



Government | University | Industry
RESEARCH ROUNDTABLE

2013 Annual Report

Government-University-Industry Research
Roundtable (GUIRR)

APRIL 2014

Mission

The Government-University-Industry Research Roundtable (GUIRR) was created in 1984 in response to the report of the National Commission on Research, which called for an institutionalized forum to enhance communication among the top leaders of government and non-government research organizations. Its formal mission, revised in 1995, is “to convene senior-most representatives from government, universities, and industry to define and explore critical issues related to the national and global science and technology agenda that are of shared interest; to frame the next critical question stemming from current debate and analysis; and to incubate activities of on-going value to the stakeholders.” This forum is designed to facilitate candid dialogue among participants, to foster self-implementing activities, and, where appropriate, to carry awareness of consequences to the wider public. [www.nas.edu/quirr]

GUIRR Members

GUIRR has three formal categories of membership. The **GUIRR Council** is composed of the three presidents of The National Academies (NAS, NAE, IOM), the heads of major federal R&D agencies (for non-R&D agencies, the head of the largest R&D-performing subdivision), and a small selection of university presidents and industry CEOs as appointed by the NAS president. **Council Associates** are designated by individual federal agency heads as their alternative representatives to GUIRR. **University-Industry Partners** are the dues-paying institutional members. In GUIRR operations, the university-industry partners act as “antennae” to bring into GUIRR discussions the most current ideas and issues facing government-university-industry research cooperation across the country, and help disseminate ideas. Twenty-one (21) pairs of University-Industry Partners currently participate in GUIRR. An additional three universities are involved and working to identify their industry partners. [45 member institutions, total.]

GUIRR Meetings

GUIRR holds three member meetings per year on a diverse array of topics considered timely, in need of greater cross-sector collaboration, and of pressing concern to the nation. Over time, driven largely by the interests of member organizations, the topics have moved more into the realm of “grand challenges.” GUIRR is oftentimes an “early voice” to challenging high-level policy issues before a broader dialogue takes root within the S&T and research community. The goal with each meeting and group discussion is to inject imaginative thought into the system and identify “touch-points” for better tri-sector – meaning government, university, and industry – collaboration, cooperation, and coordination. The number of attendees at each meeting has steadily grown, with 80 to 100 participants now the norm. A written Meeting Summary is prepared, printed, and disseminated following each meeting.

Meeting topics this past year include:

February 11-12, 2013: A Patent System for a New Innovation Ecosystem. There is a prevailing sentiment that the U.S. patent system is not operating in a way that optimizes innovation and productivity in today’s technological and economic environment. GUIRR members considered whether and in which industry sectors patents are deemed essential for technology development and commercialization or prove to be innovation inhibitors.

June 24-25, 2013: Infrastructure: The Cost of Doing Nothing. With this meeting GUIRR members considered America’s pressing infrastructure needs and the implications of significant underinvestment. Financial resource scarcity and competing priorities for government and private funding have largely held back progressive investment in infrastructure repairs and new development. GUIRR examined the economics of critical infrastructure: Who pays? By what means and/or funding mechanism? How prioritized? What jobs are created? How is our productivity and national competitiveness impacted? We further considered the evolving roles of public and private funding and showcased several public-private partnership case studies. Our focus was on the role each sector (government, universities, and industry)

may play in ensuring optimal infrastructure and how partnerships between sectors can advance infrastructure projects.

October 21-22, 2013: *Understanding Research Globalization in the Context of National Security and Prosperity*. With this meeting GUIRR members considered how research globalization is impacting U.S. R&D within the context of ensuring national security and economic prosperity. We also examined the differing roles played by the three sectors (government, university, and industry) in this globalized environment. Despite uncertainties introduced by the federal shutdown, the meeting agenda came together nicely and the attendance was strong.

Current Projects

International Research Collaborations – This GUIRR working group, known as the “I-Group”, held a follow-on workshop (to its July 2010 “Examining Core Elements of International Research Collaboration” workshop and published summary – http://www.nap.edu/catalog.php?record_id=13192#toc) that focused on the importance of *culture* and *cultural perception* when engaging in international research collaboration. The workshop “Culture Matters: An Approach to International Research Agreements” held July 29-31, 2013 examined international agreements of various types, including agreements affecting or involving: (1) people/human subjects; (2) the environment and natural resources; (3) science, engineering, and manufacturing; and (4) agriculture and animal issues. Six plenary sessions were held: designing projects with culture in mind; wealthy vs. poor underdeveloped countries; language; urbanization, ecological sustainability, and social resilience; IP; and change and drivers. A workshop summary report is under development and follow-on activities are being discussed.

GUIRR Webinar Series – In 2011 GUIRR elected to host webinars on an occasional basis as a means of bringing information of expected value to GUIRR stakeholders in a more immediate and freely accessible manner. One webinar was held in 2011 and based on the positive response, a monthly webinar series was launched in August 2012. Audience sizes range from 50 to 250 attendees. The webinars are recorded and available through the [GUIRR website](#). A disruption in the series occurred in October 2013 when the staff member responsible for hosting the webinars departed the Academies for a new position. A new staff member has since been hired and the webinar series is resuming in April 2014 with a webinar on the Lab-to-Market Interagency Summit and the recommendations made to the White House. Topics of previous webinars are as follows:

- *Creating a Materials Innovation Infrastructure: The Materials Genome Initiative and the Materials Innovation Accelerator Network*, September 2013
- *Federal Laboratory Consortium (FLC) Available Technologies Tool*, August 2013
- *"Branded Food Products Database for Public Health" Public-Private Partnership*, July 2013
- *National Network for Manufacturing Innovation*, June 2013
- *Catalyzing Innovation: NIH National Center for Advancing Translational Sciences*, May 2013
- *Preview of the MIT Production in the Innovation Economy Report*, April 2013
- *NSF's Small Business Programs: Providing Seed Funding for Small Businesses to Bring Innovative, High-Impact Technology to Market*, March 2013
- *Introducing RFP-EZ: Government and Small Business Working Together*, February 2013
- *The i6 Challenge: Creating Regional Innovation Ecosystems*, January 2013
- *The NSF Industry/University Cooperative Research Centers (I/UCRC) Program: Building Innovation Capacity through Partnerships*, December 2012
- *Making America's Research Universities Flourish: Reviewing the Findings of the National Research Council's "Prosperity Report"*, November 2012
- *NSF Innovation Corps (I-Corps): Using Entrepreneurship to Promote Technology Commercialization*, October 2012
- *Research Arms Race: The Current Health and Future Well-being of the American Research University*, September 2012
- *Challenge.gov: A Tool for the Government and the Public to Innovate Together*, August 2012

Catalyzing University-Industry Engagement to Promote the Nation's Competitiveness – GUIRR co-hosted this special leveraging workshop with the University-Industry Demonstration Partnership (UIDP) in Washington, DC on October 30-31, 2013. NSF was a primary sponsor. A strategic set of leaders were invited to examine current models of G-U-I engagement in research, development, and commercialization and to identify possible new approaches worthy of consideration and testing via a UIDP pilot project or demonstration. An individual authored meeting summary has been prepared and will post shortly.

“Branded Food Products Database for Public Health” Public-Private Partnership – On November 14, 2013, GUIRR co-hosted, along with the USDA, ARS, ILSI North America, and the ATIP Foundation, a one day “listening session” on the purpose and goals of the “Branded Food Products Database for Public Health” Public-Private Partnership. The event was held at the NAS building in Washington, DC and designed to gather input regarding current and potential usage and also opinions on the addition of products and nutrients to the USDA National Nutrient Database, specifically from existing and potential user groups as well as contributors (food industry). USDA’s Under Secretary for Research, Education, and Economics and Chief Scientist Dr. Catherine Woteki welcomed the group as a member of the GUIRR Council and Executive Committee.

University-Industry Demonstration Partnership (UIDP) – The UIDP is a semi-autonomous membership activity that falls under GUIRR’s administrative oversight and programmatic umbrella. The entity was established in 2006. UIDP members devote their energies and resources to the identification and implementation of projects that will advance university-industry research collaborations in the United States and ultimately promote U.S. competitiveness. Two general meetings are held each year, alternating between a university member and corporate member as host and sponsor. In 2013, the meetings were held in Pasadena, CA on **April 16-18** (California Institute of Technology, host) and in Moline, IL on **September 9-11** (Deere & Co., host). A Project Summit was also held **December 10-11, 2013** in Riverside, CA (UC Riverside, host). The annual Project Summit provides an opportunity for project leaders to come together at their own expense to work solely on specific projects, including:

- **Advisor Corps:** UIDP member representatives possess a wealth of knowledge across the broad spectrum of research and commercialization fields. This project is exploring methods for providing UIDP members increased opportunities to tap into this valuable resource in specific areas of interest to these parties.
- **Business Advising:** This project focuses on how universities can effectively provide business advising services to companies both inside and outside the university ecosystem. The project also provides companies with insights and strategies on how to tap into these services and guide the work to provide a high return on their investment.
- **Case Studies:** To raise awareness of university-industry collaborations and share lessons learned to inspire new high value, high return partnerships, the UIDP is soliciting its members for “case studies” describing engagements that provided benefits and insights to the U-I partners and other parties involved.
- **Conflicts of Interest – Principled Partnerships:** This working group aims to outline best practices for public disclosure to align how universities and industry talk about the nature and value of principled partnerships.
- **Contract Accords:** This project tackles significant issues affecting university-industry sponsored research agreements. The first five contract accords were published in 2009, with five additional contract accords released in 2012 (combined into a single booklet). Another five accords were released at the fall 2013 general meeting.
- **Federal Flowdown Clauses:** This project aims to raise the level of awareness of U.S. Government contract clauses that are problematic for universities. A UIDP publication that identifies the issues and challenges and provides guidance around them will be released in September 2013.
- **Ideas to Innovation Workshops:** These workshops provide a unique forum for representatives from diverse arenas to come together and discuss ways to advance the idea to innovation process in emerging technology areas. In addition, these workshops serve as a testbed to demonstrate how best practices and lessons identified by the UIDP can be tested and evaluated. The first Ideas to Innovation (I2I) workshop was held on June 13-14, 2013 with co-sponsor

MedStar Health on *Stimulating Collaborations in the Application of Resilience Engineering to Healthcare*.

- **Industry Fellowships:** A new initiative currently under development.
- **IP Quick Guide:** Another new project designed to define intellectual property issues that can get in the way of successful university-industry collaborations.
- **Maximizing the U-I Engagement with National Labs:** Yet another new project under development.
- **Negotiation Agreement Workshops:** One of the best ways to enhance collaborations is to reduce the time needed to reach sponsored research agreements between parties. These workshops use the learnings from the contract accords and real life agreements to add significant understanding to the important issues affecting agreements. A negotiation workshop on process and product development will be held in September 2013. Workshops on software and advanced manufacturing were held in October 2012 and Effective Strategies for Negotiating Medical Device Agreements was held in August, 2011.
- **Partnership Continuum:** Published in 2012, this 28-page document explores the multiple pathways for companies and universities to partner and provides information on the benefits and investments needed to make these relationships "stick".
- **Partnership Webinars:** The UIDP hosts occasional webinars to highlight programs and initiatives that support or impact university-industry collaborations and promote US competitiveness.
- **Researcher Collaborative Visits:** This working group is identifying key elements that must be addressed in order to provide maximal value to both parties engaged with researcher collaborative visits, emanating from universities or companies. Examples include university faculty doing sabbaticals in industry and industry researchers spending a period of time at an academic institution.
- **Researcher Guidebook:** In 2012, UIDP released an 80-page *Researcher Guidebook: A Guide for Successful Institutional-Industrial Collaborations* that provides specific information and strategies for identifying potential partners, establishing productive relationships and navigating the myriad issues associated with these engagements. A corresponding *Quick Guide* has also been printed.
- **University-Industry-Startup (UIS) Nexus:** This working group is looking at the ways in which startup companies are shaping and facilitating industry-university research relationships. Included in the definition of "startups" are university spinouts as well as young small companies that have a non-trivial link to the university (through intellectual property, incubation, use of university resources, supportive sponsored research, etc.). The focus is on producing a "primer" document that will be of use to the general UIDP membership, including both university and industry stakeholders.

For additional information about the UIDP please visit www.uidp.org. Dr. Anthony Boccanfuso is Executive Director of the UIDP.

Federal Demonstration Partnership (FDP) – The FDP, currently in Phase V but transitioning to Phase VI in October 2014, is a unique forum involving individuals from 119 universities and nonprofits that works collaboratively with officials from 10 federal agencies to improve the national research enterprise and reduce administrative burden. GUIRR provides management support for FDP through an agreement with a consortium of federal agencies, but the Partnership operates as a semiautonomous activity.

The FDP hosts three meetings per year in Washington, DC. Nearly 400 people attend. Meetings in 2013 were held **January 27-29, May 12-14, and September 15-17**. All past meeting agendas are posted online at www.thefdp.org.

The FDP is and has been pursuing a number of important projects, as follows:

- **Faculty Workload Survey.** The FDP conducted a follow-up (to its 2005) survey to assess the administrative burden on research faculty. The purpose of the survey was to determine whether

progress has been made or new barriers erected since the previous/initial survey. The survey data yielded surprising results. Just as we found in 2005, researchers still spend less than 60% of their research time actually engaged in active research as 42% of their federal research time is spent completing administrative requirements. FDP and the National Science Board (NSB) presented their respective faculty workload survey data at the January 2014 FDP meeting. Emergent themes include administrative workload (both agency and institution), risk intolerance, needless complication and wasted time (ambiguity, paperwork, micromanagement, problematic electronic forms), and complications for international projects.

- **STAR METRICS.** The STAR METRICS project has been piloted through the FDP. The initial phase of the project (level I) focused on the economic impact of the federal investment in the American research enterprise. The second phase (level II) is designed to determine the impact of the nation's investment in research. The National Institutes of Health are the federal administrative leaders of the project.
- **SciENcv** (Science Experts Network Curriculum Vitae). This project is also being directed by the NIH but piloted through FDP. Feedback from alpha version testers has been incorporated into the beta version released in September 2013.
- **Career Life Balance Initiative.** This is a project, in collaboration with NSF and NIH, that focuses on the development of the first comprehensive set of federal-university policies, best practices/design principles and resources to promote career-life balance for our nation's scientists and engineers, especially the advancement of women in STEM academic careers. This collaborative activity will develop a framework for the federal agency-university partnership, informed by research and evidence, and would engage a set of universities who have a track record of effectively enabling career-life balance policies and opportunities on their campuses.
- **Open Government Subcommittee.** The FDP has created a new group to examine the different transparency initiatives of the federal government and to analyze those activities that are designed to increase public transparency with regard to federally sponsored research and determine if there are best practices that institutions should follow, and find ways to streamline compliance with these initiatives.
- **Streamlining A-133 Audit Compliance.** The A-133 audit system is still being used to store audit information and streamline reporting.
- **Joint Application Design (JAD) Team.** This working group assists Grants.gov staff in improving systems and processes associated with the submission of applications for federal funding. The JAD team is testing forms and system changes before changes go into production. JAD is working directly with NIH on electronic submission of complex applications. The team has become quality assurance testers for Grants.gov forms and products.
- **FDP FCOI Clearinghouse.** In response to the new PHS Financial Conflict of Interest (FCOI) policies, the FDP created an online clearinghouse system in which organizations self-certify that they are compliant with the new regulations. This establishes a single place for institutions to use for sub-award monitoring in relation to FCOI compliance on PHS funded grants. There are currently over 700 registrations (one per institute) for FDP's clearinghouse. As part of this project the FDP developed a model conflict of interest policy as well as a model conflict of interest report form for institutions to adapt to their own specific environments.
- **Project Certification.** The FDP is working with the Office of Naval Research and the Department of Health and Human Services in exploring alternate mechanisms for certifying researcher's effort on federally funded research grants. Four FDP member universities are participating in the demonstration. The Inspector General community has been briefed on the project and is generally supportive. The four pilot schools are undergoing audits of their new systems to determine if they provide the same level of oversight as the previous method.
- **IRB Exemption Wizard.** The IRB Wizard has been deployed for testing and the team is collecting data to determine the accuracy of the tool. This project is creating an online tool that will lead researchers through a series of questions about their research to determine whether their human subject research is exempt from full IRB review.
- **Troublesome Clauses.** The troublesome clauses system is still being used to identify clauses inserted into research awards that are problematic for institutions to accept.
- **NIH RPPR Pilot.** The NIH used the FDP in their initial implementation of the new Research

Performance Progress Report (RPPR). FDP institutions were the first users allowed in the new system and provided feedback to the NIH before they fully opened up the system. NIH is currently inviting FDP institutions to perform the same role for Phase 2 of the rollout.

More information on the work FDP and its impact on the research infrastructure in the U.S. can be found at www.thefdp.org. Mr. David Wright is FDP's Executive Director.

Members of GUIRR Council (as of April 1, 2014)

Uma Chowdhry, Co-Chair [NAE]

Chief Science and Technology Officer, Emeritus
DuPont Company

Linda Katehi [NAE]

Chancellor
University of California at Davis

Jacques Gansler, Co-Chair [NAE]

Professor and Roger C. Lipitz Chair in Public Policy and
Private Enterprise, School of Public Policy
University of Maryland

Ralph Kuncl

President
University of Redlands

Susan Butts

Senior Director [retired]
External Science and Technology Program
Dow Chemical Company

Gina McCarthy

Administrator
Environmental Protection Agency (ex officio)

Curtis Carlson

President and CEO
SRI International

C.D. (Dan) Mote, Jr. [NAE]

President
National Academy of Engineering

Ashton Carter

Under Secretary of Defense for Acquisition, Technology
and Logistics
U.S. Department of Defense (ex officio)

Tara O'Toole

Under Secretary for Science & Technology
U.S. Department of Homeland Security

Ralph Cicerone [NAS]

President
National Academy of Sciences (ex officio)

Steven M. Paul [IOM]

Director, Helen and Robert Appel Alzheimer's
Research Institute
Weill Cornell Medical College of Cornell University

Luis M. Proenza

President
University of Akron

Francis S. Collins [NAS, IOM]

Director
National Institutes of Health (ex officio)

David Spencer
Chairman and CTO
wTe Corporation

Mikael Dolsten

President
Worldwide Research and Development
Pfizer

Ellen Stofan

Chief Scientist
National Aeronautics and Space Administration (ex
officio)

Harvey Fineberg [IOM]

President
Institute of Medicine (ex officio)

Catherine Woteki [IOM]

Under Secretary for Research, Education, and
Economics
Chief Scientist
United States Department of Agriculture (ex officio)

Patrick Gallagher

Director
National Institute of Standards and Technology (ex
officio)

Pending

Under Secretary of Commerce for Oceans and
Atmosphere
National Oceanic and Atmospheric Administration (ex
officio)

Jesse Goodman [IOM]

Chief Scientist and Deputy Commissioner for Science
and Public Health
U.S. Food and Drug Administration (ex officio)

Pending

Director

John Holdren [NAS/NAE]

Director
Office of Science and Technology Policy
Executive Office of the President (ex officio)

National Science Foundation (*ex officio*)

Pending
Under Secretary for Science
U.S. Department of Energy (*ex officio*)

Staff

Susan Sauer Sloan, Director, GUIRR
Anthony Boccanfuso, Executive Director, UIDP
David Wright, Executive Director, FDP
Kristina Thorsell, Associate Program Officer, GUIRR and UIDP
Claudette Baylor-Fleming, Administrative Coordinator, FDP and GUIRR
Laurena Mostella, Administrative Assistant, GUIRR and UIDP
Cynthia Getner, Financial Associate