



***Technology, Talent and Target Industry
Assessment for
West Central Wisconsin***

Roadmap and Recommendations



Prepared by GSP Consulting Corp

January 2008

Note to the Reader:

This report is a summary report and is a companion to a Technical Report completed as part of the Technology, Talent and Target Industry Assessment for West Central Wisconsin performed by GSP Consulting.

About GSP Consulting

GSP Consulting Corporation enables the growth of organizations, companies, communities, and economies through a suite of innovative government and economic development consulting services. Founded in 2001, GSP relies on a revolutionary business model to provide world-class support and value at a responsible price. Headquartered in Pittsburgh, Pennsylvania, GSP has grown to include several office locations around the country with offices in four states and twenty-four employees.

Today, GSP consists of three practice areas: Economic Architecture, Government Affairs, and Development Services. While GSP provides superior performance in each, the ultimate value lies at the convergence of the firm's complimentary teams and services. Collectively, these three practice areas within GSP provide a continuity of experience and resources from strategic planning, to securing the funding and facilitating physical construction and development.

About Momentum and the Technology, Talent and Target Industry Assessment

In July 2007, **Momentum Chippewa Valley** (now called **Momentum**) hired GSP Consulting Corporation to work with MCV's Regional Initiatives Committee to conduct a Technology, Talent and Target Industry Assessment. While the original intent was to focus on the four Chippewa Valley counties, ultimately five additional counties joined the assessment.

Key participating organizations in this effort include the Economic Development Corporations from Barron, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, and St. Croix counties as well as regional higher education institutions and Workforce Resource. Grants from federal sources and Xcel Energy were also used to fund a portion of the assessment.

The assessment's data and recommendations will be a valuable tool as our expanded and restructured organization determines its strategic direction for the future.

Technology, Talent and Target Industry Assessment

Introduction

*"We must all hang together,
or assuredly we shall all hang separately."
- Ben Franklin*

*"Our counties and communities are implementing a process to create
a results-based economic development strategy...We are taking a
major step toward leveraging our regional assets that will build a
prosperous economic future."
- Dan McCabe, The Jacob Leinenkugel Brewing Company*

Each day, communities across the country are faced with heightened global competition for sustainable business investment. Competition to attract the talent that fuels that investment is even greater. People and the businesses they represent choose resource-rich locations aligned with their unique corporate cultures and personal lifestyles. The regional economies and development pathways that result are fluid, reflecting no clear political jurisdictions or boundaries.

The nine counties of West Central Wisconsin have recognized the critical importance regional cooperation plays in this competitive economic development landscape. While similar regional initiatives have formed across the country, most are established purely as marketing campaigns. The Technology, Talent and Target Industry Assessment will enable the region to take a different, more comprehensive, approach.

By conducting a comprehensive "Technology, Talent and Targeted Industry Assessment," this emerging partnership has sought to define, align and strengthen their regional economic development capacity. They intend to ensure the region can plan for and effectively deliver the resources required to sustain new investment and attract talent, for both short-term and future-focused outcomes.

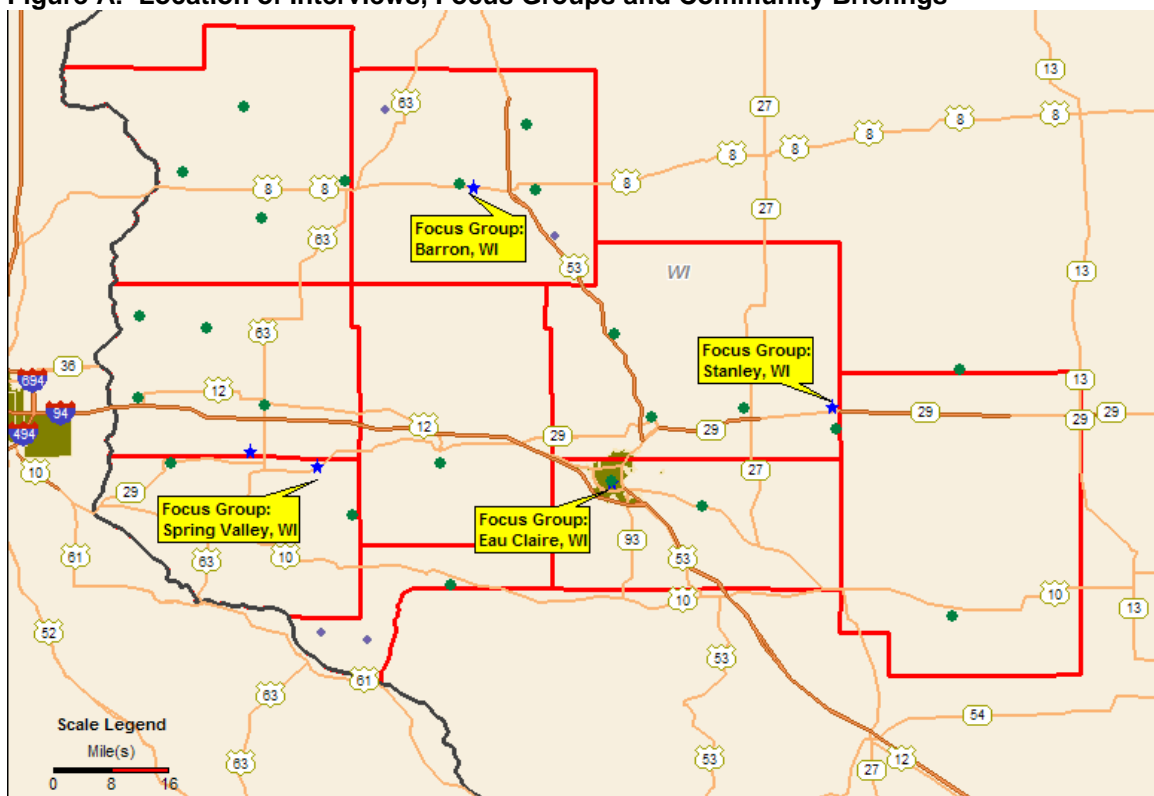
Background

This document is based on the findings of the "Technology, Talent and Target Industry Assessment" conducted by GSP Consulting for West Central Wisconsin. The work performed has included:

- Interviews with more than seventy-five stakeholders from throughout the region
- An asset assessment and analysis for the region
- An analysis of target sectors: both existing and emerging
- A vision framing session with the project steering committee

- A review and understanding of previous consulting efforts/ reports that have been completed in the region
- An analysis of statistical information related to technology, talent, and industries in the region
- A national benchmark analysis of five comparative regions/locations
- Community briefings in every county in the region
- Presentation of the findings to the steering committee in November 2007
- Presentation of the draft recommendations to the steering committee and communities around the region in January 2008.

Figure A: Location of Interviews, Focus Groups and Community Briefings



Note: Contacts were mapped by ZIP Code, so interviews with multiple individuals within a community may appear as one “dot.”

Based on this work, GSP Consulting has prepared a set of realistic recommendations upon which the region may focus to protect and grow its economic base. The following sections are constructed with the realization that implementation is ultimately in the hands of the community leaders; therefore we have strived to balance a vision for the future with the reality faced by community stakeholders and public officials.

During the course of this project, GSP has become aware of a number of regional activities that are not readily apparent or reflected in the statistics. We expect that the publication of this report will bring additional information to the surface that will have to

be discussed and evaluated by the community. Furthermore, the condition of the economy and regional assets are constantly changing, so successful implementation will require on-going dialogue as this strategy evolves from concept to implementation.

Overall there are two paths the region can take at this time. One path is to stay the course. The more difficult path in the short run would require major changes implemented through a series of actions based on the recommendations contained in this report. The following sections discuss both options with goal of allowing a healthy discussion on what will best serve the long run economic and community interests of the region.

Path One: Stay the Course

To date, despite an occasional industry closure or downsizing, the communities in West Central Wisconsin have witnessed steady economic growth. This reality can create a situation of comfort relative to many communities around the country who have experienced significant economic stagnation and restructuring. The region has enjoyed tremendous spillover from the growth of the Twin Cities. Therefore one path that may be taken for future economic development is to simply stay the course. This approach offers the lowest barrier for entry, as it requires little additional investment of resources.

This path, however, entails the most risk for the region. Other than the rising cost of energy, there are no specific or immediate threats to the economic condition of the region. Yet regions that have chosen this path risk significant economic disruption because the gains from this approach are short-lived as the places on the ever-expanding fringe can always offer a lower cost alternative. Another significant danger is that this path cedes control of the region's economic assets to absentee owners across the river and national chains that close and relocate branches without concern for local impacts.

It is evident that the economic development world is no longer a county-to-county battle for new jobs. Rather, economic growth is realized through a global eco-system governed by currency rates, wage disparities, innovation investment, political stability or instability, and multi-national corporations. Regions not positioned to accommodate this new reality will, over time, face the same economic disruptions that have affected so many regions in the United States and elsewhere.

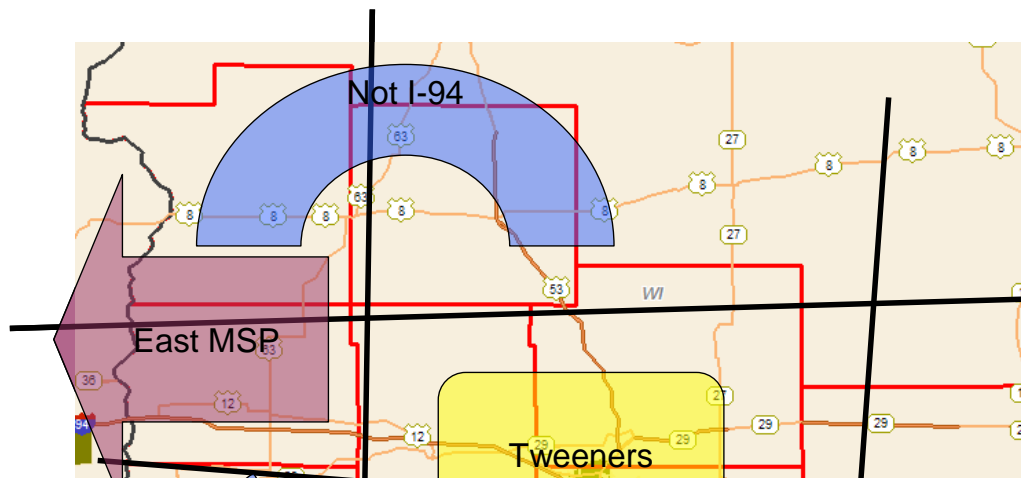
We do not believe that this is a sustainable path. The changes required for the second path are detailed on the following pages.

Path Two: A Regional Call to Action

A community of 20,000 or 50,000 people may be able to compete against its neighbors for jobs and tax base in the short run. The reality is that much of the growth in today's economy comes from the creation and expansion of home-grown businesses that are competing in world markets. **The scale it takes to compete in this environment is a region of several hundred thousand to a million people.** Regions of this scale are able to support sufficient economic diversity to generate new businesses and new industries and to reinvent their economic advantage. They also have the resources to provide the kind of patient investment that this reinvention requires.

There are two distinct challenges for West Central Wisconsin on this front. The first challenge is that the region is far more focused on negatives rather than what unites it. In our interviews conducted across the nine counties we heard far more about what divides the region than what unites it – about who “belongs” in which regional clique and who does not. There are several emerging regional partnerships, but their actual capacity to act is extremely limited by these divisions. The region is not as fragmented by administrative boundaries as other regions, but those few divisions are much sharper in West Central Wisconsin. We can’t fully explain it but it was a theme that was revealed in repeated interviews and focus groups. Commuting patterns as well as business interactions and the transportation system all suggest weak linkages across the region that may provide a partial explanation. Figure B summarizes the distinct orientations in the region. We identified Chippewa, Dunn and Eau Claire as “Tweeners” because they are pulled in different directions by these orientations and because these areas, particularly Eau Claire and Chippewa have their own distinct identity.

Figure B: Regional Orientations



The second challenge is the current fiscal climate which makes it less likely that individual communities will have the capacity for development in the event of an economic downturn. Furthermore current policies increase the threat to local communities in the event of either localized disruptions or a national recession. Local governments are extraordinarily constrained by levy limits that are forcing communities into tax-base competition funded through Tax Increment Financing (TIF). At some point, the TIF bubble will burst if costs rise faster than expected or if speculative development fails to provide sufficient revenue in a timely fashion. The strains of the fiscal situation were apparent as we toured various communities and spoke with local government officials where staffing reductions are forcing them to take on new duties. There is little local capacity for economic development supports: many local governments have less than 1 Full-Time-Equivalent staff person in charge of economic development and most counties have little more in the way of resources. As economic development becomes

an increasingly complex endeavor, these communities will be faced with a decreasing capacity to manage that function.

There are two approaches that a region can take to build a consensus vision for collaborative action. One approach is for a champion to rally the stakeholder to their vision. The other is to build a true regional consensus and then act to implement it. Each has its pitfalls. The champion approach can easily disintegrate into regional factions, whereas the consensus approach can get bogged down in the process of building that consensus, while the world changes around you. The key for success in either approach is to have an open and effective dialogue about shared goals and mutual commitments. A regional partnership is more than a support letter. It means resources dedicated to a specific purpose that is **greater than the immediate and direct rewards that any individual or organization will receive.**

West Central Wisconsin can become a place where entrepreneurs thrive, where high-skill production occurs, and where all of this activity is grounded in a setting of comfortable communities and pastoral splendor. In the following pages we outline a course of action to align the region's technology and talent to ensure continued success in the future.

Summary of Key Findings

Technology

While the region does contain certain technology assets and industry representation, overall the region **has less than \$10 million in annual R&D activity that is transferrable and locally controlled**. One source for technology businesses is to grow your own. The average region can generate one technology-based startup for every \$75 million of R&D. **The most effective research enterprises can produce one spinout for every \$10-20 million of R&D**. One of the region's larger technology companies, Cray has significant federal contracts that blur the line between research and procurement. But in many cases those contracts are for classified activity. Classified technology is difficult to adapt to widespread commercial use. Other R&D is controlled through the University of Wisconsin system or through firms headquartered in other regions, primarily the Twin Cities. The region also has a strong base of inventors, but many of the patents are assigned to companies located in Minnesota. (See Technology beginning on page 47 of the Technical Report and Patents on page 51.)

With innovative companies such as Cray and 3M that have a strong local presence, West Central Wisconsin has a stronger corporate research infrastructure that can leverage an entrepreneurial base. Portland, Oregon (Tektronics and Intel) and Boise, Idaho (Micron and HP) represent the prototypes for regions that have developed technology economies primarily from a corporate base.

Talent

Stakeholders in the West Central region have recognized the importance of talent (workforce) plays in sustainable business retention, creation and attraction. Within the region, the largest technology occupation, computer and software engineers, employs 410 people (see Table 2 in the Technical Report). This sector is projected to **create only 50 annual job openings**, while the second most active occupations are creating just 10 openings per year. This reality greatly limits the depth of job opportunity to support (and absorb) the graduates of local colleges and universities and contributes to the region's *brain drain*.

Table I: Supply and Demand in Select Fields

	Total Annual Degrees	Total Annual Openings	Degrees in excess of openings
Business and Management	1,668	1,160	508
Life Sciences	737	60	677
Healthcare	1,303	650	653
Computer and Math	294	80	214
Architects and Engineers	249	100	149
Chemists	37	-	37

Source: Degrees from NCES, annual openings from Wisconsin WorkNet.

In each of these fields, the region has far fewer openings (new and replacement) for the graduates it is producing. The threshold to stop this potential *brain drain* would

be the annual creation of 2,238 more jobs in the sectors in Table I than are currently available. This type of growth is not realistic based on current economic activity and investment levels in the region. Within these broad occupation groups there are a few gaps for specific occupations, but not in sufficient numbers to demand regional focus.

The region also has a small pool of entrepreneurial management. In many of the target sectors, a demand exists for a moderate base of management talent. The challenge is that many of the companies in the region are classified as *lifestyle* firms with varying operational goals and motivations. Often, technology-centric economies are driven by growth-oriented entrepreneurial ventures, with lifestyle companies representing a much smaller portion of that economic sector. A growth-oriented technology sector entrepreneur doesn't simply own a business, but seeks to grow it and dominate their market. This drive is often less apparent in firms where the goal is to support *lifestyle* goals.¹

The quality of the talent in West Central Wisconsin is apparent in the region's reputation for a quality work ethic.

Target Industry

The region has enjoyed consistent economic growth in the general economy and the technology sectors. It has not however, had a high level of entrepreneurial activity. The region has few venture-backed firms and a level of startup activity well below the U.S. Only St. Croix County has a startup rate that is above the U.S. benchmark, but most of that performance is due to start-ups in construction, retail and FIRE. The Hi-Growth Jobs Rate is low enough to not be statistically relevant and therefore can not be measured. The failure rate of businesses is low, but high growth regions often have a high failure rate with an even higher startup rate and essentially live off the churn where new firms are constantly replacing firms that close or leave. These indexes provide further evidence of the region's concentration of stable, lifestyle firms.

Table II: Vitality Indexes

	Dunn	Eau Claire	St. Croix
Startup Activity Rate	7.15%	8.51%	10.81%
Startup Activity Index	0.75	0.9	1.14
Hi-Growth Jobs Rate	0.00%	0.00%	0.00%
Hi-Growth Jobs Index	NA	NA	NA
Failure Rate	17.07%	18.33%	19.58%
Survival Index	1.38	1.28	1.2

Source: Bizminer.com. An index score of 1.0 means that the region performs at the same level as the U.S., while a score higher than 1.0 is better and below 1.0 is worse. The Hi-Growth Jobs Index cannot be calculated because it would require dividing by zero.

¹ This finding is supported by interviews and analysis of firm data. Lifestyle firms seek to maintain a level of income and are not growth-oriented.

GSP Consulting has performed a series of analysis to determine which sectors should be considered in the region. This analysis has included the assembly of data and other indicators regarding:

- Technology strength including research and development and patents
- Existing base of firms and positive market trends
- Talent of existing and emerging residents
- Regional Assets to support various sectors

The selection of these target industries provides the opportunity for the various counties within the Momentum region to focus on building a common understanding of the needs of existing companies in growing markets. Focusing activities on these target industries provides the opportunity for clusters to emerge. It will require concentrated economic development efforts to build a critical mass of firms and to create opportunities for exchange of ideas and interaction between sector leaders.

Industry clusters are geographic concentrations of competing, complementary, or interdependent firms and industries that do business with each other and/or have common needs for talent, technology, and infrastructure.

The cluster framework, which involves mobilizing stakeholders, assessing existing industry clusters, fostering collaboration by bringing together participants from key industries and institutions in the region; and implementing the actions identified as a result of the collaborative process, is a valuable tool for improving economic conditions because it is: market-driven, inclusive, collaborative, strategic, and value-creating.¹

The Target Industries were selected to provide specific sector opportunities for every county while also providing a basis for linking economic development efforts across counties and across industry sectors. Of all of the target sectors, Bio-Agriculture is the one that touches every county in the West Central region. Bio-Energy does as well insofar as it is linked to agriculture. Other sectors offer specific opportunities for groups of counties. These are further defined and described beginning on page 3 in the Technical Report.

Emerging Sectors

- **Bio-Agriculture:** Bio-agriculture is defined as the use of biological and genetic knowledge to create smart agricultural products.
 - Regional weaknesses: Limited base of R&D activity and talent.
 - Regional strengths: Established base of firms with a changing market dynamic that is creating new competitive opportunities.
- **Bio-Energy:** is renewable energy made available from materials derived from biological sources. In its most narrow sense it is a synonym to biofuel, fuel derived from biological sources. In its broader sense it encompasses also biomass, the biological material used as a biofuel, as well as the social, economic, scientific and technical fields associated with using biological sources for energy.
 - Regional weaknesses: Lack of management talent and heavy competition from other sectors

- Regional strengths: Existing base of related R&D and technical talent... WI's Focus on Energy program and Biogas Development Group have helped dairy farmers get 33 USDA grants to install anaerobic digesters. UW-Extension's Bio Energy Forum is helping to promote bio-energy development
- Sensors: also referred to as the Remote Sensing Industry, is built around technologies that allow assessment and monitoring of conditions at a distance, as well as response and occasional interaction.
 - Regional weaknesses: Low level of R&D and small base of firms in the specific line of sensors
 - Regional strengths: Related talent base and other synergies with computers and electronics and medical devices

Existing Sectors

- Computers and Electronics: includes firms that manufacture computer equipment, storage devices, circuitry, and instrumentation.
 - Regional weaknesses: low level of transferrable R&D, few programs for hardware design, electrical and computer engineering.
 - Regional strengths: established industry base including market leaders.

Supporting Sectors

In our assessment of target industries, these industries provide some opportunities as **Target Sectors** but the region may be lacking one or more key elements for success. Some of these sectors still present opportunities for development and can be significant contributors to the economy.

- Medical Devices: includes any instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article, including a component part, or accessory which is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, in man or other animals or intended to affect the structure or any function of the body of man or other animals, and which does not achieve any of its primary intended purposes through chemical action within or on the body of man or other animals and which is not dependent upon being metabolized for the achievement of any of its primary intended purposes.
 - Regional weaknesses: very little patent activity, few specific local firms and supporting industry base is not large.
 - Regional strengths: some larger firms are active in the area and connected to key regions.
- Plastics & Packaging: manufacturing of polymer materials as well as services in plastics for various uses. Also includes making other materials for the purpose of enclosing or protecting products for distribution, storage, sale, and use.
 - Regional weaknesses: No identified research base and few firms that are directly engaged in the sector, especially plastics.
 - Regional strengths: large number of firms in supporting industries with few competing regions focused on packaging.

- Healthcare
 - Regional weaknesses: No significant research base and market dynamics that override local advantages (e.g. big insurance firms will dictate market terms).
 - Regional strengths: high quality of healthcare to serve a growing population.
- Education
 - Regional weaknesses: Small and dispersed research activity with little capacity to attract star talent, provide value added partnerships for industry or produce startup firms.
 - Regional strengths: high quality of technical training.

Enabling Sectors

In our assessment of target industries, these industries did not provide sufficient opportunities as **Target Sectors** because the region lacks the industry base and because the markets for these industries are broad. There may be some interest in these sectors but the region does not have any recognizable competitive advantage. Chemicals and Nanotechnology are relevant to all of the identified Target Sectors therefore they are included as *enabling technologies*. Firms and research in these areas are worthy of support, but they should be linked to a specific application in one of the target sectors.

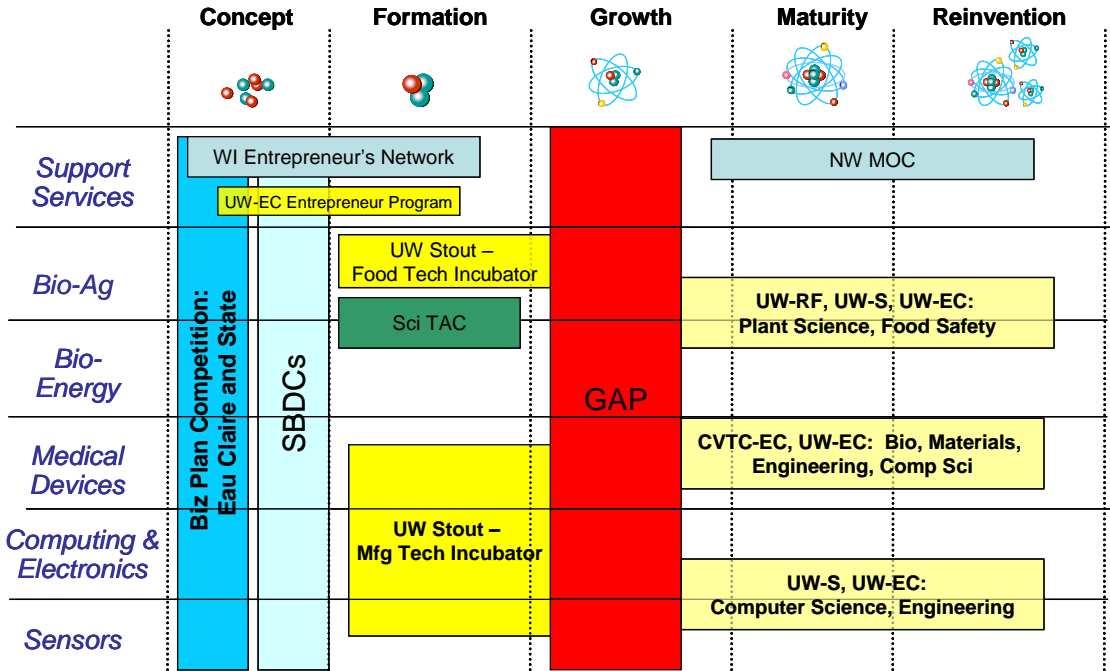
- Chemicals: comprises the companies that produce industrial chemicals. It is central to modern world economy, converting raw materials (oil, natural gas, air, water, metals, minerals) into more than 70,000 different products. Polymers and plastics comprise about 80% of the industry's output worldwide. Chemicals are used to make a wide variety of consumer goods, as well as thousands inputs to agriculture, manufacturing, construction, and service industries.
 - Regional weaknesses: Very few active firms, competitive industry
 - Regional strengths: Significant amounts of R&D
- Nanotechnology: refers broadly to a field of applied science and technology whose unifying theme is the control of matter on the atomic and molecular scale, normally 1 to 100 nanometers, and the fabrication of devices within that size range.
 - Regional weaknesses: Lack of locally based firms in the target sector.
 - Regional strengths: Chemicals and material research.

Assets in the Region

Figure 3 and Figure 4 present an asset map of the technology support system in West Central Wisconsin. This assessment is based on the completion of dozens of interviews as well as four focus groups held around the region that collected input from nearly 50 business and regional leaders. This assessment is intended to convey potential gaps and needs for technology support. There are a variety of programs and activities that do not appear in this assessment either because they were not mentioned by any of the businesses in our interviews or surveys or because they do not represent a unique asset that is not readily available in other regions.

Figure 3: Assessment of Tech Support System – Part 1

Regional Target Sector Supports



Angel funds are present, but not investing in the region

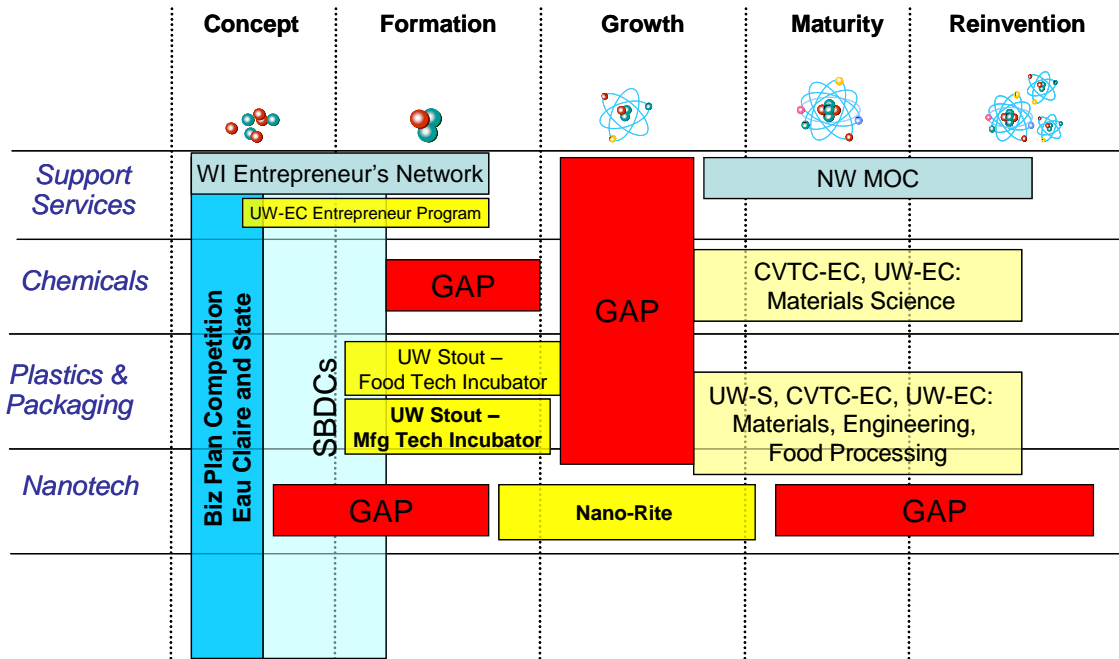
Technical mentoring support is available in a variety of forms through the universities, technical colleges and NWMOC. One issue that has been identified with regard to technical resources is the *erosion of access* the further a company is from the university. This is not unique to west central Wisconsin, but there is a special challenge given the distances that has to be covered in the region.

The ReBAR Directory is a unique and valuable mechanism to address these needs but it will have to ensure that it provides more specific information about expertise and equipment. Currently the user does not get enough information to know if a resource

can help them. Furthermore, the institutions use of a single-point-of-contact model may cause delays in the referrals. Nonetheless this effort is unique in its scope and goals and should be continued and improved.

Figure 4: Assessment of Tech Support System – Part 2

Regional Target Sector Supports



Angel funds are present, but not investing in the region

The most significant gap in the support system is the lack of investment and business mentoring support. Business plan competitions and SBDCs generally provide less intensive support and often focus on more general business issues. Technology entrepreneurs need access to industry specific expertise – those who have “been there – done that.” The Wisconsin Entrepreneurial Network provides resources to the region through a coordinator. This can include SBIR assistance, connections to other regional technology efforts, connections to state programs and other support activity. Future efforts should seek to increase the role of the WEN as a clearinghouse for technology related economic development activities.

The major gap is from the formation phase through the growth phase. The state funding programs are mostly tied to the SBIR program, or require a track record of federal funding. The states technology funding programs are structured as quasi-equity or forgivable loans. In most cases they require cash flow statements for the last three fiscal years – which a startup will **not** have. These funds may also be structured with warrants that can become barriers for the entrepreneur to raise true equity investment. The rates of prime plus 200 to 800 basis points will also reduce the attractiveness of these funds.

Nonetheless these resources can meet the needs of some entrepreneurs and should be tapped by the region.

There are a variety of financing tools available from the Economic Development Corporations but these are generally not suited to technology startups where the primary collateral is intellectual capital. The West Central Wisconsin Planning Commission is developing a new Regional Business Fund that expects to offer equity investment but for the fund to be effective it has to provide more realistic and appropriate terms than the existing quasi-equity funds described above.

In Summary

West Central Wisconsin has enjoyed steady and stable growth. There are cracks in the region's economic engine but with a diverse economy, leadership in corporate R&D, quality secondary and post-secondary educational institutions, and its position along a corridor between three major metropolitan areas, West Central Wisconsin moves into the future from a position of strength.

The following section provides the **Roadmap for Regional Success**. This roadmap summarizes the analysis contained in the technical report in three parts. The first part highlights our assessment of the region's key **assets** as they relate to the target sectors. The second part outlines the **challenges and corresponding actions** for addressing those challenges. The **recommendations** are the final element of the roadmap. The region does not have the resources to address all of these options at once, but the menu that follows can be used to tackle lower priority items after critical recommendations have been implemented.



Roadmap Part 1: Overview of Regional Assets by Target Sector

Bio-Ag (Food Science)	Bio-Energy (Bio-Fuels)	Computers & Electronics	Medical Devices	Plastics and Packaging	Sensors
<p>Job growth 2001-2005: 17%</p> <p>Large base of employment: +8,400 and possibly more with farm proprietors</p> <p>Large number of establishments for a cluster: 611</p> <p>296 Firms (not including farms and grocery stores)</p> <ul style="list-style-type: none"> • <u>Seneca Foods Corp</u> – (Barron) • <u>Mc Cain Foods USA Inc</u> (Barron) • <u>Conagra Grocery Products Co</u> (Dunn) • <u>Johnson Truck Bodies Inc</u> (Barron) • <u>Kmt Refrigeration Inc</u> – (Pierce) <p>Programs, courses and experts in plant science, nutrition and food safety</p> <p>Availability of land</p> <p>Proximity to transportation</p>	<p>Job Growth: 2001-2005: 32%</p> <p>Linkages: farmers sell corn & ranchers buy corn mash for feed.</p> <p>\$250 R&D per employee in WC vs. \$7 for US</p> <p>187 patents per employee in WC vs. 177 for US</p> <p>Large number of establishments for a cluster: 183</p> <p>14 Firms (not including farms that supply)</p> <ul style="list-style-type: none"> • <u>Avres Associates Inc</u> – (Eau Claire) • <u>Cedar Corp.</u> – (Dunn) • <u>Krech Ojard & Associates</u> – (Eau Claire) • <u>Commercial Testing Laboratory</u> – (Dunn) • <u>Ace Ethanol</u> – (Chippewa) <p>UW-Extension Bio Energy Forum, state's Focus on Energy program and Biogas Development Group</p> <p>Five Star Dairy and Norswiss Farms are part of Animal Waste to Energy project with Dairyland Power Coop.</p> <p>Leverage the DOE Great Lakes Bioenergy Research Center</p>	<p>Job growth 2001-2005: 24%</p> <p>Significant research asset in Cray Inc.</p> <p>More than 120 establishments</p> <p>Strong base of employment: 6,380+</p> <p>69 Firms</p> <ul style="list-style-type: none"> • <u>Hutchinson Technology Inc</u> –(Eau Claire) • <u>Cray Inc</u> – (Chippewa) • <u>McMillan Electric Co</u> – (St. Croix) • <u>Silicon Graphics</u> – (Chippewa) • <u>TTM Advanced Circuits</u> – (St. Croix) <p>Facilities, equipment, degrees and expertise related to software and IT systems.</p>	<p>Job growth 2001-2005: 22%</p> <p>\$319 R&D per employee in WC vs. \$373 in US.</p> <p>Good base of jobs: 4,600+</p> <p>WC average firm has 213 employees vs. 26 for US.</p> <p>10 Firms</p> <ul style="list-style-type: none"> • <u>Preco, Inc.</u> – (St. Croix) • <u>Core Products International</u> – (Polk) • <u>Beaudry Co.</u> – (Polk) • <u>Morfam, Inc.</u> – (Polk) • <u>Watson Industries, Inc.</u> – (Chippewa) <p>Resources in complementary fields: engineering, biology, materials science, computer science</p>	<p>Job Growth 2001-2005: 6%</p> <p>Significant base of establishments: 130</p> <p>Moderate base of employment: 2,411</p> <p>Strong positive growth in both plastics and packaging in the region</p> <p>84 Firms (Plastics) 14 Firms (Packaging; 4 cross-over)</p> <ul style="list-style-type: none"> • <u>Phillips Plastics</u> – (Dunn, Eau Claire, Pierce, St. Croix) • <u>3M Co.</u> – (Dunn, Polk, St. Croix) • <u>Pactiv Corp</u> – (Chippewa) • <u>Clopax Corp.</u> – (St. Croix) • <u>American Phoenix, Inc.</u> – (Eau Claire) <p>Strength in materials science, food safety, specialized equipment</p>	<p>Moderate to strong recent growth in the electronics sector in the region</p> <p>Small base of establishments in related areas: 24</p> <p>Moderate employment base: 2,764</p> <p>WC average firm has 111 employees vs. 72 for US.</p> <p>7 Firms</p> <ul style="list-style-type: none"> • <u>United Gear & Assembly Inc</u> – (St. Croix) • <u>RealityWorks, Inc.</u> – (Eau Claire) • <u>Express Communications LLC</u> – (Eau Claire) • <u>DCA Manufacturing Corp</u> – (Barron) • <u>Graphic Display Systems Inc.</u> – (Polk) • <u>Action Labs Inc.</u> – (St. Croix) <p>Resources and expertise in computer science</p>
<p>High quality technical education resources</p> <p>High quality and availability of telecommunications infrastructure</p> <p>Availability of inexpensive land</p> <p>Nano-Rite</p> <p>Extraordinary quality of roads and traffic infrastructure –with substantial capacity for additional traffic volume</p> <p>Proximity to transportation</p>					

Roadmap Part 2

Challenges that impact the region	Actions that can be taken	Partners and assets to address the Challenge	Time	Impact
Technology				
Low level of startups	<ul style="list-style-type: none"> Track spin outs and start ups better – develop metrics to support adoption of progressive policies at existing companies to support innovation Form a regional work group to identify successes stories and failures and utilize to structure a tool kit for future start ups No formalized resource/ entity for technology startups that has traction and enough funding A regional work group should be formed and charged with: identification of start-ups, identification of barriers, and a work plan that addressed the opportunities and issues 	<ul style="list-style-type: none"> The colleges and universities will play a critical role in lessening this challenge Leverage Inventor Clubs Angel Networks Wisconsin Entrepreneurial Network 	6 months to form group and set agenda	<p>Moderate – short-term</p> <p>Significant – long-term</p>
Limited pipeline of R&D	<ul style="list-style-type: none"> Recruit from MN – individual people and technology that can be used to build companies Link with alumni to attract talent –develop relocation packages for returning talent Align recently passed state program to hire faculty with target sectors Grow R&D budget – regional investment versus collaboration – related to the target sectors Identify a team of people and tools that can be used to recruit talent and technology that leverage target sectors The team should include schools: professors and alumni offices that target researchers that have left but are doing well elsewhere – recruit these people back with incentive packages 	<ul style="list-style-type: none"> The colleges and universities can link with their alumni to pursue opportunities They can also utilize state funding to pursue faculty in fields that match the target industry sectors Promote options available with SBIR, STTR funding 	<p>One - three years</p> <p>Ability to tap state funding for researcher recruiting/startup packages</p>	Moderate – short-term
Innovation based companies are mobile	<ul style="list-style-type: none"> Economic development groups must focus on existing companies Regional EDO representatives must visit companies with ownership outside of region. Identify these companies and go to meet with decision makers to show desire to support their retention in the area 	<ul style="list-style-type: none"> A partnership of the regions economic development Engage the business schools to assist in this effort? 	3 months to identify 9 months to visit using materials developed above to describe the region	Moderate
No venue for discussion of common needs of tech industry	<ul style="list-style-type: none"> A mechanism must be developed for technology businesses to discuss what barriers as well as opportunities they face Form a policy and advocacy committee 	<ul style="list-style-type: none"> Chambers of Commerce CEO's Momentum Chippewa Valley 	9 months	Moderate

Challenges that impact the region	Actions that can be taken	Partners and assets to address the Challenge	Time	Impact
Talent				
Talent exporting	<ul style="list-style-type: none"> Better align school offerings and degrees with available jobs Recruit firms in the industries where talent is exported Industry advisory panels can assist in maintaining the relevance of curriculum Target scholarships to programs with regional demand (few or no scholarships where graduates are <i>exported</i>) 	<ul style="list-style-type: none"> West Central Wisconsin Regional Education Consortium 	Immediate / Ongoing	Significant
Thin talent pool	<ul style="list-style-type: none"> Convene schools and industry to better track career pathways in the region. Market region to mid and senior level talent in Minnesota This is an area where the workforce development community and economic development community can work together Constrained by limited job opportunities, based in part on parochial, fragmented perception of the job market. 	<ul style="list-style-type: none"> The West Central Wisconsin Regional Education Consortium and Workforce Resources must work to address this challenges 	One year	Moderate
Pay issue	<ul style="list-style-type: none"> This challenge is a difficult one as it involves a companies attitude towards pay scales and their sophistication regarding what market rates are The region should avoid advertising that the wage rates are lower than elsewhere. This may be having a dampening effect on other employers. In an economy based on services, such as research, and on value added manufacturing, "low-cost" implies "low-quality" and attracts companies least likely to stay in the region. 	<ul style="list-style-type: none"> The EDO's must work together to define some regional messages that can be used in common 	Immediately	Minor
Target Industry				
Existing tech companies outside of Cray or 3M are not visible – especially to policymakers	<ul style="list-style-type: none"> Find forum for inventors and entrepreneurs to get together – not county specific Produce a series of 'Technology in Action' documents that profile companies in WCW This material can also be used to build a unique regional identity 	<ul style="list-style-type: none"> This could be a role for Momentum to play 	6 months	Significant

Challenges that impact the region	Actions that can be taken	Partners and assets to address the Challenge	Time	Impact
Existing tech companies are not networked	<ul style="list-style-type: none"> Form the WCW Leadership 50 – a group of CEOs from leading technology companies that are growing and/or innovating their businesses (this is NOT a Chamber of Commerce)The Leadership 50 would include an annual membership event, awards ceremony for top performers, mentoring services Awards for top inventors (new patents) Awards for top researchers (Award \$\$) Awards for high growth firms Link members with appropriate industry expertise to provide mentoring to clients of regional incubators 	<ul style="list-style-type: none"> This could be a role for Momentum Chippewa Valley to play in collaboration with EDO's and Business leaders 	3 months to form group and action plan	Significant
Assets				
Lack of a defined region / limited internal or external understanding	<ul style="list-style-type: none"> The TTIA report has identified assets across industry sectors – this information should be cross promoted to target industry as regional assets This challenge can be addressed by the formation of a regional group of Ambassadors - Group could include Businesses, Researchers, and EDOs Create materials that define regional strengths and assets that are unique from other regions. 	<ul style="list-style-type: none"> Momentum Chippewa Valley in collaboration with EDO's and Chambers 	3 months to pull together and have first organizing meetings	Significant for both internal and external
Limited resources (time and revenue) invested in technology based economic development Current structure allows for limited collaboration	<ul style="list-style-type: none"> Eliminate duplication – better define role of participants from economic development organizations i.e. EDO, Planning etc Pursue state and federal support for technology-based economic development Sales Tax – Referendum to fund regional economic development program 	<ul style="list-style-type: none"> The efforts to address these challenges must be launched by the EDO's and the Higher Education Consortium Engage state and federal officials to insure they understand the regions priorities and focus 	6 months to develop plan Fund raising will take 1-2 years	Significant

Challenges that impact the region	Actions that can be taken	Partners and assets to address the Challenge	Time	Impact
Business perspective is that ED is just about smokestack chasing	<ul style="list-style-type: none"> • Need more economic development people calling on existing technology companies - Goal should be to visit 75% of businesses over a three year period • Perform an annual business survey that guides specific policy recommendations and receives attention by political and economic leadership. • Produce an annual 'state of the industry' report that tracks performance of the region and includes information on how the economic development community has helped local businesses • EDO's need new tools to help existing businesses – many help with infrastructure, or can only be used with relocations and don't credit job retention. • 	<ul style="list-style-type: none"> • The Economic Development Organizations must lead their effort • Can the schools assist in producing an annual state of the industry report 	<p>3 months to develop background documents and survey template</p> <p>One year to implement survey, digest results, and publish</p>	Significant
University resources are difficult to access due to both physical distance and lack of interaction between leaders and university resources	<ul style="list-style-type: none"> • Complete the development of the ReBAR directory, adding more detailed information that enable a user to find the right person or resource • Include accounts of researcher expertise, e.g. link to CVs, publications, projects and patents. • Be more specific about equipment, include product name, not simply "microscope" or link to spec sheets 	<ul style="list-style-type: none"> • Add business representatives to the ReBAR committees 	<p>1-2 months to recruit business representatives</p> <p>Ongoing</p>	Significant
Minneapolis-St. Paul does not see region as a value-add. More of a low-cost resource for employment, housing	<ul style="list-style-type: none"> • Deliver a regional asset message to Minneapolis-St Paul business owners • Interact more with technology-focused organizations in Twin Cities • Meet with business leaders that have locations in both states • Insure that the message is about collaboration rather than poaching 	<ul style="list-style-type: none"> • Economic Development Organizations, West Central Wisconsin Education Consortium 	Moderate	Ongoing
Large geographic area – difficult to convene	<ul style="list-style-type: none"> • Identify central locations to convene • Make opportunities worth it for people to travel • Use technology to support connections between regions • Identify three locations in regions to rotate convening sessions 	<ul style="list-style-type: none"> • The three 'larger' EDO's should play host 	Ongoing	Moderate
More economic and cultural ties to MSP but funding comes from Madison	<ul style="list-style-type: none"> • This challenge will not be mitigated and just must be considered as state support is pursued • Find opportunities to include Madison leadership in events • A larger possibly regional message will capture attention of leaders in Madison 	<ul style="list-style-type: none"> • Economic Development Organizations, Workforce Resources, Chambers 	Ongoing	Minor

Challenges that impact the region	Actions that can be taken	Partners and assets to address the Challenge	Time	Impact
Funding and focus of the state – state has limited programs	<ul style="list-style-type: none"> • Change state programs – lobby to make state loan and grant programs more realistic to the needs of technology companies in the region • This issue requires a regional voice aligned with statewide resources such at the Tech Council 	<ul style="list-style-type: none"> • This issue requires a regional voice aligned with statewide resources such at the Tech Council 	Ongoing	Minor

Taking Steps

GSP Consulting believes that the stay the course path is not in the best interest of the region. We fully recognize that change will be difficult to support without a looming crisis but we believe it is imperative for the community’s leaders to develop an agenda and push forward with a strategy that protects the region for future economic growth and prosperity. Our recommendations that follow are meant to guide this agenda and strategy and are based on our analysis, experience, and understanding of the region.

Recommendations

As we prepared our recommendations based on what we identified as challenges and opportunities in the region it became clear that much of what is being recommended should be supported by a regional effort. While there are some specific recommendations for a handful of the communities, the majority of what we have identified as economic development needs must involve regional involvement and support.

The diagram on the following page summarizes the recommendations.

Roadmap – Part 3: Recommendations (Pillars of Activity supported by Increased Regional Capacity)

<u>Leadership 50</u>	<u>Business Calling Program</u>	<u>Outreach and Recruiting</u>	<u>Innovation and R&D Committee</u>	<u>Talent Alignment and Retention</u>
<p>A membership organization of the top 50 innovation based businesses in the region. The group comes together to:</p> <ul style="list-style-type: none"> •Mentor new entrepreneurs •Host annual awards event •Discuss business growth issues •Provide a network resource for emerging businesses •Communicate regional vision 	<p>Use a standardized region-wide format for business calling efforts in order to promote information collection on challenges and opportunities of existing businesses. Both on-line and in-person formats will enable regional analysis of the data and make it possible to leverage infrastructure and capacity across organizations.</p>	<p>County EDCS should form a joint effort to develop targets, methods and materials to recruit companies to the region.</p> <p>This effort should focus on the target sectors described in the TTTIA Technical Report.</p>	<p>Convene academic researchers, patent developers, and technology firms around targeted sectors.</p> <p>Jointly pursue federal funding including SBIR, STTR, and competitive funding from agencies such Agriculture, EDA, NSF.</p> <p>Create a pool of risk capital (see innovation fund model in next section)</p>	<p>Form a regional group of industry representatives to assist the West Central Wisconsin Regional Education Consortium to:</p> <ul style="list-style-type: none"> •Identify specific skills gaps and regional career pathways •Align degree offerings with target sectors and occupations •Identify company needs related to career development.

Critical Activities

Leadership 50

Ultimately the region must do better at defining its technology company base and demonstrating their value to both internal and external audiences. In addition companies want to network with one another. There currently exists no forum for innovation related companies to come together to celebrate their achievements, to discuss opportunities and issues, and to mentor younger companies as they grow in the region. The Leadership 50 group is recommended to serve those purposes. It can be a membership based organization of the CEOs from high-growth technology firms that involves a set of dues and application screening to insure that the companies involved are the best examples of innovation related leadership. Some criteria may include industry sector, research intensity, recent growth success, civic leadership and other potential variables.

Sources for Funding

Most groups and related events of this nature are supported by sponsorship and fee income

Example Programs:

NorTech

<http://www.nortech.org/index.aspx>
Dorothy C. Baunach
President & Chief Executive Officer
Phone: 216.363.6883
Email: info@nortech.org

Note: *Example Programs have been identified not as additional benchmarks, but to showcase how other regions have implemented similar activities.*

The Northeast Ohio Technology Coalition is a diverse group of fifty regional leaders that includes the presidents of universities and colleges, the director of NASA Glenn, CEOs and CTOs of major corporations, entrepreneurs from small- and medium-sized technology companies, capital providers, professional service providers, and leaders from various chambers, intermediaries, and foundations across the region.

The Technology Resource Council is comprised of representatives from the region's technology-based economic development, community and research organizations. The Council members have expertise in the fields of bioscience and healthcare, information and communication technologies, instruments/controls/electronics, polymers/advanced materials, nanotechnology, energy/power/propulsion, and advanced manufacturing. Members of the Council serve two main functions: 1) keep NorTech staff updated and informed on the latest technology cluster advancements in the region and 2) actively participate in NorTech projects and initiatives that help to bolster the region's key technology strengths. (Appointments to the Council are made annually.)

Business Calling Program

Existing businesses in the region must be contacted on a more regular basis to better understand their needs, opportunities, challenges, and successes. The research performed identified only one county that performed a business calling program on any routine basis.

Without coordinated efforts across the region, it is not possible to identify common needs and opportunities, which then reduces the ability to effectively advocate for common needs and goals. Standardized in-take formats for on-line and in-person calling activities that the counties can share and use will create a capacity for regional analysis and develop a baseline set of data that can guide actions and programs. Counties as well as regional entities such as NWMOC or the educational institutions should collaborate on this activity with a goal of calling on approximately 20% of their businesses per year. GSP Consulting is providing a CD-ROM which contains a starter database of regional firms in the target sectors to initiate this activity. The business calling program should also guide the outreach and recruiting effort. The **calling program can identify industry gaps where recruiting can attract collaborators** that will enhance local business opportunities rather than competitors to undercut the existing base.

Sources for Funding:

- State funding from the Department of Commerce
- Federal funding from the Department of Commerce, Manufacturing Extension Program

Outreach and Recruiting

The region must identify itself as that - a region. Individual county efforts will not be successful as businesses currently look much more broadly when they are making expansion or relocation decisions. They look at regional amenities, labor pools, tax and utility costs, and proximity to major areas of commerce.

In addition internal stakeholders are not aware of what is going on in their neighboring communities. A marketing effort should also consider the need to identify resources and strengths within the communities themselves. Technology businesses for the most part lack knowledge of their peers in the community. Many expressed the desire to buy local or share experiences with peer companies in order to grow and feel more connected to the community. A marketing campaign should consider this.

One option that can accomplish both tasks is to focus on local companies and utilize their name brand recognition or technology focus to advertise the region. For example the region can identify top technology companies such as: Cray, 3M, Minnesota Wire and Cable and do a campaign featuring what they produce in the region. "When the government needed help developing a command & communication system based on hand motion – where did it turn? Minnesota Wire and Cable, of course. Made in Eau Claire, Wisconsin." By highlighting examples of local companies selling products or performing research on a national stage two things will happen. First, local companies will gain exposure as well as satisfaction that their work is being recognized and second, other companies in their field not in the region will better understand that there are indeed technology companies at work in the region.

Outreach and recruitment should be better coordinated. This is not to say that county or even city level outreach and recruitment activity will be replaced. Rather there needs to be a mechanism to coordinate with those communities that have chosen to pursue this activity, by working collaboratively, regional agents and individual county and city programs can target which activities they will each be responsible for on an annual basis. This could include trade show attendance, direct calls on companies that have operations in the region but are headquartered elsewhere, and responding to inquiries from site selectors. By working together the region can prepare a better sales pitch that defines the opportunity to locate in the region.

Sources for Financial Support:

- Most Marketing efforts are supported by local Chambers and Economic Development Organizations which both can receive contributions from private sector firms.
- Some state dollars can be obtained from the Department of Commerce to support these activities.

Innovation and Research and Development

The region itself as well as emerging technology businesses all need capital to carry out their mission and grow the regional economy. This reality is juxtaposed with the fact that limited resources are currently available to perform economic development related activities. Many of the benchmarked regions demonstrate technology related economic development budgets for operations in the millions of dollars. The west-central community to date has not invested in that level and does not appear to have the capacity to reach that level within any of the individual counties.

Current funding mechanisms such as Tax Increment Financing (TIF) and Revolving Loan Funds (RLF) are generally not suited to technology firms where the primary collateral is intellectual capital. The region requires a technology support initiative that has sufficient capital for grants, programs and staff for at least three years. At a minimum this should require a goal of raising \$1.5 million for the first three years or approximately \$500,000 per year.

Additional funding will be needed to support specific programs but it is perceived that once an initiative is in place and begins to demonstrate success in its mission then other funding support will follow to implement programmatic activities. The fundraising effort should involve community support through better utilization of the Angel capital programs supported by the state as well as involving investors from the Twin Cities. This activity will be critical to support new companies or existing companies looking for capital to grow their business.

Model for Innovation Fund

Below is a framework of an initiative to address the need of entrepreneurial ventures and to get more investment from Angel networks in regional firms. Several Angel networks are present in the region but they have made few investments. The only strategy to increase investment is to develop more deals of higher quality. Investors won't pass up a chance to make money.

This effort links investors to specific entrepreneurial ventures and leverage public funds with angel funds – linked to specific companies with a specific investor team and mentoring team. When entrepreneurs have a business plan deemed worthy of review, they can receive \$10,000. This could be combined with the business plan competition as the Championship round.

The Entrepreneurial Champions then present their business plan for critique to a panel of reviewers specifically identified for their expertise relative to the industry of the entrepreneur. This panel should include Angel Investors and CEOs from the Leadership 50 group. The model for this review is the MIT Enterprise Forum (<http://enterpriseforum.mit.edu/>) which provides a critical assessment of the business. The review also serves to introduce the entrepreneurs to the investment community. As they sign up investors, public funds can match the angel investment as the entrepreneur meets specific milestones.

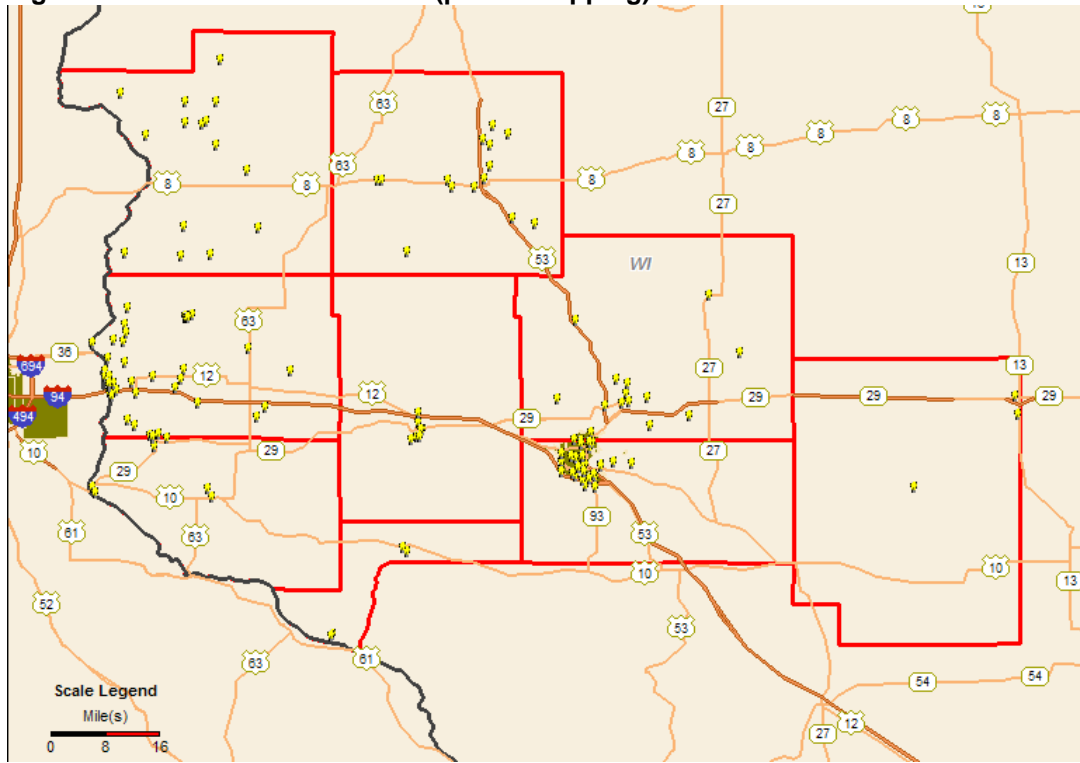
Another key component is to require the entrepreneur to recruit technical, financial, marketing and executive mentors from among the Leadership 50, Angel Networks or other firms. The milestone payments can be used as stipends for the time and commitment of these mentors, or they can negotiate equity shares or board seats. The goal is to establish a framework of professional management and advice that develops investment grade companies versus lifestyle companies. Entrepreneurs who are unwilling to take advice or share equity are more likely to be developing lifestyle firms and not high growth ventures. The know-how of these mentors is as critical as the availability of risk capital.

Table III: Prototype Innovation Funding Initiative

Milestone	Amount	Time
Complete Business Plan	\$10,000 (100% public)	Month 1-3
Present business plan for critique/investment*	None	Month 3--
Recruit 4 mentors: technical, financial, marketing, executive/management	\$40,000 (50% public, 50% Angel)	Month 1-6
Recruit up to 5 alpha customer sites	\$50,000 (\$20,000 from public, \$30,000 from Angel)	Month 4-8
Develop prototype	Varies	Month 6--

Funds should only be provided to qualified ventures. Assuming that 10 ventures are worthy of business plan support would require initial public funds of \$100,000. If 5 are successful in the review/critique and move on to recruiting mentors, then another \$100,000 is required from public funds matched by \$100,000 from Angels – which the entrepreneur must raise. If all five successfully recruit their alpha sites, then you need another \$100,000 in public funds and \$150,000 from Angels. The remainder of the budget is for staffing.

Figure E: West Central Inventors (partial mapping)



This map represents only a portion of the inventors with sufficient addresses for geocoding.

This effort should be facilitated by an agent that can represent the entire region but it will also require the leadership of the universities in collaboration with business leadership. The Innovation and Research and Development (IRD) community in the region is small and scattered. As we understand innovation today, it is not a solitary process of the lone inventor. It is inherently a social activity that is supported by strong interactive networks. The more links and connections in the network, the stronger it is. With individuals divided by specialty and location throughout the region, it is necessary to unify these networks under common umbrellas. Generally region-wide networks will provide more opportunities for interaction than more localized community groups. As mentioned in the advocacy section, there are opportunities to pursue outside dollars to support innovation, research and development in the region. GSP Consulting is providing a CD-ROM which contains a starter database of regional inventors and researchers to initiate networking and outreach activity to a set of individuals who are prime candidates for starting new businesses.

Technology businesses in the region and many of their supporters believe that they have limited voice when it comes to government advocacy at any level. These businesses are not very well networked and lack any forum to express their needs and issues with the existing process. This fact seems to be supported by the limited level of federal funding that is invested in the region as well as state programs that have had limited regional utilization. In addition many of the state programs advertised to support growing businesses are not well structured to support technology businesses. Personal guarantees, close to market rate terms, and a perceived emphasis on relation versus retention of companies are opinions that were expressed during the performance of this project.

The region should create or endorse an advocacy group that becomes a regional voice of technology stakeholders which may include businesses, academics, and economic development groups. This activity requires more leverage than individual chambers of commerce can provide on their own. The committee could pursue both an agenda of recommending changes but also programmatic activity such as the creation of a Federal Procurement and Technical Assistance Center (PTAC). These center's are in place in many regions to assist businesses navigate the federal governments system of procurement. Other models exist for mechanisms to support technology businesses with state and federal advocacy. A regional committee should be tasked with developing a continually evolving resource for companies under this committee.

Sources for Funding:

- State – Department of Commerce
- Federal – National Science Foundation, Department of Agriculture (Agriculture Innovation Centers)
 - Any of the 13 other federal agencies receiving appropriations
- Economic Development Organizations
- Private Companies
- College and Universities
- Philanthropic Organizations
- State Government – Department of Commerce
- Federal Government – Department of Commerce, National Science Foundation and the Economic Development Administration

Example Programs:

TechLift

<http://www.techlift.org/>

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TechLift exists to foster and encourage a strong environment for technology entrepreneurship in Northeast Ohio. TechLift is affiliated and co-located with NorTech and several other programs.

TechLift supports and coaches Northeast Ohio entrepreneurs in five signature technologies: advanced materials, biosciences, electronics, information and communication technologies, and advanced energy. TechLift provides a number of direct services delivered through the Signature Entrepreneurs-in-Residence, who are entrepreneurs and managers experienced in competing in these signature technology areas.

The INNOVA Commercialization Group

<http://www.innovawv.org/>

Chris Morris

Commercialization Manager

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The INNOVA Commercialization Group (INNOVA®), an initiative of the West Virginia High Technology Consortium Foundation (WVHTC FoundationSM), is a business support services and seed and early-stage investment capital program dedicated to creating successful entrepreneurs and new ventures. INNOVA specializes in bringing vital knowledge and resources to seed and early-stage companies in support of product commercialization efforts.

BioEnterprise

<http://www.bioenterprise.com>

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President and CEO

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BioEnterprise is a business formation, recruitment, and acceleration initiative for healthcare and bioscience. BioEnterprise's founders and partners include the Cleveland Clinic, University Hospitals, Case Western Reserve University, and Summa Health System.

To date, BioEnterprise has pursued a strategy of focusing its and the region's resources and networks on the most promising bioscience companies developed in or attracted to the region. Its success has substantially driven the region's overall success in attracting health care venture capital. Northeast Ohio is starting to gain national recognition as a "major league" region for health care start-ups. Northeast Ohio health care companies now attract nearly four times the region's 1996-2002 baseline level of health care venture capital. The total dollars and deals completed reached near-parity levels with national health care hotspots, such as Research Triangle and Minneapolis in 2005, and are on track to do it again in 2007.

BioEnterprise's success has led other regions to study and adopt its approach of support for emerging health care companies. In 2006, the Kansas Biosciences Authority approved spending \$4.5 million to create Heartland BioEnterprise, a project modeled on BioEnterprise in northeast Ohio. In 2007, the State of Wisconsin announced and funded a Wisconsin Venture Catalyst Center to accelerate their high-tech economy also based on BioEnterprise's model.

Caution: BioEnterprise has access to assets that are not available in West Central Wisconsin. Even if the West Central Wisconsin cannot raise a multi-million dollar seed fund, the strategy and tactics of BioEnterprise offer represents a gold standard program that could be tailored to the regional capacity in West Central Wisconsin. Furthermore, BioEnterprise is focused only on the Biotech sector and that focus is too limited for the range of opportunities in West Central Wisconsin.

Technology 2020

<http://www.tech2020.org/index2.html>

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President and CEO

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Founded in 1993, [Technology 2020](#) is a public-private partnership whose mission is to grow new businesses and high quality jobs by capitalizing on the unique technology resources of the Technology Valley Corridor. Technology 2020 has established a comprehensive entrepreneurial support system which has provided assistance to more than 160 start-up companies in the region. These client companies now employ more than 1,800 people at salaries nearly double the regional average and account for \$114 million in payroll annually in the Tennessee Valley Corridor.

Technology 2020 has developed several programs and focused significant efforts to build access to capital sources for technology at many different stages of development. One of Tech 2020's earliest *Access to Capital* initiatives was to hold a venture conference to bring investors together with promising young companies. The [Annual Tennessee Valley Venture Forum](#) is now in its 11th year. In 1999, Tech 2020 created the Southeast Community Capital (SCC) was created in 1999 to promote access to capital for small businesses in Tennessee that were unable to access traditional sources of financing. SCC is now an independent entity with offices across the state and headquarters in Nashville. SCC has provided more than \$20 million in loans to Tennessee small businesses, and recently announced the Tennessee Rural Opportunity Fund, a \$10 million pool of capital to assist small businesses in rural areas throughout the state.

Talent Alignment and Retention

Many of the region's largest degree programs are in fields where the region creates few job openings. Until the region can has more job openings by growing and recruiting more firms in those sectors, there is very little to do in terms of talent alignment.

As a preparatory step, colleges, universities, and businesses in the target sectors must be brought together to define and develop career pathways in order to retain the region's talent base. In order to expand those opportunities, career paths for new graduates must be identified and communicated. There is a lot of sentiment around the region, supported by data, which indicates the many disconnects in the region's career pathways. In some cases schools are producing graduates in fields with limited local opportunities while the businesses offer employment with flat or no career pathways that provide little or no opportunity for advancement. These issues are not unique to the region and in fact represent one of the biggest challenges in today's economy. Still the region should come together around the target sectors to better understand the problems faced by industry and work to resolve them together. This effort should be led by **industry representatives** with the West Central Wisconsin Regional Education Consortium and include businesses and the workforce development system.

Sources for Funding

- State – education funding as well as recently enacted program for talent recruitment
- Federal – Department of Labor, Business Relations Group, WIRED initiative, STEM education programs supported by the National Science Foundation.

Conclusion

Regional Capacity

As GSP traveled the region it became clear that the municipalities and the counties are operating within a highly constrained fiscal environment. Economic development in particular is over-burdened with competing and varied duties. GSP's analysis of Best and Worst Practices highlighted the need for dedicated staffing with the appropriate skills and background to manage programs and activities for technology firms and entrepreneurs.

Best Practice Lessons

- The budget and staff must be proportional to the activities of the organization.
- High performing programs align their services with the needs of their clients and the region.
- Organizations and programs with a more focused mission and set of services are generally more successful.
- The quality of staff and management is critical.
- Tough choices about resources require a clear regional strategy to maximize investment and insure inclusive development.
- If you don't have staff with the right skills, using the right tools, for the right job, then it will take luck to be successful.

Source: GSP Consulting. May 2007. *Falling Off the Bandwagon: Best and Worst Practices in State & Regional Economic Development.*

The current capacity of the existing economic development organizations (EDO) and related parties cannot support the additional efforts related to more aggressive economic development activities. Additional capacity must be developed either through increased resources in one or more organizations or a new organization that should be charged with carrying out many of the recommendations. This new regional capacity would not replace existing organizations but supplements their activities and should increase the **collaboration** with the existing economic and workforce development organizations.

There is currently no capacity to implement regional programs or provide additional services through the existing support system. This capacity must be created.

- Staffing at County EDCs is stretched AND they don't have enough staff that understand the needs of technology firms & startups.
- The organizations that have tech-oriented resources/experts do not have enough staffing or capacity to have regional impact. This is an issue of the quantity of resources as well as the lack of a coordinated direction for where to apply them across institutional and local boundaries.
- A fragmented effort on technology based economic development will fail – need scale and interaction to support innovation There is no entity that could currently lead a regional technology effort.
- The Leadership 50 group could provide the oversight to build and launch either a new entity for this purpose or to significantly an existing organization.

The Technology, Talent and Target Industry Assessment provides a basis for having informed discussion throughout the region regarding the strengths and opportunities that can be utilized to insure economic health. The Assessment also provides a guide for viewing the weaknesses and threats that the region's leaders will need to address. Overall, it is the capacity and willingness to come together as a community that will enable growth. The publication of this Assessment will hopefully begin that discussion and serve the community well as it takes steps to grow technology-related companies in the region.