

Commerce Dept. Announces Changes to Strengthen ATP

U.S. Secretary of Commerce William M. Daley announced a series of policy changes and initiatives to further strengthen the department's Advanced Technology Program (ATP). The principal changes are summarized in the Executive Summary of the Technology Administration's report to Daley. Among the key changes are commitments to:

- modify project evaluation criteria to put more emphasis on joint ventures and consortia with a broad range of participants and less on individual applications from large companies;
- change the cost-share ratio for large companies applying as single applicants in future competitions to a minimum of 60%, providing a further incentive for large companies to participate in joint ventures;
- build strong links with the private-sector venture capital community to both ensure that ATP will not fund projects that could be funded by the private sector and to encourage commercialization of ATP-developed technologies; and
- encourage state participation through state-sponsored business and technology support programs, both in organizing and facilitating joint research projects and in supporting post-ATP-project development and commercialization of new technologies.

S&T Relations with Japan Crucial to U.S. Economy

A congressionally mandated report from a panel of the National Research Council examines the U.S.-Japan science and technology (S&T) relationship and offers recommendations on what the U.S. government, industry, and research institutions should do to maximize benefits in future S&T interactions with Japan.

While Japan is facing some challenges and the United States is currently leading in high-tech research and development—especially in information-technology industries—the report said this will not necessarily last. Japan will continue to be a formidable global competitor in the manufacturing and service industries, the panel said, and is taking steps to revitalize its research capabilities. It leads the world in per-capita spending on non-defense research and per-capita full-time scientific researchers. The Japanese government also is planning to increase dramatically its funding of research to 17 trillion yen over the next five years, or about \$34 billion dollars annually. At the same time, U.S. government spending is likely to remain flat or decrease. Key challenges are emerging in

Asia for the United States as not only Japan but also developing industrial countries such as Korea and China promise to become strong global competitors.

To sustain the U.S. economy and domestic high-wage jobs, the report contends that U.S. government and industry should set policies that build national capabilities and international collaborations in science, technology, and innovation. In particular, they should further efforts toward a more reciprocal U.S.-Japan S&T relationship. For example, Japan has continued to encourage the inflow of international S&T into its economy, while minimizing market participation by non-Japanese companies. Trade restrictions, mostly non-tariff ones that originate from Japanese policies and business practices, limit U.S. access to Japanese markets and capabilities.

The relationship between the United States and Japan is changing, and some progress has been made in correcting the trade imbalance and opening Japanese markets to U.S. technology products, both long-standing issues of concern for the United States. Many U.S. manufacturers, such as the automobile industry, have improved their approaches to innovation, manufacturing, and marketing, and in some cases, have adopted some Japanese business and manufacturing practices. More U.S. scientists and engineers can speak Japanese and have worked in Japanese laboratories and manufacturing facilities.

Nevertheless, more can be done to make the U.S.-Japan S&T relationship more balanced. The report identifies priorities in the following areas:

- Protecting U.S. intellectual property. The inability to protect intellectual property has affected the bottom line of some U.S. companies, as well as their ability to access Japanese markets. The U.S. Trade Representative's Office and the Patent and Trademark Office, along with industry, should develop a "watch list" of patent applications by U.S. citizens in Japan to ensure that their significant scientific or technological innovations receive adequate protection in Japanese markets.
- Keeping up with Japanese advances. To gain better access to Japanese developments in S&T, the U.S. government should continue investing in programs to monitor, understand, and participate in Japan's endeavors. Federal funding should continue, particularly for relatively inexpensive programs whose costs also are leveraged by Japanese funding. These include programs to train U.S. scientists and engineers in Japanese and to provide them with opportunities to work in research laborato-

ries and manufacturing plants abroad. The U.S. government also should continue to invest in programs to acquire, translate, and disseminate Japanese scientific, business, and policy information to U.S. companies. Another priority is to press the Japanese government and industry to make electronically available laws, regulations, and other policy-related documents that affect market access and technology.

■ Renewing efforts to engage Japan in S&T. Japan's efforts to revamp its research capabilities provide opportunities for bilateral cooperation in S&T. Using the U.S.-Japan Science and Technology Agreement, the United States should advance its interests by encouraging effective program management and by developing methodologies to measure progress in the U.S.-Japan relationship. The bilateral relationship between the two nations also is increasingly becoming far more global as they compete, collaborate, and tap into growing hi-tech markets, such as those in Asia. They share common interests in a growing number of global trade issues, including intellectual property protection. The panel said that its priorities for U.S.-Japan relations will be broadly applicable to S&T relations with other rapidly emerging economies worldwide.

■ Increasing economic benefits from U.S. S&T. The United States should continue to increase investments in S&T and develop ways to collaborate that would improve the return on investments. In the early 1980s, partly in response to Japanese competition, the United States set up partnerships to improve cooperation between its federal agencies, universities, and industry in developing and commercializing new technology. Overall, these efforts have been successful, serving as models for other countries aiming to increase the financial payoff from scientific and technological investments. Resolving concerns of non-U.S. involvement in U.S. civilian technology programs, and, in turn, involvement by U.S.-based companies in non-U.S. government programs are important issues to address as well.

The panel's report is the companion to a 1995 report that addressed defense concerns. A framework statement, drawing on both reports and outlining an integrated approach toward pursuing U.S. interests in the future, accompanies the new report. Copies of *Maximizing U.S. Interests in Science and Technology Relations with Japan: Committee on Japan Framework Statement and Report of the Competitiveness Task Force* are available from the National Academy Press, Box 285, 2102 Constitution Avenue, N.W., Washington, DC 20055; 800-624-6242; 202-334-3313; <http://www.nap.edu>. □