

REVITALIZING THE NATION'S SCIENCE AND TECHNOLOGY ENTERPRISE



# THE UNIVERSITY-INDUSTRY PARTNERS PROGRAM

Government-University-Industry Research Roundtable (GUIRR)  
500 5th Street, NW, Washington, DC 20001

<http://www.national-academies.org/guirr>  
guirr@nas.edu • 202 334 3486

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

# THE PURPOSE OF THE ROUNDTABLE

In 1984, the National Academies started the Government University-Industry Research Roundtable (GUIRR). The Roundtable was created so that leaders in science and technology from business, government, and academia could meet together in an informal setting to discuss science and technology issues of broad national importance and to take action where needed. Such actions have been wide in scope — including national collaborations — sometimes resulting in significant changes. A central reason for the success of GUIRR has been the senior level of the participants, the broad mix of government, industry, and academic leaders, and the unique role of the National Academies in the nation's science and technology enterprise. Although there have been many changes since 1984, the usefulness of GUIRR as a forum has remained unchanged.

In the decades since the inception of GUIRR, science and technology has become an increasingly global enterprise. The U.S. to an increasing extent must compete for scarce talent, resources and research partners. In order to remain globally competitive, U.S. industry seeks to speed up its access to rapidly developing lines of research and emerging technologies. Global business must also be done in an interdependent world where environment, workforce, energy and sustainability issues must increasingly be taken into account along with a rapidly changing global science and technology environment.

These changes require increased attention by the U.S. in promoting more effective science and technology collaborations, increased agility of research institutions in meeting rapidly changing needs, and enhanced training of future scientists and engineers. To succeed in meeting these changes at a national level, government, university and industry must be able to collaborate effectively.

The University-Industry (U-I) Partners —an important part of the Roundtable— provide a response to this rapidly changing global environment. The Partners serve as an “antenna” for the Roundtable. They are a key resource and sounding board for exploring new ideas and fresh perspectives on issues affecting the health of the U.S. science and technology enterprise. Because of the structure, membership and contacts afforded by GUIRR, the Partners have a unique opportunity to catalyze change in the U.S. science and technology enterprise.



George Reynolds, Northrop Grumman and Kelly Sullivan, PNNL

## UNIQUE FEATURES OF GUIRR AND U-I PARTNERS PROGRAM



Harold Schmitz, MARS, Tilak Agerwala, IBM

GUIRR is unique because it is comprised of a critical mass of key stakeholders in U.S. science and technology, including senior government officials, corporate executives, and key decision makers from academia. GUIRR also provides ready access to the resources of the National Academies and its institutional and personal connections to the science and technology community. Key elements of GUIRR include:

- Roundtable meetings—(three meetings annually) provide a forum for constructive interchange on critical science and technology issues.
- Working groups— flexible action-oriented teams that can quickly catalyze high level Government-University-Industry cooperation on issues of national importance.

The U-I Partners have access to all aspects of the GUIRR program, and provide significant contributions to the overall impact of the working groups. Because of their access to leading policy makers, GUIRR staff assists in identifying and enlisting experts and decision makers for specific issues.

## WHAT GUIRR MAKES POSSIBLE

- Access to the National Academies network of international scientists, world class experts, senior government officials, industry leaders, and academic decision makers — the key policy makers with responsibilities for the long-term health of the nation's science and technology enterprise.
- Educational forum to focus attention and assemble experts, policy makers and industry leaders around issues of national concern.
- GUIRR working groups composed of government, university and industry (G-U-I ) members and facilitated by a National Academies staff committed to implementing institutional change.
- Flexible and informal venue to maximize interaction among Roundtable members, federal officials, and academy leaders.

## GUIRR U-I COLLABORATIONS

Individual GUIRR Council members and U-I Partners propose and champion projects that after being approved by GUIRR, are pursued by new GUIRR Working Groups. These new GUIRR projects reflect the specific interests of their participants, as well as broad national concerns. These projects, in combination with the National Academies' congressional mandate as advisors to the nation and its international recognition in the sciences, can bring national attention to a wide range of issues. U-I collaborations cover a very broad range of topics. Typical issues include:

- Science and engineering workforce
- Export controls and visa policy in a globalized world
- Alternative approaches to intellectual property
- National innovation infrastructure
- Educating for homeland security in the next generation
- Large scale data integration (dealing with “data overload”)
- Information technology and the future of the research university

Recent and current examples of U-I collaborations include:

**Export Controls.** This GUIRR working group (with federal collaborators), co-ordinating closely with other National Academies units and outside organizations, secured a federal reworking of impending regulations (in Commerce and DOD) that would have otherwise strongly affected the ability of foreign nationals to work in U.S. university laboratories. This effort has been continued as educational workshops and meetings, in the work of a federal advisory committee, and in other venues.

**Strengthening R&D Collaborations between U.S. Industry and Universities.** In 2003, GUIRR U-I members, in collaboration with NCURA and IRI, began a collaborative effort to improve university and industry (U-I) approaches to negotiating intellectual property (IP) agreements. A set of guiding principles for U-I research partnerships was published from this collaboration, along with a collection of case examples showing how the guiding principles apply in day-to-day IP negotiations. This effort led to the formation of the multiyear University-Industry Demonstration Partnership (UIDP) at <http://uidp.org>, which is being convened by GUIRR as a quasi-autonomous entity, to provide improved communication between industry and academia on collaborative research, and to beta test improved approaches to university-industry collaboration. The longer term UIDP purpose, at a national level, is to improve the health of the U.S. R&D enterprise and its contribution to the U.S. economy.



GUIRR Council Meeting, Washington, DC

## Corporate R&D Investment: A Question of Here or There?

GUIRR initiated a survey of more than 200 American and European multinational companies to better understand the decision-making process of multinational companies in locating their R&D facilities worldwide. GUIRR partnered with the Industrial Research Institute and other professional and industry associations in doing this survey (including the OECD, as a result of GUIRR's work with European companies). The survey was published with an accompanying story in the New York Times, and the survey authors were called by Congress as expert witnesses. Notably, strong university-company relations were found to be an important factor in company decisions to site R&D facilities abroad, along with market growth potential and cost savings.

GUIRR U-I initiated projects commonly involve alliances with other Academies units and outside professional and industry organizations. These alliances are pursued to accomplish a specific national policy goal, in some cases with facilitation of collaborative activities across federal agencies (e.g. Export Controls). New approaches resulting from GUIRR-initiated projects are often subsequently beta tested or institutionalized as Demonstration Partnerships, or occasionally handed off to other National Academies units.

The oldest such GUIRR-initiated collaboration is the Federal Demonstration Partnership (FDP) at <http://thefdp.org>, initiated by GUIRR members in 1986 as a grass-roots effort to demonstrate effective business approaches in administering federal grants and contracts. The FDP has expanded over time. It is currently a unique forum enabling individuals—from nearly 100 universities and nonprofits that work collaboratively with officials from 10 federal agencies—to improve the national research enterprise.

William Rees, Department of Defense and C.D. (Dan) Mote, Jr., University of Maryland



## BECOMING A U-I PARTNER

- An annual payment of \$30,000 for an individual U-I partnership provides partial funding for working groups and other Roundtable activities.
- U-I partners have total flexibility in dividing the above payment among the two halves of their partnership
- GUIRR staff can provide assistance in locating university or industry partners with shared interests and priorities.
- Members may select alternates to participate at Roundtable meetings
- U-I members participate in Roundtable discussions and working groups, and expenses are paid to attend the three yearly Roundtable meetings.

## THE ROUNDTABLE AND ITS MEMBERSHIP

The Roundtable has three categories of membership:

- Council Members (appointed by the Chair of the National Research Council or, for federal members and National Academies presidents, ex-officio appointment);
- Council Associates (identified delegates of ex-officio Council Members);
- Institutional Members (dues-paying University-Industry Partners)

For more information about GUIRR and the U-I Partners program, please visit our web site at <http://www.national-academies.org/guerr>

## THE NATIONAL ACADEMIES™

*Advisers to the Nation on Science, Engineering, and Medicine*

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.

[www.national-academies.org](http://www.national-academies.org)