Dept. of Energy: DOE's mission is to foster a secure and reliable national energy system, to be a responsible steward of the nation's nuclear weapons, and to maintain science leadership.

How to Develop a Relationship With the National Labs

The DOE has more than a dozen national laboratories (including plants and centers) around the country that companies and organizations can tap into for a wealth of capabilities. By using the high-tech resources at these facilities, companies can further their R&D efforts through active collaboration with scientific experts, expand their technology base, and test and improve their products.

These labs work to match scientific and technical talent, expertise, and facilities with R&D endeavors in the private sector for the advancement of national security, technological innovation, and economic competitiveness. A variety of mechanisms exist to allow the national laboratories to work with industry.

- **Cooperative Research and Development Agreements** (CRADAs) are contractual agreements that enable industry, academia, and/or a non-profit entity to collaborate with a national lab. Used by most federal agencies for the purpose of advanced R&D activities, CRADAs give the partner(s) the opportunity to commercialize a technology based on intellectual property rights for inventions that may arise from the statement of work to which all parties have agreed.
- **Sponsored Research or "Work for Others" Agreements** establish a contract between a nonfederal partner and a lab to perform a defined scope of work or list of tasks. The nonfederal sponsor covers the costs of all materials and personnel associated with the work performed under the contract. Tasks specified in these agreements must draw on unique laboratory capabilities and may not place the laboratory in competition with the private sector.
- **User Facility Agreements** permit outside users, including scientists and engineers from industry, universities, and other governmental agencies, to conduct research using a laboratory's unique experimental research equipment and facilities. Users access the equipment in order to fabricate, calibrate, test, and evaluate products and processes. The partner directs the activity described within the agreement for use of the designated facility and pays the full cost of using the facility.
- **Technology Licensing Agreements** give industry and small business the right to commercialize a national laboratory technology. The licensing programs create vital links between the labs and the private sector that often lead to innovative and effective solutions to problems that benefit both sectors.
- **Personnel Exchange Agreements** permit a private-sector employee to work at a national laboratory or a laboratory employee to work at a partner company's location. Two types of personnel exchange agreements may be executed between a laboratory and a private-sector company—industrial staff member agreements allow an industry scientist to work at the lab, and industrial assignment agreements allow a lab scientist to work in industry.
- **The Industrial Fellows Program,** unique to Los Alamos National Laboratory, has placed 17 Los Alamos staff members as visitors to industry, between 1994 and 2002, in the effort to strengthen strategic partnerships between Los Alamos and the private sector.
- **Partnering Criteria** specify collaborative arrangements. Companies that want to work with any of the DOE labs must first consider whether they wish to collaborate with laboratory scientists to solve a technical problem, and if the company wants to provide funds, personnel, and/or equipment.

For long-term partnerships involving multiple projects, a master CRADA for a strategic partnership may be the answer, whereas a funds-in-agreement arrangement with the laboratory may provide a quick solution to a problem. Those interested in developing a commercial product from a DOE lab technology may consider licensing the technology.

- **Special Employment Programs** include postdoctoral employment programs that advance knowledge in the areas of basic and applied research to strengthen national scientific and technical capabilities. Appointees provide valuable stimulus to the research efforts of laboratory staff and make available the most recent developments of university science and engineering departments. The laboratories also sponsor employment programs for undergraduate and graduate level students.
- **Research Parks** are important adjuncts, and a number of the national labs have adjoining research park facilities. For example, the Los Alamos Research Park provides office and light laboratory space adjacent to the laboratory for collaborative efforts among laboratory researchers and corporate, academic, and institutional R&D staff. The park will ultimately comprise five research facilities.

WEB RESOURCES FOR NATIONAL LABS:

www.lanl.gov/partnerships
www.energy.gov
www.grants.nih.gov

—Donna Smith, PhD
Smith leads the Industrial Business Development Division at Los Alamos National Laboratory.