

FINANCIAL SUPPORT OF GUIRR AND ITS AFFILIATED ACTIVITIES

FINANCIAL SUPPORT OF GUIRR (“GUIRR CORE”)

GUIRR’s singular accomplishments can be attributed in large part to the participation and contribution of the federal R&D agencies. Core funding enables GUIRR to quickly take on projects of its members’ choosing rather than waiting for a specific contract or grant to cover an activity. In many cases, this funding marks the difference between timely resolution of pressing issues and a post-mortem analysis of what might have been done.

FEDERAL AGENCIES

- Department of Defense
- Department of Homeland Security
- National Institutes of Health
- National Institute of Standards and Technology
- U.S. Department of Agriculture

The University-Industry Partners Program is an important component of both GUIRR membership and its funding base. These institutional members ground GUIRR’s policy discussions with their first-hand factual experience. As geographically dispersed leaders in their sectors, the UI partners also serve as GUIRR’s antennae for new trends in, and pressures on, the national research enterprise.

UNIVERSITY-INDUSTRY PARTNERS

- Georgia Institute of Technology/Boeing
- Iowa State University/Cargill
- Massachusetts Institute of Technology/Northrup Grumman
- Pennsylvania State University/Corning
- Rice University/National Instruments
- Stanford University/IBM
- University of California, Berkeley/Intel
- University of California, Davis/Mars, Incorporated
- University of California, Los Angeles/Hewlett-Packard
- University of Massachusetts/Raytheon
- University of Texas at Austin/Semiconductor Research Corporation
- Washington State University/Pacific Northwest National Laboratory



Susan Butts and Harold Schmitz explaining the MNC decision-making that underlies globalization trends.

FINANCIAL SUPPORT OF THE FEDERAL DEMONSTRATION PARTNERHSIP (FDP)

Along with the gift of their employees’ time and expertise, the following federal R&D agencies have contributed financially towards FDP’s mission: reducing the administrative burdens associated with federal research grants and contracts. In pushing the FDP to accomplish ever more, they also increase the nation’s research productivity per taxpayer dollar.

FEDERAL AGENCIES

- Department of Defense
- Department of Homeland Security
- National Institutes of Health
- National Science Foundation
- U.S. Department of Agriculture

FINANCIAL SUPPORT OF THE UNIVERITY-INDUSTRY DEMONSTRATION PARTNERSHIP (UIDP)

The launch of the UIDP in 2006 would not have been possible without start-up funding from visionary individuals in the following organizations. Each saw how critically our nation’s competitiveness depended on improving university-industry collaborations across the United States—and was willing to commit to make it happen.

COMPANIES, UNIVERSITIES, FOUNDATIONS AND FEDERAL AGENCIES (\$50,000 OR MORE)

- ExOne Company
- Hewlett-Packard
- Ewing Marion Kauffman Foundation
- National Science Foundation
- Pfizer
- University of California, Los Angeles
- University of Illinois at Urbana-Champaign

GOVERNMENT-UNIVERSITY-INDUSTRY RESEARCH ROUNDTABLE COUNCIL (2006)

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Press briefing for *Here or There?* report. From left, Jerry Thursby, Marie Thursby, and Susan Butts. Photo courtesy of the Wilson Center.



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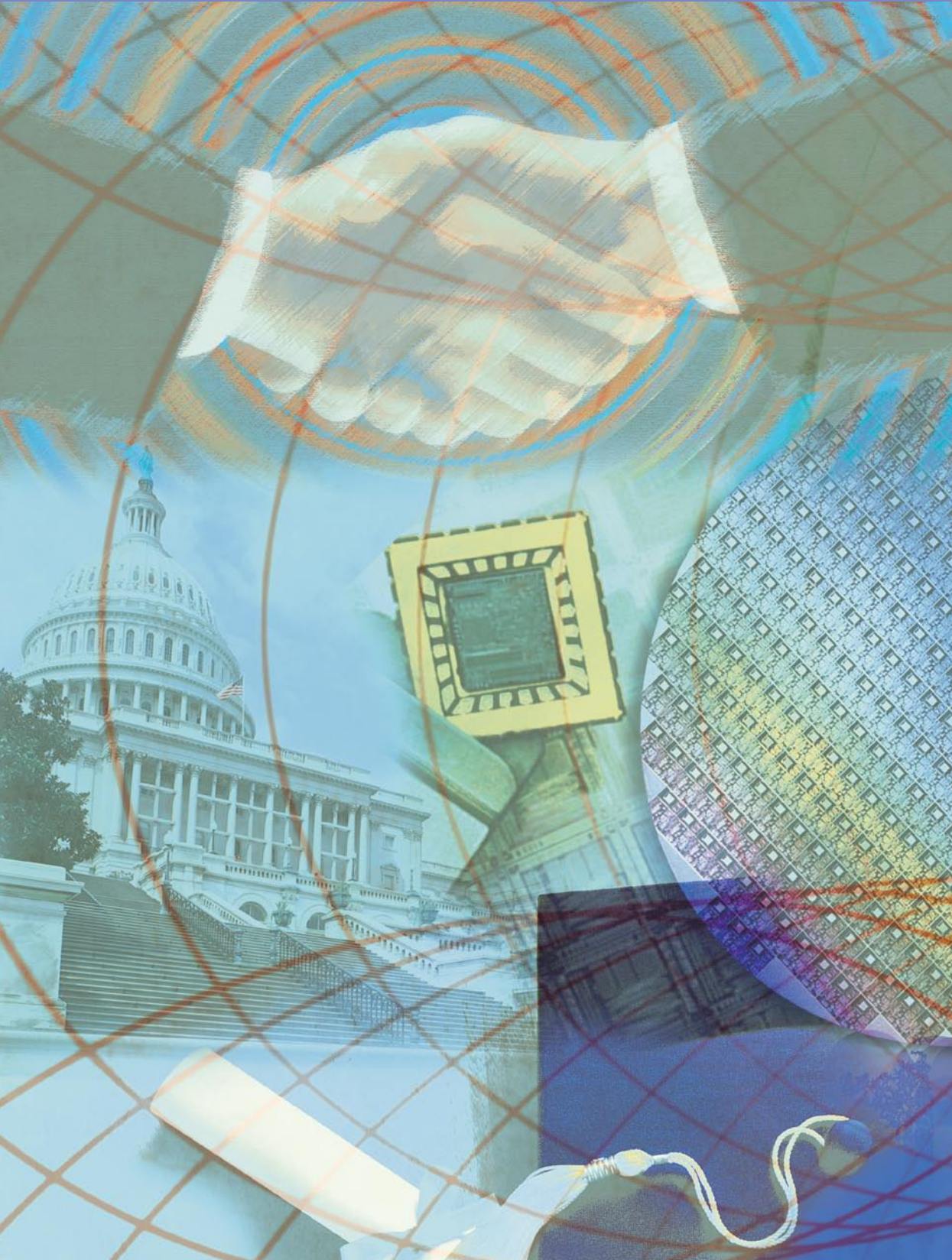
THE NATIONAL ACADEMIES  
*Advisers to the Nation on Science, Engineering, and Medicine*

THE GOVERNMENT-UNIVERSITY-INDUSTRY RESEARCH ROUNDTABLE

NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES

500 FIFTH STREET, N.W., WASHINGTON, DC 20001

ANNUAL REPORT 2006





# MESSAGE FROM THE CO-CHAIRS



LYDIA THOMAS

MARYE ANNE FOX

The Government-University-Industry Research Roundtable can look back on an eventful and productive 2006. Since its inception in 1984, GUIRR has provided senior representatives from government, university and industry with a means of addressing critical national issues in science and technology. Last year, GUIRR and its members helped to strengthen the U.S. research enterprise in several areas.

Protecting the benefits of research openness in an environment of heightened national and homeland security concerns continues to be a significant national challenge. Appropriately, this issue is a major focus for GUIRR, addressed mainly by the Deemed Exports Working Group. Partnering with a range of other organizations inside and outside the National Academies, the working group has facilitated dialogue among the affected constituencies for over a year. As a result, 2006 saw the finalization of desired changes in Defense and Commerce Department policies. Universities expanded their awareness and enforcement of export controls, but federal agencies left intact universities' ability to attract and utilize the "best and brightest" from abroad. In addition, the government, university, and industry communities now have a forum in which to jointly apply their expertise to the problem of prudent technology control in a globalized world: the newly-formed Commerce Department Deemed Exports Advisory Committee.

Over the course of its existence, GUIRR has continually worked to improve research cooperation between universities and industry. The University-Industry Partnership, in which GUIRR worked with the Industrial Research Institute and the National Council of University Research Administrators, completed and published its *Guiding Principles for University-Industry Partnerships* and *Living Studies in University-Industry Negotiations* in 2006. The University-Industry Demonstration Partnership (UIDP) was launched in December 2006 as an independent organization allied with GUIRR to facilitate cooperation in the spirit of the Guiding Principles through the beta-testing of innovative approaches. The UIDP had attracted over 50 companies and universities by first launch.

The publication of Jerry Thursby and Marie Thursby's *Here or There?* report on the factors influencing where multinational corporations (MNCs) locate R&D facilities brought some much-needed survey-based research to the debate over R&D globalization and offshoring. The Thursby's research serves as a corrective to several common misconceptions about globalization, most prominently the belief that the pursuit of cost savings is the primary driver of MNC R&D investments in China and other large emerging economies.

The Federal Demonstration Partnership (FDP), a semi-autonomous organization convened by GUIRR, added to its impressive record of eliminating administrative burdens on federally-funded academic research during 2006. FDP's recent accomplishments include the development of a web-based, user friendly tool for A133 audit compliance, a survey quantifying faculty administrative burdens, and the addition of new members representing emerging research institutions. New FDP executive director David Wright has maintained the organization's high level of activity.

GUIRR's 2006 Council meetings covered the topics of "Enterprise and Institutional Risk" (February), "Strategies for U.S. Competitiveness: Developing a Proposed Role for GUIRR" (June), and "Higher Education and Workforce Implications of the Spellings Commission Report" (October). GUIRR is currently exploring ideas for new activities raised at those meetings, particularly the October meeting on higher education.

During 2006, GUIRR continued to demonstrate the value of convening leaders of the U.S. research enterprise to overcome our common challenges. As co-chairs, we understand that the personal time and commitment of GUIRR members themselves are the essential ingredients for producing results. As we re-commit ourselves to leading GUIRR in the service of strengthening U.S. science and engineering, we also express deep appreciation to the volunteers who participate in GUIRR, FDP, and UIDP.

Marye Anne Fox  
Co-Chair

Lydia Waters Thomas  
Co-Chair

# GUIRR ACTIVITIES IN 2006

## DEEMED EXPORTS: PROMOTING CHANGE ON CRITICAL NATIONAL ISSUES

As 2006 began, the GUIRR Working Group on Deemed Exports, consisting of GUIRR members and federal collaborators, continued to seek resolution of issues raised by a pending reinterpretation of deemed exports regulations. The reinterpretation suggested by the Department of Commerce's Inspector General (see report IPE-1676) had cast in doubt the ability of foreign nationals to work in U.S. university laboratories. Since approximately 30 percent of science and engineering graduate students at U.S. universities are not U.S. citizens or permanent residents, these restrictions could have had a marked impact on the conduct of research at U.S. universities.



Leadership dinner on deemed exports. Visible from left: Merle Pierson, Bill Wulf, Sam Armstrong, Marye Anne Fox, David McCormick, Graham Spanier, Ralph Cicerone.

A related draft rewriting of the Defense Federal Acquisition Regulation Supplement (DFARS) within the Department of Defense went as far as mandating that foreign nationals on U.S. university campuses be segregated and required to carry badges.

By April, 2006, however, the efforts of the GUIRR working group, coordinating closely with the Association of American Universities (AAU), the Council on Governmental Relations (COGR), as well as two sister units within the National Academies—the Science, Technology and Law Program (STL) and the Committee on Scientific Communication and National Security (CSCANS)—had resulted in a public retraction of the Department of Commerce's intent to change its regulations. Shortly thereafter, a rewording of the DFARS clause was issued by the Department of Defense, which dropped the troublesome badging and segregation requirements. By July of 2006, the Department of Commerce had established a twelve member Deemed Exports Advisory Committee to re-examine the effectiveness of deemed exports policies in a changing international and technological environment. Two current and two former GUIRR members currently sit on this committee.



## THE HERE OR THERE? REPORT: BRINGING NEW KNOWLEDGE TO THE DEBATE OVER CORPORATE R&D GLOBALIZATION

GUIRR initiated this project to better understand the decision-making processes of multinational companies (MNCs) in locating their R&D facilities worldwide. With funding from the Ewing Marion Kauffman Foundation and partnerships with the Industrial Research Institute, the American Chemical Society and the European Industrial Research Management Association, GUIRR commissioned a quantitative survey of over 200 U.S. and Europe-based MNCs in 15 industries. Internationally recognized economists Marie Thursby and Jerry Thursby conducted the survey. The results were published by the National Academies Press in September 2006. The report is available online: <http://www.newton.nap.edu/catalog/11675.html>

*Here or There?* has advanced the discussion of R&D offshoring by clarifying the factors most important to MNCs in siting R&D facilities, and by challenging widely held misconceptions. For example, MNCs establishing R&D facilities in emerging economies rate the growth potential of the market as the most important attractor. Perhaps the most surprising finding was that achieving cost savings—a factor which had garnered the lion's share of attention in recent reporting on the globalization of R&D—was only the third-most important attractor to emerging economies. In fact, achieving cost savings was tied in importance with collaborations with local universities, a factor virtually absent from press accounts of the offshoring phenomenon. Intellectual property (IP) protection was typically a large detractor in the decision to locate R&D facilities in emerging economies.

For companies locating R&D facilities at home or in other developed countries, the most important attractors were the quality of R&D personnel and the quality of IP protection in the target country.

## THE UNIVERSITY-INDUSTRY PARTNERSHIP: AN ACTION AGENDA FOR MORE EFFECTIVE COOPERATION

Three national organizations—GUIRR, the Industrial Research Institute (IRI), and the National Council of University Research Administrators (NCURA)—led this effort to change university and industry approaches to negotiating IP agreements. The project involved around 35 invited delegates representing industry, universities, and government. By April 2006, four outcomes were generated by the five meetings of the University-Industry Partnership:

(1) Delegates reached consensus on a set of Guiding Principles for University-Industry Endeavors, which were published and widely disseminated. These Guiding Principles emphasize the long-term returns that can accrue to university-industry partnerships that are constructed fairly and conducted with competence and sophistication. The report is available online: [http://www7.nationalacademies.org/guirr/Guiding\\_Principles.pdf](http://www7.nationalacademies.org/guirr/Guiding_Principles.pdf)

(2) The Partnership published a compendium of Living Studies that describes in concrete terms how the Guiding Principles apply to day-to-day intellectual property negotiations. The publication is available online: [http://www7.nationalacademies.org/guirr/Living\\_Studies.pdf](http://www7.nationalacademies.org/guirr/Living_Studies.pdf)

(3) On April 25, 2006, the Partnership held a National Summit bringing together 150 representatives from government, university, and industry to share the philosophy and practices distilled from the activity. Summit materials are available online: <http://www7.nationalacademies.org/guirr/Meetings.html>

(4) The project spawned the concept and design for a new alliance, the University-Industry Demonstration Partnership (described below), and a work plan for its first "demonstration project," TurboNegotiator. The white paper describing the plan for the UIDP is available online: <http://nrc51.xpedio/groups/pga/documents/webpage/034316.pdf>

## UIDP: A NEW INSTITUTION TO STRENGTHEN THE U.S. RESEARCH ENTERPRISE

Following up on the University-Industry Partnership's success in breaking conceptual new ground, participants continue to pursue the Partnership's principles through a national implementation effort, the University-Industry Demonstration Partnership (UIDP). This new activity is intended to be larger in scale and open to all. Its focus will be on beta testing specific new approaches to sponsored research, licensing arrangements, and the broader strategic elements of a healthy, long-term university-industry relationship. The word "demonstration" in UIDP's name emphasizes its focus on conducting real-life collaborative institutional experiments.

UIDP held its inaugural meeting on December 13, 2006. The official members included 45 universities, 17 companies and three foundations. The corporate and university representatives constructed "project space" maps classifying different research partnering arrangements as a first step in constructing TurboNegotiator. TurboNegotiator is conceived as a software tool that would allow negotiators to navigate quickly and easily to the unique agreement satisfying the particulars of a given project. The UIDP website is located here: <http://www.uidp.org>

The University-Industry Summit.



## MAJOR WORKSHOPS AND CONVOCATIONS: ADVANCING NATIONAL SCIENCE AND TECHNOLOGY POLICY

During 2006, GUIRR co-sponsored two major events that brought public and private sector leaders together to address key science and technology policy issues. In March, the Committee on Science, Technology, and Law (STL) program and GUIRR hosted a workshop discussion for officials from the Department of Homeland Security (DHS) and scholars from university research centers supported by DHS. The workshop discussed draft guidelines for dealing with sensitive but unclassified (SBU) material, a topic of continuing interest and importance not only to DHS and the centers it supports but to the academic research enterprise and federal sponsors more broadly.



Jim Casey and Bruce Kramer in front of a schematic describing university-industry negotiations.

In September, GUIRR and the Committee on Science, Engineering, and Public Policy (COSEPUP) of the National Academies held the *Convocation on Rising Above the Gathering Storm: Energizing and Employing Regions, States, and Cities*. The meeting convened leaders from industry, government, research, and education from around the country, and focused on implementation of the recommendations of COSEPUP's influential report on *Rising Above the Gathering Storm*. This meeting achieved internal notoriety as the largest event ever held at the National Academies.

## THE FEDERAL DEMONSTRATION PARTNERSHIP (FDP): A TRACK RECORD OF SUCCESS IN RAISING RESEARCH PRODUCTIVITY

The Federal Demonstration Partnership is a unique cooperative initiative among ten federal agencies and 97 institutional recipients of federal funds. Its purpose is to reduce the administrative burdens associated with research grants and contracts. GUIRR currently provides permanent staff support for FDP activities and committees, as well as logistical support for FDP's three annual meetings. FDP's 2006 notable accomplishments and milestones include the following:

- David Wright joined FDP as its new Executive Director, replacing Jerry Stuck
- Intensive strategic planning was begun in preparation for Phase V, due to start in 2008, and is anticipated to overhaul many FDP processes and approaches.
- Data analysis was completed for FDP's survey of 7,000 faculty members on administrative burdens. About 60 percent of faculty "research" time is spent in active research, with the remainder devoted to supporting administrative activities. Administrative burdens are quantified across a number of variables (agency sponsor, faculty member rank, disciplinary field, class of burden), allowing FDP to better target the tasks that could be eliminated or altered in order to increase the productive faculty research time paid for by federal research dollars.
- Several additional emerging research institutions (ERI's) joined FDP, bringing the total to ten.
- FDP has developed software to provide a user-friendly, web-based A133 audit compliance system for FDP member institutions. Institutions will be able to voluntarily post and look up information about their A133 audits, rather than engaging in more time-consuming one-on-one correspondence and follow-up investigations.
- FDP engaged in discussions with NIH regarding the manner in which multiple PIs should be acknowledged on NIH grants, and with NSF on a potential "streamlined budget" approach to grant proposals.
- FDP continues to provide input to grants.gov, the federal portal for grant opportunities and applications.

More information on FDP and its accomplishments can be found at <http://www.thefdp.org>.