



2014 Annual Report

Government-University-Industry Research
Roundtable (GUIRR)

JULY 2015

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 mission 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 questions stemming from current debate and analysis; and to incubate activities of on-going value to the stakeholders. This forum facilitates candid dialogue among participants to foster self-implementing activities, and, where appropriate, to carry awareness of consequences to the wider public. [<http://www.nas.edu/guiirr>]

GUIRR Members

GUIRR has three formal categories of membership. The GUIRR Council is composed of the three presidents of the National Academies of Sciences, Engineering, and Medicine, 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 president of the National Academy of Sciences. 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 participated in GUIRR in 2014. An additional four universities were involved while working to identify their industry partners.

Meetings

GUIRR convenes three general meetings per year, providing opportunity for the entire membership to assemble for the purpose of discussion and debate on issues of national and global concern that require greater sustained cross-sector (government-university-industry) cooperation and collaboration. The topics vary and are proposed and selected by the membership *writ large*. All GUIRR meetings are held in Washington, DC to accommodate our federal participants. A written summary—called a '[Meeting in Brief](#)'—is prepared following each meeting, subjected to internal (NRC) and external review, and posted on the GUIRR website. The agenda, guest presentations (shared with permission), and the attendance lists are also posted online.

Meeting topics in the 2014 calendar year included:

- **February 24-25, 2014 – Novel Financing for Innovation**

Tough economic times and financial constraints that are not likely to lessen anytime soon are encouraging a rethinking of how we can best, as a nation, fund research in the sciences, engineering, and technology. Federal research agencies have launched, utilized, or are proposing new funding mechanisms that are less like the traditional research and development grant and more akin to direct investments in technologies that may be perceived as critical to a particular agency. State governments are also exploring novel ways to advance research from the bench into the marketplace, including crowdfunding and creative public-private partnerships. At this GUIRR meeting, members considered new financing models and mechanisms designed to leverage resources and more efficiently convert the nation's research assets into economic assets, thereby increasing the nation's overall competitiveness.

The White House Office of Science and Technology Policy (OSTP) expressed particular interest in novel financing mechanisms and the ‘bridging models’ showcased during the meeting. The angel investing community also took interest. As a follow-on to the GUIRR discussion, the Angel Capital Association (ACA) has agreed to co-host a special workshop on where angels fit into the innovation ecosystem. The workshop on “Angel Investing and Bridging the Valley of Death” is being planned as a precursor event to the October 2015 GUIRR meeting.

- **June 2-3, 2014 – Convergence: Optimizing Cross-Sector & Interdisciplinary Partnerships**

While traditional research methodology has resulted in innumerable scientific discoveries, many of today’s research questions are not effectively addressed within the context of a single scientific discipline. Therefore, convergence is emerging as a new model for scientific research and innovation. In this context, convergence means the merging of previously distinct disciplines to create new disciplines which promote rapid innovation and the emergence of new scientific principles. This meeting focused on how convergence is created, what it has delivered to date, the advantages of and challenges to convergence-driven research, and the near-term applicable domains for convergence.

Following on GUIRR’s meeting and published *Meeting In Brief* as well as a NRC report titled *Convergence* issued by the Board on Life Sciences (BLS), a small working group formed at the urging of Tom Rudin, Director of PGA’s Board on Higher Education and Workforce (BHEW). The group currently has representation from BHEW, GUIRR, BLS, and two of GUIRR’s institutional members: Texas A&M University and Lockheed Martin.

- **October 14-15, 2014 – The Big Data Revolution: What Does It Mean for Research?**

This 30th GUIRR anniversary meeting focused on how big data is changing the way we do science, looking particularly at challenges of working with and analyzing big data sets, ethics and privacy concerns, workforce and training issues, and opportunities for public-private partnerships. While acknowledgement was made of the technical side of big data, our discussion focused primarily on the role and impact of big data in scholarly research.

The Institute of Medicine’s new president, Dr. Victor Dzau, attended this GUIRR meeting—his first—and expressed enthusiasm about the relevancy of the presentations and group dialogue. As a direct consequence, the presidents of the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine provided support to establish a seminar series on Big Data at the Academies that has featured speakers from federal agencies to discuss big data programs, challenges, and opportunities. The objectives of the seminar series are to 1) educate Academies staff on big data topics facing federal agencies, 2) introduce federal big data program leaders to key Academies staff working on big data issues, and 3) provide a forum that would enhance collaborative projects on the topic across the Academies.

Projects

International Research Collaborations—This working group, known as the “I-Group”, released a published (NAP) workshop summary report in September 2014 entitled [*Culture Matters: International Research Collaboration in a Changing World*](#). The report is the output from a 2.5 day workshop held in late July 2013 that examined the importance of *culture* and *cultural perception* when engaging in international research collaboration. Dissemination of the report is ongoing. The Culture Matters report follows on an earlier GUIRR workshop and publication ([*Examining Core Elements of International Research Collaboration*](#)).

Following adjournment of the October 2014 GUIRR meeting, GUIRR hosted a satellite session on a proposed U.S.-based effort called PEGASCIS. This project, as conceived, is designed to assemble a community, tools and information to foster strategic international academic collaboration with university and industry partners around the world. The acronym PEGASCIS stands for “Platform for Enhancing Global Academic Strategic Collaboration in Science.” The objective of the meeting was to enable dialog about opportunities for global collaboration, emphasizing bidirectional knowledge needs, and to share potential use cases for a possible outward-facing university profile system.

Webinars—GUIRR continued with its monthly webinar series (established in August 2012) on topics of interest and crossover appeal to the membership. Attendance has averaged 100 “seats” per event. Recordings and slides of all past webinars are archived and available on the [GUIRR site](#).

Webinars during the 2014 calendar year included:

- Lab-to-Market Summit: Transformational Recommendations (April 2014)
- History and Approaches to Technology Transfer from U.S. Federal Laboratories (May 2014)
- Cybersecurity (June 2014)
- NIH Blueprint Neurotherapeutics: A Novel Approach to Early-Stage Drug Discovery Research Funding (July 2014)
- NRC Report: Furthering America's Research Enterprise (August 2014)
- NSF Program: Partnerships for Innovation: Accelerating Innovation Research (September 2014)
- Electrochemical Pathways for Sustainable Manufacturing (October 2014)
- NIH / NINDS CREATE Bio Program (November 2014)
- NIH and the BRAIN Initiative (December 2014)

Leadership Dinners—In addition to the thrice annual full member meetings, GUIRR also hosts occasional Leadership Dinners designed to engage individuals serving on the GUIRR Council. The purpose is to create opportunities for GUIRR’s leaders to explore challenging issues, establish a sense of camaraderie, and seek common ground where needed. The last Leadership Dinner was held on July 16, 2014, where the guest of honor was the new director of the National Science Foundation, Dr. France Córdova.

University-Industry Demonstration Partnership (UIDP)—The UIDP is a semi-autonomous membership activity that falls under GUIRR’s administrative oversight and programmatic umbrella. 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 2014 meetings were held in Morgantown, WV and Pittsburgh, PA on April 22-24, 2014 (hosted by West Virginia University) and in Cambridge, MA on September 22-24, 2014 (hosted by MIT). In April 2014 GUIRR and UIDP co-hosted a workshop called **Ideas to Innovation: Workshop to Develop a Research Agenda for Service Innovation**. A meeting [summary](#) of the workshop is available on the GUIRR website. An annual Project Summit is also held during the winter annually as a way for project leaders to come together at their own expense to work solely on specific projects. UIDP’s 2014 project portfolio is extensive, with approximately 18 active projects. All projects involve an issue affecting collaborations.

UIDP was created in December 2006 as a project convened under GUIRR and organized for the purposes of advancing collaborations between the academic and corporate sectors. It represents a strategic

coalition of representatives from university and companies intent on improving the health of research partnerships between the two sectors. The UIDP has matured beyond its period of incubation within GUIRR and the National Academies and will thus transition to an independent, nonprofit organization in mid-2015. GUIRR is extremely proud of this burgeoning membership organization and fully expects to continue collaborative efforts on an as-appropriate basis.

For additional information about the UIDP please visit <http://www.uidp.org>. Dr. Anthony Boccanfuso is the Executive Director of UIDP.

Federal Demonstration Partnership (FDP)—The FDP, which entered Phase VI in October 2014, is a unique forum involving individuals from 154 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. The Partnership is a largely autonomous activity.

The FDP is and has been pursuing a number of important projects, including the following:

- **Faculty Workload Survey II.** The [final report](#) for this important project was issued in April 2014. (The [Executive Summary](#) is also available.) FDP's Chair gave testimony on administrative burdens in a joint hearing before the House Oversight and S&T Subcommittees on June 12, 2014.
- **Subcontract Template.** The Sub-awards Committee of the FDP created a new template for use with subcontracts to supplement the current template for sub-awards.
- **Creation of White Papers on OMB Uniform Guidance.** The Office of Management and Budget (OMB) created 2 CFR 200, Uniform Guidance on Administrative Requirements. This replaces several OMB circulars related to grants administration, changing many of the processes and policies that have been standard for over 20 years. The FDP is working with several federal agencies on the implementation of the new regulation, and have prepared a number of available [white papers](#).

The FDP continues its pursuit of a number of dedicated projects and demonstrations, including:

- **Research Administration** – Analysis of, and creation of demonstrations related to the new Uniform Guidance on Administrative Requirements issued by the Office of Management and Budget (OMB).
 - Expanded Clearinghouse. The [current clearinghouse](#) only captures certifications related to the PHS Conflict of Interest Policy. It will be expanded to include many other types of information that is useful in sub-recipient monitoring.
 - Subcontract Template
 - SciENCv – This project (part of FDP's work with STAR METRICS) is aimed at creating a single researcher profile system for use with all federal agency grant systems. A recent update to the system created functionality to create an NSF-styled biosketch.
 - Open Government; FFATA Reporting
- **Research Compliance** – IRB Exempt Status Decision Tool (*IRB Wizard*)
 - Data analysis of the Faculty Workload Survey data to drill down into burdens in the compliance area
 - Practical guide on wildlife care and use
- **Costing and Audit – Project Certification Demonstration**—The FDP is working with the Office of Naval Research (ONR) and the Department of Health and Human Services (DHHS) in exploring

alternate mechanisms for certifying researchers' effort on federally funded research grants. Four FDP member universities are participating in the demonstration. Audits are currently being performed by the Inspectors General offices of DHHS and ONR to determine its effectiveness.

- **Faculty** – Working with the Research Compliance Committee to develop a white paper on the use of wildlife in research.
 - Work Life Balance Initiative
- **Electronic Research Administration (ERA) – Grants.gov – Joint Application Design**
 - Continue working with NIH and NSF on the development of SciENCv, a centralized researcher profile system currently in beta test phase.
 - Continue working with the General Services Administration on the implementation of the System for Award Management (SAM)

More extensive information on the work FDP has done recently, and its impact on the research infrastructure in the U.S., can be found at <http://www.thefdp.org>. David Wright is FDP's Executive Director.

Members of the GUIRR Council in 2014

Uma Chowdhry, Industry Co-Chair [NAE], Senior Vice President and Chief Science and Technology Officer Emeritus, DuPont

Jacques Gansler, University Co-Chair [NAE], Professor and Roger C. Lipitz Chair in Public Policy and Private Enterprise, School of Public Policy, University of Maryland

Susan Butts, Senior Director of External Science and Technology Programs, Dow Chemical Company, retired

Curtis Carlson, President and CEO, SRI International

Ralph J. Cicerone [NAS], President, National Academy of Sciences (*ex officio*)

Francis S. Collins [NAS/IOM], Director, National Institutes of Health (*ex officio*)

France Córdoba, Director, National Science Foundation (*ex officio*)

Mikael Dolsten, President, Worldwide Research and Development, Pfizer

Victor Dzau [IOM], President, Institute of Medicine (*ex officio*)

John Holdren [NAS/NAE], Director, White House Office of Science and Technology Policy (*ex officio*)

Keith Holtermann, Director, Research and Development Partnerships, S&T Directorate, U.S. Department of Homeland Security (*ex officio*)

Linda Katehi [NAE], Chancellor, University of California at Davis

Ralph Kuncel, President, University of Redlands

Gina McCarthy, Administrator, Environmental Protection Agency (*ex officio*)

C.D. (Dan) Mote, Jr. [NAE], President, National Academy of Engineering (*ex officio*)

Stephen Ostroff, Chief Scientist, U.S. Food and Drug Administration (*ex officio*)

Steven M. Paul [IOM], Director, Appel Alzheimer Research Institute, Weill Cornell Medical College

Timothy Persons, Chief Scientist, U.S. Government Accountability Office (*ex officio*)

Luis M. Proenza, President, University of Akron

David B. Spencer, Founder, Chairman and Chief Technology Officer, wTe Corporation

Richard Spinrad, Chief Scientist, National Oceanic and Atmospheric Administration (*ex officio*)

Ellen Stofan, Chief Scientist, National Aeronautics and Space Administration (*ex officio*)

Catherine Woteki [IOM], Under Secretary for Research, Education, and Economics and Chief Scientist, United States Department of Agriculture (*ex officio*)

Pending, Director, National Institute of Standards and Technology (*ex officio*)

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

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

Staff and Consultants

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