

Laboratory Coordinating Council



Partnerships with Industry

Unlocking the nation's
priceless store of research and
development expertise at DOE
laboratories and facilities.



<http://www.oit.doe.gov/LCC>

The nation's network of DOE Laboratories and Facilities hold an extensive store of research and development expertise and unique equipment developed for their various missions. How can U.S. industry unlock this treasure of knowledge and experience? The Laboratory Coordinating Council has forged an important key.

The LCC gives U.S. industry access to a "virtual" laboratory that can be tailored to meet the specific requirements of almost any research project. Industry researchers no longer need to approach each lab separately to gauge suitability and work out agreements. The laboratories now function in a distributed manner through common intellectual property agreements and other mechanisms.

Because each laboratory and facility has specific areas of excellence, the LCC developed a matrix of competencies, assembling directly related and crosscutting R&D for each of the areas identified by these industries.

Established in 1995, the LCC responds to the major process industries' R&D needs with the capabilities of 16 DOE Laboratories and Facilities.



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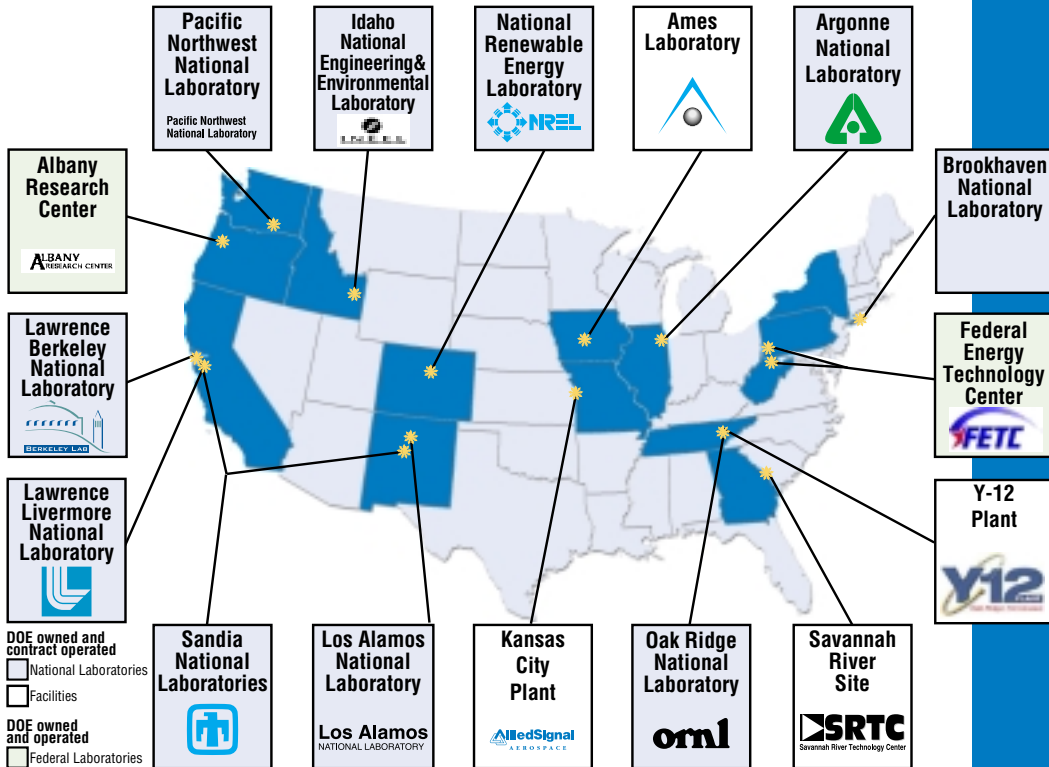
The most waste- and energy-intensive industries in the U.S., the focus of the Office of Industrial Technologies' (OIT) Industries of the Future initiative, include agriculture, aluminum, chemicals, forest products, glass, metal casting, mining, petroleum refining, and steel.

The Industries of the Future have signed agreements of understanding and cooperation with DOE. With OIT acting as a catalyst, vision documents that reflect industry-wide goals to achieve greater competitiveness,

Industry can make the most of scarce R&D funds by accessing the specialized expertise of the Department of Energy's (DOE's) 16 Laboratories.

efficiency, waste reduction, and pollution prevention, are then published. The visions are followed by technology roadmaps that spell out the prioritized, specific action areas to meet the goals contained within the visions. This process has created a common understanding of industry's R&D needs, which can then be addressed by the broad research community, focusing national talents on the most important priorities of U.S. industry as a whole. LCC teams work in tandem with industry to achieve targeted priorities within the R&D visions.

Participating members of the Laboratory Coordinating Council are highlighted on the map at left. As can be seen, some of the finest government research facilities are available to help U.S. industry become more efficient and competitive in the global marketplace as we move into the next century.



Results are significant and dramatic

One such successful collaboration is a joint project with industry and researchers at four DOE national labs: ORNL, ANL, PNNL, and NREL. The R&D 100 award-winning process converts corn starch into a cost-effective source of the chemicals used to make a variety of consumer and industrial products. Advantages of the new process include the use of renewable resources, lower cost, and reduced energy consumption.

Another successful collaboration involved a Cooperative Research and Development Agreement between laboratories, a university, and industry. This consortium undertook a fundamental study to improve energy efficiency and understand the underlying causes of toxic air emissions from industrial burners. The industry successfully used these results in negotiating environmental toxic air emission regulations. The industry partners cited this laboratory-industry partnership as an excellent example of government support to meet public needs.

Laboratory partnerships with the private sector and academia are being pursued following technology roadmaps in aluminum, chemicals, forest products, glass, metal casting, and steel. Significant laboratory contributions are being made in materials science, modeling, advanced sensing and process control, and separations.

The mobilization time between identifying a need and establishing research commitments has been significantly shortened.

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