NATIONAL TECHNOLOGY TRANSFER CENTER

Business Gold

Business Gold, the NTTC's electronic bulletin board system is an easy, convenient way to access the latest information on the newest technologies available through the research and development programs of federal government laboratories. Anyone with a computer, modem, and communications software can connect and search a wealth of information through a user-friendly interface. ***Business Gold*** operates 24 hours a day, seven days a week. There are no connect, usage, or download charges. All information on the system is free and can be downloaded to your own computer. Follow the directions below to dial up the system directly or connect via the Internet. Remember that ***Business Gold*** contains only that portion of the federal research databases available on a public access bulletin board. NTTC personnel have access to many additional databases. If you are unable to find what you need on *Business Gold*, contact our free gateway service at **(800) 678-6882.**

Information and Features

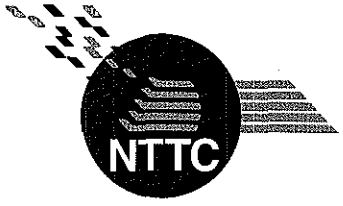
- The Directory of Federal Laboratory Resources
- All current SBIR, STTR, ATP, TRP solicitations
- Current News and Announcements
- Technology Transfer Conference Calendar
- State Technical Assistance Programs
- Regional Technology Transfer Centers
- Government Software Information Centers
- New Technologies Available for Licensing
- Searchable Databases
- User-friendly Interface
- Internet Access
- Download Capability
- User Guide

Dial-Up Bulletin Board

- Set data bits to 7, stop bits to 1, parity to Even and emulation to vt100
- 300-2400 baud modems dial (304) 243-2561
- 9600 modems and higher dial (304) 243-2560
- For help or more information, call: (304) 243-2551
- First time sign-ons login as guest - no password required

Internet Connection

- Telnet iron.nttc.edu (192.188.119.50), login guest (lower case)
- For more information, finger info@nttc.edu
- Ftp iron.nttc.edu, login as anonymous (all files are in /pub)
- Gopher iron.nttc.edu
- World Wide Web URL http://iridium.nttc.edu/nttc.html



National Technology Transfer Center, Wheeling *Jesuit* College, 316 Washington Avenue, Wheeling, WV 26003

Troubleshooting Guide

No connect: If your modem is dialing correctly but you do not get a connect message, either your communications software or modem are set up incorrectly. Check the parameters within your communications software.

Strange characters: If strange characters display on your screen after you get a connect, make sure your settings are correct and that you are using a vt100 emulation. Also, check your modem speed. If you are dialing in at a speed different from the answering modem, you may need to send a break signal. Check your software manual.

Nothing happens after connect: Please be patient. It takes anywhere from 10 to 15 seconds for the modem to complete the handshake. Do not press ENTER and do not send a break signal.

Login incorrect error message: The ***Business Gold*** system is case sensitive. Make sure you are typing guest or your own user ID in all lower case letters.

Do not get a connect to Business Gold: If you are dialing long distance be sure to place a "1" in front of the telephone number. If you must dial a "9" to get an outside line, be sure to include a "9" when you dial the number. Some long distance carriers require you to enter an access code. You must include the access code when you dial the number.

Windows Users: If you are using Windows Terminal, make the following change to your settings. From the SETTINGS menu, select terminal preferences. Make sure the "use function and arrow keys for Windows" box is NOT checked.

Qmodem Users: You must use the F7 - F10 keys instead of your arrow keys

For more help: Call (800) 678-6882

Companies "TAP-IN" to Vast Resources

Technology Access for Product Innovation, or TAP-IN, is a new program offering a variety of support services to small, defense-related manufacturers and other companies that could benefit from defense-related technology.

The $54 million TAP-IN program is a joint effort funded by the Technology Reinvestment Project (TRP) and a consortium of public and private sources and six NASA Regional Technology Transfer Centers, the Federal Laboratory Consortium, Industrial Designers Society of America, KPMG Peat Marwick, Ernst & Young and a network of state programs.

TAP-IN is designed to help small, defense-related manufacturers transfer technology and processing expertise to non-defense markets while maintaining their ability to meet future defense requirements. In addition to helping defense-related companies diversity into non-defense markets, the program also seeks to identify any small manufacturers (less than 500 employees) who may benefit from defense-related technology or manufacturing processes.

TAP-IN partners will provide companies with assistance on all levels from research and development of a concept through prototype design, capital sourcing and market strategy. Many services will be provided at no cost. Other services carry reasonable fees structured to encourage accessibility by small companies.

Companies interested in participating in TAP-IN should call 800 472-6785.

NTTC Seeks Remote Marketing Representatives

The NTTC is seeking qualified candidates for marketing representative positions to cover the following regions: Northeast (ME, VT, NH, CT, RI, MA and upstate NY); Southeast (NC, SC, GA, FL, AL, MS, LA); and Far West (CA, OR, WA).

Parties interested in receiving the request for proposal (RFP) should submit a letter listing their qualifications and relevant experience by 4 p.m. January 20, 1995.

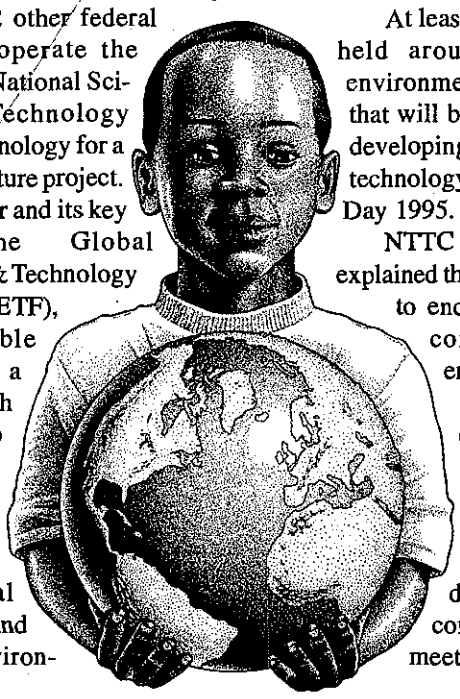
The selected representatives will operate as subcontractors under an initial contract term of six months. It is anticipated that the initial contract will require 40 to 80 hours per month to perform the primary duties outlined below. The contract will commence on or before March 1, 1995. Primary duties of the position are as follows:

- Responsibility for marketing the entire NTTC product line.
- Presentations of the NTTC's capabilities/products to industry audiences and manning NTTC exhibit booth at selected trade shows and conferences.
- Briefings given to state economic development officials.
- Meetings/briefings with appropriate media contacts.

Letters of qualification should be sent to the attention of Jim Reed, Deputy Director of Marketing, NTTC, Wheeling Jesuit College, 316 Washington Avenue, Wheeling, WV 26003.

NTTC Work Supports Environmental Initiative

NTTC is working jointly with NASA and 12 other federal agencies to operate the White House National Science and Technology Council's Technology for a Sustainable Future project.



The Center and its key partner, the Global Environment & Technology Foundation (GETF), are responsible for organizing a ten-month project to gather national input leading to development of viable environmental technologies and a national environmental technology policy.

At least 25 regional forums are being held around the nation to access environmental technology information that will be used by the White House in developing an integrated environmental technology strategy for America by Earth Day 1995.

NTTC Executive Director Lee Rivers explained that the U.S. must take bold steps to encourage the development and commercial use of new environmental technologies.

"While there is strong competition in the environmental arena, pollution prevention, restoration and waste management technologies are not being developed, applied and commercialized fast enough to meet world demand," he said. "The challenge of this project is to create an atmosphere conductive to cooperation and the open exchange of ideas and know-how between an interested public, government, the private sector, and research and educational organizations."

A key segment of the NTTC project will be the establishment of an information network and knowledge base to supplement the face-to-face exchange of information at the workshops. NTTC will use the network to provide text and other materials generated from the White House Workshops. A cornerstone of the network services program area is an information network known as Global Network for Environmental Technology (GNET) now under development.

A toll free line has been established by NTTC in support of the program. For more information about the workshops or the overall project, call 800 368-6676.

Economic Development-Commercialization Program Set

The Association of Federal Technology Transfer Executives (AFT²E) will present an informational program on "Technology Transfer: Commercialization for Economic Development" March 1-2 in San Diego, CA.

The program will feature a wide variety of experts in economic development and technology transfer who will discuss topics including: working with state and local developers; measuring success; working with minority business; valuing intellectual property; interacting with researchers; negotiating and closing the deal; licenses; cooperative agreements; and consortia and other partnerships.

Speakers and presenters will include Christina Jansen of MIT, Joe Koepnick of Stanford University, Gib Marguth of Sandia, Curt Chilcott of the San Diego Department of Economic Development, Dick Rein of NRL and many others.

The San Diego event is $295 for AFT²E members and $345 for non-members. To register or for further information, call 800 678-6882. The event is cosponsored by the Society for Optical Engineering (SPIE) and the NTTC.

AFT²E was organized in 1992 to meet the needs of federal executives involved in technology transfer activities.

Success of Extension Training Leads to New Offerings

One hundred sixty-four individuals representing 75 organizations have experienced the NTTC's Fundamentals of Industrial Extension Workshop training as of November 1994.

NTTC recently conducted workshops for The Edison Welding Institute, the University of Connecticut, the Mid-Atlantic Manufacturing Technology Center, and the Oklahoma Alliance for Manufacturing Excellence, Inc.

Three sessions have been scheduled for early 1995 including: January 18-20 at Thomas Nelson Community College and The Peninsula Advanced Technology Center at Hampton, VA; February 14-16 at the Edison Welding Institute in Columbus, OH; and April 12-14 at California State University in Long Beach, CA.

Topics covered in the workshops include: interpersonal communication, presentation/delivery, resource identification, problem identification, problem solving, client management, group dynamics and networking. The workshops are intended for persons who provide various types of assistance to industry and have a basic knowledge and understanding of their program's mission and operation.

For more information about the Fundamentals of Industrial Extension workshop, contact the NTTC at 800 678-6882.

Technology Touchstone
National Technology Transfer Center
316 Washington Avenue
Wheeling Jesuit College
Wheeling, WV 26003

1-800-678-6882

ADDRESS CORRECTION REQUESTED

NTTC to Host Commercialization of Disability Technologies Forum

NTTC continues to spearhead work to speed the commercialization of new technologies that can assist persons with disabilities through sponsorship of a special forum on the topic set for April 21 in Washington, D.C.

The Center has invited top experts and industry representatives to attend the forum which will feature presentations on ways to commercialize federally researched technologies for use in assisting disabled persons.



Topics and subtopics, which will be presented as case studies, panel discussions and formal presentations, will include:

Overcoming the Commercialization and Marketing Gaps:

- View from the laboratory - successful collaboration case studies
- Manufacturers' perspectives on the transfer of federal lab technology

Criteria for Investing

- What does the venture capital community look for?
- Key factors in the investment decision

Resources for Manufacturers

- Role of trade associations
- Role of the clearinghouse and its link to the manufacturer and consumer
- Small Business Innovative Research Grants (SBIRs)

Disability Consumer Market Development

- How a product is introduced
- How markets are identified
- How market demand is met
- The need for better consumer market information

Advancing Universal Design

- Case for advancing universal design vs. customized design
- Meeting global market demand through universal design

Presenters will include: Joe Lahoud, president of L.C. Technologies; Peter Blanck, professor of disability law at the University of Iowa; Ralph Aterowitz, President of Venture Tech Corp.; Joe Resnick, chief scientist with Resnick Worldwide, Inc. and many others from federal labs, manufacturing and associations.

Copies of the presentations will be available after April 21 by calling the NTTC at 800-678-6882.

NTTC's Rivers Named to National Panel on Rehabilitative Medicine

Lee W. Rivers, executive director of NTTC at Wheeling Jesuit College, has been named to a prestigious national panel that will work to identify new technologies that may be adapted for use in rehabilitative medicine.

Rivers will serve on the Advisory Panel to the National Rehabilitation Hospital's Assistive Technology Research Center. The primary goal of the group is to identify promising military and aerospace technologies that may have application to rehabilitation medicine as well as the everyday lives of persons with disabilities.

The center, located in Washington, D.C., was created as a result of a four year grant from the U.S. Army Medical Research and Materials Command.

"Technology transfer is about finding more than one application for newly researched technologies," Rivers said. "This panel is particularly interesting in that it will work to find uses for military and aerospace technologies that benefit persons with disabilities. That is an admirable goal and one that I am happy to help support."

Department of Commerce Service Assists in Defense Conversion

TECHNOLOGY TOUCHSTONE

From NTTC - America's Gateway to Federal Technology

December 1994 | at Wheeling Jesuit College | Vol. 2 No. 3

NTTC Helps Dry Cleaner's Dream



David Porter, a Kansas City dry cleaner, had an idea for a new dry cleaning technology and, after working with the NTTC, won the backing of the Department of Energy (DOE) with a $50,000 "mini-CRADA" to begin a research and development project.

Porter's brainchild is a rack/conveyor system to carry soiled clothes through an ultrasound bath. The device would serve as a combination presser and conveyor which moves the clothes through the bath while keeping them in order. The bath will use a water-based ultrasound process thereby eliminating the need for the traditional dry cleaning chemical perchloroathylene ("perc").

Porter exemplifies the small business owners who are now finding more help in federal research facilities that seek to transfer technology to the private sector. As president of Garment Care, Inc., in Kansas City, Porter operates one store and cleaning plant with 12 employees and annual sales of less than $500,000.

In early 1993, Porter discussed his idea with a technology agent at NTTC who performed a search for potential research partners using the Center's extensive index of federal technology resources. NTTC's search turned up a partner for Porter right next door in Kansas City. Porter approached the technology transfer office at the Kansas City DOE facility now operated by Allied Signal Co. Researchers responded with 40 hours of free discussion and preliminary tests on swatches of material that Porter supplied. Porter's persistence paid off with the two-year DOE research grant that he hopes will attract additional funding.

"There has been a quantum leap difference in the connectivity I now feel as a businessman," Porter said. "The world is my oyster now because, thanks to NTTC and other services, I now have access. Prior to the NTTC, there wasn't anyone to turn to. I am a small guy alone. NTTC has, in my opinion, great networking potential for small businesses."

Porter said before using the NTTC, he faced hours of telephone calling trying to get through to federal sources that might help him with his project.

> **"The world is my oyster now because, thanks to NTTC and other services, I now have access..."**
>
> **David Porter**

"We (the dry cleaning industry) want innovation that not only takes care of our environment, but also takes care of our wallets," Porter said. "That's why we're excited about the technology transfer possibilities that are now before us."

NTTC Teams with Knowledge Express

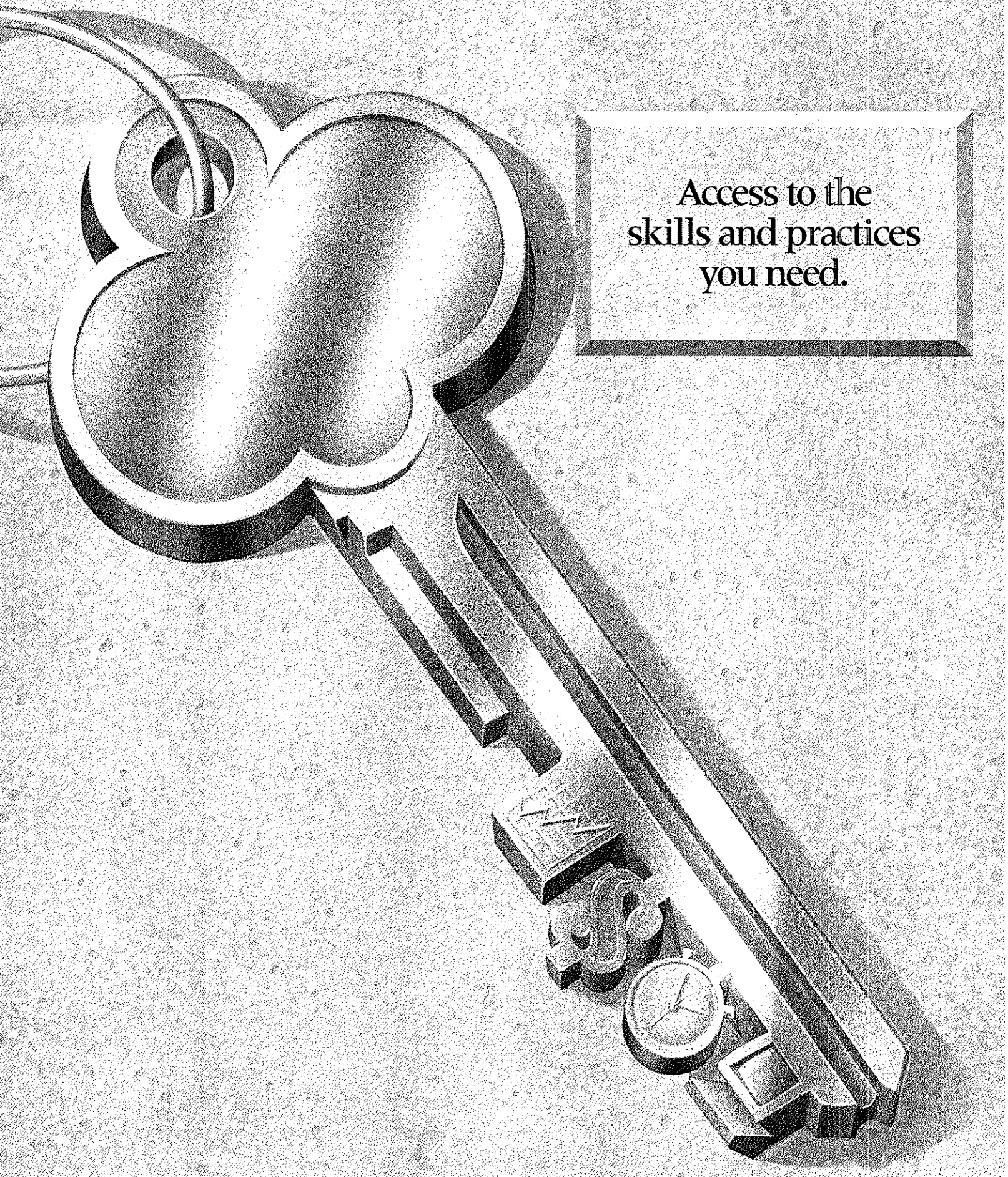
NTTC has signed a partnership agreement with Knowledge Express Data Systems to improve information flow about government funded research and inventions to the private sector for commercialization.

Knowledge Express is the largest commercial provider of technology transfer information in the U.S. NTTC is the most comprehensive public source for federal technology information.

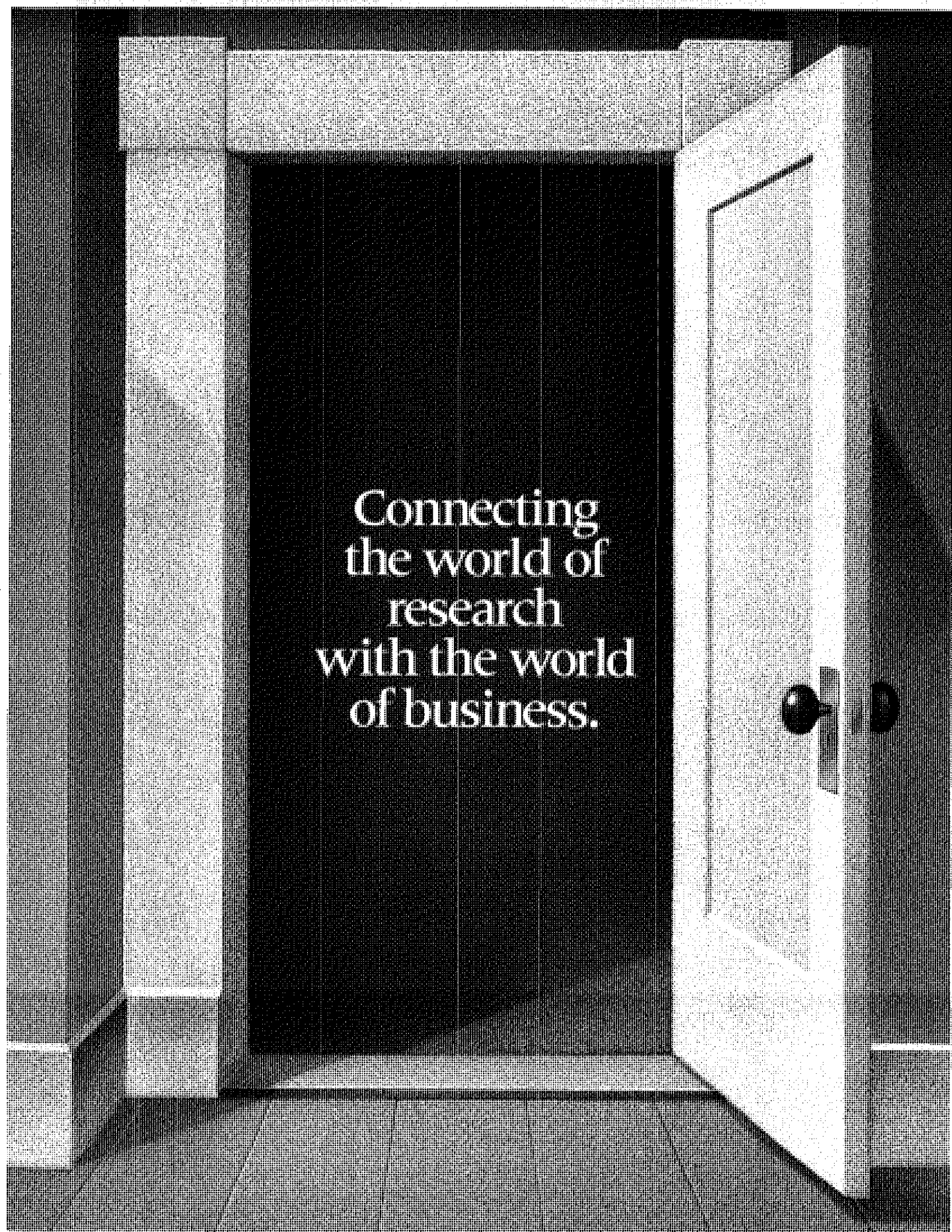
The new partnership is funded by the Technology Reinvestment Project (TRP) and will lead to the enhancement of the quantity and quality of federal research and technology information distributed to U.S. technology transfer executives using the Knowledge Express Core Contents online service. NTTC will assist with marketing and distribution of the Knowledge Express online service to more than 2,000 high tech small businesses and participate in the metric evaluation of the project.

Knowledge Express Core Contents is accessable via modem and the Internet and presently hosts the largest collection of technology transfer information and communications services commercially available. A friendly graphical user interface and powerful "match making" search engine contribute to the utilization of the service by business professionals seeking to locate research expertise, collaborative opportunities and technologies.

For more information, contact Knowledge Express at 800-529-KEDS



Access to the skills and practices you need.


Connecting
the world of
research
with the world
of business.

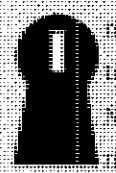
THE COMPETITIVENESS OF TODAY'S WORLD MARKETPLACE HAS PARED THE TECHNOLOGICAL LEAD OF AMERICAN INDUSTRY. FOREIGN COMPETITION, DECLINING BUDGETS, AND THE ENORMOUS COST OF MODERN RESEARCH HAVE MADE IT MORE AND MORE DIFFICULT FOR INDIVIDUAL COMPANIES TO GO IT ALONE. TODAY, IT IS MORE URGENT THAN EVER FOR AMERICAN BUSINESS AND GOVERNMENT TO PARTNER.

NTTC TRAINING AND STRATEGIC PARTNERING PROGRAMS SHOW THEM HOW—THROUGH SOME OF THE MOST INNOVATIVE SERVICES AND TRAINING PROGRAMS YET DESIGNED.

the NTTC, the Federal Laboratory Consortium, the Regional Technology Transfer Centers, and other state and local economic development resources.

Our training has been instrumental in the development of several state and national industrial extension programs that utilize federal, state and local resources to help companies gain competitive advantage.

Partnership programs: For business and industry.



In addition to teaching best practices in technology management and transfer, NTTC seeks to encourage the development of the best practices for tomorrow. Private/public partnership programs are one way to stimulate such innovation.

An initiative sponsored by the NTTC has encouraged model partnerships between the public and private sectors—ones that other groups can learn from and emulate. Indeed, the partnerships that were inspired by this program have provided vivid evidence of just how powerful private/public cooperation can be.

In one alliance, a diverse mix of companies—in fields including automotive, medical, and plastics—united in a research effort to improve the surface characteristics of plastics. By pooling their resources and expertise, they were able to make an advance that will benefit customers in each of their industry groups.

Another partnership involved a group of five aluminum extruders in Youngstown, Ohio, who teamed with two federal labs, Youngstown State University, and an economic development group. The newly formed partnership is developing an extrusion process that increases productivity and reduces scrap. The process is expected to save the companies more than $25 million over the next five years. Butch Dyer, Executive Director of Youngstown State's Technology Development Corporation, explains, "NTTC was the catalyst for bringing our project from the drawing board to the shop floor. Without the partnering that NTTC fostered, our idea would have been just another good concept lacking strong support."

An NTTC seminar, "Partnering in Lean Times," grew out of this program and explored partnering as an effective way to pool technology commercialization resources in a time of widespread corporate cost-cutting.

We also develop economic forums that include partners from state and local economic development groups, companies, industry trade associations, and government.

The best practices and ideas from all NTTC programs will comprise a special offering titled "The Dynamics of Technology Management." This core series of seminars looks at technology acquisition, technology valuation, and technology marketing from several perspectives. These seminars can be adapted to fit the individual needs of government and business audiences. We can also conduct pre- and post-conference programs, or on-site programs at an individual company.

To get further information on our training and strategic partnering programs, please call 1-800-678-6882.

Education and career development at Wheeling Jesuit College



Finally, for those considering a career in the emerging field of technology management, undergraduate and graduate programs in innovation, commercialization, and technology transfer are available through Wheeling Jesuit College, NTTC's headquarters location. To get further information on our undergraduate and graduate programs, please call the Office of Admissions at 1-800-624-6992.

NTTC programs are designed to bring together two worlds that have often been isolated from each other, the worlds of the scientific lab and the commercial marketplace. No matter which of these worlds you are a part of, there is an NTTC program that can help you initiate a private/public partnership in your organization.

We have developed training for federal labs and agencies, economic development specialists, and private/public partnerships.

With all NTTC programs, we assemble experts to give you access to the very best practices available—practices that you can put to work in your organization right away. Our programs are designed to help you use technology to make an impact on your organization's success.

Comprehensive public sector programs: For federal labs and agencies.

The decade of the '90s has brought with it a new urgency: shifting the emphasis of federally funded research from defense-related goals to market-related ones.

An innovative new program from NTTC may help this process. It is called Idea Contact™ and it teaches scientists, engineers and managers how to evaluate an idea based on its manufacturability, its marketability, and its usefulness to customers. Currently in progress with the U.S. Navy, it is being used to teach Navy researchers how to identify technologies that are of interest to industry, how to communicate information about those technologies in ways that are more meaningful to commercial customers, and how to incorporate market-savvy thinking into the technology management process.

Rear Admiral Marc Pelaez, Chief of Naval Research at the Office of Naval Research, sees the opportunity this way: "The government doesn't routinely understand the commercial marketplace as well as it could. I think we're getting better at it. But I think we need education along these lines. By understanding the market forces, we can better interact with private industry for the transfer of technology."

In another area, NTTC is training Environmental Protection Agency researchers on ways to develop cooperative research agreements with U.S. industry, enhancing the agency's potential to commercialize its products and processes.

Training programs: For industrial modernization specialists.

Small and medium-sized manufacturers in the U.S. face many challenges to integrating new technologies and techniques into their operations. These challenges include difficulties in access to information, training, and expertise. Not only does this hamper national productivity, it also contributes to the demise of many small firms in the face of the competitive hazards of the global marketplace.

NTTC programs for industrial modernization aim to solve the problem by adding a new tool to the arsenal of economic development specialists: the use of federal technologies as a catalyst for economic revitalization. Technology-driven industrial extension programs represent one new approach being explored. NTTC provides technology-based economic development training, from the fundamentals to advanced, hands-on workshops.

As part of the Clinton Administration's Technology Reinvestment Program, we were awarded a grant to work with PENNTAP (Pennsylvania Technical Assistance Program), Rensselaer Polytechnic Institute, and other manufacturing assistance groups to create a national curriculum for training industrial extension agents. Because these agents work in a time of accelerating technological complexity, this training focuses on how they can link their clients to sources of expertise—through



National Technology Transfer Center
Wheeling *Jesuit* College, 316 Washington Avenue, Wheeling, West Virginia 26003
1-800-678-6882