Approved:		
	Date	

MINUTES OF THE SENATE COMMERCE COMMITTEE.

The meeting was called to order by Chairperson Alicia Salisbury at 8:00 a.m. on January 11, 1995 in Room 527-S of the Capitol.

Members present: Senators Salisbury, Burke, Downey, Feleciano, Gooch, Harris, Kerr, Petty Ranson, Reynolds, Steffes and Vidricksen.

Committee staff present: Lynne Holt, Legislative Research Department

Bob Nugent, Revisor of Statutes Betty Bomar, Committee Secretary

Conferees appearing before the committee:

Rich Bendis, President, KTEC Saeed Farokhi, President, Aerotech Pat Connelly, ICE Corp Don Peterson, DeskStation Technology Jerry McKenna, Janus Biomedical

Others attending: See attached list

Upon motion by Senator Vidricksen, seconded by Senator Ranson the Minutes of the January 10, 1995 meeting were unanimously approved.

SB12 - An act concerning economic development; relating to small business amending K.S.A. 74-8108 and repealing the existing section

Rich Bendis, President of KTEC, appeared on behalf of the bill which directs KTEC to establish a small business innovation research bridge financing fund. (SBIR) The purpose of the fund is to provide grants for research conducted by firms that have previously received federal Phase I SBIR monies and that have applied for a Phase II SBIR grant. Mr. Bendis provided information on state ranking in obtaining federal grants, the process of making application, and the importance of commercialization of basic research on the State's economic growth. see attachment I

Saeed Farokhi, President of Aerotech Engineering & Research Corporation, relayed his experience and the time involved in applying for technology grants. He reported that there is a 12-20 month gap between Phase I and Phase II SBIR grants during which time there is a critical cash shortage. Consequently, some projects are abandoned, many are weakened and key personnel is frequently laid off. see attachment 2.

Pat Donnelly, President of ICE Corporation, a high-tech electrical design and manufacturing company, testified as to the need to close the gap between Phase I SBIR and Phase II. see attachment 3.

Committee members raised questions about whether the financing would be in the form of grants or loans. The President of KTEC explained that the Corporation strives for a return on investment in their programs, and grants would be repaid when an innovation is successfully commercialized. The Chairman requested language on the terms for repayment that are normally included in a grant contract.

SB 13- concerning the Kansas technology enterprise corporation

Don Peterson, President of DeskStation Technology, Inc., testified as to the difficulty of securing technology and research capital investment in the Midwest. Companies such as his are competing with companies in other states where the capacity for attracting private investors is greater. A great deal of pressure exists to move where the money is if it's not available locally. Investment firms wish to invest regionally where they have the ability to work closely with the company and participate in important strategic decisions. Another challenge for small companies to attract a venture firm that has an understanding of the technology. Once an initial investor is obtained, venture firms try to work together to leverage their potential. see attachment 4

CONTINUATION SHEET

MINUTES OF THE SENATE COMMERCE COMMITTEE, Room 527-S Statehouse, at 8:00 a.m. on January 11, 1995.

Rich Bendis, President of KTEC, distributed a shorter version of SB 13 for the committee's consideration. see attachment 5.

The Chairman announced the Committee would meet at 8:00 a.m., Thursday, January 12, in Room 123-S. The next meeting is scheduled for January 12, 1995,

SENATE COMMERCE COMMITTEE GUEST LIST

DATE: January 11, 1995

NAME	REPRESENTING		
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Mark Barrenling	+DOC+		
1 1 Cm Cl	ICE CORPORATION		
Mikel Mille	KSUnc		
Clyde Engert	KTEC		
Mike Leyba	KACHA		
Charles Warren	Ka Inc.		
Hawlel Stones	KS Bankers ASSN		
ERIC Sexton	Wsu.		
Saeed Farokhi	Aerotech Comp.		
ILLYE WILLER	KTEC		
DON PETERSON	Deskistation		
Roger Franzie	K6 Chot Co resultain		
JERRY MCKENNA	JANUS BIOMEDICAL, INC.		
Janie Rithersond	KTEC		
Jim Edwards	KCCI		
Han Barber	TIAK		
1 Cindy Dieal	KTEC		
Rech Bendis	KTEC		

SENATE COMMERCE COMMITTEE GUEST LIST

NAME	REPRESENTING		
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SBIR/STTR Program

■ Federal Research and Development Programs
Utilized to Fund High Risk Innovative Efforts
that have Excellent Commercial Potential

January 17, 19
Commerce
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OKTEC 199



Technology

The Engine of Economic Growth--

- creates jobs,
- builds new industries,
- improves our standard of living.



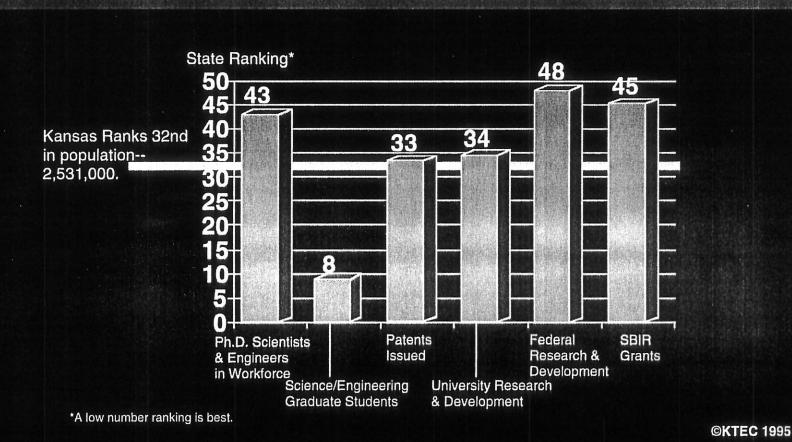
Science--

the fuel for technology's engine.

©KTEC 1995



Development Capacity Index Measures 1994 Report Card of the States How Kansas Ranks



SBIR/STTR Bridge Loan Concept

- I. Overview of federal SBIR and STTR programs
- II. Kansas performance
- III. State programs
- IV. KTEC role
- V. IPPBR study recommendations
- VI. Gap in the funding process
- VII. Proposed solution to funding gap

SBIR/STTR--continued

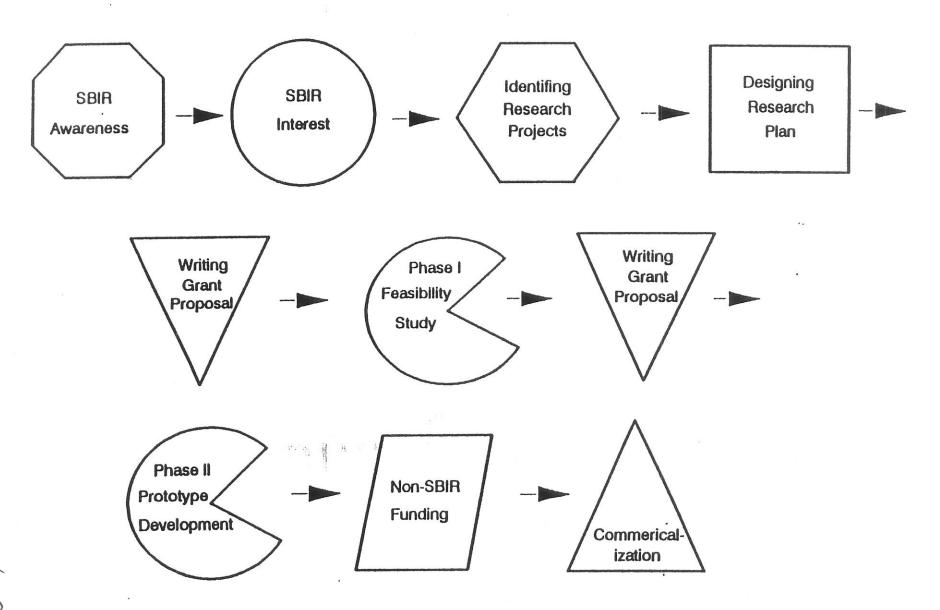
- I. Federal SBIR / STTR Program
 - * purpose -- improve U.S. industrial competitiveness, market share
 - technology focus
 - federal funding approximately \$700 million
 - * administration -- agencies administering SBIR:

 Agriculture, Defense, Energy, Transportation, NASA, NRC,

 Commerce, Education, HHS, EPA, NSF
 - * eligible applicants -- U.S. companies with under 500 employees
 - Phase I funding -- grants up to \$100,000
 - * Phase II funding -- grants up to \$750,000
 - * solicitation topics

Chart 1

SBIR Process



1

SBIR/STTR-continued

II. Kansas historic performance

- * 8th lowest performance (per capita) among the 50 states
- * total grants to Kansas companies average \$1 million annually

			Kansas as a
			Percentage of
	United States	Kansas	United States
5			
Population 1990	248,709,873	2,477,574	1.00%
Median Household Income 1989	\$30,056	\$27,291	90.80%
Bachelor's Degree 1990	20,832,567	221,016	1.06%
Graduate or Professional Degree 1990	11,477,686	109,361	0.95%
Total Degrees	32,310,253	330,377	1.02%
Total R&D Expenditure FY1989 (\$1,000)	\$135,059,734	\$522,856	0.39%
Federal Laboratories	606	2	
SBIR Awards FY1983-FY1990	17,830	28	0.16%
SBIR Awards FY1990	3,179	2	0.06%
Amount Awarded FY1990 (\$1,000)	\$445,859	\$249	0.06%
Phase I Awards FY1992	2,554	5	0.20%
Phase II Awards FY1992	1,485	2	0.13%
Total FY1992	4,039	7	0.17%
			ga .

Sources: Median household income, bachelor's, graduate and professional degrees came from 1990 Census Tape, STF 3, U.S. Bureau of the Census, Department of Commerce. The number of federal laboratories comes from the master list of the Federal Laboratory Consortium for Technology Transfer. The rest of the data has the same sources as Table 1.

SBIR/STTR--continued

III. State programs

- * most states offer technical assistance; some include proposal preparation grants
- * 16 states have "bridge financing" programs

IV. KTEC role

- * historically high success rate on preparation grants, small budget
- * increased emphasis: staffing and budget
- * workshops and dissemination of SBIR information
- * proposal preparation grants up to \$5,000
- * screening, networking, improving quality of proposals

V. IPPBR study recommendations

- * Make SBIR someone's full-time job
- * Enhance the preparation grants program
- * Help firms fill the gap between Phases I and II
- * Help firms obtain follow-on commercialization capital

VI. Gap in the funding process

- * 12-24 month gap between Phase I and Phase II
- * critical cash shortage, some projects abandoned, many weakened
- * competitive disadvantage in getting product commercialized
- * inability to hold key personnel during down time

SBIR/STTR--continued

VII. The remaining solution: bridge funding

- * close gap between Phase I and Phase II
- * loans up to \$50,000
- * expenditures toward Phase II goals
- * value added by commercialization corporations
- * repaid with interest, based on commercialization
- * some projects may warrant an equity position
- * movement toward long term self-sufficiency
- * patterned after North Carolina program



SBIR Recommendations

- Expand current SBIR proposal preparation grant program to include other significant Federal grant opportunities
- Expand the scope of SBIR program to include additional funds for SBIR Bridge financing

The purpose is to bridge SBIR I winners so they are able to continue their research while awaiting award of SBIR II grants

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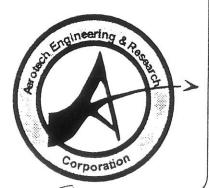
Economic Development

Through
Advanced Technology Commercialization

Saeed Farokhi; President & CEO
Aerotech Engineering & Research Corporation
&
Midwest Energy & Environment Technology Corporation

Lawrence, Kansas

January 11, 1995



January 11, 1995

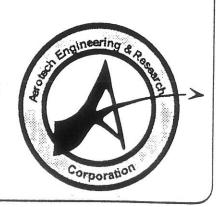
Funding for Small R&D Businesses to Develop High-Tech Products

Federal Government

- SBIR Program
- ❖ STTR Program
- ♣ TRP Program
- ❖ ATP Program
- CBD Announcements

State Government

* KTEC Programs



Financing Issues & Needs

Innovative Idea/Technology

Proof-of-Concept

Phase I SBIR Grant

50-100K\$

0

Maturing the Technology/Demonstration

Phase II SBIR Grant

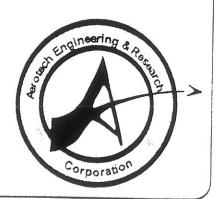
500-750K\$

0

Commercialization (Manufacturing & Marketing)

Venture Capital

xM\$



Proposal Review/Funding Cycles

Phase I (Review)

6 months

Contract Negotiation

3-6 months

Phase II (Review)

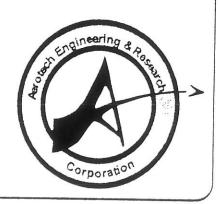
3-4 months

Contract Negotiation

3-6 months



"Bridge" Financing: A Survival Issue



IN SUPPORT OF INTERIM FINANCING FOR SBIR PHASE II APPLICANTS

As the president of the ICE Corporation, a small high-tech electrical design and manufacturing company, I have personally experienced the technical commitment, financial and mental strain, as well as the rewards of winning a Phase I and Phase II SBIR contract. Because of these experiences, I strongly support the concept of interim financing, business counseling, and any other real or moral support that can be mustered. Individuals find themselves in that state of limbo between the completion of a successful phase I and the technical and financial research required in the preparation of the application for phase II.

The SBIR program represents a solid opportunity to develop state-of-the-art products and stimulate technological advances in Kansas companies. In face of the heavy nationwide competition, it should understood by all, that there are some major risk factors concerning the time, dollars, and the technical dedication, required to win a SBIR grant. I believe that given the conservative nature of the Kansas businessman and their realization of the risk involved with SBIR success, highlights some of the fundamental reasons that Kansas has been behind on SBIR applications and subsequently, far down on the list of SBIR awards. The support that we are speaking of today, should help the Kansas SBIR applicant feel that they are not alone, and that help will be forthcoming should it be required.

My SBIR experiences began with the Phase I application to the Department of Defense for the development of a "hybrid circuit power switch" in February of 1987. The winners were to be announced in May of that year, but we were not notified that we had won until mid July. This was our first realization that everything didn't always go like clock work. We successfully completed the project in December of 1987 and in January 1988, with the finial report, we submitted a letter requesting an application for Phase II funding. In May 1988 we were informed that our switch had satisfactorily undergone over one hundred thousand dollars worth of testing (twice the amount of money they paid us to develop it) at their Government laboratory and they would like us come to Washington, D.C. to discuss phase II. That three day trip to Washington for a member of management and the design engineer cost \$1,477.00 and was not included in the Phase I budget. This was the first of many expenditures that would be incurred in this period of pre-proposal expenses.

By Mid May we were back in Kansas hard at work on the Phase II proposal. Because of specialized equipment and material requirements, ICE spent and additional \$5,114.00 in travel, gathering sufficient data to write an intelligent and precise proposal. On June 30, 1988 after at least 300 man hours of work, we submitted our Phase II proposal for \$483,136.00 covering a twenty four month time frame.

Carmerce Catachnest 3. In an effort not to bore you with the agonizing details, I will submit the following summery. Eight months later and after numerous modifications to the proposal including accounting procedures, equipment lease agreements, modifications to work schedules, reduction of the total contract cost and the extension of the projected completion date, on February 27, 1990 we received the approved contract for \$189,879.00. Due to decreased Department of Defense funding, additional incremental payments would be made as funds became available, until a total contract award of \$430,000.00 was reached. We estimate that due to the "Limitation of Funding" we were forced to spend an additional \$5,000.00 in time and expense before the contract was approved.

I don't believe our difficulties are experienced by most SBIR applicants. But one should be cognoscente that delays and difficulties can occur. ICE is a twenty year old company and we were able to stay in the hunt because of resources external to this contract. However, for any new company depending on contract income to maintain daily operation, serious cash flow problems can develop in a short period of time. This is why I believe that KTEC and this legislative body is on the right track with bridge financing to help during that difficult time of proposal preparation and in cases like ours, where the awards are delayed.

ICE did successfully complete our phase II contract with the development of a family of hybrid, high-power, intelligent switches. We have applied for patents on the technologies we developed and we are in the process of commercialization. So all is well that ends well. However, with your help, SBIR applicants that follow will have one less item to worry about as they enter the national competition for SBIR awards.

Pat Connelly, President ICE Corporation 240 Levee Drive Manhattan, Kansas 66502 The Testimony of:

Don Peterson, President
DeskStation Technology, Inc.
13256 W. 98th Street
Lenexa, KS 66215
(913) 599-1900

Given to:
The Kansas State Legislature
Senate Commerce Committee
January 11, 1995

January 11, 1995 Cammerce attachment 4.

I. Purpose of my talk

- A. Expose to you the difficulty of securing technology venture capital investment in the mid-west
- B. Why raising technology venture capital is so hard
- C. Why it is important to localize the availability of technology venture capital
- II. The difficulty of securing technology venture capital investment in the mid-west
 - A. First, a little background
 - 1. DeskStation Technology has been in business since 1990.
 - 2. We design, manufacture and market computer workstations for the professional graphics and commercial server markets.
 - 3. We didn't ship product for revenue until 1993.
 - 4. In 1990 and 1991 we spent approximately \$500K to develop our important underlying system technology. \$300K came from Sofinnova, a west coast seed capital venture fund
 - 5. In 1992 we starved.
 - 6. In 1993 and 1994 we spent approximately \$4 million to bring our products to market.
 - 7. We shipped approximately \$800 in 1993, \$3 million in 1994 and we project sales of \$8 to \$10 million for 1995.
 - 8. Our company has raised a total of about \$5 million over the course of the past 4 1/2 years.
 - 9. 95 percent of that money came from private investors and venture capital firms located in California.
- III. Why is it so hard to raise money

6 January, 1995 ktec11195.doc

- A. no midwest venture firms would invest in our company
- B. why: two basic reasons
 - 1. don't understand the technology
 - 2. don't invest outside their own market (city, state)
- C. East and West coast money was difficult to come by too.
- D. Why:
 - 1. geographically undesirable
 - 2. "if it isn't happening in CA it isn't cool."
 - 3. "if it's happening in Kansas, it can't be cool."
- E. Mid-west funds are generally smaller and so therefore risk less capital.
- F. Our ability to raise capital, we like to think, is a direct result of our compelling business opportunity
- IV. Why it is important to localize the availability of technology venture capital
 - A. The patience required in technology venture investing is much easier to come by when the investment is local.
 - B. Venture firms wish to work closely with portfolio companies and participate in important strategic decisions.
 - C. Venture firms try to network together portfolio investments to leverage their potential.
 - D. A great deal of pressure exists to move to where the money is if it's not available locally.
- V. Summary

- A. Venture capital for high-growth technology companies is NOT available in Kansas.
- B. High-growth technology companies need capital in the range of \$3 to \$15 million. (Our nearest competitor raised \$11 million to do what we're doing. They're located in Santa Clara)
- C. Venture funds invest in their own backyards for good reason.
- D. Great technology takes time to develop. Patience must have the support of capital to sustain that development.
- E. A technology venture investment of more than \$1 million is a sad rarity in Kansas.
- F. It's up to Kansas to develop and retain high-growth, technology businesses.

SENATE BILL NO. 553

By January Boundary

AN ACT concerning the Kansas Technology Enterprise Corporation, amending Kansas Statutes Annotated 74-8104 to clarify the corporation's existing powers.

Be it enacted by the Legislature of the State of Kansas:

[insert current full text of K.S.A. 74-8104 except the period after K.S.A. 74-8104 (26) should be replaced by a comma.]

(27) organize, promote, and invest specifically designated appropriations, and any unrestricted appropriations, gifts, donations or grants received from any source, in any general partnership, limited partnership, limited liability company, or corporation established as a venture-capital fund to invest primarily in qualified securities issued by technology-based companies, and to manage or co-manage any such venture capital funds.

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January 11,1995 Commerce Cetachment 5