build a diverse health database can accelerate the research and catalyze development of the cures and therapies that address today's most pressing health needs.

Takeaways:

- **Big data comes with challenges.** Challenges include consolidating healthcare data from over 50 data streams into one cohesive set.
- **Transparency with participants about data security is critical.** To ensure inclusion and diversity in participant data, goals related to security and standards must be communicated.
- **A research platform has been launched for global collaboration.** The [Researcher Workbench platform](#) provides access to research data and tools for analysis and collaboration. It is available to researchers at nonprofit entities at this time, but industry can work with its collaborative partners to access the data and tools.

The New Corporate Engagement Officer

Moderator: Laura Batten, Cornell University

Presenters: Todd Cleland, University of Washington; Mark Schmidt, North Carolina State University; Cherise Kent, Rutgers University

Corporate engagement officers play an important role in facilitating university-industry partnerships, and in recent years, these individuals are moving into their positions with experience from the other side of the aisle. This session will feature experts who will speak to the role and professional arc of corporate engagement officers who built careers in industry before transitioning to the university stage in order to interface with corporations. It will be beneficial to new corporate engagement officers as well as those who have spent their careers in higher education.

Takeaways:

- **Corporate engagement officers often blend general outreach for the university with specific corporate relations.** When professionals in corporate relations have moved to academia from industry, they can utilize their prior experiences to engage industry and advance opportunities for partnerships.
- **Moving from industry to academia highlights a variety of differences in the settings.** Industry drives at a faster pace while universities operate on longer-range plans.
- **Despite overlap, it is important to differentiate between university advancement and corporate engagement.** By bringing industry expertise to the role of corporate engagement, the new class of officers can operationalize their offices' engagement strategies and separate them from university development.

Doubling Industry Collaborations: The Path to Greater Impact

Moderator: Robert Garces, EMD Serono

Presenter: Joseph Havrilla, University of Pittsburgh

Additional Resources: [University of Pittsburgh Office of Industry and Economic Partnerships](#)

The University of Pittsburgh has undergone an evolution of innovation on campus. The legacy institutional approach to research administration and industry collaborations was updated and integrated to provide greater service to our external partners while building in function and flexibility on

campus. The process included a six-month consulting project and industry interview process to evaluate and assess industry needs and university models across the nation. Further, the Office of Industry and Economic Partnerships was integrated into the Office of Innovation and Entrepreneurship, the TTO and innovation headquarters for campus. The resulting structure is one designed to help double the amount of research collaborations and create more impactful and productive research outcomes that can quickly attract funding and further investment to develop commercializable solutions and value for societal impact. This presentation provided an overview of the process undertaken, the lessons learned and the key enablers for developing impactful university-industry collaborations.

Takeaways:

- **The University of Pittsburgh performed an analysis of industry investment in R&D to more efficiently partner.** According to this analysis, investment in life sciences fell primarily into four therapy groups: cancer (38%), neurological (19%), anti-infectives (16%), and alimentary/metabolic (15%). The anti-infectives numbers are skewed for 2020 due to the additional investment in response to the COVID-19 pandemic; this is largely influenced by the high cost of clinical trials.
- **At the highest level of extraction, there are four key takeaways.** Pitt has a substantial opportunity to increase industry collaboration and therefore research impact. Robust industry collaboration is an important element in driving research impact. Oncology, neuroscience, ophthalmology, and platform technologies represent the best opportunities to match their research depth and capabilities with industry strategic needs. A partnering culture with supporting infrastructure is essential to industry collaboration success.
- **Change in culture is important.** The Pitt culture before had an intense focus on basic and grant-based research. The university is now on a journey, with senior leadership support, to increase research translation and start to make changes to get similar interests from faculty and principal investigators to work with industry. One of the key steps is to identify those faculty that have experienced past success with industry, leverage those learnings, and start building a community.

Joint Efforts to Maximize Impact: Dual-Institution Academic Programs

Moderator: April Duerson, Schlumberger

Presenter: Sherine Obare, UNCG and North Carolina A&T State University

Additional Resources: [Joint School of Nanoscience and Nanoengineering](#)

Joint academic and research programs, such as Florida State and Florida A&M School of Engineering and the UNC Greensboro/NC A&T Joint School of Nanoscience and Nanoengineering, offer unique opportunities to maximize research capabilities and develop undergraduate and graduate talent. This session explored challenges and key learnings from two successful efforts.

Takeaways:

- **In this academic year, there has been a significant increase in enrollment at HBCUs around the country, and these students want to be able to participate in research.** Many of these schools

don't meet the Carnegie Classification criteria to be an R1, and the question is how to get there to make research partnerships easier. Today there is more intentionality to build the research enterprise, and there are more gifts coming into these institutions and increased research funding to help make this a reality.

- **It's important to think more about applied research.** There is an expectation within academic institutions for doctoral students to become professors, but there aren't enough of these positions to employ most of these graduates. Doctoral students can participate in projects with industry to help drive company research and also to expand their career opportunities.
- **The university needs to understand industry partner needs and seek fill those needs.** Sometimes the company may not know enough about the students that are at the institution or about the resources within the university. Sometimes the university and industry representatives don't communicate well, which can lead to lack of clarity around goals and expectations.

Creating Collaborative Spaces Post-COVID-19

Moderator: Jaime Camelio, University of Georgia

*Presenters: Chris Lambert, CannonDesign;
Brandy Houston, CannonDesign*

Additional Resources: [COVID-19 Lessons Learned: Collaboration Needed at All Levels, and a Path to Getting There](#), [UIDP COVID-19 Response Report](#), [Re-envisioning Collaborative Research Environments](#)



Download the infographic at <https://uidp.org/infographic-re-envisioning-collaborative-research-environments/>

Ideas and innovation thrive in shared research environments where university and industry collaborators can maximize the benefits of serendipity. The COVID-19 pandemic interrupted daily use of these shared environments and raised questions about balancing risk with the benefits shared spaces convey. This session built upon learnings from UIDP's 2021 Re-envisioning Collaborative Research Environments workshop and explored perspectives about recent and ongoing developments shaping collaborative workplaces.

Takeaways:

- UIDP has a [new infographic](#) resource for members on re-envisioning collaborative research environments. The infographic can provide us with a roadmap as we navigate how to place external collaborations in a post-COVID world.
- **Creating convergence is essential to university-industry partnerships.** Research cannot be independent. It needs to be considered alongside translation and conceptualization with human design in mind.

- **Remote work has enhanced collaboration.** Because boundaries have expanded, diverse and underrepresented individuals can be more easily included, and collaborations are possible where location previously prevented them.

Progress in Renewing American Innovation

Moderator: Dedic Carter, Washington University St. Louis

Presenters: Walter Copan, Colorado School of Mines, Andrei Iancu, CSIS

Additional Resources: [PCAST Report, Industries of the Future](#)

In early 2021, the Center for Strategic and International Studies (www.CSIS.org) initiated the project “Renewing American Innovation,” focused upon advancing U.S. intellectual property and innovation policy. Led by the former directors of the National Institute of Standards and Technology (NIST) and the U.S. Patent and Trademark Office (USPTO), the work at this think tank has illuminated policy development at a time of significant geopolitical change for the United States with the transition to the Biden administration. This session, led by the co-founders of the CSIS Renewing American Innovation project, provided insights into key policy issues affecting the nation and progress in addressing the challenges required to sustain U.S. competitiveness.

Takeaways:

- **The United States has lost ground against our global competitors.** Deterioration of the strength of the IP system, confusion on Capitol Hill around IP, and changes in research and development spending contributed to this slide.
- **American innovation is a critical issue.** The United States has essentially ceded all chip manufacturing to China and essentially makes few active ingredients for medicines. Because the U.S. has fallen behind on every measure related to innovation (including publications, patents, and Ph.D. graduates), there are real-time ramifications, e.g., GM closing all North American plants due to a shortage of chips.
- **CSIS launched the American Innovation Project.** As a non-partisan organization addressing issues of national security, CSIS looks to the intersection of the supply chain, industrial policy, economy, competitiveness, cyber security, and architecture for solutions rather than specific areas of innovation.

NovoNordisk: Collaborate to Innovate

Moderator: Leza Besemann, University of Minnesota

Presenter: Tari Suprpto, NovoNordisk

Additional Resources: [NovoNordisk Research and Development Partnering](#)

NovoNordisk is a Top 20 global pharmaceutical company with a focus on cardiometabolic diseases and rare blood and growth disorders. NovoNordisk has recently increased its efforts to partner externally to strengthen its pipeline and incorporate today’s innovations in its R&D. This session included a discussion of NovoNordisk’s expanded strategic areas of interest, along with an exploration of why we value strong

relationships with academic research institutions and how we select and structure our partnerships with academia.

Takeaways:

- **NovoNordisk has recently increased its efforts to partner externally to strengthen its pipeline and incorporate today’s innovations in its R&D.** As a result, it is looking to academia as the first line of innovation and is expressing a greater interest in the “human portfolio” instead of just the IP portfolio.
- **NovoNordisk selects good collaborators by focusing on the audience and temperament.** Desirable qualities in partners include curiosity, humility, openness, candor, and drive for a real-world solution.
- **Collaborations begin with trust.** Communicate often and include everyone involved in the research.

Scenario Planning: Building Resilience in Uncertain Times

Moderator: Brad Fravel, Virginia Tech

Presenters: Karen Walker, Arizona State University; Keith Aspinall, Arizona State University; Jamie Burns, Arizona State University; Alba Clivati McIntyre, The Ohio State University; Matthieu Karamoko, The Ohio State University

The confluence of political, health, and economic crises has tested universities like never before. The university research ecosystem is now facing unprecedented challenges that will require a multifaceted response and an understanding of the forces driving these changes. The two preeminent competitive/strategic intelligence groups in higher education in the United States, ASU’s Research Development Strategic Intelligence team and OSU’s Strategic Intelligence and Mapping unit, have combined their strengths to explore possible critical scenarios affecting academic research, providing leadership with multiple plausible futures to explore, thereby raising awareness of key trends and reducing risks. This session provided an overview of this study and selected recommendations.

Takeaways:

- **Competitive intelligence is defined as ethical collection and analysis of information that informs decision-making.** The increase in complexity of data and the involvement of the analysts illustrate the need for a process when outcomes and inputs are difficult to determine.
- **Scenario planning is an arduous process with large quantitative and qualitative metrics gathered from multiple perspectives.** It provides resilient actionable intelligence with plausible scenarios. Four scenarios were illustrated as to what the research enterprise will look like in 2025: the promise of spring (ideal strategy), doing too much (lack of strategy), hope on the horizon (proactive about activities within the university control), and season of darkness (reactive with a failure to position the university to maintain its prominence in the research field, and lack of future planning).
- **Scenario planning brings value as it aids in decision making.** It helps draw connections and makes a pathway or thought process for the future. Multiple levels of leadership are involved in the process.

DAY FOUR THURSDAY – September 16, 2021

Unlocking Innovation: Insights into the UK's Mackintosh Report

Moderator: Martin Davies, University College London

Presenter: Hetti Barkworth-Nanton, Ploughshare

Additional Resources: [Getting smarter: a strategy for knowledge & innovation assets in the public sector](#), [The Mackintosh Report](#), [Getting smart about intellectual property and intangible assets](#)

In spring of 2021, the British government released an anticipated report on how the UK can work to unlock innovation, utilize an estimated £104 billion in knowledge assets, and enhance its position as a science powerhouse. This session provided insight into the UK Treasury's strategy for these goals and what impacts it will have on innovation and collaboration.

Takeaways:

- **The Mackintosh Report was produced by the UK government in 2021 to assess methods for extracting untapped knowledge assets in the public sector.** Substantial funding is available for organizations related to innovation on an annual basis that goes unclaimed.
- **The report recommended best practices for universities and industries to assist the public sector and to enhance their development practices.** Recommendations included but are not limited to financial management practices, incentives, financing methods, and innovation support for tech transfer.
- **Every aspect of the public sector can benefit from these guidelines and the untapped knowledge assets.** However, it is likely that the defense and health industries are most well positioned to take advantage of the opportunity for innovation.

Synergies for Societal Impact: University-Industry Partnerships in Research Grand Challenges

Moderator: Harold Javid, Microsoft

Presenters: Sam Baker, Good Systems; Adam Rabinowitz, Planet Texas 2050; Fernanda Leite, Planet Texas 2050; Jennifer Lyon Gardner, UT Austin; Christine Julien, Whole Communities-Whole Health

Additional Resources: [Bridging Barriers](#)

Five years ago, UT Austin launched a Research Grand Challenge effort called Bridging Barriers with three distinct programs. This session featured faculty leaders of each of the UT Austin Research Grand Challenges and highlight areas where they are seeking industry partnership. **Planet Texas 2050** aims to improve Texas' resilience to climate change and extreme weather through equity- and community-focused research combined with high-powered integrated data modeling. **Good Systems** works to understand what changes new AI technologies are bringing to our society, predict how those changes will unfold, and develop approaches that mitigate potential harms while still leveraging the benefits AI provides. **Whole Communities-Whole Health** is re-envisioning how cohort studies are done by

embracing a community-based participatory research model and bringing cutting-edge advances in behavioral, environmental, and health science reach the children and families who need them the most. Broadly, the BB Grand Challenge effort has been very successful for the UT Austin campus, bringing together and leveraging interdisciplinary groups of researchers who had never worked together before. These new partnerships have translated into new and successful federal grants, flourishing partnerships with industry, and real solutions and advances to “wicked problems” the planet is facing.

Takeaways:

- **UT Austin provided a case study reviewing its research grand challenges program.** The program, Bridging Barriers, has three aspects: Planet Texas 2050, Whole Communities-Whole Health, and Good Systems for AI Technologies. Much of this research focuses on serving diverse, underrepresented communities.
- **Grand research challenges are by definition “moon-shot goals.”** They leverage ambitious yet attainable goals against a university’s interdisciplinary community to address urgent, real-world problems.
- **External relationships are key to the expression of initiatives in a grand challenge.** In this case external relationships included Texas’ land grant offices, various state government agencies, Exxon Mobil, and Microsoft.

Talent Challenges and Opportunities in Aerospace & Defense

Moderator: Cindy Mahler, Boeing

Presenters: Georgios Athanaskopoulos, McKinsey & Company; Varun Marya, McKinsey & Company

Additional Resources: [Seizing the Moment: Talent challenges and opportunities in aerospace and defense](#)

Too often, aerospace and defense organizations’ strategies and human resources capabilities regarding digital and analytics talent have not kept pace with their needs and the realities of the current market. This session examined research findings about the trends impacting talent needs in this sector, current challenges, strategies currently in place, and what can be done to better attract and retain the best talent in the future.

Takeaways:

- **McKinsey & Company produced a paper investigating talent and hiring challenges in the aerospace and defense industry to analyze both perceived and actual challenges.** They surveyed human resources leaders, company executives, job post data, employee reviews, and employee portfolios.
- **The report includes 10 key insights into aerospace and defense industry talent.** They included such topics as the impact of COVID-19, the reallocation of talent, correctly matching talent to appropriate positions, and organizational culture and health.
- **The report produced four key recommendations for the aerospace and defense industry regarding talent.** The industry needs to tell a better story. Companies need to invest in building skills for success, to further promote diversity and inclusion, and to reimagine the work process in a post-COVID world.

Keynote: Fireside Chat with NOAA Administrator Rick Spinrad

Moderator: *Fiorenza Micheli, Stanford University*

Presenter: *Rick Spinrad, National Oceanic and Atmospheric Administration*

Additional Resources: [National Oceanic and Atmospheric Administration](#)

The National Oceanic and Atmospheric Administration (NOAA) is the nation's primary source for weather forecasts, warnings, and climate monitoring. Its scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information. In this session, NOAA Administrator Rick Spinrad discussed how NOAA's products and services are evolving and its vehicles for R&D collaboration.

Takeaways:

- **NOAA is the nation's primary source for weather forecasts, warnings, and climate monitoring.** NOAA's broad mission is to predict weather changes and serve as a good steward of ecosystems. Its mission relies heavily on partnerships. NOAA is primarily driven by regional activities and works with local organizations to identify needs because regions are unique. An integration of national priorities with regional efforts is essential.
- **NOAA's products and services provide value and opportunities for collaboration.** The commercial weather service is an example of a service that derives value from weather products.
- **The Biden administration has made climate change a critical directive.** NOAA has become an authoritative source for climate change data, but it is just as important to create mission agnostic products and services.

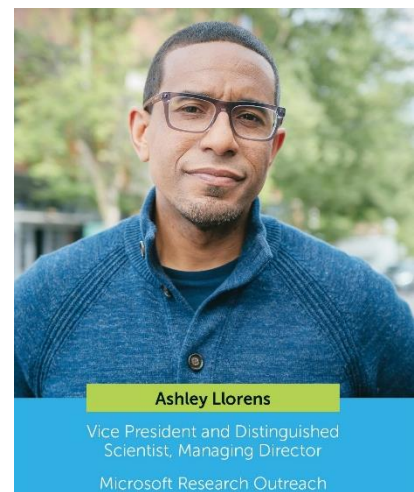
Crossing Sectors and Building Career Pathways

Moderator: *Daniel Reed, University of Utah*

Presenters: *Ashley Llorens, Microsoft; Grace Wang, The Ohio State University; Wendi Yajnik, Novartis*

Additional Resources: [U-I Connector Career Paths: Crossing Sectors, Creating Impact](#)

Career paths for those who work at the intersection of university-industry research collaboration rarely run in a straight line, and many who are successful have worked across sectors—industry, university, and government. In 2021, UIDP collected stories from stellar performers who successfully transitioned across sectors to advance their careers. This session highlighted the key learnings and common threads uncovered from a UIDP project survey and 13 personal stories about crossing sectors and building career paths.



Takeaways:

- **Career paths for those who work at the intersection of university-industry research collaboration rarely run in a straight line.** There are misconceptions about the other side of the collaboration when transitioning from one sector to the other. For example, mission-driven individuals may worry about culture and fit because pace and pressure will not be enough to maintain excitement. However, experience showed that the new community was welcoming and stimulating.
- **There can be difficulties in transitioning from one sector to another.** When moving from an organization with a smaller stage, it may be a challenge to learn a new landscape with a truly global presence and realistically appreciate the scale of such an organization.
- **Skills transferable between both sectors should not be discounted.** While direct experience is always helpful, skills around negotiation, management, communication, creativity, and leadership have a high impact.

NSF Convergence Accelerator: Accelerating Convergent Solutions for Societal Impact

Moderator: *Lisa Lorenzen, University of Missouri*

Presenter: *Doug Maughan, NSF*

Additional Resources: [Convergence Accelerator](#)

Today's national-scale societal challenges are hard to solve within a single discipline. They require convergence to merge ideas, approaches, and technologies from a wide range of diverse sectors, disciplines, and expertise. Launched in 2019, NSF's Convergence Accelerator speeds the transition of use-inspired research into practice in areas of national importance. This session covered the program's model and key components to ensure funded teams provide the highest impact. Information on the program's current research portfolio and opportunities to become involved were also discussed.

Takeaways:

- **NSF envisions a nation that capitalizes on new concepts in science and engineering and provides global leadership in advancing research and education.** The Convergence Accelerator is a new (two-year old) way for the NSF to work, not only with the academic community, but also with industry, nonprofit organizations, and others in R&D.
- **Convergence is a new (and an increasingly used) term in the community.** It encompasses the merging of ideas, approaches, and technologies from diverse fields of knowledge to stimulate innovation and discovery. Current and future challenges are not going to be solved by a single academic discipline. They require diversity of thought and technical areas to produce the best solutions for the future.
- **NSF is excited for the growth potential of the accelerator.** NSF is going to be doing more and more with a non-traditional community, including industries and nonprofits that do not normally work with NSF, as well as with international partners.

PTIE: Lessons Learned in Year One

Moderator: Carla Leigh, Cisco

Presenters: Ian McClure, University of Kentucky; Rich Carter, Oregon State University; Almesha Campbell, Jackson State University

Additional Resources: [Innovation, entrepreneurship, promotion, and tenure](#), [Innovation and Entrepreneurship Summit](#)

This session provided an overview of progress of the Promotion and Tenure, Innovation Entrepreneurship (PTIE) effort. Panelists shared perspectives about progress made, challenges faced, and how institutions are adopting and tailoring the recommendations for their institutions.

Takeaways:

- **Typical academic promotion and tenure (P&T) processes prioritize faculty grants and publications and may fail to fully assess and value entrepreneurial, innovative endeavors.** A more inclusive assessment of scholarship and creative activity that can better recognize and reward innovation and entrepreneurship (I&E) will require “broadening the bar” to reflect evolving forms of faculty impact without diluting or increasing the requirements for advancement.
- **There are a variety of benefits to I&E efforts by faculty.** They can include increased opportunities for research funding, access to unrestricted funds for further institutional investment, sustaining a high scholarship level, student success, increased prestige, public benefit, and economic development.
- **In academia, basic research is still privileged.** Processes and policies that reward faculty members’ I&E work are not equally valued, including at research (R1 and R2) universities. I&E should be viewed as broadly inclusive of the science, technology, engineering, mathematics, and medicine (STEMM) disciplines as well as liberal arts and other areas of focus across campuses.

IRS Rules' Impact on Corporate Research on Campus

Moderator: Kevin Byrne, TUFF

Presenters: Brian Darmody, AURP; Bill Bates, Council on Competitiveness; Matt Owens, AAU

Additional Resources: [Reforming Federal Rules on Corporate-Sponsored Research at Tax-Exempt University Facilities](#)

The Economic Development Administration (EDA) has a [current solicitation](#) for \$500,000 technical assistance grants to universities and economic development agencies in 60 regions across the United States to build inclusive communities of innovation, with follow-on construction funds between \$25-\$100 million. The solicitation provides an unprecedented opportunity to build tech hubs. Additional public/private tech hubs are likely to be funded by the federal government by other provisions in the U.S. Innovation and Competition Act. However, public/private tech hubs involving corporate research (housed in university facilities constructed with tax exempt bonds) that may expect to be stimulated by these federal programs may run afoul of IRS rules that limit corporate use of these buildings. The Association of University Research Parks (AURP) and the higher education community have been trying for many years to reform the IRS rules governing corporate research in tax exempt facilities. The

increased interest in making the U.S. more technologically competitive with other countries, including China, the funding for these new tech hubs, and the expected conference committee on funding for infrastructure bill provide the opportunity to finally address this issue. This session shared a pathway for reducing complexity in attracting corporate research to university campuses, research parks, or innovation accelerators through reforms in IRS rules.

Takeaways:

- **New tech hubs have been envisioned by the Build Back Better Program and other federal initiatives.** These hubs must be managed by nonprofit universities or other nonprofits, and many would like to use tax-exempt financing to construct them, but universities attracting sponsored corporate research to these facilities will run afoul of IRS rules.
- **The nation’s innovation and economic competitiveness is at the forefront for many policy makers.** However, research infrastructure is currently not a big component of the bipartisan infrastructure package. The U.S. Innovation and Competition Act is legislation that, if passed, would address some of the research infrastructure challenges, but not the tax issue.
- **Universities can take a role in helping support public policies that improve U.S. technology competitiveness.** Elected officials need to hear from universities and industry about issues and how Congress and others can help solve them. A similar approach can help reform IRS rules that will allow more public/private university-corporate partnerships within university owned research facilities financed with tax exempt bonds.

Doing Business with the DOE National Labs

Moderator: Ken Tobin, Oak Ridge Associated Universities

Presenters: Kamlesh Patel, Sandia National Lab; Moe Khaleel, Oak Ridge National Lab; Annie Kersting, Lawrence Livermore National Lab

Additional Resources: [Maximizing U-I Engagement with DOE National Labs Quick Guide](#)

Companies and universities are keenly interested in partnering with DOE national labs. This session featured a panel of national lab representatives discussing specific and proven approaches that are currently used to expand partnerships. Following up on Tuesday’s discussion around technology transfer and the DOE National Labs, this session also provided an opportunity for participants to ask questions around lab engagement. Attendees had the further opportunity to learn about the National Labs’ dedication to triple helix partnerships in Friday’s keynote session with the director of the Lawrence Livermore National Laboratory.

Takeaways:

- **For more than 60 years, the Lawrence Livermore National Laboratory has applied science and technology to make the world a safer place.** Its mission is to strengthen the United States’ security through development and application of world-class science and technology to enhance the nation’s defense, reduce the global threat from terrorism and weapons of mass destruction, and respond with vision, quality, integrity, and technical excellence to scientific issues of national importance.
- **Oak Ridge National Laboratory delivers scientific discoveries and technical breakthroughs needed to realize solutions in energy and national security and provide economic benefit to**

the nation. Its researchers apply unique facilities, sophisticated tools, and signature strengths in neutron science, high-performance computing, advanced materials, biology and environmental science, nuclear science and engineering, isotopes, and national security research to benefit science and society.

- **For more than 70 years, Sandia National Labs has delivered essential science and technology to resolve the nation's most challenging security issues.** A strong science, technology, and engineering foundation enables Sandia's mission through a capable research staff working at the forefront of innovation, collaborative research with universities and companies, and discretionary research projects with significant potential impact.

Company Investments in Federal Research Funding Programs

Moderator: Anneke Kaminski, P&G

Presenters: Graciela Narcho, NSF; Gabriella Thompson-Cruz, Intel; Chris Ramming, VMware

Additional Resources: [NSF Forming Partnership to Speed Next-Gen Networking, Computing Research](#)

The National Science Foundation has partnered with companies in a variety of ways to jointly invest in areas of mutual interest. This approach has yielded significant results and this session will provide insights on what factors NSF considers when determining whether to pursue industry partnerships and the advantages for industry and academia. In addition, private sector participants will learn what it takes to develop these programs and be able to make an evaluation as to whether or not they are relevant to their individual circumstances.

Takeaways:

- **Public and private partnerships contribute to NSF's goal of being a global leader in research and innovation.** Partnerships can accelerate discovery by expanding the kinds of questions that can be addressed; enabling access to expertise, infrastructure, or sites; and building broader communities of researchers. This, in turn, can accelerate translation of research results to products and services and enhance preparation of the future workforce to benefit society and grow the American economy.
- **Industry benefits from partnering with NSF because it provides access to the full expanse of its academic partners, scholars, and ideas.** These collaborations can help to accelerate discovery into practice.
- **To partner with NSF, there must be shared areas of interest.** Industry can reach out to an NSF program director to discuss where those areas are and if a partnership might be an option. Multiple industry partners can create a consortium to approach NSF. With multiple partners already on board, it may accelerate the collaboration process.

DAY FIVE FRIDAY – September 17, 2021

Vertiv and Academia: Innovating for today and tomorrow

Moderator: Alissa Comella, The Ohio State University

Presenter: Gregory Ratliff, Vertiv Corporation

Vertiv has just gone through a bit of a dry spell, with virtually no participation with outside research. The world has changed. So has Vertiv. Today, the firm invests heavily in internal R&D and has built new relationships with more than 20 universities worldwide. Greg Ratcliff is leading that effort as the chief innovation officer. This session explored Vertiv’s re-engagement efforts and ideas for restructuring external research, ideation, and innovation in a mid-sized global company.

Takeaways:

- **Vertiv has increased its academic collaboration efforts and is currently investing heavily in internal R&D.** Areas of focus include electronic components, energy storage and distribution, heat distribution, alternate energy sources and controls, manufacturing, and heat.
- **Vertiv has a new innovation team and product development process.** The primary role of the innovation team is to capture, cultivate, and publish relevant technology to Vertiv staff any idea that will benefit Vertiv in the future.
- **Vertiv employed tech scouts to improve dissemination and visibility of the innovation team.** Lessons learned from this endeavor include the need for culture and behavior change, increased communication, early identification of IP, a growing talent pipeline, and sustainable momentum.

Joint University Technology Licensing

Moderator: Ed Krause, Ford

Presenters: Orin Herskowitz, Columbia University; Bryce Pilz, University of Michigan

Additional Resources: [University Technology Licensing Program](#)

The University Technology Licensing Program (UTLP) was recently created by 15 U.S. universities. It provides widespread, convenient, and efficient access to valuable inventions owned by these schools relating to particular technologies, products, and solutions that enable new leading-edge products to be brought to market in physical science fields. UTLP was formed to conveniently disseminate and encourage further use of innovations contributed to the pool by the participating universities. It will provide interested companies with a “one-stop shop” that licenses patents relevant to licensees’ existing and/or future product offerings. Revenues derived from the licensing program will support the universities’ ongoing research and innovation.

Takeaways:

- **In certain fields (e.g., software, IT hardware, semiconductors, big data), a product or service may require rights to dozens or hundreds of patents.** The University Technology Licensing

Program (UTLP) was created by 15 universities to attempt to create a one stop shop where companies could get a non-exclusive license to find the patents they need or want using a standardized contract. The program is compared to a supermarket model.

- **UTLP is designed to create broad access.** The patents in UTLP will be licensed non-exclusively to as many companies as possible, in order to encourage adoption, avoid litigation, and incentivize ongoing collaboration.
- **UTLP is different than the patent pools that have been used in the past.** Patent pools were organized around a technology standard. UTLP is based around an emerging industry or type of technology, but not a technology standard such as MPEG, 802.11n, etc.

Greening U-I Partnerships – Emerging Opportunities on Climate Change Response

Moderator: Anna-Marie Greenaway, Cambridge University

Presenters: Tomas Coates Ulrichsen, University of Cambridge; Amit Paithankar, Emerson

While the world’s attention has focused on the effects of COVID-19, the recent United Nations IPCC [report](#) has highlighted the ongoing climate emergency as reaching “code red.” Over 130 countries have announced intentions to achieve net-zero emission by 2050. This has been accompanied by similar pledges from international companies, industries, universities and alliances. Achieving this mission will require a profound energy transformation, requiring integration of diverse technologies and human capabilities to reduce, replace and remove greenhouse gas emissions at unprecedented pace and scale. This session offered a range of perspectives from university-industry-government-society partnerships gathered at the recent Oxford Summit combined with a specific example of greening strategies and partnerships from global innovation specialists Emerson.

Takeaways:

- **While the world’s attention has focused on the effects of COVID-19, the ongoing climate emergency is reaching “code red.”** Universities, industry, and government need to work together to tackle the climate change, and the greatest need for change came from a survey distributed to the three sectors.
- **System-wide changes are necessary.** For greening to happen, behavioral change needs to happen at the societal level and be accompanied with a big, bold vision. Vision is not enough though, and roadmaps and targets are vital to incentivizing systemic change.
- **Emerson provided a deep dive into its greening strategies and the partnerships it has formed to tackle climate change.** Specifically, speakers addressed “greening of” – reducing the carbon footprint – in coordination with “greening by” – helping customers reduce their carbon footprint. These efforts culminate in “greening with” – engaging external stakeholders in developing innovative solutions and shaping global policy.

Keynote: Triple Helix Partnerships with National Labs

Moderator: Michael Amiridis, University of Illinois, Chicago

Presenter: Kim Budil, Lawrence Livermore National Laboratory

Private companies, universities, and research organizations are keenly interested in finding new, creative ways to access unique resources from national labs. Experience shows that this can be challenging, and that consideration of new approaches could improve accessibility and broaden research collaboration. In this keynote, Kim Budil, laboratory director of Lawrence Livermore National Laboratory, drew from her expertise in the national lab sphere and shared insights into ways to better leverage these resources.

Takeaways:

- **Lawrence Livermore National Laboratory’s mission is national security, but it also conducts fundamental research, and its mission is to stay at the leading edge.** Students and postdocs are the laboratory’s connecting tissue and lifeblood.
- **Lawrence Livermore National Laboratory is government-owned, but contractor-operated.** It makes technologies available for commercialization and translates innovative technology into real solutions. Livermore Valley Open Campus is outside the main security perimeter and includes an advanced manufacturing laboratory focused on additive manufacturing.
- **Lawrence Livermore National Laboratory is focused on pre-competitive research.** It is currently seeking more partners for biology and rapid responses to viruses, climate change, cyber and civilian infrastructure, space science, and fusion science.

Building High-Impact Innovation Ecosystems

Moderator: Anne O'Donnell, UC San Diego

Presenters: Greg King, Georgia Institute of Technology; Keith Marmer, University of Utah; Kannan Grant, University of Alabama, Huntsville

Many regions are fortunate to have a major research university serve as a linchpin in their innovation ecosystem. An important piece of the mosaic is the development of a research park or innovation district that brings talent from the academic, corporate, government, and nonprofit sectors together. This session highlighted several regional efforts, the opportunities and challenges they regularly encounter, and their impact in their communities.

Takeaways:

- **Innovation ecosystems may center around research parks.** While they can provide a consequential hub, however, they are not the end-all, be-all of healthy innovation ecosystems.
- **Innovation ecosystems experience varying levels of governance.** Not all decision making can be made at the same pace because administrators may be different across sectors and pace depends on organization size and complexity.
- **Research centers and innovation hubs can advance inclusiveness.** They can contribute to local economic development and the birth and maintenance of a diverse and equitable talent pool.

Semiconductor R&D and Global Priorities

Moderator: Susan Martinis, University of Illinois, Urbana-Champaign

Presenter: Todd Younkin, Semiconductor Research Corporation

Additional Resources: [Maximizing U-I Engagement with DOE National Labs Quick Guide](#)

Semiconductor technologies and fabrication will be the key technology drivers that usher in the next industrial revolution. This session shared SRC’s perspective on the global R&D landscape for semiconductors. It illustrated the five “seismic shift” drivers that will fuel future advances and the importance of public-private collaborations, while giving specific examples of time-tested innovation models. It shared the presenter’s distinct perspective: The “Roaring 20s” will not be boring if one is helping to drive microelectronics and advanced packaging technologies (MAPT) and are a disciplined imaginator.

Takeaways:

- **There are five “seismic shift” drivers that will fuel future advances.** These include the analog data deluge, the growth of memory and storage demands, communication capacity vs. data generation, ICT security challenges, and compute energy vs. global energy production.
- **Global priorities and R&D can drive holistic, optimal solutions through interlocked multidisciplinary research.** Framing these priorities helps students see there are hard, yet interesting problems that cannot be solved without them. This framing can help students visualize that such opportunities will abound for the next 20 to 30 years. It will also nurture industrial relationships and internship experiences that provide valuable insights.
- **Moving forward, value time and value the time of others.** Consider ways to maintain relationships, enable collaboration, better the community, and free up bandwidth, whether through making grant processes less cumbersome or canceling a meeting to allow for meaningful productivity.

The UIDPConnect 2021 conference report is not intended to be a detailed record of the entire proceedings. Contact UIDP at 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.

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