





# **TECHNICAL ASSISTANCE PROGRAM**

A Year in Review

July 2001-June 2002



Engaging with Indiana business to build our economic future

# OUR MISSION: INDIANA'S ECONOMIC

One of the keys to Purdue's efforts to achieve preeminence among American universities is our effort to engage Indiana's business community. The Technical Assistance Program is at the heart of that effort. Working with the advanced manufacturing, information technology, and life sciences business sectors, TAP has had a tremendously positive effect on the state's economy.

Every business with which TAP has worked has been helped, and many have experienced dramatic improvements. By connecting the business community to the expertise and vast resources at Purdue, TAP can greatly improve a firm's ability to compete and succeed in the global market.

The numbers are impressive. Each year, TAP engages 200 faculty, staff, and students with Indiana companies. Since its establishment in 1986, TAP has worked with 5,000 companies.



bringing about millions of dollars in

Through TAP's Summer Intern Program, Deflecta-Shield Accessories in Howe, Indiana, recruited two Purdue students to help develop new product models during summer 2002.



sales increases and cost savings while creating thousands of new jobs. The High Tech Job Fair, which TAP conducts for Indiana compa-

nies, has significantly increased the number of Purdue graduates who accept jobs with firms in our state.

Purdue is extremely proud of this highly successful effort, and we believe providing funds for an expanded TAP is one of the best things our state could do for itself. I intend to work hard to bring about this expansion in the future.

Martin 1. Aschke

Martin C. Jischke President, Purdue University

www.purdue.edu/TAP

# GROWTH AND PROSPERITY

The Technical Assistance Program connects Indiana businesses and local governments with the vast resources of Purdue University. Our mission: To strengthen the Indiana economy and improve the quality of life for all Indiana citizens.

## TAP's achievements include:

- Helping stem the "brain drain" by increasing the placement of Purdue graduates in Indiana businesses.
- Strengthening the competitiveness of Indiana businesses by assisting them in implementing state-of-the-art technologies.
- Improving and protecting Indiana's environment by working with industry and wastewater treatment plants on pollution prevention and operational efficiency.



## Economic Impact Data May 1986-June 2002

Since 1986, TAP has made a huge impact on Indiana businesses. The results of TAP's work include:

#### ASSISTANCE PROJECTS Completed



# SAVINGS AND INVESTMENTS\*

Capital Investments	201 million
Cost Savings	\$26 million
Increased Sales	\$286 million

EMPLOYMENT*	
Jobs Added	1,452
Jobs Saved	2,439

\*Data based on client evaluations of TAP assistance

# EXPERT ADVICE FOR INDIANA

Each year, the Technical Assistance Program provides free, confidential consulting services for hundreds of Indiana companies, local governments, and nonprofit organizations. The success stories on these pages give a few highlights from the 296 assistance projects completed in 2001-02.

Since **1986**, TAP has completed more than **5,000** assistance projects. **RESULTS** The recommendations made by Regina and her staff for one line alone are expected to save at least 25 percent in the manufacture of one part. Within the next year, the company expects to cut losses by five to fifteen percent.

and observations.

Seeing clearly now

COMPANY American Window and Glass, Inc., Evansville

Founded in 1988, American Window and Glass is a fabricator of fine vinyl window and door products for the residential market. It employs more than 140 associates.

CHALLENGE The rapid growth of vinyl

students Nels Grevstad and Ryan Wiegand spent a full day meeting with the entire

management team of American Window and

Glass and touring the production lines. The

Purdue team subsequently made detailed recommendations based on their discussions

windows in the residential market has "The TAP program, available increased the need for competitiveness and at no cost, has certainly efficiency in the production process. In proved to be of benefit to the search of a fresh view from an objective profitability of American perspective, General Manager Jeff Wigington Window and Glass. contacted TAP. The professionalism was ACTION TAP connected Jeff with Regina refreshing, and the Becker, manager of Purdue's Statistical information gleaned was Consulting Service. She and graduate

JEFF WIGINGTON General Manager American Window and Glass

of extraordinary value."



# BUSINESSES

-

## Solid products, solid profits

#### COMPANY Keihin IPT (KIPT), Greenfield (www.ipt-inc.com)

Founded in 1988, KIPT manufactures intake manifolds and fuel injection systems. KIPT is the parent company of three strategic business units in Greenfield and Muncie. Indiana, and Tarboro. North Carolina.

**CHALLENGE** KIPT contacted the Technical Assistance Program to request Purdue assistance with studying an aluminum casting defect and identifying the source and type of porosity that was occurring.

**A CTION** Using microstructural analysis, graduate student Fuhong Zhang and Professor Mysore Dayananda of the School of Materials Engineering identified the specific type of porosity as well as the probable causes of the defect.

**RESULTS** The Purdue information enabled KIPT to improve temperature control and solidification, significantly reducing the defect. The KIPT team learned more about the microstructural characteristics of the metal, while the Purdue team gained insight into process improvements.

## **Keihin IPT**





## **Shelby County Fiber Optic Board**

## Strategically wired

**COMMUNITY** Shelby County and the city of Shelbyville, located 30 miles southeast of Indianapolis, have a population of approximately 43,500.

**CHALLENGE** An agreement with fiber-optic provider Metro Xmit made an extensive fiber optic network available to the community. City, county, and business leaders formed the Fiber Optic Board to evaluate its use. The board requested TAP assistance in determining how to use this resource in the best interest of local businesses, residents, schools, and governments.

**A CTION** TAP connected the Fiber Optic Board with Jim Goldman, professor and associate head of the Department of Computer Technology. Jim developed a strategic plan to guide the county's use and implementation of the fiber-optic network.

**RESULTS** One of the first applications of the new high-speed Internet connectivity is a regional health care informatics system, which will provide storage and distribution of medical images to health care providers.

## **EXPERTISE FOR ANY NEED**

TAP provides up to five days of free consulting on the full range of technical issues, including:

#### **Advanced Manufacturing**

- Lean manufacturing
- Facility planning
- Process improvements
- Quality management
- Environmental issues

#### **Business Management**

- Growth strategies
- Financial evaluation
- Costing systems
- Marketing options

#### Information Technology

- Networking, programming, and parallel processing
- Hardware, software, and ISP assessments
- Broadband infrastructure for communities
- Management of the information technology function

#### **Product Development and Engineering<sup>®</sup>**

- Design input and review
- Rapid prototyping
- Design method selection
- Problem solving
- Product evaluation and testing

\*TAP does not support projects involving litigation or projects geared toward developing patented technologies. Contact us for expert referrals.

www.purdue.edu/TAP (765) 494-6258

# CULTIVATING INDIANA'S TALENT

## TAP is committed to helping

Indiana employers connect with

Purdue's talented, hardworking,

and highly skilled student

body — and to making

**Purdue students aware** 

of the many career

opportunities available

right here in Indiana.

job fair.

InfoDynamics, an Indianapolis software development company, hired two 2002 Purdue graduates through the High Tech Job Fair. Brad Stayte, whose degree is in computer technology, was hired as a programmer/analyst. Summer King, a management graduate, will work in marketing for the company.

"The High Tech Job Fair gives Indiana companies a chance to meet face-to-face with Purdue students who have taken the time to find out what your company is about. I was impressed at the turnout of students and the professional atmosphere that Purdue provided."

HIGH TECH JOB FAIR FOR

At TAP's annual job fair, Indiana employers meet hundreds of

Purdue students studying technology, engineering, management, science, and agriculture. Approximately 1,600 undergraduate and graduate students and 56 businesses attended the 2001

INDIANA COMPANIES

CHRISTOPHER L. LUPTON President, InfoDynamics, Inc. www.infod.com

### FUTURE JOB FAIR DATES

October 29, 2003

October 27, 2004

www.purdue.edu/jobfair

# Businesses in attendance 56 Students in attendance 1,600 A D D I T I O N A L S T U D E N T R E C R U I T M E N T R E S O U R C E S Purdue Center for Career Opportunities Phone: (765) 494-3981

www.cco.purdue.edu

2001 JOB FAIR DATA

Phone: (317) 275-2080 www.careersINsite.com

# BASE

## SUMMER INTERN PROGRAM

Through the Summer Intern Program, TAP helps Indiana companies connect with innovative, technically savvy, and costeffective assistance for summer projects. The intern program is also a great way to find future employees.

## **Essroc Cement, Speed**

#### www.essroc.com

Intern Norris Hulbert supported the maintenance department of this complex, 24-hour cement manufacturing facility. Projects she completed included a database of AutoCAD drawings, quick reference documents for the electrical department, and monthly reliability reports.

"The Summer Intern Program allowed us to get needed work done that our personnel were unable to handle due to time constraints. Many of the items that Norris worked on will help us reduce time spent on projects in the future and become more efficient."

STEVEN K. MILLER Administrative Manager, Essroc Cement



## **Chester ABI Services Division, Francesville**

www.chesters.com

Development and installation of irrigation and grain handling equipment were among the duties that intern David Szabela performed for Chester ABI Services.

"I was completely satisfied with Dave Szabela's work as an intern. His attitude and work ethic were his most outstanding traits. In retrospect I wish I had hired more than Dave! I would recommend TAP to anyone."

DEB MROZINSKI Division Manager, Chester, Inc. "I appreciate my internship with Chester not only for the experience I gained, but also for the chance to meet great people who took the time to teach me new ideas and concepts. I really enjoyed the work, and this helped me work harder and increased my desire to take advantage of all the opportunities that were offered to me."

DAVID SZABELA Senior, agricultural engineering



"During my internship, I learned a great deal about the importance of organization and

manufacturing company. I believe

my assistance this summer will

ultimately lead to increased organization of the company's

Senior, mechanical engineering

communication within a

plans and goals." NORRIS HULBERT

technology

2002 SUMMER	INTERN DATA
Participating businesses	29
Participating students	39

# PURDUE UNIVERSITY: A COMPLETE RESOURCE FOR INDIANA BUSINESSES



**Don K. Gentry,** vice provost for engagement, is leading Purdue's efforts to form partnerships with Indiana businesses, leaders, and citizens. (765) 494-9095

## Connect Indiana

Discover the full range of Purdue resources through a single point of access.

www.purdue.edu/ConnectIndiana

#### Indianapolis Office of Engagement

Provides a central point of contact between Purdue and Indianapolis business, education, government, and other enterprises.

Thomas Carroll, Director (317) 275-9301

#### 📕 Purdue Gateways Program

Provides many resources for high-tech startup businesses, including Purdue Research Park facilities.

(765) 496-6246 www.purdue.edu/Research/PRF/Gateway.htm

#### Office for Continuing Education and Conferences

Offers professional development opportunities on campus, off campus, and via distance learning.

(765) 494-7231 or (800) 359-2968 www.cll.purdue.edu

#### Technical Information Service

Looking for articles, books, or other published research materials? TAP's affiliate program, the Technical Information Service, annually delivers thousands of documents and conducts hundreds of searches for technical, scientific, and management information.

(765) 494-9876 www.purdue.edu/tis

Subscribe to TAP's e-newsletter www.purdue.edu/TAP/update

#### CONTACT US

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## www.purdue.edu/TAP

