

Approved February 3, 1992
Date

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT

The meeting was called to order by Representative Diane Gjerstad
Chairperson

3:40 ~~am~~ p.m. on Wednesday, January 22, 1992 in room 423-S of the Capitol.

All members were present except:

Representatives Bishop, Dean, Edlund, and Wagnon. Excused.

Committee staff present:

Lynne Holt, Legislative Research
Betty Manning, Secretary

Conferees appearing before the committee:

Lynne Holt, Legislative Research
Paul Clay, Jr., Exec. Office, Mid-America Manufacturing Tech. Center

Chairperson Gjerstad welcomed back the committee members and called the meeting to order at 3:40 p.m. The Chair stated that all in all a very interesting and productive interim was had. Some items addressed were tourism, telecommunications and enterprise zones. The Chair announced on February 4, Old Supreme Court Room, a joint meeting with the House Education Committee will be held to hear from Dr. Charles Krider's study on Adult Basic Education.

Chairperson Gjerstad recognized Lynne Holt, Legislative Research, who presented an indepth overview of the "Third Wave Concept". Attachment 1.

The "third wave" concept explores providing services more effectively. The tenents of the third wave include demand driven service development, state acting as a broker linking industrial sectors, developing an accurate data base to identify the specific areas where a strategically targeted program would benefit the state.

Chairperson Gjerstad introduced Paul Clay, Jr., Chief Executive Officer, Mid-America Manufacturing Center (MAMTC), Lenexa, KS. KTEC was awarded a \$12.9 million grant for a manufacturing center through the National Institute for Science and Technology (NIST). Mr. Clay explained the mission of MAMTC is to improve manufacturing competitiveness by identifying and solving technical problems in all areas of a company's manufacturing process. He also gave MAMTC's progress report and its objectives. One objective is to use all infrastructure already available, such as community colleges, vocational technical institutes and KTEC. Attachment 2.

Mr. Clay showed a video on how many manufacturing steps it took to make a Mercury marine motor part. Of the 122 steps shown, only 27 were directly in actual production of the motor.

Mr. Clay responded to questions from committee members.

When asked if a fee was charged for MAMTC services, Mr. Clay responded there was and stated a fee schedule was being devised. He also stated MAMTC reports quarterly to NIST on their progress.

Chairperson Gjerstad thanked Mr. Clay for coming before the committee and stated she felt MAMTC was off to an excellent start.

The meeting adjourned at 4:50 p.m.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

MEMORANDUM

Kansas Legislative Research Department

Room 545-N – Statehouse
Topeka, Kansas 66612-1586
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March 1, 1991

Revised: December 9, 1991

To: All Interested Parties
From: Lynne Holt, Principal Analyst
Re: "Third Wave" Concept

Given current fiscal constraints, many states have begun to question how they can provide services more effectively with fewer resources. This memorandum explores another approach to delivering state services. Although the focus of this memorandum is on economic development services, this approach could apply to a host of other services, such as social services, education, and training. The term used for this approach -- "third wave" -- was first coined by a Washington-based research and consulting firm. In addition to addressing the underlying principles of "third wave," this memorandum examines: how economic development services could be more outcome oriented; what kind of information is needed for "third wave" efforts; and what implications exist for agency staffing. Finally, there is discussion on how to make the transition from both "first wave" programs, which are focused on industrial recruitment, and "second wave" programs, which are designed to build capacity through a centralized delivery system, to "third wave" services, discussed below.

Principles of the "Third Wave" Concept

The underlying principles appear to be the following.

1. State government does not provide all economic development services; it does not have sufficient resources to meet development challenges. Therefore, it must change its system of delivering services to consumers (in this case, businesses). State government would no longer develop and implement fragmented programs designed to assist individual businesses based on its own perception of existing gaps in services.
2. State government would identify desired outcomes and desired beneficiaries at the outset. The development of the strategy for realizing that outcome would become, for the most part, the responsibility of the end users.
3. "Third wave" economic development services are demand driven; intended beneficiaries must define their own needs to enhance their competitiveness and commit their own resources and energy prior to obtaining state investments.
4. States invest in economic development; they avoid making direct grants.

*Eco-Devo.
Attch. #1
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5. State government leverages resources to attract involvement and assistance from private nonprofit, for-profit, and nonagency public organizations.
6. Buying power is in the consumers' hands. Service providers must compete for consumers' money.
7. Evaluations, in the traditional sense, are immaterial. Consumers will continue to reinvest if they are satisfied with a service. State government, for its part, may terminate assistance, if, upon evaluation, intended outcomes have not been realized.
8. State government operates as a broker; it links industries which cooperatively identify training and other needs with appropriate public and private sector service providers.
9. State government targets assistance to industrial sectors and not to individual firms, thus maximizing its investment by enlarging the scope of potential recipients. This means that a state should conduct a strategic audit of its economy in sufficiently specific terms to identify those areas which would benefit from assistance and those which would not. Accurate data about the state's economic base is essential.
10. State government is still the provider of last resort; it intervenes to promote equity, when necessary.
11. With respect to capital formation, state government investments have the objective of stimulating greater amounts of private funds for firms at critical start-up and expansion stages so as to encourage long-term change in the private sector's behavior and practices.
12. With respect to technology development, networks of firms or consortia should be encouraged as a means of providing needed information or technical assistance. Delivery of programs should be regionally and locally based (not centralized as most state programs currently are) and performance and linkages should be rewarded through the competitive allocation process.
13. Consortia or networks, which are supported by membership dues, will have to be accountable or forfeit their members' support.
14. With respect to human investments, multiple approaches need to be offered because people who experience hardship have different problems and therefore need different solutions. Efforts should be made to design services that are not fragmented and that are available to everyone and not limited to the poor; that are investments and not merely grants; that demand some commitment of money and vision from service beneficiaries; and that address existing and not perceived problems. Once again, services should be determined by the recipient and not the service provider.

Kansas Programs – How the "Third Wave" Approach Can Be Used

One recently implemented Kansas program appears to fit very well into this new schemata. The Community Strategic Planning Assistance program requires communities to identify their own strengths and weaknesses and develop a plan to exploit their strengths. Universities and nonprofit economic development organizations are supposed to assist recipient communities in developing strategic plans. One option is that regional efforts might be encouraged, to the greatest extent possible, through the competitive allocation process. The greater the regional network involved, the more likely it would be for the state to provide financial assistance. Implementation assistance in the form of continued technical assistance and information referral might be ensured to funding recipients once the critical first stage of plan development has been accomplished. Another application of "third wave" principles might be to encourage regional tourism efforts by providing state technical support to train volunteers in communities to effectively promote tourism and develop tourism promotion strategies.

Matching grants seem to be the state's *modus operandi* for many programs: Community Strategic Planning grants; the KIR program; Applied Research Matching grants; Centers of Excellence; SBIR grants; Training Equipment grants; and Research Equipment grants. Another example of leveraging state resources is KVCL. Provisions for state matching support are consistent with the "third wave" philosophy. However, for many programs of this type, assistance is still provided on a customized basis with little consideration given to promoting end user sharing of limited state resources and with insufficient capacity to serve large numbers of businesses. To the extent that such programs are business driven, they come closer to meeting the spirit of the "third wave." For example, a Center of Excellence which conducts applied research for business clusters, upon demand, in a given region and contributes to the expansion and "spin off" of those clusters could be viewed in "third wave" terms, particularly if evaluation systems are designed at the outset of such programs.

A few changes could be made to make the state's adherence to "third wave" ideas even more consistent. For example, if geographical considerations permit, matching funds for training would only be given to several companies with the same or complementary needs. As a condition for research matching grants, beneficiaries would have to agree to educate other companies, perhaps through seminars, about a newly acquired technology. SBDCs should use state funding for counseling that would affect several small companies with shared problems. The intent would be to encourage movement away from one-on-one assistance, whenever possible, thus maximizing the effectiveness of limited resources.

Creating networks among businesses could be an objective. State funding, on a matching basis, could be provided to small businesses which agree to consolidate certain services (forecasting, ongoing training) if a funding commitment is forthcoming on their part, or which agree to complement operations.

Information

More information is needed about what businesses in this state really need and where those needs are. SBDCs, in conjunction with the Institute for Public Policy and Business Research or another university research institute, and Kansas, Inc., could design and distribute a survey to assess those needs by business priority and the willingness of respondent companies to commit resources to meet a large part of those needs. (State funding might help support such an effort.)

Services could then be identified by companies in conjunction with the state in its role as broker. The state could provide leveraged targeted assistance to companies which agree to share services and commit some or most of their own resources to meeting those needs. As previously noted, information on the strengths and weaknesses of the state's economic sectors must be maintained and updated to ensure that state services will have a meaningful effect on the economy and that state assistance corresponds to actual needs.

Outcomes

Quality jobs, and not necessarily a greater number of jobs, is an outcome that Kansas, Inc. has continued to identify as critical for economic growth in this state. Therefore, networking of communities and businesses, in the long term, should strive to create more quality jobs, *i.e.*, jobs with a competitive wage and some technical skills required. This could be one of the state's major criteria for evaluating jobs. Another criterion might be creation of a critical mass of similar and complementary firms. For example, using the "third wave" approach, if the state decides to reconfigure its trade assistance programs, it could leverage funding for services and allow businesses to combine in identifying similar needs and submit cooperative proposals for matching support to meet those needs. These proposals, not state government, would indicate the appropriate strategy - trade show assistance, export finance assistance, technical assistance, linkage with overseas firms, and would indicate a demonstrated commitment in the form of non-state resources. In assessing the effectiveness of these services, the Kansas Department of Commerce would examine more than job creation; the salary of the created position would become an important factor, as would the creation of an economic climate which would spawn related business activities.

Let us apply this desired outcome, in conjunction with "third wave" philosophy, to a potential program. The state creates a scholarship program for applied science and engineering graduate students and requires the universities to hire a few of them for one year to do research in an area in which there exists a potential for "spin off." At the University of Kansas, this might be in the area of biotechnology; at Wichita State University, in aircraft. For their parts, scholarship beneficiaries would have to work for these universities for one or two years. The state also exacts commitments from the private sector to pay part of the salaries. Everyone benefits, at least in theory. The students receive needed assistance. The research effort benefits because a critical mass of researchers and technicians is needed to do effective scientific research, and the state keeps some of its engineers. If products are developed in Kansas, the state should use its industry liaisons, Agriculture Value Added Center, quality networks, and other service providers, all of which should operate in a coordinated manner, to keep product development investments and marketing in Kansas.

In terms of outcome assessment, services which actually meet consumer needs and upgrade jobs should be the state's priority. Programs, such as K-TIP, are market-driven sources of information. The legislative intent for this program is that consumers use that information to make decisions on services, a practice entirely in keeping with the "third wave" philosophy. Efforts should be made to amass such information about services other than vocational training. The disposition of students who graduate from nonvocational education programs comes to mind.

Implications for Agency Staff

The "third wave" assumes that services will be provided in another manner. The state is supposed to be a broker of services and a program provider of last resort. Agency staff would be

less likely to provide services directly and more likely to assist businesses in identifying and obtaining such services from nonstate sources. This suggests that state employees need to become generalists, with awareness of many information sources and an understanding of how to use those sources. They would need to change from a programmatic, agency-specific orientation to a more encompassing orientation. For example, a staff person might work with clusters of firms to assist these firms in obtaining a host of services: technical information, training assistance, financing, marketing analysis, patents, and others. This would undoubtedly involve some training, such as Total Quality Management, which emphasizes team skills and problem-solving skills. In addition, performance evaluations of these employees would be based on different criteria than is presently the case because they will assume different responsibilities.

Implications for Existing Economic Development Programs

Perhaps the most frequently posed question is how to make the transition from the existing delivery system ("first" and "second wave") to the "third wave" system of providing services. It would appear that the most realistic approach is to scrutinize existing programs from the "third wave" perspective whenever such programs are scheduled for sunset or evaluation. Appropriate questions are the following:

1. Are the intended constituencies served by the program? Do you even know who these constituencies are?
2. How was the need for the program defined? Did state government define the need, did the end user, or did both?
3. Does the program promote networking of businesses and sharing of resources?
4. Who defined the program strategy?
5. Has the program leveraged nonstate funding? If so, to what extent?
6. Does it appear that funding recipients will be able to sustain economic development services after a defined period of time without state support?
7. Is the program encouraging the development of complementary industries or business expansion?
8. Is the program structured to encourage competition among service providers (Centers of Excellence, training facilities, incubators etc.)?
9. Are programs sufficiently comprehensive to encourage synergistic activities (an example: research and development efforts accompanied by entrepreneurial support)?

If responses to these questions suggest that state funding for these programs has a nonexistent or very marginal effect on economic growth, it might be time to consider another approach.

MAMTC

Giving manufacturers the edge.

Presentation to
House Economic Development Committee

January 22, 1992

Paul E. Clay, Jr.
Chief Executive Officer
Mid-America Manufacturing Technology Center

NIST/Mid-America Manufacturing Technology Center

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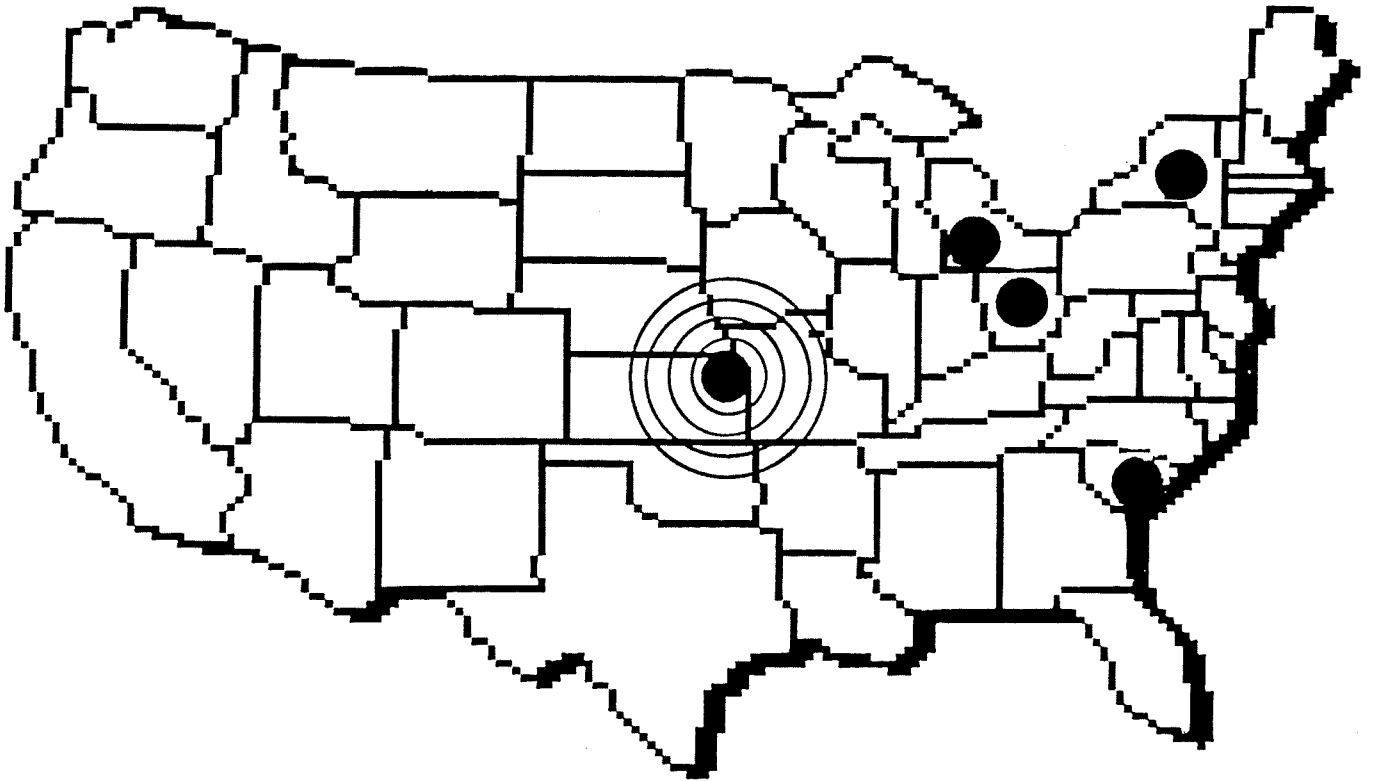
Kansas Technology Enterprise Corporation



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NIST Manufacturing Technology Centers

Kansas	Mid-America Manufacturing Technology Center
Michigan	Midwest Manufacturing Technology Center
New York	Northeast Manufacturing Technology Center
Ohio	Great Lakes Manufacturing Technology Center
South Carolina	Southeast Manufacturing Technology Center

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Mission: Improve Manufacturing Competitiveness

How?: Identify and and solve technical problems in all areas of companies' manufacturing processes

Make small manufacturers aware of available technology

- Show how appropriate technology can address their problems
- Help manufacturers adopt technology in the easiest, most cost effective way

By:

- One-on-one consultation
- Customized training, seminars, and workshops
- Industry roundtables and cooperatives
- Demonstrate equipment and software

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General Technology Focus Areas

- Process Design
- Quality Improvement
- Computer Aided Design/ Manufacturing (CAD/CAM)
- Electronic Data Interchange

Sample Problem Areas

- Quality
- Product Design
- Plant Layout
- Cost Measurement
- Equipment and Software Selection
- Meeting Environmental Standards
- Statistical Process Control to gain government contract
- Inventory Control
- Materials Handling
- Scheduling
- Inspection
- Electronic Communication

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Examples of MAMTC Company Projects

Company Product:	Electrical connectors for aircraft wiring harnesses
Employees:	5
Location:	Wichita
Problem:	Product had very high defect rate and thus company had to inspect each part. Inspection made the product cost more to make than company could sell it for. Company could not figure out what caused the problem, and was considering discontinuing the part (and about \$200,000 in sales).
What MAMTC Did:	Field Engineers performed simple test that identified what the cause of the problem was. Company was able to cheaply redesign a cutting tool to correct the defect. Defect rate decreased 10-fold, and only spot inspection was required, reducing the cost of manufacturing the product.
Result:	Company continued sales of part. Company also learned how to troubleshoot quality problems with other product lines.
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Company Product:	Repair, remanufacture of motors and generators for utility industry
Employees:	35
Location:	Central Kansas
Problem:	Company repairs hundreds of different types of motors, but is not able to determine the cost of repairing individual types. This puts the company at a disadvantage when it prepares competitive bids - it either loses bids or underbids the true cost of the work.
What MAMTC Is Doing:	MAMTC is helping company select and use inexpensive software that will measure the costs of all repair processes.
Result:	Company will be able to more accurately develop costs and determine which kinds of motors they can most efficiently repair. Company will be able to prepare more accurate project proposals and therefore more successful bids.
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Company Product:	Electronic systems
Employees:	30
Location:	Johnson County
Problem:	Company uses older, more expensive chip and wire technique for soldering its electronic components. The technique keeps the company from meeting many of its delivery time requirements.
What MAMTC Is Doing:	MAMTC has put the company in touch with a large manufacturer in area, with expertise in more advanced soldering techniques. The large company will help the MAMTC customer choose low-cost equipment and train employees to use it.
Result:	With the new technique, the product cost, quality and delivery time will be improved, leading to an improved competitive position.

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Review

- Mission: Improving Manufacturing Competitiveness
- Through: Helping manufacturers survive and grow through access to and adoption of most appropriate technology
- Emphasis:
- Process Design
 - CAD/CAM/CIM
 - Quality
 - Electronic Data Interchange

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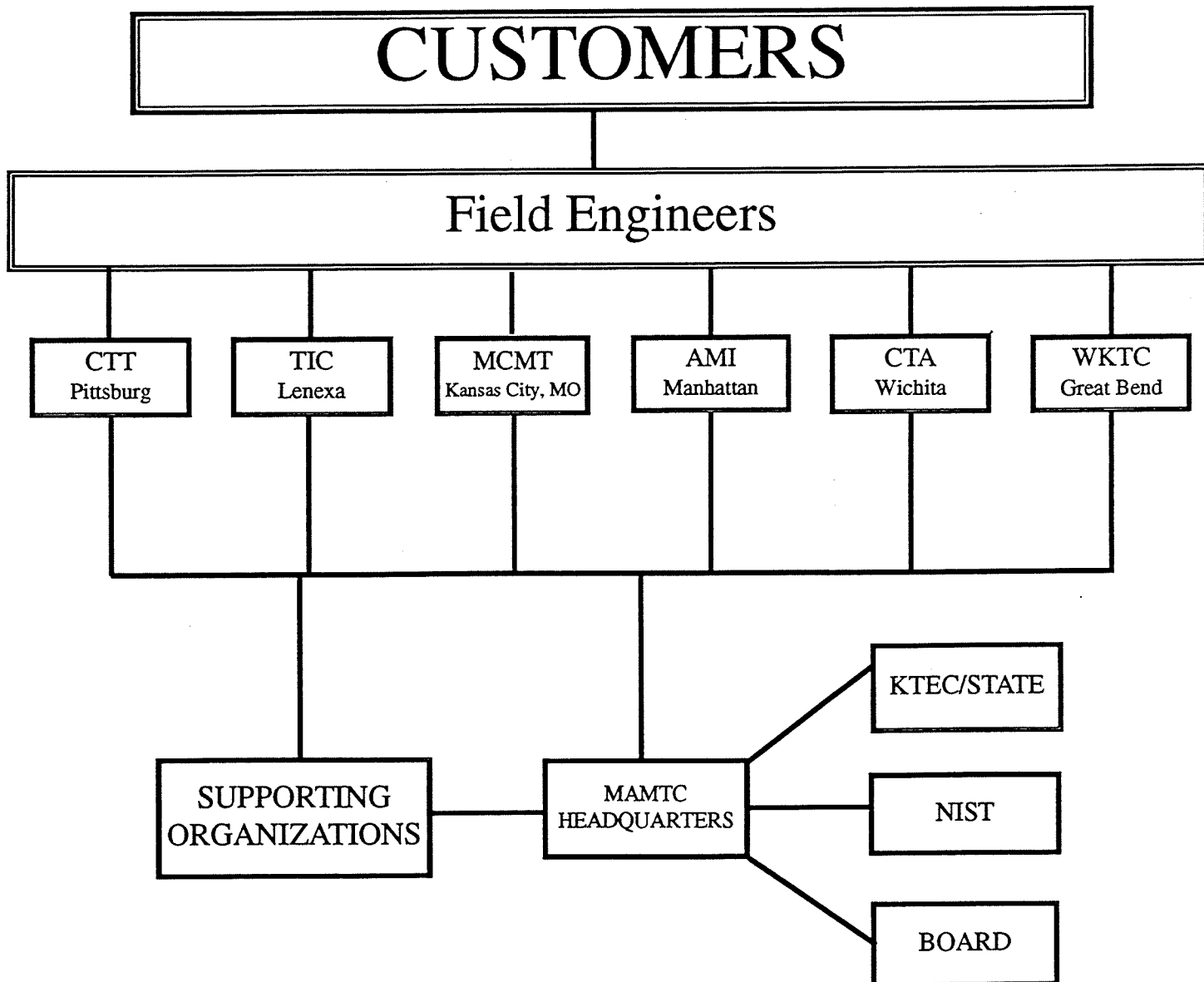
Interactions with Small Manufacturers (October 1, 1991 - December 31, 1991)

# of companies contacted	80
# of projects underway	15
# of seminars held	14
# of equipment/software demonstrations held	2
# of networking sessions	5

Types of Demonstrations, Networks, and Seminars

- ISO 9000 -- Quality Standards
- Use of CADAM Software
- Implementing Statistical Process Control
- Basics of Total Quality Management
- Part Design for Economical Injection Molding
- Demonstration of Electronic Data Interchange
- Machining Industry Network

MAMTC ORGANIZATION CHART



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Field Engineers

What do they do?

- Visit manufacturers
- Analyze their problems
- Develop proposals to solve their problem
(consulting, training, new equipment/software, marketing)
- Find best resources to solve the problem
- Manage project
- Establish and manage industrial networking programs
- anything else the customer needs

Profile of typical Field Engineer

- Eight or more years industrial experience
- Engineering degree (some also have MBA's)
- Two years hands-on manufacturing experience
- Two years sales experience
- Understanding of project management
- Results oriented

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Regional Offices

Great Bend
Dodge City
Garden City

Western Kansas Technology Corporation

Lenexa

Tech-Industry Consultants, Inc.

Manhattan

Advanced Manufacturing Institute
(Kansas State University)

Pittsburg

Center for Technology Transfer
(Pittsburg State University)

Wichita

Center for Technology Application
(Wichita State University)

Soon:

Kansas City, MO

Missouri Center for Manufacturing Technology
(University of Missouri - Kansas City)

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Organizational Management

- Field Engineer selection
- Field Engineer training
- Performance objectives and regular evaluations for:
 - Regional Office Directors
 - Field Engineers
- Client Tracking
- Accounting
 - All payments and reporting through State
 - Regular audits
- NIST reports, visits, and evaluations

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Funding Sources

	<u>FY 92</u>	<u>Estimate FY 93</u>
NIST	1,500	3,000
State of Kansas	1,000	1,000
KTEC	1,038	1,000
Outside	619	1,000
Total	4,157	6,000

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Progress Report

	Date	
	<u>Obj</u>	<u>Act</u>
Hire 11 Field Engineers	12/16	12/16
Develop Field Engineer Training Program	12/1	12/1
Full Staffing of Headquarters	12/31	12/31
Reporting and Accounting Procedures	11/1	1/10
Missouri Office Proposal Requirements	10/23	10/24
Initial Marketing Work	12/31	1/10
Regional Office Contracts	9/30	9/16
	12/31	12/31