

INTRODUCTION

The world stage. Fueled in part by the large number of Internet start-ups in the late 1990's and the increase in related venture capital investment, entrepreneurship and the means by which new ideas and innovation are transformed into thriving business currency are now of intense global interest. A recent report published by the Ewing Marion Kauffman Foundation's Kauffman Center for Entrepreneurial Leadership, called the Global Entrepreneurship Monitor (GEM), indicates that policy makers worldwide have "grown increasingly attentive to developing and implementing strategies that nurture and sustain entrepreneurial activity." In the same report, Kauffman cites the Organization for Economic Co-Operation and Development (OECD) suggesting that entrepreneurship is central to the functioning of market economies and that entrepreneurs themselves are "essential agents of change who accelerate the generation, application and spread of innovative ideas...and expand the boundaries of economic activity."

Tom Friedman, in his book The Lexus and the Olive Tree, sets forth that digital technologies can unleash new thinking and create new business models that will open up the world to undeveloped countries. He contends that there is no such thing as "economic without entrepreneurship and that entrepreneurship is the most potent force for uplifting underdeveloped areas. Friedman cautions however, that without institutions to deliver and administer technological resources to the "common people," they themselves have no means by which to harness its power.

In order to reap the full economic benefit of entrepreneurial resources that lie largely untapped in Minnesota's rural sector, statewide initiatives and the corresponding action plans must address the real issues that hinder entrepreneurial innovation in Greater Minnesota. It is within this vast context and at this crucial juncture that Minnesota Rural Partners, Inc. (MRP) expands and refines the important work that they have begun to examine and address the real work of economic revitalization in rural Minnesota.

Minnesota. The State of Minnesota has a rich entrepreneurial heritage and a strong economic climate. Several of the most successful and respected companies in the nation, Minnesota's Pillsbury, General Mills, 3M, Medtronic, Best Buy, Target, Imation and Honeywell all came into being through entrepreneurial innovation. The nonprofit presence is strong in Minnesota, one of the largest foundation and giving communities in the United States, where more than 50 Minnesota foundations award over \$3 million each week, primarily in the Twin Cities metropolitan area. Minnesota's entrepreneurial climate is bolstered as well by a high-profile Governor whose policies focus on rural and economic reform.

Through the Federal Reserve Bank of Kansas City, The Center for the Study of Rural America (CSRA) reports on the unique issues that face a rural American population. CSRA studies suggest that the rapidly changing industry of agriculture and a revolution in information and communications technology define and influence the rural economy in crucial ways. According to the Center's rural profile, weak crop prices coupled with consolidation of agricultural players, diminish the connection of farming to the local economy and force the farming community to look elsewhere for their livelihood.

Rural Minnesota. The economic health and well-being of rural America, and of rural Minnesota, hinges on the ability of displaced workers like farmers, to regroup and reengage in meaningful work opportunities in their rural communities. The CSRA report identifies the important role of “information and communication technology” (ICT) in the reorientation and reallocation of the rural workforce. “Broadband (high-speed data) and other ICT services have the ability to erase distances that have often isolated rural areas.”

State rural development council, Minnesota Rural Partners (MRP), has been working long and hard to define and address rural development issues in Greater Minnesota. Three years of research on the emerging economic needs of Minnesota’s rural regions culminated in the Minnesota Rural Summit, held in Rochester, in July of 2000. MRP’s findings and recommendations are incorporated into a strategy document that was presented at the Summit called “The Big Plan: Strategic Directions of the Ventura Administration.” The Big Plan recognizes the need for new regionally specific economic engines that, together with established agricultural communities, can drive rural prosperity in today’s competitive and global marketplace. Relevant regional agendas provide a road map as well, for broad-based collaboration among state, local, nonprofit and for-profit partners.

Rural Minnesota, and particularly the northern tier of the state, has a tremendous resource in its colleges and university systems. A wide range of research and development centers, technology parks and other specialized knowledge services significantly enrich the economic potential of the area. To capitalize on this underutilized resource, Bemidji State University, with support from the Blandin Foundation, has launched the first phase in a project called **the Northern Tier High Technology Corridor project** (NTC). The essence of the Northern Tier project is to identify and catalog the collective knowledge and technology resources available in northern Minnesota. The NTC builds regional collaboration using a primary Web portal for information exchange and a “knowledge management” component wherein individuals with a common interests share knowledge, identify lessons learned and develop best practice benchmarks. (Appendix Item A) The NTC knowledge networking concept is an overarching approach to long-term strategy for rural economic diversification and revitalization.

1. PROJECT PURPOSE

Together with strategic and distinguished partners acting across public and private, for-profit and nonprofit sectors, Minnesota Rural Partners (MRP) proposes a comprehensive and collaborative plan to create the Virtual Entrepreneurial Network (VEN) that will:

- Empower users in rural communities to move beyond passive information consumption to build a network of “communities of practice” and increase access and capacity to participate in the new economy;
- Provide a central information Internet portal and advanced technological tools specifically designed to define and incubate entrepreneurial activity in rural Minnesota;

- Demonstrate a vital concentration of market demand in rural areas; demand that will attract capital investment, improve business infrastructure and maximize entrepreneurial opportunity.

Community to be served. The community to be served by the VEN project is rural or “nonmetro” Minnesota. Since its beginning, Minnesota’s rural economy has been based on agriculture and natural resources. As mentioned in the CSRA report on rural America, the rapidly changing industry of agriculture and a revolution in information and communications technology have changed the rural economy, causing local farmers to look elsewhere for work.

Today, rural Minnesota has an employment population of nearly 800,000 people. A 1999 report by the Small Business Administration indicates that there are over 54,000 small businesses in Greater Minnesota. These businesses are made up of micro-businesses (entrepreneurial efforts) and established enterprises with less than 20 employees. Small businesses comprise 86% of all businesses in Minnesota, and account for 42% of employment increases. There is real growth potential in the small business marketplace and there is a potential wealth of opportunity waiting in Minnesota’s rural areas.

Nonmetro Minnesota is divided into six Initiative Regions: Central, Northeast, Northwest, Southeast, Southwest and West Central, as shown in Appendix Item B. A January 2001 report by the Minnesota Department of Trade and Economic Development outlines the unique issues, priorities and needs of each region. Analysis by region shows a trend toward job creation and employment density concentrated in the service and communications sectors, both of which rely heavily upon technological prowess and access. (Appendix Item C)

Problem. A recent Minnesota Rural Entrepreneurial Academy report, sponsored by MRP, and the Ventura Administration’s regionally derived Big Plan identified the following important problem areas for rural businesses and entrepreneurs:

Business development

- Need help financing business
- Match business with communities
- Public/private partnerships
- Economic/demographic/industry information
- Education to meet high-tech demands
- Need access to business services

Technology

- Need access to High Speed Internet
- Telecommunications services comparable to urban
- Technology to support community infrastructure
- Reduce cost of technology

Entrepreneurship

- “Culture change,” lack of support for entrepreneurial spirit
- Isolation from peer group
- Need access to professional infrastructure, advisors

Entrepreneurs who perceive themselves to be geographically distanced from the marketplace are severely limited in their perception of opportunity. Those who lack current technological skill sets or are left dangling on the end of a low-speed telecommunications system are greatly hindered in their capacity to participate, let alone thrive, in the new world economy. And while capital investment is outside the scope of this model, venture capital and follow-on investment in crucial telecommunications infrastructure is not attracted to a widely diffused, ill-equipped marketplace.

High technology cost and complexity are serious barriers to entrepreneurial activity. According to a 1999 report by the Small Business Association, 4.5 million small businesses used computer equipment and 41.2% of those had access to the Internet. Seventy-eight percent of small business owners viewed a business Web site as an important way to reach new and potential customers. Most firms however, used the Internet exclusively for e-mail and research and over one-third viewed the cost of starting and maintaining a Web site as a barrier to development of an e-commerce presence.

Global, national, state and local priorities are lined up behind rural entrepreneurial potential. What is missing from this scenario is a single, meaningful link between the rallied entities and an adequate support plan.

Solution. In order to grow the intangible assets of human capital and innovation, sharpen the perception of rural opportunity and increase the capacity of the rural entrepreneur to capitalize on it, MRP proposes the following industry **Cluster Plan**. (Appendix Item D, Cluster Model) Together with partners from government, business and nonprofit sectors, MRP and partners will create a virtual networked entrepreneurial incubator, cobble demand for advanced telecommunications services, and greatly expand their sphere of influence in rural areas.

Utilizing a single portal Web site hub, advanced technological tools and a tight configuration of well-connected community support, the VEN Cluster Model creates interactive links between regional policy, industry dynamics and accessible information and technology that can swiftly organize a nurturing business community for entrepreneurs in the rural venue.

The VEN **Cluster Model** action steps:

- Convene initial partnership strategy meeting to identify regional leadership.
- Kick-off event, Governor fly-around, marketing awareness campaign.
- MRP and partner staff visit regions and solidify local leadership teams.
- Local teams complete process to become legal entity, create a regionally specific strategic plan, and build resource base of information and services.
- Develop primary Web site and technical support network/training materials.

The Cluster model brings interactive dialogue, business access and advanced inexpensive technical tools to remote geographical locations. It allows entrepreneurs to “float” in a virtual incubator, connected to an on-line network of resources and support specifically designed to nurture entrepreneurial activity.

A recent article entitled “Networked Incubators: Hothouses of the New Economy,” (Harvard Business Review, Sept.- Oct., 2000) describes the vital role that “networked incubators” play in growing start-up businesses in the Internet economy.

The distinguishing feature of a networked incubator is that it has mechanisms to foster partnerships among start-up teams and other successful Internet-oriented firms, this facilitating the flow of knowledge and talent across companies and forging marketing and technology relationships between them. With the help of such an incubator, start-ups can network to obtain resources and partner with others quickly, allowing them to establish themselves in the marketplace ahead of competitors....The new economy is a network economy; these incubators exploit networking by providing fledgling companies with preferential access to potential partners and advisors.

Availability of accessible networks, technology and on-call technical assistance greatly enhances the capacity of entrepreneurs to engage in a dialogue among themselves and in an active exchange with the business community.

Critical mass, fostered by the Cluster network, promotes the perception of opportunity to telecommunications providers who will be compelled to provide high-speed transfer services to a competitive marketplace. A bolstered rural infrastructure further fuels entrepreneurship and maximizes rural access to and participation in the new global economy.

Outcomes. The functional and accessible Cluster Model network system created and established through the VEN project will impact underserved regions in rural Minnesota in several important and measurable ways. The VEN project will:

- Link community leadership with civic engagement, academic knowledge base and connected business resources to support rural economic development.
- Create an interactive dialogue of information and support designed to serve the specific needs of emerging business interests.
- Create a successful business portal, a “networking incubator” for the entrepreneurial business community.
- Create a competitive marketplace for advanced telecommunications and technology services in rural Minnesota.
- Provide a model for replication. The VEN partnership can provide a collective “how-to” marketing tool for replicating the Cluster Model. Though each application will be different, the VEN model is the basic framework from which a customized plan can be made.

2. INNOVATION

The BSU project is innovative on several levels, each contributing to a strong business plan and a strong business marketplace for rural entrepreneurs.

Partnership Structure. The VEN partnership structure is itself innovative. The partners' individual strengths in the areas of government, education, business and nonprofit, dovetail in crucial ways, putting them in a unique position to build and support a diverse collection of market resources and make a meaningful impact in the lives of rural Minnesotans.

Business Model. The VEN Cluster Model is innovative as it provides support and engages involvement along an entire continuum of interests from the grassroots level, to stakeholders in the business services and financial communities, educational institutions and community leaders at the policy level.

Critical market mass. The Cluster Model approaches the dilemma of rural access from the demand side of the telecommunications equation. As established regional and industry concentrations, Clusters demonstrate critical market mass and provide an important regional blueprint for telecommunications market development.

Technology. The technical mechanisms that provide and support the Cluster model are state-of-the-art, creating a central forum of information, resources and interaction that serves each faction of user. Communication flows freely among all levels of involvement on an interactive Web site that simultaneously creates and sustains the working model. Cluster Model software provides the end user with a highly effective communication tool. (See Software Innovation in Appendix Item E, Vezone, Agiliti.)

3. DIFFUSION POTENTIAL

The Cluster Model is comprehensive and replicable in nearly any venue with a remote population. Phase I of the Northern Tier project demonstrates demand for resources and services that can meet the needs and requirements of rural businesses in Minnesota.

As the working relationships between the VEN partnership develops they will build upon the strengths of each partner's orientation across all program areas.

The **innovative advantage** in replication of the Cluster Model is present in its:

- Unique private, academic and government partnership.
- Flexible and accessible design; regional stakeholders in the nonprofit, for-profit or governmental venue can plug into the cluster network at any point. Not unlike a virtual "water-cooler," the Cluster network invites unaffiliated sources to seek and share information.
- Highly cost effective and easy to use technological tools, support and training; any remote location with a telephone can access, organize and implement the Cluster Model using a primer and software package, both available on-line.

- Detailed dissemination plan; guidelines for replication can be easily conveyed and customized to specific applications. The regional cluster ground plan, organizational paradigms, itemized lists, letter forms, resource directories, best practices dialogue, and real time support networks can be accessed on-line and in person-to-person contact.
- Continuous improvement mechanisms. Information resource databases are an evolving entity that grow in scope and self-correct automatically as users share information and provide feedback by subject, industry and region. Web tracking mechanisms profile user features, regional best practices and record traffic patterns.

4. FEASIBILITY AND 5. COMMUNITY INVOLVEMENT

A discussion of the feasibility of the Cluster Model is closely linked to the partnerships involved and the overall community involvement associated with the project. The importance and collective impact of the model's partnership cannot be overstated.

The VEN model catalyzes the individual strengths of the primary partners acting across government, nonprofit, business, academic and community leadership lines, into a simple, yet very powerful resource for entrepreneurs. (Appendix Item D) **MRP** provides the umbrella concept and overall direction for the project. MRP also casts an overlay of state and regional policy priorities upon existing and emerging clusters to grow capable leadership for sustainable rural economic centers.

Technological capabilities partner, **Vezone**, enables on-line "communities of practice" or "clusters" to emerge. High technology trade association, **Minnesota High Technology Association**, extends local hands-on business and high-tech mentorship to the cluster communities. **Bemidji State University** provide northern tier connections and the foundation of information and people knowledge management.

The Greater Minnesota community is involved in and committed to the VEN project. Minnesota Governor, Jesse Ventura, has pledged support to his rural constituency and will participate in a "bully-pulpit" marketing awareness fly-around campaign to kick off the implementation of VEN. (Appendix F, Letter of Commitment). Well-connected MRP leadership will work in Washington to clear the way for rural progress and guide the project process based on up-to-the-minute policy strategy. Highly qualified partner staff will spearhead the crucial field-training component of the project, hosting quarterly regional orientation sessions, working with networks of local leaders and stakeholders. (Appendix Item G, Bio and Partner Info).

The MHTA has established relationships with the greater technology business community. The MHTA has already begun to initiate industry specific "clusters" and has shared their implementation paradigm as a primary partner. Vezone, leverages the host function and software innovation of technology partners Agiliti and Ittrium and creates and maintains the project Web site, hosts "networking incubators" for entrepreneurial ventures, and engages the vast for-profit business piece of the resource base. (Appendix X, Vezone/Agiliti) The University of Minnesota

Extension Service currently provides support for small businesses, however they do not address the issues unique to the early stage entrepreneur. Organizations that currently serve small businesses, SBDC, SCORE and others, can bring their expertise to the Cluster network.

The most important stakeholder in the VEN Cluster model is the entrepreneur and local cluster representatives. Without the spirit, innovation and energy of the individual, new ideas cannot be brought to the marketplace.

6. EVALUATION

Dr. Richard Krueger, in the Department of Work, Community and Family Education at the University of Minnesota will lead the evaluation team. Dr. Krueger has 20 years experience in evaluating rural programs around the nation and specifically for the University of Minnesota Extension Service and the United States Department of Agriculture. He holds a Ph.D. in program evaluation and has taught program evaluation and research methodology at a variety of Universities nationally. Dr. Krueger currently holds a faculty appointment in program evaluation at three universities in the United States. He has authored 6 books on qualitative research with the last title: Focus Groups: A Practical Guide for Applied Research, 2000. Sage Publishing. The preliminary evaluation plan includes:

Tracking of program inputs: Key program staff will be asked to use logging systems and computer tracking to monitor the resources required for the program. Information gathered will relate to: staff time, fiscal resources, and community resources.

Tracking of program outputs: A variety of evaluation methods will be used to identify the products and tangibles that are created by the program as well as identifying the location where these products are available. These outputs will be categorized and tabulated. In addition there will be procedures developed to determine the number of people who use various aspects of the program. Demographic characteristics of entrepreneurs will be tabulated as well to provide additional insight into the background of the target audience.

Tracking of program impacts: Examination of program impacts will begin by collecting evidence of participant satisfaction and then move to higher levels of impact. The key questions examined will be: To what degree and to what extent has the computer network helped participants increase their knowledge, develop skills, change aspirations and adopt improved or desirable practices. A variety of methodologies will be used to obtain this information including surveys, post-event reaction forms, internet chat lines, individual interviews and focus group interviews. In addition there will be an attempt to document the impact of this effort on participants through the use of verifiable and authentic stories.

Organizational learning: Through focus groups, individual interviews and surveys the key individuals will be asked to reflect on lessons learned, best practices and areas needing improvement.

The evaluation will be designed so that an array of evaluation instruments will provide regular and continuous feedback of concerns, strengths, weaknesses and challenges.