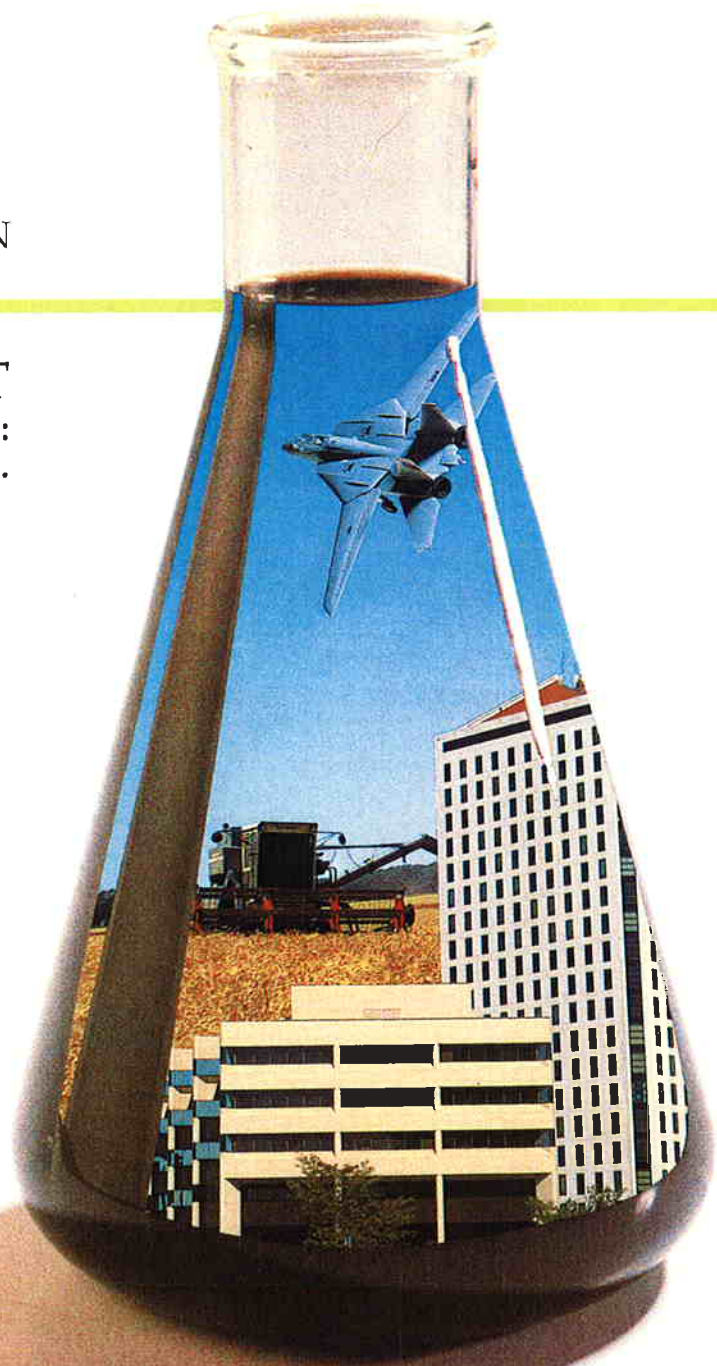




KANSAS  
TECHNOLOGY  
ENTERPRISE  
CORPORATION

---

**1990 ANNUAL REPORT**  
**TECHNOLOGICAL INNOVATION:**  
*The Key to Our Economic Future.*



## Contents

Mission Statement .....	page 2	Applied Research Matching Grants .....	page 11
Letter to the Governor and Legislature .....	page 3	Research Equipment Matching Grants .....	page 14
Summary Report .....	page 4	Small Business Innovation Research Grants .....	page 14
Overall Highlights .....	page 4	Ad Astra Fund .....	page 15
Board of Directors .....	page 6	Special Projects .....	page 16
Recommendations for the Future .....	page 6	Telecommunications Consortium Intellectual Property Program	
Centers of Excellence .....	page 7	Industrial Liaison .....	page 17
Center for Excellence in Computer Aided Systems Engineering.....	page 7	Technology Transfer & Referral Services .....	page 18
Center for Research in Computer Controlled Automation .....	page 8	Kansas Value-Added Center .....	page 18
Center for Technology Transfer .....	page 9	KTEC Success Stories .....	page 19
Higuchi Biosciences Center .....	page 9	Report of Independent Accountants .....	page 20
National Institute for Aviation Research.....	page 10		

## Mission Statement

The Kansas Technology Enterprise Corporation (KTEC) is a non-profit corporation established by the State of Kansas on January 12, 1987. KTEC's mission is to create and maintain employment by fostering innovation, stimulating the commercialization of new technologies and promoting the creation, growth and expansion of Kansas enterprises.

KTEC finances Centers of Excellence engaged in basic and applied research and technology transfer, awards matching grants for collaborative applied research between academic institutions and industry, provides seed capital for emerging technology-based industries, awards SBIR matching grants for proposal preparation, and provides technical referral services.

KTEC is governed by a 15-member board of directors composed of financial, industrial, academic and government leaders. Funded by the State of Kansas and corporate sponsors, KTEC has assumed all powers, duties and responsibilities of its predecessor, the Kansas Advanced Technology Commission.

## Governor Hayden, Governor-Elect Finney, and Members of the Legislature, State Capitol Building, Topeka, Kansas 66612

Dear Governor Hayden, Governor-Elect Finney, and Members of the Kansas State Legislature,

The Kansas Technology Enterprise Corporation is pleased to submit to you its 1990 Annual Report in accordance with K.S.A. 74-8111.

As we enter the final decade of the twentieth century it becomes increasingly important for us to make the commitment to determine our own destiny. Here in Kansas, we may have the best possible of all worlds. A beautiful state to live in, a fairly stable economy thanks to the agricultural, aviation and manufacturing industries, and a comfortable standard of living. Today's economic development initiatives will assure that our children will enjoy the same environment and opportunities.

At KTEC, we believe that the key to our economic future is tied to technological innovation. We are taking steps to nurture our existing industries by providing technical assistance to modernize and improve productivity. We are transferring the technology created in research laboratories to industry. We are promoting innovation and entrepreneurship among all Kansans. Through KTEC, an infrastructure is being developed that will establish a research and development base for Kansas businesses, thus affording them the capabilities needed to enhance existing products and develop new products for the global marketplace.

KTEC's programs are designed to help existing Kansas companies, assist in establishing new businesses, relocate companies to Kansas, and encourage the State's entrepreneurs and innovators. It is our hope that when you read our annual report, you will take note of the successes we have fostered. KTEC has been busy in its first three and one-half years and Fiscal Year 1990 was our most productive and profitable.

Our Centers of Excellence made dramatic progress in their research and development capabilities. More than 275 companies interacted with the Centers and found answers to their technical problems. A new Center, the Center for Excellence in Computer-Aided Systems Engineering, was established at the University of Kansas. Kansas now has five Centers of Excellence, each developing its own unique contribution to the State's economic future.

Our Research Matching Grant program continues to demonstrate its value to Kansas companies, especially the small- to medium-sized firms.

The Ad Astra Fund invested seed capital wisely in the name of KTEC and the State of Kansas.

The Industrial Liaison program was formally established with offices in Great Bend, Garden City and Lenexa. This program will enable the State to assist a greater number of companies; moreover, it is the most cost-effective way to do so.

Finally, we must spotlight our Special Projects in 1990. The establishment of the Intellectual Property Program has filled a void for Kansas inventors, and participation in the Kansas Telecommunications Consortium is gaining momentum.



We urge you to read in detail the accomplishments of our Centers, the successes of our programs and our plans for the future.

*John E. Moore*

John Moore  
Chairman

*William G. Brundage*

Dr. William G. Brundage  
President

KTEC President William G. Brundage and Chairman of the KTEC Board of Directors John Moore.

## Summary Report

1984 - 1990

### Accomplishments

#### Total funding for KTEC and All Programs Summary Report, FY 1984 - FY 1990\*

##### Investments

\$15.1 million in state funding  
\$18.1 million in industry funding  
\$9.9 million in federal funding

##### Results

\$7.5 million in venture capital  
\$16.2 million in increased sales  
26 company start-ups  
52 company expansions  
2,320 jobs created  
74 new technologies  
23 patents issued or pending

#### Kansas Centers of Excellence Summary Report, FY 1984 - FY 1990\*

##### Investments

\$5.72 million in state funding  
\$7.76 million in industry funding  
\$8.8 million in federal funding

#### Applied Research Matching Grant Fund Summary Report, FY 1984 - 1990\*

##### Investments

\$5.6 million in state funding  
\$9.2 million in industry funding  
156 grants awarded  
86 projects completed

\*Includes activities of KTEC predecessor, the Kansas Advanced Technology Commission. The Summary Report does not measure the true long-term impact of KTEC because many of its investments are not quantifiable. KTEC is creating an infrastructure of research talent, equipment and facilities that will encourage innovation and expansion during the next decade.

## Overall Highlights Funding

The Kansas State Legislature continued to demonstrate its commitment to fostering technology-based industry in Kansas when it appropriated \$5,059,309 in proceeds from the Kansas Lottery to the Kansas Technology Enterprise Corporation (KTEC) in FY 1990.

An additional \$1,049,691 from the General Fund gave KTEC new appropriations totalling \$6,109,000.

When the State's fiscal condition deteriorated in late 1989, all agencies were requested to make budget cuts. KTEC's budget was cut \$726,128. These funds were subtracted from the Small Business Innovation Research and Applied Research Matching Grant programs.

## Centers of Excellence

Our Centers of Excellence grew in number from four to five, adding the research focus of Computer-Aided Systems Engineering to our scope of services.

Through the insight of the Governor and the Kansas Legislature, KTEC's funding increased, enhancing the core funding to the Centers of Excellence. Total core funding for the Centers in FY 1990 was \$2.45 million—surpassing the \$1.7 million allocated in FY 1989.

Representatives of the Higuchi Biosciences Center participated in a trade mission to Japan, visiting a total of 13 companies. Since that trip in November 1989, five of the Japanese companies have made return trips to HBC.

The National Institute for Aviation Research (NIAR) dedicated its new 74,000 sq. ft. facility and was designated a national research center. NIAR is KTEC's first Center of Excellence to build its own research facility.

All of the Centers have made progress in their mission to assist new and existing Kansas businesses. More than 300 companies interacted with the various centers during FY 1990. Three companies were encouraged to relocate in Kansas and three new companies emerged from center-assisted work.

Legislation was passed in FY 1990 to reschedule peer reviews of the Centers of Excellence on a biennial basis rather than annual basis, thus saving KTEC and the State of Kansas \$30,000 every other year.