

The International Science and Technology

Since 1992, the United States has been involved in the establishment and operation of a science and technology center in Russia—the International Science and Technology Center (ISTC)—and a similar center in Ukraine—the Science and Technology Center in Ukraine (STCU). These centers provide funding support—on a government-to-government basis—to scientists and engineers from the defense sector of the former Soviet Union for work in a wide range of civilian science and technology projects.

The concept of an international science and technology center was raised during the Bush-Yeltsin Summit, held in Washington, D.C. in January 1992. The primary role of the center would be to reduce the possibility that personnel with knowledge and expertise in weapons of mass destruction or missile delivery systems

would leave the former Soviet Union and offer their services to rogue nations. As stated in the agreement that established the ISTC, weapon scientists would have the opportunity to “...redirect their talents to peaceful activities...and [contribute] to the solutions to national or international technical problems...” This agreement was initialed in May of 1992, with the United States, Russia, the European Union, and Japan as signatories.

Despite the desire of the United States to move quickly on ratification of the agreement, formal operation of the ISTC program proceeded somewhat slowly. Money was not the major stumbling block, because the program, in effect, was an outgrowth of the larger and more encompassing Soviet Nuclear Threat Reduction Act (Nunn-Lugar), and funding initially came from Department of Defense moneys committed under that legislation.

The ISTC agreement was provisionally approved via a decree by President Yeltsin in December 1993. Although the Russian parliament still has not taken formal action on ISTC ratification, Yeltsin’s approval allowed the ISTC to become operational in March of 1994.

Likewise, there were strong political pressures to create a science center in Ukraine distinct from the one being established in Russia. Ratification for the STCU wasn’t finalized by Ukraine’s parliament—the Rada—until July 1994.

Regardless of the delays in starting the ISTC and the STCU, both centers are today operating successfully. The ISTC has been funding projects since March 1994, and the STCU since December 1995. To date, nearly 11,500 scientists and engineers with knowledge of weapons of mass destruction have received funding through science-center projects. Approximately 210 projects have been funded at the two centers, amounting to commitments of the funding parties (grown to include Finland and Sweden) of approximately \$84 million. United States funding currently falls under the Freedom Support Act, which uses Department of State Foreign Assistance moneys. This source allows project funding in the original nuclear inheritor states (Russia, Kazakhstan, Ukraine and Belarus) as well as additional states of the Former Soviet Union (including Georgia, Armenia, Kyrgyzstan).

The diversity of science and technology areas of the ISTC funded projects is shown in Figure 2. The two largest areas supported by the ISTC—energy and environment—account for over 40 per cent of the 197 funded projects.

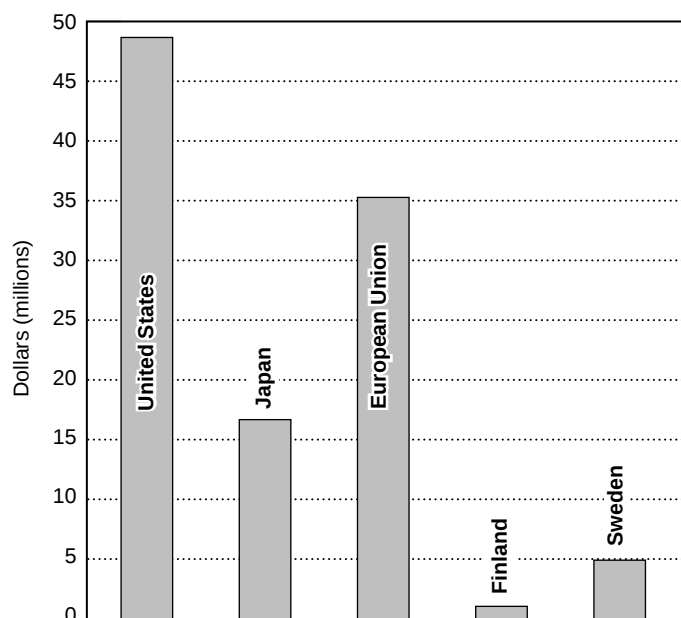


Figure 1. Total Funds Pledged to the International Science and Technology Center by Country (through 1995)

Centers in the Former Soviet Union

Steven J. Gitomer

In addition to funding projects, the ISTC has organized a number of symposia to provide opportunities for scientists of the former Soviet Union to present their work to an international audience. The symposia have addressed topics including the environment, conversion in the area of biological weapons, science and technology in Georgia and Kazakhstan, and biotechnology.

Los Alamos was involved with the ISTC from the earliest days and has had a continued influence on the shaping of ISTC throughout its formative period to the present. For example, the author has been involved with the ISTC from 1992 to the present, first serving as a DOE representative, then as a senior scientific advisor to the State Department (1993-1994), and now as a member of the ISTC Scientific Advisory Committee. Boris Rosev served as a senior project manager at the ISTC for over one year (1993-1994), while currently, David Giebink is on a two year assignment at the ISTC.

Los Alamos technical staff members contribute to proposal development and review and monitor various projects. In fact, most of the nearly 500 proposals received from the ISTC and STCU have been reviewed by Los Alamos scientists. Additionally, lab scientists are often committed collaborators in joint research, interacting in quite a wide variety of areas. Many of these research projects were summarized in a series of Los Alamos reports entitled "Los Alamos National Laboratory Interactions with Organizations in the Former Soviet Union" compiled by the author and Jim Kowaczyk.

As this issue of *Los Alamos Science* goes to press, the ISTC has completed another meeting of its Board of Governors at which more than thirty proposals were approved and funds totalling nearly seventeen million dollars were committed. Nearly a thousand additional scientists and engineers, many of whom have knowledge of weapons of mass destruction, will be engaged in projects of a civilian nature. Los Alamos scientists will be involved as collaborators[†] in these projects, which cover areas including seismic monitoring, upward-propagating lightning, and environmental characterization and remediation.

The Western scientific community is having its impact on science and technology in the former Soviet Union in many ways and, specifically through the ISTC and STCU, is becoming a part of their future. As time goes by, I hope more of my colleagues will take advantage of and benefit from the opportunities connected with these centers, and I hope I can help make this so. ■

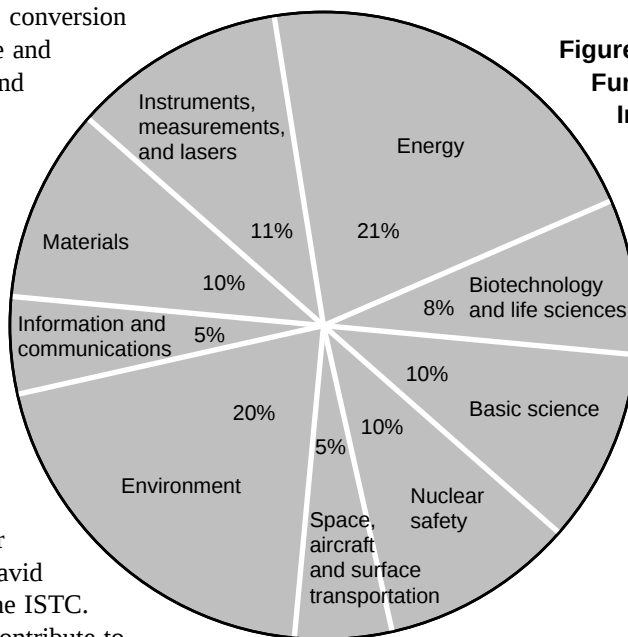


Figure 2. Percentage of ISTC Funds Used to Support the Indicated Areas of Science (through 1995)

Steven J. Gitomer received his Ph.D. in electrical engineering from the University of Wisconsin-Madison. He has been with the Laboratory since 1974. He joined the Center for International Security Affairs in 1995 and has been a member of the Nonproliferation and International Security Division since 1993. His current responsibilities include: U.S. member of the Scientific Advisory Committee of ISTC, Senior Science Advisor to the U. S. Department of State for STCU, and principal Los Alamos point-of-contact for the ISTC, STCU, and lab-to-lab interactions with the Former Soviet Union. From 1991 to 1993, Gitomer served at the U.S. Department of Energy's Office of Arms Control in Washington D.C., where his work focused on implementation of the Threshold Test Ban Treaty and the establishment of the science and technology centers in Russia and Ukraine.



[†]ISTC/STCU monies only cover salaries, equipment, supplies, travel, and overhead of the project participants from the former Soviet Union. There is no provision for funding collaborators who are not from the former Soviet Union.