

MINUTES OF THE HOUSE ECONOMIC DEVELOPMENT AND TOURISM COMMITTEE

The meeting was called to order by Chairman Lana Gordon at 3:30 P.M. on January 23, 2007 in Room 519-S of the Capitol.

All members were present.

Committee staff present:

Kathie Sparks, Legislative Research Department
Hank Avila, Legislative Research Department
Jason Long, Office of the Revisor of Statutes
Ann Deitcher, Committee Assistant

Conferees appearing before the committee:

Scott McGinley, Aquila
Cindy Wallace, Trego County Econ. Devel.
Tracy Taylor, President & CEO, KTEC

Others attending:

See attached list.

The Chair introduced Scott McGinley who explained to the Committee the workings of western Kansas Rural Economic Development Alliance (wKREDA) and their objectives. (Attachment 1).

Questions and answers followed.

Cindy Wallace addressed the Committee regarding her work with KREDA and what the organizations's were. She also spoke of the features offered by western Kansas.

Tracy Taylor spoke to the Committee about the Kansas Technology Enterprise Corporation (KTEC) and it's history. (Attachments 2 and 3).

Questions and answers followed.

The meeting was adjourned at 4:25 p.m. The next meeting is scheduled for Wednesday, January 24, 2007.

**HOUSE ECONOMIC DEVELOPMENT & TOURISM
COMMITTEE GUEST LIST**

DATE: 1-23-07

Emily Grier	Hein Law Firm
Tracy Taylor	KTEC
Kevin Carr	"
Patricia Galbraith	Dept of Commerce
David R. Colvin	KDOR
MATT REAVES	Rep. Don Hill
Sara Belfry	Rep. Gordon
Stan Ahlerich	Kansas, LLC
Ted Wornat	Kansas Govts Consulting
Angel Romero	Rep. Craft
Gabe Schlickau	Aquila - w KREDA
Christy Hopkins	Sheddy B. Comm Dev - w KREDA
Nicole M. Pfannerstiel	w KREDA
Eric Stenhouse	w KREDA
Jeff Hyslop	Phillips County E.D. - w KREDA

wKREDA

western Kansas Rural Economic Development Alliance
Kansas State House of Representatives
Economic Development Committee
Tuesday, January 23, 2007



What is wKREDA?

- An idea that materialized in 1994
- wKREDA was organized because economic developers realized that they could not succeed alone
 - Similar problems
 - Negative Trends
 - Needed to work together to succeed

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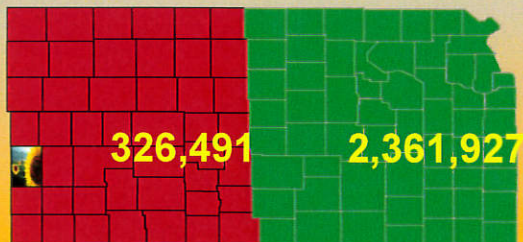
Common Challenges

- **Size**
 - Because of our size we know that we can achieve more cooperatively than individually
- **Common Issues**
 - Our communities suffer from similar problems

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Why Numbers Matter



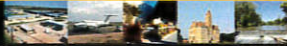
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wKREDA's Objectives

- To promote the exchange of ideas and information among members to enhance effectiveness,
- To provide members with education and,
- To revitalize western Kansas through cooperative, community and rural development activities.

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wKREDA's Initiatives and Accomplishments

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Education

Community Development (CD) 101 Seminars

- | | |
|-----------------------|-------------------------------|
| • Leadership | • Corporate Farming |
| • Entrepreneurship | |
| • Mentoring | • Downtown Beautification |
| • School Finance | • Working with Site Selectors |
| • Enterprise Zones | • Dairy Development |
| • Community Marketing | • Understanding Water |
| • Tax Abatement | |

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Education

Community Development (CD) 101 Seminars

- Industrial Park Development
- Media Relations
- Telecommunications Recruitment
- E-Business for Retailers

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Government Affairs

- Develop Legislative Priorities Document
- Legislative Summit in Topeka
 - Cookie Summit
 - Discuss WKREDA mission with Lawmakers
- Local Meetings with western Kansas Legislators

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Public Relations

- www.discoverwesternkansas.com
 - About WKREDA
 - Committee information
 - Membership Directory & Calendar
 - About western Kansas
 - City, County and Statewide information
 - Online brochures
 - Opportunities in western Kansas
- Manage Member Listserv

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Business Development

- **Development of Dairy Industry**

- International Dairy Shows (CA, NY & WI.)
- Dairy Development Missions (CA, & WA.)
- Large Herd Conference (Reno, NV)
- Hosted 2 National Dairy Conferences
- Dairy Team
 - Interaction w/ Dairymen & Investors
 - Media Tours
 - Dairy University

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Business Development

- **Value Added Agriculture**

- Bio-diesel ethanol
- Alternative crops
- Wis. Cheese Manufacturers
- Dairy, Deli, Bake Expo Anaheim, CA
- World Food Expo

- **Manufacturing and Distribution**

- Warehousing distribution
- Denver Manufacturing Trade Show
- 3i Show

- **Emerging Areas**

- Alternative Energy (wind, methane)
- Telepower

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Tools Available to Members

- **Web Site (www.discoverwesternkansas.com)**

- Committee & Meeting minutes
- Member websites
- ED News and Information
- City and County information
- Online brochures
- State level database access
- Member directories

- **wKREDA ListServ**

- Access to all members in one email
- Ability to share success or failure
- Ability to get varied perspectives and input

- **wKREDA Network**

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Participation

What does it mean to be a Member

- Engaged Participants
- Active Committees
- A regional view of development
- Willingness to share knowledge
- Everyone shares the benefit of collaboration

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Thank You

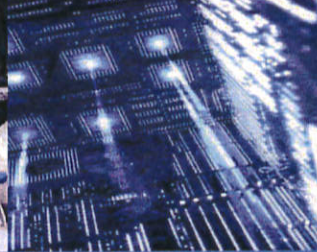
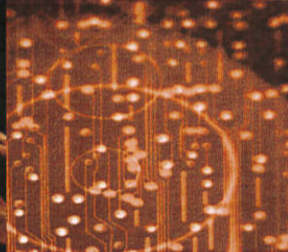
Presenters:

Scott McGinley
Aquila
Economic Development

Cindy Wallace
Trego County
Economic Development

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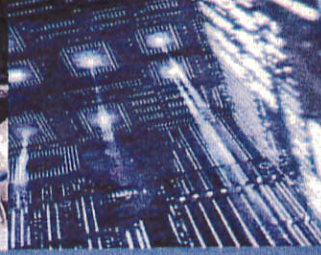




Presentation for the House Economic Development & Tourism Committee January 23, 2007

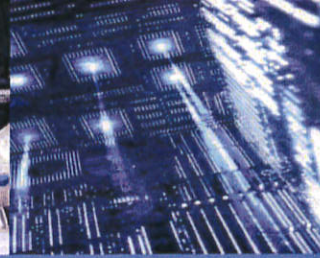
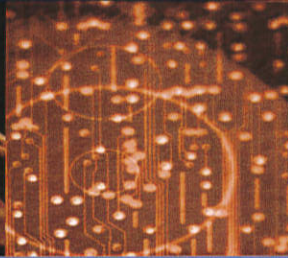
Tracy B. Taylor
President and CEO

Kansas Technology Enterprise Corporation (KTEC)



About KTEC

- Created by Legislature in 1986
 - "Redwood-Krider Report" articulated need for entrepreneurship and technology economic development
- Governed by 20-member, industry-led board
 - Includes university, legislature and administration representatives
- Funded by the Economic Development Initiatives Fund,
 - Consists of revenues from the Kansas Lottery & Gaming Commission



3/2

Technology Entrepreneurship

- Definition of "Technology"
 - *Processes* by which an organization transforms
 - labor,
 - capital,
 - materials, and
 - information
 - into products and services of greater value.
- Small business entrepreneurship – SBDC
- Connecting Entrepreneurship Resources - Network Kansas
- Technology entrepreneurship – KTEC



KTEC Areas of Focus

Research

Centers of Excellence

- HBC, *Univ. of Kansas*
- ITTC, *Univ. of Kansas*
- NIAR, *Wichita St. Univ.*
- AMI, *Kansas St. Univ.*
- KPRC, *Pittsburg St. Univ.*

Experimental Program to Stimulate Competitive Research (EPSCoR)

Small Business Innovation Research (SBIR) assistance

Investments

Angel Tax Credits

Creation of Angel Networks

Technology Commercialization Seed Fund (TCSF)

Entrepreneur Development

KTEC PIPELINE

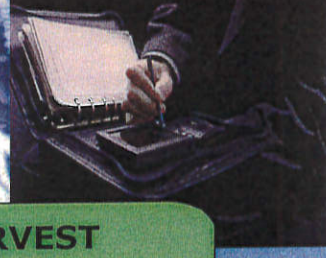
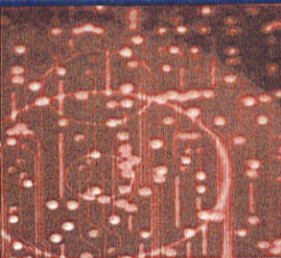
Entrepreneurs -in- Residence Program

Business Assistance

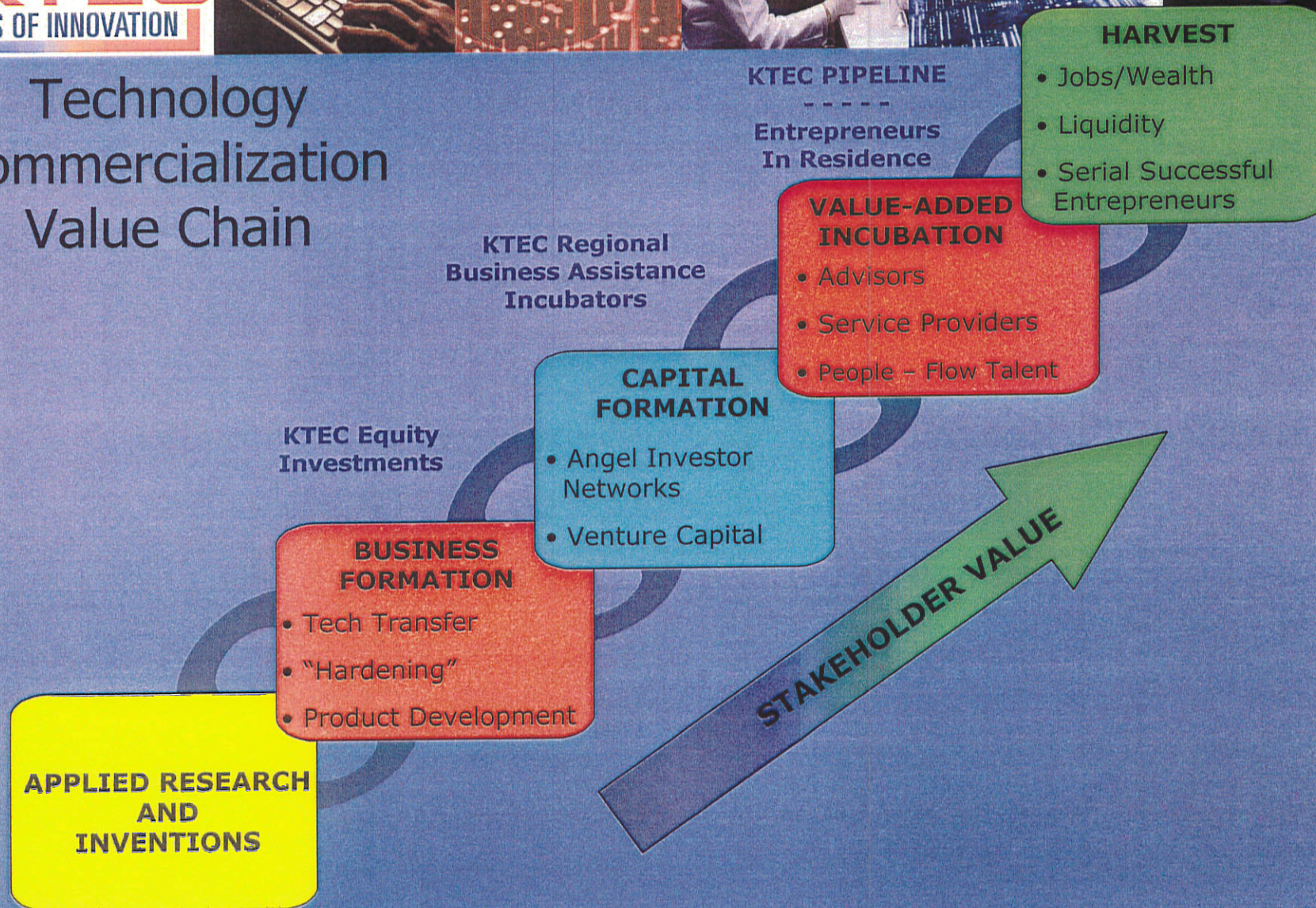
Incubators

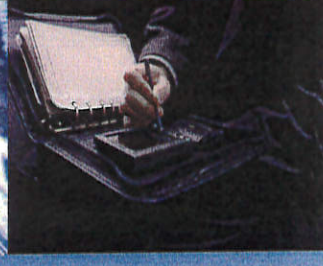
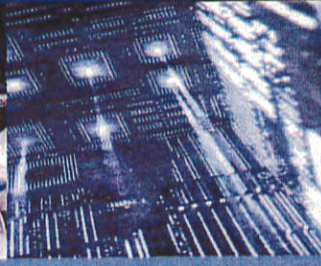
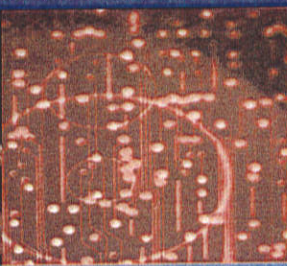
- NISTAC, *Manhattan*
- LRTC, *Lawrence*
- ECJC, *Lenexa*
- KUMCRI, *Kansas City*
- ATC, *Pittsburg*
- WTC, *Wichita*
- WKTC, *Great Bend*
- Quest, *Hutchinson*

Mid-America Manufacturing Technology Center (MAMTC)



Technology Commercialization Value Chain



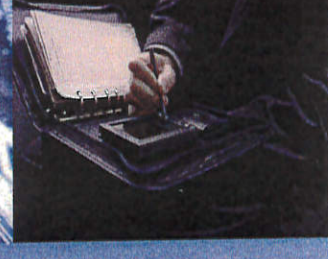
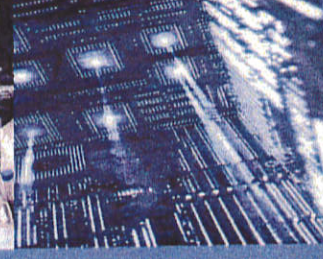
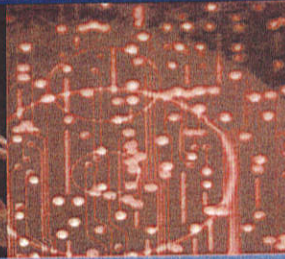


PIPELINE

KTEC'S ENTREPRENEURIAL FELLOWSHIP

CHARTER CLASS INNOVATORS





2-7

About the KTEC PIPELINE

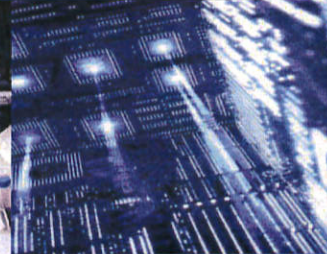
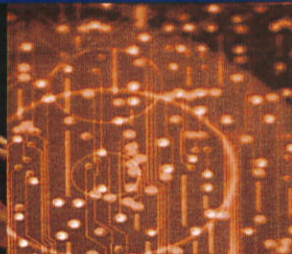
- The KTEC PIPELINE identifies talented and entrepreneurial Kansans and matches them with best-in-class training, resources and mentors to enhance their success as technology entrepreneurs in Kansas.
- Kansas is the only state today that is systematically identifying their top technology talent and connecting them to become future leaders.
- The KTEC PIPELINE adds to KTEC's comprehensive technology program, ensuring the most important component to any successful economy - cadre of innovators that will lead the Kansas economy for generations to come.



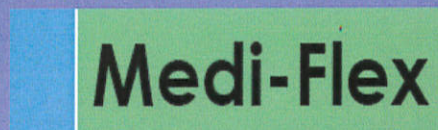
KTEC PIPELINE Innovators will receive

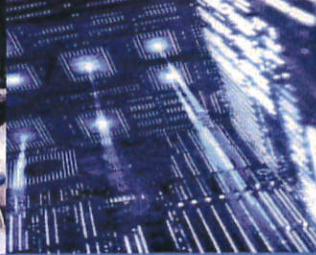
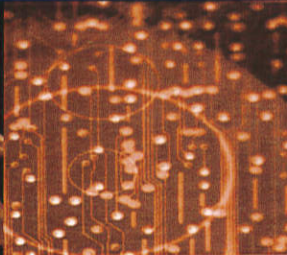
- Best-in-class training in fundamentals of technology entrepreneurship.
- Three-day formal learning sessions each quarter. Innovators will receive cutting-edge education, skill building and networking.
- Access to mentors from technology businesses in or with strong ties to Kansas.
- One-year stipend for discretionary use while exploring opportunities for a startup technology venture.
- Access to venture capitalists with capabilities of financing early stage technology companies.
- Leverage use of resources to highest potential talent.

6-2



VENTRIA BIOSCIENCE

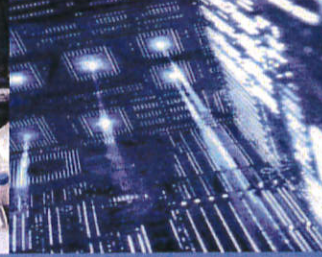
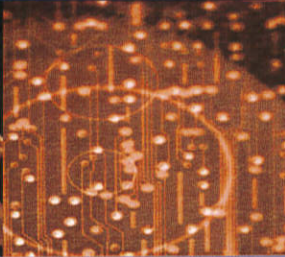




2-10

Why attracting Ventria is so important to Kansas

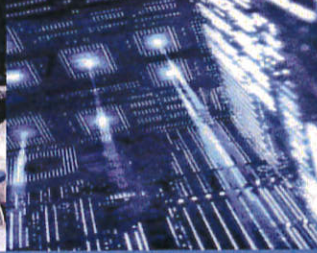
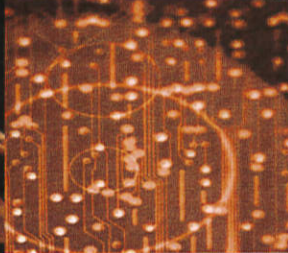
- 1) Strategically - Ventria is the Leading Plant-made Pharmaceutical Firm in the World and Kansas has the potential to create an industry cluster
- 2) World Class Science/World Class Board and Leadership
- 3) Proven Ability to Commercialize and Raise Capital
- 4) Of Equal Importance - Leader a former Kansan, Many ties to Kansas
- 5) Tremendous Example of Collaboration - KTEC, Dept. of Agriculture, Junction City community, Local Extension Office, and KSU



2-11-2010

Principles of KTEC Operation

- People - Flow Talent
 - Import new ideas, export good experiences with Kansas
- Lean Organization
 - Reduction of Staff from 19 to 12 (FY02)
- Process Improvements
 - Continuous, methodical, measurable and sustainable
- KTEC VALUES
 - private sector orientation, collaboration, partnerships, synergies
- Technology Commercialization Value Chain
 - Our responsibility – fill essential gaps and force collaboration



2-12 8/11

KTEC Strategies – Mind to Market

Technology Transfer & Commercialization

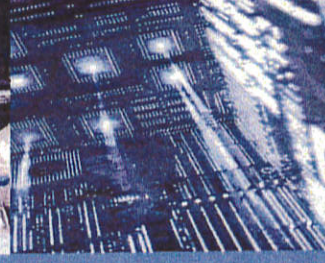
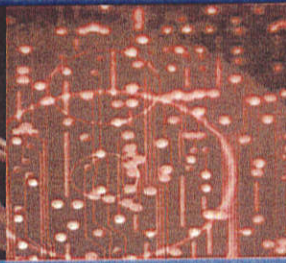
- Collective Entrepreneurship
 - Develop an implement systemic approaches
- Strategic Networks
 - Construct and maintain resource networks
- Promote broad engagements
 - Look for opportunities to build partnerships and strategic alliances



2-13 2-13

Capital Formation

- Implementation of Tax Credit Legislative Change
- Creation of Angel Networks in South Central, Southeast and Northeast Kansas
- Developed Heartland BioEnterprise for the Kansas Bioscience Authority – they have asked KTEC to provide services



2.14 2-13

Primary Contributors in the Bioscience Initiative

- Kansas Bioscience Authority
- Kansas Bioscience Organization
- Kansas Technology Enterprise Corporation
- Kansas Department of Commerce



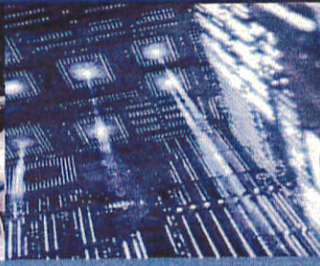
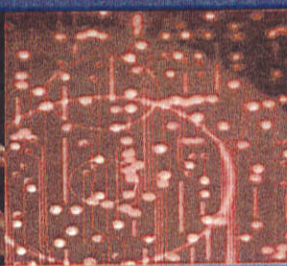
- Advocate for the bioscience community in Kansas
- Founded in 2004 by KTEC
- Trade organization representing the bioscience industry continuum in Kansas
 - Human, Plant, and Animal
 - Academic, Industry, and Government
 - Entrepreneurial ventures, start-ups, service providers
- Leading Kansas' presence at BIO 2007
- Led Kansas presence BIO 2006 - Chicago



2-16 2015

Principles of State-Sponsored Technology-Based Economic Development

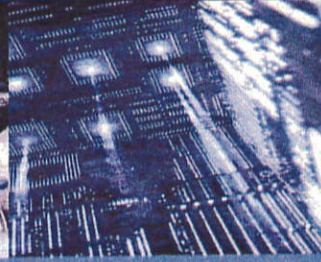
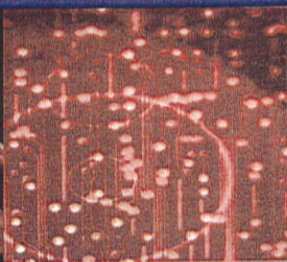
- University (academia) sector mission =
 - Research, teaching and service (or extension)
 - Economic development is secondary
- Business (private) sector mission =
 - Shareholder value, principally from profits
 - Economic development is secondary
- Government (public) sector mission =
 - Stimulus for economic development that creates jobs and wealth by private sector, often by leveraging university sector investments



2-17 2016

Fallacies of State-Sponsored Technology-Based Economic Development

- Universities should lead all aspects of technology commercialization
 - All of commercialization is not a university's job or responsibility
 - At best, universities should create an environment where technologies are accessible to private sector
 - They should retain some upside, but not negotiate to the brink of scuttling deals
 - Tech transfer offices are generally not viable profit centers
 - Best practice = tech transfer offices as courtesy service to researchers



2-18 2-17

FY 2006 Results

- \$158 million increased sales
- 557 jobs created or retained
- 15 start-up companies
- \$177,000 in royalties received
- Ratio of Non-State to State Funds: \$11:1



2-19 8-18

KTEC Cumulative Results

- 416 New Companies Started
- 15,500 Jobs Created or Retained
- \$1.5 billion in increased sales
- \$479.7 million federal invested
- \$366.6 million venture capital invested
- \$155.4 million industry invested
- Leverage Ratio \$4.8:1



For more information about
KTEC visit, www.ktec.com
or call
785-296-5272



Kansas Technology Enterprise Corporation

20 Years of Impacting Technology-Based
Economic Development in Kansas

January 12, 2007

Economic Development & Tourism

Date: 1-23-07

Attachment # 3-1

January 12, 2007

Governor Sebelius, Kansas Legislators and Fellow Kansans:

This date marks the 20th anniversary of the launch of the Kansas Technology Enterprise Corporation (KTEC).

KTEC was established by the State of Kansas on January 12, 1987 as a non-profit, quasi-public organization with a mission to create and maintain employment by fostering innovation, stimulating the commercialization of new technologies and promoting the creation, growth and expansion of Kansas enterprises.

A significant anniversary presents an opportunity to reflect on past achievements and challenges alike, and to comment on important questions about the future. It is important for the KTEC leadership team to communicate with you what we have learned from our past as we execute our plans in the present and develop new strategies for the future.

As a supplement to our annual report, which will be distributed to you before the end of this month, the KTEC leadership team has developed this historical analysis of our operations with the overriding theme of *impact*.

Is KTEC making a positive difference for the people of Kansas? Is our leadership team serving as good stewards of state resources? Are KTEC operations realizing holistic returns on invested resources for the citizens of Kansas?

These are questions we look forward to addressing every year, and not just when the Legislature is in session. We aspire to affirmatively answer these questions with each transaction and each interaction managed by the dozens of professionals associated with the KTEC network.

Over the past 20 years, KTEC has enjoyed reporting to you many successful endeavors where KTEC professionals made a positive difference with substantial direct or indirect benefit to the State. Though not all of our investments will bear fruit, our unique niche in the economic development landscape requires that we take calculated risks, learn from mistakes and move on to the next opportunity. After all, we are in the business of fostering innovation, and we must strive to operate as innovators ourselves.

I hope you enjoy this brief retrospective, and that you will continue to engage with KTEC in an ongoing dialogue about how to bring even greater economic prosperity to Kansans from all walks of life through homegrown innovation and technology commercialization endeavors.

Sincerely,



Tracy Taylor
President and CEO
Kansas Technology Enterprise Corporation

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Executive Summary

ROI = Return on Investment. A quantitative performance measurement used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments.

Since the inception of our organization, KTEC has endeavored to provide Kansas lawmakers with timely and comprehensive numbers to measure the performance of investments in our programs and operations. Primarily through client surveys, we have provided hard numbers on our impact from the year, such as (FY2006 numbers and cumulative from 1984-2006, dating to KTEC's predecessor organization):

	FY 2006	Cumulative 1984-2006
State investment	\$11.4 million	\$207.7 million
Industry investment	\$4.3 million	\$155.4 million
Federal investment	\$88.6 million	\$479.7 million
Venture capital investment	\$32.4 million	\$366.6 million
Leverage: non-state to state funds	\$11:1	\$4.8:1
Increased sales	\$158 million	\$1.5 billion
Jobs created or retained	557	15,500
Company start-ups	15	416
Investment returns	\$177,000	\$12.9 million

The numbers, however, only tell part of the story. Numbers alone are insufficient to describe the impact of an organization tasked with fostering innovation in new and existing technology companies across a broad spectrum of industries, primarily because **true impact often escapes measurement.**

The measurement challenge is not unique to our niche industry of state sponsored technology-based economic development. For example, consider the challenge advertising firms face in justifying the ROI from brand advertising. When Sprint launched the "pin drop" advertising campaign, revenues and profits increased substantially. But how much of the increase resulted from advertising? Technology advances and direct sales campaigns played a major role. And even if you could isolate the advertising variable, can you trace sales sufficiently to determine whether print advertising was more or less effective than television spots? Despite the inherent lack of precision, executives know that advertising is necessary, and they continuously strive to find new measurements that give better insights into the methods and practices that work better than others.

In industries where measuring results from isolated investments or activities is a challenge, executives often rely on case studies or best practices derived from testimonials of what has worked and what has not. Fortunately, KTEC has an accessible resource in the State Science and Technology Institute (SSTI), "a national non-profit organization dedicated to improving government-industry programs that encourage economic growth through the application of science and technology."

Executive Summary

In August 2006, SSTI published *A Resource Guide for Technology-Based Economic Development: Positioning Universities as Drivers; Fostering Entrepreneurship; and Increasing Access to Capital*. This comprehensive 96-page report (which can be downloaded for free at the SSTI website: <http://www.ssti.org>) was prepared from interviews with nearly 60 technology-based economic development practitioners, several of which have Kansas connections, including:

- **Bill Brundage**, KTEC's first President and subsequently the leader of statewide technology-based economic development initiatives in Florida and Kentucky;
- **Rich Bendis**, KTEC's second President and recently the CEO of Innovation Philadelphia;
- **Ron Sampson**, the recently retired leader of K-State's National Institute of Strategic Technology Acquisition and Commercialization (NISTAC); and
- **Tom Thornton**, the recently appointed CEO of the Kansas Bioscience Authority.

What can Kansans learn from studying what other states are doing to gain a competitive advantage in the 21st century economy? For one, Kansans can assess whether the organizations supported with their tax dollars are developing and sustaining cutting-edge programs and initiatives.

To offer a different perspective on how KTEC has served Kansas since it was officially opened for business on January 12, 1987, we have accumulated highlights from 20 years of KTEC annual reports and organized them along the same lines as the SSTI Resource Guide. Throughout this document, Kansans can see evidence of dozens of professionals who have worked within the network of KTEC affiliates to deliver substantive economic development outcomes. Following are brief introductions to the three major sections of the SSTI Resource Guide as well as this report:

Positioning Kansas' Regents Universities as Drivers

It is widely accepted that state sponsored research universities can be effectively leveraged into economic engines for the state economy. University researchers and graduate students develop innovations and intellectual property that often serve as the genesis for homegrown technology companies. Since its inception, KTEC has been a national leader with *university-industry research centers* and continues to financially and strategically support KTEC Centers of Excellence at the University of Kansas, Kansas State University, Wichita State University and Pittsburg State University.

Through its central role in the conceptualization, research, development, drafting, marketing and implementation of the **Kansas Economic Growth Act (KEGA)** legislation in 2004, KTEC successfully promoted two strategies that have been developed and proven effective in other states:

- 1) Contributing substantial state resources towards the recruitment of *eminent scholars* and *rising star scholars*, and

Executive Summary

- 2) Developing an *industry-university matching grants* program whereby “research vouchers” are awarded by the state to private sector companies for the purpose of sponsoring university research.

Both of these strategies were deployed as part of KTEC’s comprehensive bioscience initiatives and were assigned to the **Kansas Bioscience Authority** to implement, with the caveat that the “authority will take steps to reasonably ensure that it does not duplicate existing commercialization efforts already located in the state and recognizes the important role KTEC plays in the state.”¹

Fostering Entrepreneurship

In 1995, KTEC substantially expanded its services to Kansas’ technology entrepreneurs by developing three KTEC Commercialization Corporations in Lawrence, Manhattan and Wichita. These university-community business assistance corporations complemented existing services intended for general manufacturing firms and delivered primarily through KTEC’s Mid-America Manufacturing Technology Center (MAMTC) outposts. Today, KTEC supports eight “business assistance incubators” throughout Kansas in addition to MAMTC.

Also through KEGA, KTEC supported the development of the **Kansas Center for Entrepreneurship**, which is based in Wichita and doing business as *Network Kansas*. KTEC is represented on the board of the Center for Entrepreneurship and is actively supporting its Director, Steve Radley, to strive towards a seamless integration of entrepreneurship education and support services for Kansans from all walks of life and in every corner of the state. Whereas KTEC is focused exclusively on technology enterprise, we recognize that supporting entrepreneurship in all forms is essential for a prosperous Kansas and realize the value of investing state resources for a strong Network Kansas and its SBDC, university and community college partners.

This year, KTEC is launching a new program designed to identify high potential technologists and provide them with entrepreneurship education, mentoring and seed capital funding for the pursuit of their entrepreneurial endeavors in Kansas. The inaugural class of the **KTEC Pipeline** begins its yearlong program this month with the first of four quarterly 20-hour training programs. While working on their present entrepreneurial initiatives, the *Pipeline Innovators* will gain knowledge and social network connections that can serve them for a lifetime of entrepreneurial pursuits in Kansas.

Increasing Access to Capital

From its first year of operations, KTEC leadership recognized that technology companies in our state are inherently disadvantaged when pursuing venture capital investment due to the scarcity of venture capital funds in our geographic region. Therefore, KTEC has searched for, and continues to develop, strategies for leveling the playing field for high potential technology companies doing business in Kansas. The primary method employed is providing for direct *seed stage* investments in technology companies with strong ties to Kansas.

Early in its history, KTEC provided *applied research matching grants* for primarily small manufacturing and technology firms doing business in Kansas. In 1993, KTEC

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began taking royalty positions in the research projects it funds, and by 2003 the strategy had evolved to where KTEC now provides seed stage financing in exchange for an equity position. Though not the primary measure by which the success of these programs are measured, KTEC has received back more than \$12.9 million of combined royalties and equity returns from more than 460 investment transactions in its 20-years of operations.

KTEC business assistance incubators participate in developing a strong pipeline of opportunities for the KTEC seed stage fund, and several of them also have developed local networks of *angel investors* as a source of early stage financing and business mentoring for technology companies in their communities. KTEC also helped make angel investing attractive for Kansans by developing the Angel Investor Investment Act legislation in KEGA. Administered by KTEC, this program administers \$2 million of personal income tax credits annually as incentives for accredited investors investing in qualified technology companies that KTEC has evaluated as having the highest economic development potential for Kansas.

At its January 2007 board meeting, the Kansas Bioscience Authority took another step towards implementing a capital formation strategy for bioscience companies that KTEC developed for the Bioscience Authority while it was in its own formative stages. *Heartland BioEnterprise* will be modeled after a successful Cleveland, Ohio nonprofit organization, *BioEnterprise*, which has substantially increased the flow of venture capital investment into Northeast Ohio healthcare technology companies. One year after KTEC led the development of the *Heartland BioEnterprise* strategic plan in coordination with the leadership of Cleveland's *BioEnterprise*, the newly appointed CEO of the Bioscience Authority presented the strategy and gained renewed commitment from the Authority's board to begin implementation with the recruitment of a CEO.

Taking Calculated Risks to Keep Kansas at the Forefront

Whether developing seed stage venture funds, investing in university research with strong commercialization potential, leading the development of landmark economic development legislation for the biosciences, or aggressively pursuing the recruitment of Ventria Bioscience, a world-leading plant biotechnology company with extraordinary economic potential for the state, KTEC has stayed at the leading edge of technology-based economic development for 20 years.

A year ago, a Legislator commented after hearing an update on KTEC's new initiatives and strategies that "we never get the same-as-last-year presentation from KTEC." The professionals on our staff, which have been primarily recruited with strong backgrounds in the private sector, take pride in our organizational abilities to develop leading edge programs for Kansas.

But we do so much more than just dream up big ideas. We identify, recruit and empower talented individuals, often from private industry, to see our big ideas through to implementation. As we are promoting a culture of innovation, we must be willing to accept that failures will happen and that the best we can do is

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to recognize it when it happens, learn from the experience and do everything possible to find success with the next opportunity.

* * *

The KTEC board, management team and staff are grateful for 20 years of support from the Kansas Legislature and the Governor's Administration, and we are committed to never taking that support for granted. We welcome comments and input on our strategy from all Legislators. We will accept criticism with an innovator's commitment to learn and improve. And we will never tire from telling our story, because it is important for 21st century innovators to know that Kansas is a great place from which to start, develop and grow technology companies with the potential to change the world.

Mission

KTEC exists by mandate of the Kansas Legislature and derives its mission from statutes. **In all aspects of its operations, KTEC strives to fulfill the legislative intent of the statutes** as its executive leadership has interpreted them with the guidance of its board of directors, the Governor's Administration, and the Legislature's House and Senate Economic Development and Commerce committees. Our leadership team strives to make KTEC's operations transparent and our strategies clear to the state's lawmakers and executive leadership.

74-8102. Purpose; ways of achieving.

- (a) The purpose of the Kansas technology enterprise corporation is to foster innovation in existing and developing businesses, especially the creation, growth and expansion of Kansas enterprises in a diversified range of primary sectors, which develop value-added products, processes and services including, but not limited to:
 - (1) Existing resource-based industries of agriculture, oil, gas, coal and helium;
 - (2) existing advanced technology industries of aviation, pharmaceuticals, computers and electronics; and
 - (3) emerging industries of telecommunications, computer software, information services and research services.
- (b) The corporation shall achieve the purpose stated in subsection (a) of this section by:
 - (1) Financing basic research, applied research and development, and technology transfer at Kansas educational institutions which meet competitive standards of excellence as measured by national and international peers, and which create innovative collaboration between Kansas educational institutions and Kansas enterprises;
 - (2) awarding applied research matching grants to Kansas educational institutions and Kansas private enterprises in order to move innovation and applied research toward commercial application;
 - (3) engaging in seed-capital financing for the development and implementation of innovations or new technologies for existing resource, technology-based and emerging Kansas businesses; and
 - (4) providing technical referral services to such small, new, emerging or mature businesses and encouraging Kansas educational institutions to establish technical information data bases and industrial liaison offices which are easily accessible by both private and public sector Kansas organizations.
- (c) The department of commerce, Kansas, Inc. and all other interested state agencies shall cooperate with the Kansas technology enterprise corporation in providing information and other assistance as may be requested for the performance of its duties with respect to the state's economic development strategy.

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Inception and Early Operations

In March of 1986, the Legislature of the State of Kansas passed Senate Bill No. 755, establishing the Kansas Technology Enterprise Corporation to supersede the Kansas Advanced Technology Commission. KTEC was established as a non-profit, quasi-public instrumentality of the state of Kansas on January 12, 1987.²

As its first order of business, KTEC established the management structure, programs and funding levels in order to meet the intent of the legislation. Its first president, Bill Brundage, was appointed on October 2, 1987. Prior to beginning the official work of KTEC, Dr. Brundage submitted a business plan to the KTEC board that outlined a strategy to make KTEC nationally competitive with similar state programs. The board approved the KTEC business plan on February 22, 1988 and submitted it to the Joint Committee on Economic Development for review and evaluation.³

As described in KTEC's first annual report, the strategic planning process was extensive and involved a substantial commitment of time from KTEC's board of directors. "From the time of its selection to the end of the fiscal year, the board met with (Dr. Brundage) 10 times, taking an active role in shaping KTEC's future."⁴

Leadership

KTEC is governed by a 20-member board of directors comprised of financial, industrial, academic and government leaders in Kansas.⁵ The KTEC board meets quarterly to approve investments of resources in its various economic development programs, including recommendations from the university programs committee, commercialization committee, and investment committee. The board also has a standing audit committee, compensation committee and executive committee to complete an effective system of governance for the organization. By law, the KTEC board elects a chairperson from the private sector board members.⁶ Since its inception, twelve individuals have served in this role (see Table 1, p.9).

Kansas statutes also require that KTEC conduct a national search for its president, who serves as the chief executive officer of the organization.⁷ KTEC has had three presidents in its 20-year history. **Bill Brundage** was chosen as KTEC's first president following an extensive nine-month search process. Coincidentally, the two individuals who succeeded Bill Brundage after a competitive national search processes – **Rich Bendis** and **Tracy Taylor** – had previously served as KTEC board chairman.

Within the niche industry of state-sponsored technology-based economic development, KTEC's executive leadership has always been highly regarded. Bill Brundage was recruited away from Kansas to serve the state of Florida, and he subsequently became the Commissioner of the Office of the New Economy for the Commonwealth of Kentucky. After eight years of distinguished service to Kansas, Rich Bendis was recruited serve as the CEO of Innovation Philadelphia. Tracy Taylor brings extensive private sector experience to the position. He was involved in the startup of Sprint and served in various leadership positions, including VP of Administration, for the first 12 years of Sprint's explosive growth.

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Table 1: KTEC Executive Leadership

Year	KTEC Board Chairperson	KTEC President
1987-88	Richard A. Bendis	William G. Brundage
1988-89	John Davis	
1989-90	John Moore	
1990-91	Carol Wiebe	
1991-92	Lloyd T. Silver, Jr.	
1992-93		
1993-94	R.J. Breidenthal, Jr.	Richard A. Bendis
1994-95	Ross Beach	
1995-96	Tracy B. Taylor	
1996-97		
1997-98		
1998-99		
1999-00		
2000-01	Jim Dahmen	Tracy B. Taylor
2001-02	Ted Haggart	
2002-03		
2003-04	Lindsay Olsen	
2004-05		
2005-06		
2006-07	Doug Brush	

Table 2: KTEC Board Members

Since 1987, there have been 80 Kansans serve on the KTEC board of directors:

F. Victor Sullivan, 1987-96	Bob Knight, 1993-94	David Shulenburg, 2000-06
John Breazeale, 1987-92	Othello Curry, 1994-96	Ted Haggart, 2000-present
Harland Priddle, 1987-89	William J. Wilhelm, 1994-99	Doug Brush, 2000-present
John Davis, 1987-91	Leroy Hayden, 1994-2000	Richard Danforth, 2000-02
John Moore, 1987-91, 2003-05	Vern Silvers, 1994-96	Dan Cain, 2001-present
Richard Teichgraber, 1987-88	Bruce Peterman, 1994-98	Doug Gatewood, 2001-present
Rochelle Chronister, 1987-92	Doyle Rahjes, 1995-2003	John Voeller, 2001-02
David Van Doren, 1987-88	William Mason, 1995-2002	Carmen Alldritt, 2002-present
George Dean, 1987-2000	Susan Bittel, 1995-99	Dennis Depenbusch, 2002-03
David Kerr, 1987-97	Howard Mossberg, 1995-97	David Brant, 2003-present
Theodore Kuwana, 1987-94	Kurt Saylor, 1995-97	Lindsay Olsen, 2003-06
Norma Daniels, 1987-92	Tracy Taylor, 1995-2001	John Payne, 2003-04
Richard Bendis, 1987-93	Allie Devine, 1995-98	Adrian Polansky, 2003-present
Carol Wiebe, 1987-94	Gary Sherrer, 1995-2002	Kenny Wilk, 2003-present
Walter Woods, 1987-88	Steve Hanvey, 1996	Gerald "Skip" Loper, 2004-06
Gale Simons, 1989-96	Galen Swenson, 1996	Robert Murdock, 2004-present
Lois Schlickau, 1989-90	Jim Dahmen, 1996-2004	Linda Reinhardt, 2004-present
D. Wayne Zimmerman, 1990-91	John Darling, 1997-98	Tim Shallenburger, 2004-present
Lloyd T. Silver, 1990-2001	Stephen Souder, 1997-2002	Chris Steineger, 2004-present
Sam Brownback, 1991-92	Doug Mahin, 1997-99	Nick Jordan, 2005-present
Laura Nicholl, 1991-92	Robert Krause, 1997-2006	Steve Kelly, 2006
Ivan Wyatt, 1991-94	Tom Sarowski, 1998-99	Richard Lariviere, 2006
R.J. Breidenthal, Jr., 1992-94	David Corbin, 1998-2004	Tom Lauer, 2006
Paul Feleciano, 1993-2003	Allen Levine, 1999-2001	David McDonald, 2006
Ross Beach, 1993-95	Tom Bryant, 1999-2006	Kyle Elliott, 2006
Bob Mead, 1993-94	Jamie Clover Adams, 1999-2002	Ron Trewyn, 2006
Phil Fishburn, 1993-94	Donald Beggs, 2000-03	

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Chronological Account of Key Organizational Developments

Following is a brief summation of organizational developments, significant events and operational highlights during KTEC's 20 years of service to Kansas (inclusive of four years of KATC, the predecessor organization to KTEC):

1983	Kansas Advanced Technology Commission (KATC) established within the Kansas Department of Economic Development
	Center for BioAnalytical Research (CBAR) established at the University of Kansas. This first "center of excellence" would be reorganized as the Higuchi Biosciences Center in 1988.
1984	Center for Research in Computer-Controlled Automation (CRCCA) established at Kansas State University. CRCCA would be reorganized in 1991 as the Advanced Manufacturing Institute (AMI).
1985	Institute for Aviation Research established at Wichita State University (renamed National Institute for Aviation Research in 1990).
1986	Publication of Redwood-Krider report, which provided recommendations that were enacted into law by the Kansas Legislature.
	KTEC created by the Kansas Legislature as a state-owned corporation.
1987	KTEC became operational, inheriting all KATC programs as well as oversight of previously established centers of excellence.
1988	Dr. William Brundage selected as KTEC's first president and chief executive officer following an extensive 9-month national executive search process.
	Center for Technology Transfer at Pittsburg State University funded as a KTEC Center of Excellence.
	Ad Astra Fund established, with Campbell-Becker, Inc. of Lawrence selected as fund manager, marks State's first investment in seed capital for technology companies.
1989	Kansas Value Added Processing Center (KVAC) established at Kansas State University with KTEC seed funding.
	Center of Excellence in Computer-Aided Systems Engineering (CECASE) established at the University of Kansas. In 1997, it would be merged with KU's Telecommunications and Information Sciences Laboratory to create the Information and Telecommunications Technology Center (ITTC) and would remain a KTEC center of excellence.
1990	Industrial Liaison program organized with two regional offices: the Western Kansas Technology Corporation, Great Bend; and Tech-Industry Consultants, Inc., Lenexa. These organizations were the first established in the KTEC business assistance network.
1991	Mid-America Manufacturing Technology Center (MAMTC) established with a 6-year, \$12.9 million competitive award from the National Institute of Standards and Technology (NIST).
	Kansas Science & Technology Council (KSTC) formed as an advisory group to Kansas Inc. In 1993, oversight was transferred to KTEC.
	KTEC supports successful application for Kansas to be designated as an EPSCoR state (Experimental Program to Stimulate Competitive Research). In 1994, oversight of the state's EPSCoR program was assigned to KTEC.
1993	KVAC became a subsidiary of KTEC.

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1994	Following a yearlong executive search process, Richard A. Bendis, a private sector investment manager from Leawood, was selected as KTEC's second president and chief executive officer.
	Four pre-seed capital funds established within KTEC network.
	KTEC established a Graduate Intern Program through a grant from the Ewing Marion Kauffman Foundation's Center for Entrepreneurial Leadership. 55 interns were supported with \$542,000 of funding from Kauffman over three years.
1995	Three commercialization corporations (aka business assistance incubators) established: Kansas Innovation Corporation, Lawrence; Mid-America Commercialization Corporation, Manhattan; and Wichita Technology Corporation, Wichita.
	KTEC creates bridge funding for Small Business Innovation Research (SBIR) award recipients. In 1996, KTEC's work with the SBIR program resulted in one of the first ever Tibbets Awards from the US Small Business Administration's Office of Advocacy.
1996	Innovation and Commercialization Corporations (commonly referred to as KTEC business assistance incubators) were established in five locations throughout Kansas.
	KTEC received the Federal Laboratory Consortium Mid-Continent Regional industry/non-federal government/university award.
1997	NIST awarded \$85,000 to KTEC to develop a program identified as the State SBIR program.
	A \$700,000 grant from NIST allowed MAMTC to establish Capital for Manufacturers to help manufacturers access existing sources of financing.
1998	A Legislative Post Audit Committee found that Campbell-Becker Inc., Lawrence, acted appropriately and according to guidelines and statutes in all Ad Astra investments. The report affirmed that Campbell-Becker, KTEC's designated fund manager for early stage technology investments, followed accepted industry standards in the selection of small companies receiving funding. The Post Audit inquiry resulted from controversy over two Ad Astra investments.
	The KTEC board of directors voted to rescind the decision to create Sunflower Technology Ventures Fund, a proposed \$30 million venture capital fund. KTEC returned approximately \$3.5 million to the state that had been appropriated for the STV start-up that was approved with legislative support in 1995.
1999	Knowledge Communications, a Wichita Technology Corporation client company founded by a 21-year-old Wichita State student, was acquired by Harcourt General for greater than \$12 million for a 10x return on investments by KTEC and its affiliated organizations.
	The Entrepreneur In Residence Program was established with funding assistance from the Center for Entrepreneurial Leadership at the Ewing Marion Kauffman Foundation.
2000	The Applied Research Matching Fund reached \$1 million in royalty paybacks.
	The Technology Acquisition Development and Commercialization (TADAC) program was established as a joint partnership between KTEC and the Mid-America Commercialization Corporation (MACC) to encourage companies to donate patent portfolios for research and commercialization of new technologies at Kansas universities.

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2001	The Enterprise Center of Johnson County (ECJC), which affiliated with KTEC in 1998, was awarded a federal Small Business Administration grant to establish the first Women's Business Center in Kansas.
	The Legislative Division of Post Audit completed a review of the three state economic development agencies. The audit concluded that KTEC is fulfilling its main statutory role and that KTEC and network affiliates have appropriate accountability measures in place for investments.
2002	After Rich Bendis was recruited to lead Innovation Philadelphia, former KTEC board chairman Tracy Taylor was selected as the organization's third president.
	KTEC sponsored the first-ever Kansas High School Business Plan Competition.
	The Kansas Polymer Research Center (KPRC), a KTEC Center of Excellence at Pittsburg State University, received its second patent, issued for a new process useful for coating applications that uses soybeans rather than petroleum products.
	ITTC received an \$8.7 million National Science Foundation (NSF) award to use information technology to help determine why sea levels have been rising for the past century.
	Xiuzhi Susan Sun, a researcher at AMI, received a \$5 million grant from the Department of Energy to advance the use of soybeans in creating adhesives.
2003	K-State, KSU Research Foundation, MACC and KTEC created that National Institute for Strategic Technology Acquisition and Commercialization (NISTAC). Building on TADAC, NISTAC allowed corporations to donate patent portfolios and receive a charitable tax deduction. Some \$500 million of patents were donated prior to Congress closing this corporate tax loophole in 2004.
	KTEC established KansasBio, the non-profit trade association for bioscience companies and research institutions in the state of Kansas.
2004	KTEC led the development of the Kansas Economic Growth Act (KEGA), landmark legislation that created the Kansas Bioscience Authority and the Kansas Center for Entrepreneurship (dba Network Kansas). A novel funding mechanism, tied to growth in the bioscience industry, is expected to generate \$500 million of resources available for economic stimulus in the biosciences over 15 years.
	Also included in the KEGA legislation was the Angel Investor Tax Credit. This program, for which KTEC was designated as administrator, allows accredited investors a 50% state income tax credit for qualified investments in Kansas businesses. Up to \$2 million of tax credits can be awarded each year for ten years. In 2005, this legislation was amended to allow KTEC to allocate these limited resources to investments in companies assessed by KTEC to offer the greatest potential for economic benefits to the state.
	As part of a national group of investors working to enhance oil recovery, KTEC worked with stakeholders based near Russell, Kansas to kick off the first carbon dioxide flood in Kansas. Back in 1998, KTEC provided \$50,000 of research funding to help assess the technological feasibility of this method for increasing the recoverability of oil reserves in previously depleted areas.
	KTEC served as lead investor with a \$500,000 investment in Kozoru, a startup company developing an advanced search engine technology. Experienced angel investors invested \$3 million for a 6:1 match of KTEC's investment.

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2005	KTEC facilitated a statewide planning process called the Kansas Bioscience and Innovation Roadmap along with KansasBio, the Kansas Department of Commerce and NISTAC. Six regional summits were hosted throughout the state, followed by the facilitation of six “hot teams” to develop strategic recommendations for research areas where Kansas has shown the precursors for success: 1) advanced materials and medical devices; 2) animal sciences; 3) biomass, biofuels, biomaterials and other environmental applications; 4) drug discovery, drug delivery and pharmacogenomics; 5) health related information technology, bioinformatics and telemedicine; and 6) plant sciences.
	Prior to receiving its first tranche of funding from the state, the Kansas Bioscience Authority relied on KTEC to facilitate its strategic planning process and support its early operations.
2006	KTEC led the successful recruitment of Ventria Bioscience to locate its manufacturing operations in Junction City, Kansas. A leading edge biotechnology company with over 13 years and \$40 million of R&D investment, primarily through angel capital investments from its board members, Ventria has successfully developed a technology to grow human proteins in rice. Its products will initially be marketed in medical foods that help to rehydrate infants suffering from diarrhea, the primary cause of death for more than 2 million infants annually worldwide.
	Supporting an experimental regional collaboration of 12 universities in seven states, KTEC invested working capital and project management services in support of the Big 12 Center for Economic Development, Innovation and Commercialization (Big 12 CEDIC). The presidents and chancellors of Big 12 universities have endorsed the first annual Big 12 Innovation and Capital Formation Conference, to be held March 1, 2007 at the Ewing Marion Kauffman Foundation’s Conference Center and in conjunction with its signature event for 2007, <i>EntrepreneurshipWeek USA</i> .
	KTEC announces development of an entrepreneur development program called the KTEC Pipeline. The program is designed to identify talented and entrepreneurial Kansans, match them with best-in-class training, resources and mentors and encourage them to pursue a career as a technology entrepreneur in Kansas.

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Prior Evaluations of KTEC Operations

In addition to publishing an annual report and appearing regularly before various legislative committees to review our operations and strategies, KTEC has, from time to time and whenever requested, facilitated reviews of its operations by legislative agents and independent parties.

By statute, Kansas Inc. is charged with the responsibility to periodically review the operations of KTEC for effectiveness within the state's comprehensive economic development strategy. In addition, the Legislative Division of Post Audit has performed several substantive reviews of KTEC operations, and KTEC has conducted internal evaluations from time to time to address specific concerns expressed by KTEC board members or other third parties.

Following is a summary of evaluations completed in KTEC's 20-year history:

<u>Year</u>	<u>Evaluator</u>	<u>Impetus</u>	<u>Outcome</u>
1991	National Association of State Development Agencies (NASDA)	Kansas Inc requested and organized an in-depth evaluation of KTEC.	"KTEC offers one of the most comprehensive and sophisticated technology development programs in the country." – NASDA
1998	Institute for Public Policy and Business Research at the Economics Department of the Business School at the University of Kansas	KTEC requested development of a quantitative analysis assess the impact of its operations. The evaluator developed a proprietary "Return on Public Investment" methodology and published the results in <i>KTEC Outcomes, 1989-1995</i>	Report concluded that KTEC generated: at least 5.8 jobs for every job that would have otherwise been created; \$3.00 of income for every dollar that would otherwise been created; \$4.90 of revenue for every dollar of business tax revenue that otherwise would have been created; and 41 patents for every patent that otherwise would have been created.
1998	Legislative Division of Post Audit	Publicly raised concerns about the operations of the Ad Astra Fund and a portfolio company.	Post Audit team found that the Ad Astra management team acted appropriately and in accordance with statutory guidelines and industry standards.
2001	Legislative Division of Post Audit	Routine review of state's three economic development agencies (Kansas Commerce, Kansas Inc. and KTEC)	Post Audit team concluded that KTEC is fulfilling its main statutory role and that appropriate accountability measures are in place for investments.
2001	KTEC staff	Lt. Governor-Elect John Moore requested an internal study assessing the economic impact of KTEC's core operations.	Published <i>KTEC Internal Study: FY1995-FY2002</i>

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<u>Year</u>	<u>Evaluator</u>	<u>Impetus</u>	<u>Outcome</u>
2006	Gilmore & Bell, P.C., an independent law firm	An investigative reporter for a KC arts & entertainment magazine reported that the CEO of a company in which KTEC invested may have falsified resume information.	KTEC retained an independent law firm to evaluate KTEC's investments process. The report recommended no changes to KTEC's processes that impact investment decisions. The report did include recommendations to improve internal documentation.
2006	Legislative Division of Post Audit	A Kansas state legislator on the Kansas Bioscience Authority board requested a review of the legality of KTEC's bonus compensation programs.	In a review of \$550,000 of bonuses paid to KTEC and MAMTC employees from 2004-06, only \$3,000 of bonuses were deemed inappropriate because they related to services performed for a KTEC subsidiary. Nonetheless, KTEC has listened to the Legislators on the KTEC board, removed bonus compensation from the CEO's employment agreement and will explore alternative incentive compensation mechanisms for KTEC staff.

Positioning Kansas Regents Universities as Drivers

“One of the most critical elements in a technology-based economy is the strength of its research and development institutions...Numerous studies have shown that anchors of fast-growing, technology-oriented economies are major research universities interacting with a robust technology-oriented private sector.”⁸

State Science and Technology Institute
A Resource Guide for Technology-Based Economic Development
August 2006

KTEC was founded as an organization that would serve as a value-adding intermediary between private sector and university research, using state resources as a catalyst for collaboration and requiring an emphasis on commercialization.

There are four strategies commonly and often effectively deployed by state-sponsored organizations:

- 1) University-industry research centers;
- 2) University technology commercialization programs.
- 3) Eminent scholars programs; and
- 4) Industry-university research grants.

Throughout its 20 years of service to Kansas, KTEC has positioned Kansas as an early adopter and sometimes pioneer of economic development strategies that leverage our leading research institutions – the Kansas Regents Universities – as economic drivers.

University-Industry Research Centers and University Technology Commercialization Programs

The first operational priority for KTEC in 1987-88 was developing a strategy for facilitating state-sponsored collaborative research. This led to the adoption of KTEC's first publication, “*Qualification and Evaluation Criteria for Centers of Excellence*,” which established the guidelines for center designation, evaluation and funding.

Three pre-existing university-hosted research institutes with operations supported by KTEC's predecessor organization, the Kansas Advanced Technology Commission, were designated as centers of excellence.

- The University of Kansas' Center for BioAnalytical Research (CBAR), which was subsequently reorganized as the Higuchi Biosciences Center (HBC) in 1988. In fiscal year 1989, HBC leveraged KTEC's core funding of \$382,000 with \$2.9 million of sponsored research projects from private industry and \$4.5 million from federal funding. That year, HBC launched a commercialization company called Oread Laboratories.
- Kansas State's Center for Research in Computer-Controlled Automation was established in 1984 and renamed the Advanced Manufacturing Institute (AMI)

Positioning Kansas Regents Universities as Drivers

in 1991. AMI provides professional technical support to early stage technology companies where manufacturing is a critical competency.

- Wichita State's Institute for Aviation Research (renamed the National Institute for Aviation Research, or NIAR, in 1990) was founded in 1985 to serve the advanced technology research and development needs of the aviation industry. From very modest beginnings, NIAR has grown to a \$36 million operation with nearly half its resources derived from federal grants and another 20% from sponsored research.⁹

In addition to the above three KTEC centers of excellence that remain active after 20 years, two others were formed shortly after KTEC's inception and remain active today:

- In 1988, the Center for Technology Transfer was founded at Pittsburg State University. This center of excellence was reorganized in 1994 as the Center for Design, Development and Production. In 1999, it became known as the Kansas Polymer Research Center to reflect the primary focus of its research and commercialization endeavors.
- In 1989, the Center of Excellence in Computer-Aided Engineering was founded at the University of Kansas. In 1997, it was merged with the Telecommunications and Information Sciences Laboratory at KU to form the Information and Telecommunications Technology Center (ITTC).

Impact of University-Industry Research Centers and University Technology Commercialization Programs

The primary value proposition for the state of Kansas is *leverage* – the structured and state-sponsored sharing of resources between universities and private sector companies in such a manner that research and commercialization activities are substantially greater than they would be without the state stimulus. Though often difficult to measure beyond anecdotal evidence, there are many compelling stories about how a KTEC Center of Excellence utilized its KTEC funding, or leveraged the KTEC network, to deliver results with positive economic implications for Kansas. *But for KTEC*, would similar outcomes have been reached?

Oread Laboratories – The Rise, Fall and ROI of a Commercialization Star

Under the leadership of eminent scholar Takeru Higuchi, the Center for BioAnalytical Research (CBAR, later renamed as the Higuchi Biosciences Center following Dr. Higuchi's passing in 1987) became world-renowned for scientific research and commercialization activity in the field of drug delivery.

The relationship between HBC and Oread Laboratories "was considered a model partnership between university research and industry applications."¹⁰ Oread Laboratories received \$5 million of venture capital investment in 1987, a successful leveraging of the state's five-year \$1.2 million investment in the CBAR-Oread partnership.

In 1994, Oread Laboratories employed 80 professionals doing contract research for pharmaceutical companies when it was purchased by David Kimbrell, an entrepreneur who reorganized the operations as Oread, Inc. Kimbrell then launched an acquisition strategy and grew the company to \$83 million of revenue and more than 800 employees, including around 300 in Lawrence. By this time, the state and university's role in Oread's development had been fully transferred to the private sector.

Unfortunately, the risks of the rapid-growth strategy proved too much to navigate, and Oread filed for bankruptcy in 2001. Listed among Oread creditors, which in aggregate were owed more than \$48 million, was the Douglas County Treasurer – owed approximately \$662,000 of property taxes. This fact prompted at least one legislator to label KTEC's \$160,000 of matching grants invested in Oread research as a bad investment.¹¹

Was it? Not at all, if one considers all of the ways in which state investments yield economic development returns. For seven years, the state benefited from payroll taxes, construction activities and property taxes. Based on conservative estimates, Oread at its apex would have generated more than \$500,000 of state personal income taxes *annually*.¹² From its bankruptcy, KU acquired 55,000 square feet of former Oread laboratory and office space for half of its appraised value and one-third of the estimated cost to build a new facility of equal size.¹³

A large part of the value proposition of investing state resources in homegrown early stage technology companies derives from the fact that returns for the state can be realized even when investors ultimately lose. We may never know whether Oread's failure resulted from poor management decisions, fierce competition, other market forces or some combination of them all. The vast majority of early stage technology companies will ultimately fail, but state-sponsored organizations long ago realized that the returns on homegrown successes – even temporary ones – are substantial and worth investing the resources necessary to develop them.

Positioning Kansas Regents Universities as Drivers

Eminent Scholars Programs

“The recruitment of one researcher in North Carolina demonstrates the potential impact of this approach. Wake Forest University recruited a researcher and his 20 person research team from Harvard to build both human organs and related companies in Winston-Salem. During his first year at Wake Forest, he tripled the size of his research team, attracted two companies from the Northeast to Winston-Salem, and filed 15 patent applications.”¹⁴

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An increasingly common method for states to build a research base is to provide economic support for universities to attract world-class faculty. Eminent Scholars programs typically provide funding for endowed chairs, the income from which provides compensation and resources for the star researcher. Two basic strategies are frequently employed, often in tandem:

1. Recruit well-established scientists along with their research teams and multi-million dollar sponsored research programs, and
2. Groom highly talented junior faculty and retain those who develop into world-class scientists.

The strategy to groom and retain junior faculty, often referred to as “rising stars,” requires a much longer time period before returns on investment are realized. The former strategy requires a higher upfront investment and often attracts star scientists near the end of their most productive years, but results can be immediate and substantial.¹⁵

In 2003, KTEC’s research in support of the Kansas Economic Growth Act (KEGA) legislation led to a visit to the Georgia Research Alliance, a collaboration between the state and its research universities that has created more than 50 Eminent Scholar positions, each with a \$1.5 million endowment funded jointly by the state and the university.¹⁶

The success of this model led KTEC to make the recruitment and retention of 25 eminent scholars and 35 rising star scholars an essential selling point of the KEGA strategy to the Kansas Legislature.¹⁷ This landmark legislation passed overwhelmingly (119-6 in the House¹⁸ and 37-3 in the Senate¹⁹), and following KTEC’s nomination, Representative Kenny Wilk won an award for State Legislator of the Year from the national BIO organization in recognition of his role in shepherding KEGA through the legislative process.

Impact of Eminent Scholars Program in KEGA

We understand that the organization’s recently appointed CEO, Tom Thornton, will prioritize development of an Eminent Scholars program consistent with the vision shared with Kansas lawmakers prior to their giving overwhelming support for the passage of the KEGA legislation.

Profile of an Eminent Scholar in Kansas*

In 1966, Takeru Higuchi was 48 years old and at the top of his profession. While a member of the research faculty at the University of Wisconsin, Dr. Higuchi's academic accomplishments and collaborations with industry afforded him international recognition as a pioneer in the field of "physical pharmacy."

With plans to develop a Pharmacy School of national stature, the University of Kansas recruited Dr. Higuchi like no basketball coach before or since.

In addition to naming him a Regents Professor, the highest professorial position at KU, the University also offered Higuchi considerable authority to develop a nationally recognized program in pharmaceutical chemistry, and dangled the promise of new buildings that would facilitate his research and help him draw graduate students. In fact even before Higuchi had made the move to Kansas, KU had initiated plans had to build a Pharmaceutical Chemistry Laboratory Building on West Campus, now known as McCollum Laboratory. Three other buildings that would form a "pharmacy-chemistry complex" would be erected over the next decade.²⁰

Were there returns on this substantial investment? Yes – immeasurably so.

Having already apprenticed an estimated 100 graduate students at Wisconsin, Dr. Higuchi groomed another 100 or so at KU, leading one colleague to proclaim that nobody had trained more pharmaceutical industry executives or pharmacy school deans than Dr. Higuchi.

As a scientist and a businessman, Dr. Higuchi focused his research on "drug delivery," the manner by which pharmaceuticals are designed to release the maximum benefits with the least side effects.

(Dr. Higuchi) designed a pill that works as a "chemical pump" and uses osmosis to regulate the discharge of the medicine rather than releasing it all at once. Such a pill could limit unwanted side effects. Similarly Higuchi developed an anti-glaucoma agent that "put a chemical wrapper" around a drug molecule, enabling the medicine to penetrate the eye membrane much more efficiently than it otherwise could, and in so doing, making the drug "10,000 percent more effective." All told, Higuchi published more than 300 articles about his research and acquired more than 50 patents

When a California entrepreneur sought to recruit Dr. Higuchi for a startup drug research company, Dr. Higuchi agreed to join the team but refused to leave Kansas. As a result, the entrepreneur, Alejandro Zaffaroni, agreed to finance the construction of a building in Lawrence to house Dr. Higuchi's research team. Dr. Higuchi also negotiated terms by which the KU Endowment Association received 10,000 shares of stock in Zaffaroni's company, an interest that, following a reorganization and subsequent merger, ultimately netted the Endowment Association an estimated \$3 million in profit.

Following his death in 1987, the Kansas House of Representatives passed a resolution declaring, "Over the past 20 years, it is doubtful if anyone has contributed more than Dr. Takeru Higuchi did to heighten the international respect for and prestige of The University of Kansas."

* Summarized from "It's All in the Delivery" by Mark D. Hersey, www.kuhistory.com

Positioning Kansas Regents Universities as Drivers

“One way to grow a technology-based economy is to build sustained relationships between a state or region’s technology companies and its research institutions... A means of fostering greater university and industry interaction is to provide matching grants for research partnerships. Such programs help build relationships between academic researchers and companies and provide support for activities that help to move technology to the point at which private investment capital can be obtained.”²¹

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Industry-University Matching Grants

Also through its role in developing the KEGA legislation, KTEC promoted creation of the Bioscience Research and Development Voucher Program to facilitate collaborative research between small- and medium-sized bioscience businesses and Kansas’ leading university research institutions. Under this program, the Kansas Bioscience Authority may award research vouchers to private sector companies with the following conditions:

- At least 51% of voucher award funds shall be expended with the university in the state under contract and shall not exceed 50% of the research cost;
- The maximum voucher funds awarded shall not exceed \$1 million, each year for two years, equal to a maximum of \$2 million; not to exceed 50% of research cost; and
- The qualified company shall match the project award by a one-to-one dollar ratio for each year of the project.²²

The first award made by the Bioscience Authority under this program was to offer a \$150,000 research voucher to Prescription Solutions for pharmaceutical or robotics research at a Kansas university. Primarily on account of Overland Park tax abatements of \$3.2 million over 10 years, Prescription Solutions located a mail-order pharmacy distribution center in Kansas with 850 employees, including 270 pharmacists, and the capacity to expand to 1,900 employees by mid-2007.²³

Impact of Industry-University Matching Grants via KEGA

The Bioscience Authority also used \$500,000 of research vouchers with the University of Kansas as part of a \$2.5 million incentive package to recruit the U.S. operations of OncImmune to Kansas. The British company has developed a blood test with the potential to detect breast cancer far earlier than can be detected through physical manifestations. KTEC participated in the OncImmune recruitment and will provide funding for a research grant writer for two years. OncImmune will employ 120 people in a 14,000 sq. foot research facility in Lenexa, and its project will support 20 researchers at KU.²⁴

“A recent study commissioned by the U.S. Small Business Administration contends innovation without entrepreneurship generally yields minimal local impact. On the other hand, ‘entrepreneurship enhances the regional economic impact of investments in innovation.’...To tap the benefits of entrepreneurship, states and regions have begun to examine their local entrepreneurial environments to *identify the gaps* in information, services and resources that hinder vigorous entrepreneurial activity.”²⁵

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Commercialization Corporations and Business Assistance Services

In 1993, KTEC identified a “missing link” in the technology commercialization value chain between the research and development phase and the point where a company seeks seed capital for early operations. In response, KTEC developed a plan to formalize the delivery of business assistance processes in regional “commercialization corporations.” Initially, three corporations were established in Wichita, Manhattan and Lawrence in 1995.

This strategy eventually incorporated existing KTEC business assistance affiliates into a true statewide network. KTEC operated two “industrial liaison” regional offices in Lenexa and Great Bend – Tech-Industry Consultants, Inc., and Western Kansas Technology Corporation, respectively, which were launched in 1990. The following year, the state of Kansas was awarded a six-year, \$12.9 million grant from the National Institute of Standards and Technology (NIST) to develop the Mid-America Manufacturing Technology Center (MAMTC).²⁶ These organizations were already developing a portfolio of business assistance services to primarily manufacturing clients throughout the state. The addition of the commercialization corporations in the communities supporting the three research universities in Kansas ensured that university innovations had a natural link into a KTEC-supported business assistance network.

In addition to MAMTC, today’s KTEC business incubators are as follows:

- Alliance for Technology Commercialization (ATC), Pittsburg
- Enterprise Center of Johnson County (ECJC), Lenexa
- Lawrence Regional Technology Center (LRTC), Lawrence
- National Institute for Strategic Technology Acquisition and Commercialization (NISTAC), Manhattan
- Quest Business Center for Entrepreneurs, Hutchinson
- University of Kansas Medical Center Research Institute, Kansas City
- Western Kansas Technology Corporation (WKTC), Great Bend
- Wichita Technology Corporation (WTC), Wichita

New company gets helping hand*

by Dan Flynn, President and CEO, and Peter Petillo, Chief Science Officer, of Deciphera Pharmaceuticals

Imagine trying to establish a new start-up pharmaceutical company anywhere in the United States over the past 12 months. We have many friends and colleagues who have bemoaned the national economic downturn in the biotechnology sector during 2002-03. Their efforts to start or grow new companies on either the East or West Coast have been met largely with disappointment and the inability to raise sufficient working capital.

We were counseled not to expect much when we decided to establish Deciphera Pharmaceuticals in Cambridge, Mass., in August 2002. Now it is one year later. Deciphera Pharmaceuticals has met its initial goals in establishing its drug discovery platform. It has found a research home, completed renovation of a research facility, filed key patents, raised a total of \$16.5 million in working capital, and made its first critical hires. And not in Boston, San Diego, or San Francisco.

We did it all in Kansas. This accomplishment took an enormous amount of hard work by very determined, dedicated Kansans. A group of men from Lawrence Regional Technology Center (LRTC), Sam Campbell & Associates of Lawrence, Dec Investors LLC of Lawrence, Kansas Technology Enterprise Corporation (KTEC) and the Precede Fund of Kansas City, Kan., made this dream possible. All of these organizations represent Kansas institutions that patiently and deliberately worked with each other and with Deciphera Pharmaceuticals over the past year.

Starting with an inaugural work session on Aug. 17, 2002, this group provided local investment dollars and a research site at West Lawrence Research Laboratories facility in Lawrence. **KTEC laid the groundwork for the infusion of \$100,000 in December 2002, and a second \$100,000 in July 2003.** The Precede Fund from Kansas University Medical Center contributed \$50,000 of working capital. A group of Lawrence investors banded together to form Dec Investors, LLC. By July 2003, this dedicated group collectively brought in \$600,000 of seed capital.

All of this effort by KTEC, LRTC, and Dec Investors enabled Deciphera Pharmaceuticals to not only locate in Lawrence but to succeed in Lawrence.

Heading into our second year, we have completed major research initiatives in founding our drug discovery platform and have leveraged this success to land an additional \$15 million in funding over the next four years.

A very sincere thank you is extended to these dedicated Kansas institutions. Your words of support have been matched with your resolve and dedication. Deciphera Pharmaceuticals is proud to be in Lawrence and to be a part of the greater Kansas City-Lawrence Life Sciences Initiative.

*** Published by the Lawrence Journal-World, December 20, 2003**

Kansas Center for Entrepreneurship

One of the distinct elements of the KEGA legislation was the creation of the Kansas Center for Entrepreneurship, which was established with a purpose *"to enhance the quality of life for citizens of this state by providing increased availability of an accessibility to capital, particularly at the seed capital investment stage, encouraging wealth creation through new jobs that increase the wage base promoting new business development and encouraging individuals to invest in the Kansas community entrepreneurship fund and to assist regional and community organizations in providing seed funding for entrepreneurs."*²⁷ KTEC's CEO, Tracy Taylor, serves on the Center for Entrepreneurship's board of directors.

In 2006, the Center for Entrepreneurship launched *Network Kansas* as a "central portal that connects entrepreneurs and small business owners with the right resource; expertise, education, and/or economic, at the right time." Under the leadership of Director **Steve Radley**, *Network Kansas* is developing a methodology for classifying the entrepreneurship support services available to Kansans and making them more easily accessible by connecting through his organization. KTEC is working with *Network Kansas* to ensure that technology entrepreneurs can efficiently locate KTEC research centers and business assistance services that can best serve their needs.

KTEC Pipeline Technology Fellowship Program

In 2006, KTEC laid the groundwork for the 2007 launch of the KTEC Pipeline. Through this program, Kansas is the only state working to systematically identify its top technology entrepreneurs and match them with best-in-class training, resources and mentors, all for the purpose of encouraging them to establish and grow their technology ventures in Kansas.

The PIPELINE – which stands for Promoting Innovation, Providing Education and Leadership, Investing in New Entrepreneurs – will also engage experienced Kansas mentors and resources from around the state – raising the awareness of Kansas resources and opportunities for all technology entrepreneurs.

People are the key success driver in technology businesses; therefore, KTEC is committed to investing in the development of people with the potential to lead technology businesses into a more prosperous future. We know from experience that Kansas has an abundance of undeveloped talent with interests in technology and business, and we also know that we have entrepreneurial business leaders willing to invest their time and experience into mentoring tomorrow's great business leaders. What KTEC aims to accomplish with this program is to create a forum where the best talent in Kansas is developed and mentored by established technology business leaders.

We fully expect that within five years, the KTEC PIPELINE will boast alumni leading fast-growing technology businesses in Kansas. We will measure the success of this program by the careers of the people who benefit from it – not just the entrepreneurs themselves, but also the mentors inspired by their energy and Kansans employed from their creative outputs.

Fostering Entrepreneurship

Advisor to the Entrepreneurial Development Community

KTEC professionals possess a wealth of expertise not only in technology business development, but in the ability to advise communities on developing strategies to effect technology-based economic development.

In addition to the daily work of specialists in the network of innovation centers and Centers of Excellence, KTEC's core management team serves in an advisory capacity on numerous local and industry boards, committees and task forces charged with enhancing the climate for technology entrepreneurship. Such initiatives are often designed to catalyze the public-private-academic sectors, improve university-business interaction, evaluate specific business opportunities, and provide linkages to specialized private sector resources.

The team assists communities in business attraction, accessing venture capital and scientific/engineering resources, and well as evaluating prospective business opportunities. The team also provides a wealth of assistance to entrepreneurs, including those who may not necessarily need KTEC's financing and technical programs, in areas such as business planning, strategic market development, and exposure to experienced company leaders.

While the advisory role played by the management team does not fit within any of the official programs per se, it is an important role of KTEC in fulfilling its charge of enhancing the environment for technology-based economic development.

Increasing Access to Capital

"Access to capital is a critical component to building strong local and regional innovation economies. In order for new technology enterprises to take root and grow locally, sufficient funding at every level, from angel investment to institutional venture capital, must be available and accessible. Among practitioners interviewed, there was nearly universal agreement that gaining access to capital for fledgling technology companies in their regions often presents significant challenge."²⁸

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Applied Research Matching Grants and Seed Capital Fund

To apply for a matching grant or seed stage investment, a private sector company must convince the KTEC Investments committee of the merits of the applied project, provide a private sector match of at least 150%, and gain final approval of the KTEC board.

In 1992, KTEC began taking royalty positions in companies receiving applied research matching fund grants. In 2003, KTEC began taking equity positions to reflect that its investments benefit the company as a whole rather than merely a product line. Following are the total investment activities as reported annually by KTEC:

Year	Number	Amount	Industry match	Total investment	Leverage
1988	18	\$ 825,626	\$ 1,659,318	\$ 2,484,962	2.0
1989	21	486,922	893,387	1,380,330	1.8
1990	33	1,335,302	2,481,613	3,816,948	1.9
1991	52	1,524,980	2,645,260	4,170,292	1.7
1992	41	1,349,684	2,734,113	4,083,838	2.0
1993	32	1,125,317	1,942,162	3,067,511	1.7
1994	29	1,233,364	2,202,499	3,435,892	1.8
1995	35	1,259,613	2,063,306	3,322,954	1.6
1996	24	1,095,292	2,154,269	3,249,585	2.0
1997	26	1,094,403	1,843,481	2,937,910	1.7
1998	27	1,175,486	2,256,134	3,431,647	1.9
1999	28	1,378,519	2,439,815	3,818,362	1.8
2000	20	1,223,896	2,220,282	3,444,198	1.8
2001	21	1,414,225	2,866,429	4,280,675	2.0
2002	12	748,016	1,175,706	1,923,734	1.6
2003	13	1,125,085	2,232,493	3,357,591	2.0
2004	11	1,436,264	8,937,700	10,373,975	6.2
2005	10	1,014,951	2,710,000	3,724,961	2.7
2006	9	1,626,666	33,276,055	34,902,730	20.5
Totals	462	\$ 22,473,611	\$ 78,734,022	\$ 101,208,095	3.5

Increasing Access to Capital

Does Government Have a Role?²⁹

“The question of whether it is appropriate for government to assume a role in providing...capital for startups is ongoing. Some see it as unnecessary intervention in the marketplace, arguing that if the deals are good, the money will find them, and that government is simply unsuited to the requirements of business investing, lacking the skills, speed and political will to make correct investment choices.

“However, **the fact that there are problems in the supply of capital indicates that the market alone is operating inefficiently and as a result may need government action:** either by providing incentives to encourage market action or by stepping into the market and offering capital to companies.

“Additionally, government may have a role in identifying companies with high economic development potential that have been neglected by the investment community. In some cases, it is reasonable to assume that government would be more likely to act than private financiers.

“Government can supplement the information and resources of the financial community by pre-screening deals, helping identify qualified management, and providing funds to help companies get to the point that they are attractive to private investors, thereby accelerating and increasing the number of deals that can be done...

“In summary, the underlying premise upon which technology-based economic developers conduct their work is that, to correct geographically-localized inefficiencies in the market, it is sometimes necessary for government to catalyze action and address market gaps.”

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Increasing Access to Capital

KTEC Investments Process

KTEC employs a rigorous process for making investments in early stage technology companies. First, companies must complete an application and submit a business plan to the KTEC investments team, which determines if applicants meet the following criteria:

- Innovative, patented technology;
- Potential to generate a monetary return on investment;
- Potential to create high-paying jobs in Kansas;
- Conduct principal business in Kansas;
- Strong management team with the vision to utilize business or technical assistance when needed (preference is given to companies using KTEC's Incubators for business assistance); and
- Ability to raise an amount equal to or greater than 150% of KTEC's investment from other sources.

The KTEC investments committee includes ten private sector Kansans with exceptional financial, technology, legal and/or business experience. At least three of the committee members are also KTEC board members. The KTEC investments team reviews applications and business plans before recommending to the KTEC investments committee which companies have met the minimum criteria and should be allowed to make a presentation before the committee.

Following the presentations that are made at quarterly meetings, the KTEC investments committee reviews due diligence reports from the KTEC investments staff and votes on recommendations to be made to the KTEC board of directors. Funds are disbursed only after the full KTEC board votes in favor of an investment, matching funds are raised, due diligence requirements are satisfied and investment agreements are signed.

KTEC staffs its investments team with capable professionals recruited from the private sector. The following professionals are representative of the private sector talent that has led KTEC investments processes for 20 years:

- **Sam Campbell** – A principal of Campbell-Becker, the Lawrence-based firm that managed KTEC's Ad Astra Fund from 1988-1998, Campbell has remained active with KTEC's Lawrence Regional Technology Center and led a group of private investors to partner with KTEC and LRTC in an early stage investment in Deciphera, which subsequently raised \$15 million of private equity.
- **Mike Peck** – KTEC's VP of Investments from 2002-2005 was recruited by Open Prairie Ventures as a General Partner in charge of opening an Overland Park office.
- **Michele Weigand** – Formerly a VP of Business Development at GE Mortgage Insurance, Weigand led investments into internet opportunities, including Lending Tree.com. She has led KTEC's investments team since October 2005.

Increasing Access to Capital

On no less than three occasions in its 20-year history, persistent concerns have been raised about the appropriateness of using state funds to invest in early stage technology companies, whether by grant or by equity investment. In each case, subsequent investigations satisfied objective observers and resulted in continued support for KTEC and its programs:

- In 1998, when a company in which the Ad Astra Fund had invested was criticized for hiring state legislators as part of its management team, both a special committee of the KTEC board of directors and the Legislative Division of Post Audit conducted independent reviews of the operations and policies of the Ad Astra Fund managers. Collectively, these reviews concluded that the fund managers had acted appropriately and in compliance with statutory and industry guidelines with all Ad Astra investments, and that the fund managers had done a prudent job in adhering to legislative intent in following investment criteria, guidelines and due diligence.³⁰
- Following the 2001 bankruptcy of Oread, Inc., an individual state legislator questioned whether KTEC officials had made poor decisions in awarding six grants to Oread Laboratories totaling \$160,829 from 1988 to 1992. KTEC's CEO, Rich Bendis, responded by pointing out that the state of Kansas received substantial returns on its investment via payroll taxes and construction activities supported by Oread's operations over 13 years.³¹
- Following a 2006 investigative story by a Kansas City arts and entertainment magazine raised questions about whether an applicant had supplied accurate personal information prior to a KTEC investment in his company, Kozoru. Concerns were amplified when the company changed its strategy after failing to capture the market it had anticipated. KTEC's CEO, Tracy Taylor, responded to concerns by hiring an independent law firm to investigate the processes by which KTEC makes investments. As a result of this review, no process recommendations were made other than to improve certain documentation of due diligence investigations.³²

Impact of Applied Research Matching Fund Grants and Seed Capital Investments

On a purely financial returns basis, KTEC historically has fared not much better than many other venture capital funds that have struggled to survive in the region in and surrounding Kansas. There have been some successes, but no Google or Dell Computer in the portfolio.

However, as a state-sponsored corporation, KTEC appropriately views its investment criteria far differently. KTEC views returns on its investments holistically, to include tangible (though not measured) factors, such as state and local tax revenues, to intangible factors such as the value of fostering an entrepreneurial culture in the state. The following story of Medi-Flex demonstrates why we are committed to investing in early-stage technology companies and why the true impact sometimes eludes our measurement processes.

Deferred ROI – the Story of Medi-Flex (*Enturia* as of January, 2007)

In 1995, the KTEC board approved the KTEC investment committee's recommendation to award an Applied Research Matching Fund grant of \$98,800 to Medi-Flex Hospital Products, Inc. for the purpose of researching "new applications for **chlorhexidine gluconate** solutions."³³ The company provided matching funds of \$148,200 for a total investment in the applied research project of \$247,000.

Medi-Flex was founded in 1985 by Joseph Brandmeyer, who started the company after leaving Marion Laboratories where he was President of Marion Scientific Division. The company's initial products, spin-offs from Marion, were "a broad range of aseptic skin prepping products for hospitals and alternate care practitioners." The Company supplemented its product lines with acquisitions, such as the purchase of an IV Start Kit from Johnson & Johnson in 1991, but the company found success from its own R&D efforts to be elusive. The investment by KTEC in 1995 came at a critical juncture for Medi-Flex. Although the research took a long time to bear fruit, Medi-Flex received FDA approval for its signature product in July 2000.³⁴

*In November 2000, Medi-Flex launched a revolutionary antiseptic product called ChloraPrep® One-Step. ChloraPrep is the first and only FDA-approved patient preoperative skin prep in the United States with a 2 percent chlorhexidine gluconate and 70 percent isopropyl alcohol formulation. ChloraPrep exhibits rapid and persistent bactericidal activity with a low incidence of skin irritation. It has been proven to significantly reduce the number of bacteria on intact skin which makes it a powerful weapon in the fight to reduce healthcare-associated infections.*³⁵

With the launch of this highly successful product, Medi-Flex grew rapidly into a Kansas-based bioscience company with 400 employees in Lenexa, Kansas and El Paso, Texas. **Sales increased more than 600% to \$100 million by 2006.**³⁶

In 2005, Medi-Flex, Inc. received the Medical Products Award at the Ernst & Young Entrepreneur of the Year reception and awards gala. Brandmeyer, still the company's CEO after 20 years, was unexpectedly thrilled to have KTEC's CEO present the award, and to have the opportunity to share with the audience how important the 1995 KTEC grant was to his company's success.

Based on conservative estimates, the company likely generates, on an annual basis, greater than \$250,000 of state personal income taxes from its Kansas employees. Readers of KTEC's annual report might be surprised to learn, however, that the Medi-Flex results since 2000 have not been included in KTEC's reported ROI calculations. Why? Grant recipients historically were contractually obligated only to report revenues and employment data for five years, and the rapid growth of Medi-Flex operations began *after* the five-year reporting requirement had expired.

Despite missing out on the quantitative feedback, KTEC's investments committee and management team are grateful for an example like Medi-Flex to demonstrate the value proposition of making state-sponsored investments in early stage technology companies. The returns can take nearly a decade to materialize, and most will likely fail. But winning investments can be substantial and pay annuity dividends to state coffers through various state tax revenues.

Increasing Access to Capital

Angel Investor Networks

Angel investors are affluent individuals (meeting the SEC definition of an “accredited investor” of having a \$1 million net worth or annual income of \$200,000) that invest personal resources in early stage companies and often become personally involved in mentoring entrepreneurs associated with their investments.

Angel investors frequently form groups to share information and costs associated with their investment activities. Since 1996, the number of known angel groups in the U.S. has increased from 10 to more than 200.³⁷ State-sponsored technology-based economic development organizations are increasingly supporting the organization of angel networks to facilitate private sector investments in early stage technology companies.

Three KTEC business assistance incubators actively collaborate with the KTEC Investments team to facilitate investments by accredited investors in early stage technology companies in Kansas.

- The Wichita Technology Corporation supports two angel networks – the *Midwest Venture Alliance* and the *Southeast Kansas Venture Alliance*.
- The Enterprise Center of Johnson County and the Lawrence Regional Technology Center collaborate to support the *Mid-America Angels*.

By supporting these efforts, KTEC and its affiliates collaborate on generating quality deal flow and sharing due diligence responsibilities. Companies awarded seed stage investments from KTEC often receive investments from one or more of these angel networks, and vice versa.

Angel Investor Tax Credits

The KEGA legislation assigned to KTEC responsibility for administering \$2 million of angel investor tax credits per year for 10 years.

The *Kansas Angel Investor Tax Credit Program* is designed to bring together Kansas-based accredited angel investors with Kansas-based, KTEC-certified companies seeking seed and early stage investment. KTEC receives applications from companies and certifies them according to guidelines codified in Kansas Statutes.³⁸ Once certified, companies can solicit investments from angel investors who may then qualify for tax credits on their Kansas personal income taxes.

Impact of Angel Investor Programs

These capital formation programs are examples of professionals in the KTEC network learning about successful programs from other states or regions and working in collaboration – whether with private sector investors to form angel networks or with State Legislators to develop appropriate incentives through legislation – to achieve positive economic benefits for Kansas.

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- ³⁴ http://www.medi-flex.com/chloraprep_com/mediflex_history.html
- ³⁵ Ibid.
- ³⁶ <http://www.kansascity.com/mld/kansascity/business/16441342.htm>
- ³⁷ State Science and Technology Institute, *A Resource Guide for Technology-based Economic Development*, p.70.
- ³⁸ Kansas Statutes 74-8136. KTEC authorized to issue tax credits; reporting required; annual review by secretary of commerce; loss of designation, notice, repayment obligations.