

Creating National Economic Impacts through the Resurgence and Technological Innovation of Furniture and Textiles in the Carolinas

Proposal for Designation as a
Manufacturing Community
(Docket No. 131121981-3981)

 *Submitted by a Consortium of more
than 100 public and private
organizations including the Manufacturing
Solutions Center and the Carolina Textile District, a
Phase 1 IMCP recipient*

www.ManufacturingSolutionsCenter.org
www.CarolinaTextileDistrict.com

Section A: Point of Contact

Western Piedmont Council of Governments (WPCOG)
Anthony Starr
Anthony.Starr@wpcog.org
828.485.4272

SECTION B: ASSESSMENT OF LOCAL INDUSTRIAL ECOSYSTEM

Why should our region receive the Manufacturing Communities Designation?

Our ability to create positive, national economic impacts –

Our sphere of influence on the Furniture, Textile and Apparel/Hosiery sectors is substantial. Our ecosystem’s depth and capacity will allow for catalytic strategies carried out in our region to impact the industry sectors as a whole, ***not just within our state but nationwide and globally.***

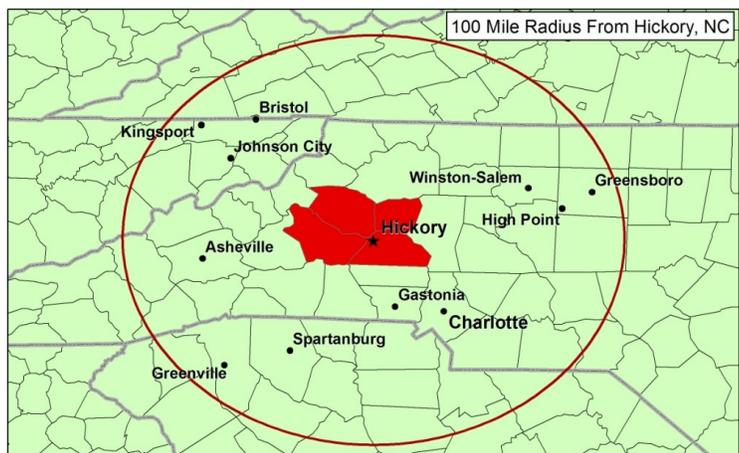
North Carolina	Hickory MSA
Emp. Ranking in US	Emp. Ranking in US
#1 – Furniture	#1 - Furniture
#2 – Textiles	#17 – Textiles
#3 – Apparel/Hosiery	#5 – Apparel/Hosiery

Source: U.S. Cluster Mapping, Institute for Strategy and Competiveness

Furniture, Textiles and Apparel/Hosiery have weathered both the effects of offshoring and also the Great Recession. The significant numbers of companies that remain in our region have done so by being lean, innovative and efficient. Companies, with support of organizations like the Manufacturing Solutions Center (MSC) and the Carolina Textile District (CTD), a **Phase 1 IMCP recipient**, have found ways to remain competitive and have begun to grow again - thanks in large part to the trend of re-shoring and exporting.

The region is focusing our proposal on Furniture, Textiles and Apparel/Hosiery (referred to throughout this proposal as “Key Technologies or Supply Chains” or “Furniture and Textiles”). Many current initiatives that are already being carried out in the region reflect this focus. We choose these industries because they are the lifeblood that have built and sustained our communities for generations. We are building on our unique history to create a path for the future. Our vision is a strong and thriving economy that supports entrepreneurial innovation and a new generation of highly trained workers that drive not only US production, but compete in and drive global markets. These sectors were also selected based on:

- Employment location quotients (described further in Section G)
- Capacity of the existing workforce
- Number of manufacturing facilities
- Depth of the supply chains
- Potential for export growth
- Interest of supporting institutions



Our application geography is the Hickory MSA. ***Our region’s 311 furniture and textile establishments make up nearly half of the 655 furniture and textile establishments in a 100 mile radius of the Hickory MSA.*** (Source: US Bureau of Labor Statistics)

Our History of Manufacturing and Production –

Manufacturing has long been the lifeblood of our economy. In 2012, manufacturing exports from the Hickory MSA totaled \$1.698 Billion (top third of all MSAs in the US). There are currently 785 manufacturing establishments in the MSA, which account for 27% of all employment (over 37,300 jobs). Average manufacturing wage is 11.2% above the average weekly wage for the region. In 2013 the manufacturing real property assessment, not including equipment, for the Hickory MSA totaled over \$2.3 billion.

Assessment, cont.

Our Employment in the Key Technologies or Supply Chains (KTS) –

As of 2013, 486,451 people were employed nationwide in our KTS and a significant part of the nationwide labor pool is in our state. More than 60,000 North Carolinians work in these industries. The Hickory MSA is home to **18,532** of these employees, accounting for nearly 30% of the state’s furniture and textile workforce.

Our Export Potential in the Key Technologies or Supply Chains (KTS) –

These manufacturing sectors are a vital economic driver in North Carolina with **exports totaling \$2.06 billion in 2012. The Hickory MSA ranks in the top 20 of MSAs in the US in exports from furniture, apparel and textile mills manufacturing.**

Hickory MSA Exports by Industry and National MSA Rankings, 2012			
NAICS Code	Manufacturing Industry	2012 Exports	National MSA Ranking
337	Furniture and Related Products	\$90,423,906	10
315	Apparel	\$51,311,072	14
313	Textile Mills	\$88,452,989	18

Our Existing Public Good Organizations –

In just the past few years the Manufacturing Solutions Center has helped over 1,051 companies from across the country launch products, increase sales and create jobs. MSC’s economic impact over the past eight years totals over \$77 million. MSC is a proven organization and industry demand for its services has increased dramatically. For example, testing volume in the ISO Certified Lab is up 20% since October 2012. The opportunities to grow this entity are huge but the window of time to do it in is small. As many of our skilled workers age out a new generation of workers must be trained. If reshoring companies don’t find the domestic industrial ecosystem to support demand they will look elsewhere across the globe. We must capture this demand; therefore, the work being done by MSC must be scaled up and it must be done soon. Manufacturers are reaching out to MSC for assistance in overcoming industry challenges. They realize the need to work collaboratively and to solve problems, not as a single company working in a silo but by taking an industry wide and systems approach. Since 1990 when the organization was started, it has served as a public good that takes an industry focused approach to:

- ISO rated lab testing
- Workforce development
- Fast Track technician training
- Entrepreneurial support and incubation
- Export assistance
- Support for federal regulations and procuring
- Commercialization
- Applied R&D
- Sourcing
- Prototyping
- Collaborative problem solving
- Assisting with new product launches

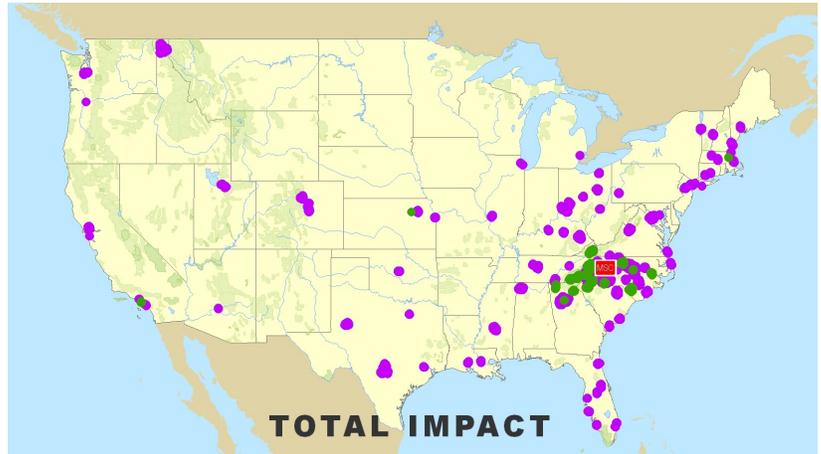
NIST Survey Results (Jan 1, 2005-Dec 31, 2013)	
Increased Sales	\$47,017,639
Retained Sales	\$18,720,000
Cost Savings	\$3,369,231
Investment in Plant/Equipment	\$4,625,000
Investment in Information Systems	\$956,250
Investment in Workforce Practice	\$315,200
Investment in Other Areas	\$1,198,000
Saved on Investments	\$1,399,030
Total Economic Impact	\$77,721,350
Employees Retained	583
Employees Added	309
Total Jobs	892

Source: Surveys conducted by NIST through the MEP program at NC State

Assessment, cont.

The Carolina Textile District, a **Phase 1 IMCP recipient**, is a network of textile related manufacturers that grow and thrive together as they collaborate to meet the increasing demand for US textile production. Formed in 2013, the organization has handled **over 300 clients from 36 states** (shown with purple dots on the map below). The CTD started with two textile partners and **has quickly grown to a network of 28 companies from seven states** (green dots on the map below) that are collectively working to produce goods to meet demand and facilitate the reshoring of this industry, which shows an abundance of economic opportunity for our region and the entire nation.

The organization was created by people who are deeply committed to transforming our communities. We were raised here and have chosen to live here when many of our colleagues have taken jobs in urban areas outside the region. We want young people to return home and we want to raise our children in a place where there is opportunity for them to create bright, creative and promising futures. We see the furniture, hosiery and textile industries as a vehicle for spurring this change.



Our region has been devastated by job losses; however, there remains a large amount of infrastructure for this work, as well as vast knowledgeable and highly skilled people. There is unprecedented demand that exists from business owners and entrepreneurs across the country that have a desire to produce domestically. We see the reshoring movement along with entrepreneurial demand as an opportunity to bring work to our communities along the textile and furniture supply chains. We leveraged previous relationships between Burke Development, Inc. (an innovative economic development organization), Opportunity Threads (a custom cut and sew facility) and the Manufacturing Solutions Center to form the Carolina Textile District, www.carolinatextiledistrict.com. We mapped the value chain, identifying gaps and challenges. In 2013 our work began...

The Challenge	The Solution
Producers wasted time with entrepreneurs and business owners who struggled to navigate the textile production process. It used to be vertically integrated – we needed to make it virtually integrated in order to drive efficiency and innovation.	We Created a Client Intake System and hired an Intake Administrator to facilitate the production process. The beauty of the system is that data is tracked through a web platform and is available instantly. For clients, it creates a one-stop shop that meets all their needs. For Partners in the Network, it provides new contract opportunities and a client vetting system.
No system was in place to facilitate relationships between suppliers. Older mill owners were disconnected from current demand. They struggled to match their production capabilities with emerging market trends and the lower minimums required by entrepreneurs.	We Built the Value Chain by identifying gaps and working to find individuals and companies to fill those gaps. We partnered very closely with existing mill owners to educate them on trends, market their capabilities and connect them to new, potential clients. We’re working to help keep their doors open now and having conversations with them about transitioning their ownership to a new generation in the future.

Assessment, cont.

<p>Clients have energy and passion for their product – they want a sample quickly and they want it done to their exact specifications. We must be able to demonstrate why it is better to produce domestically rather than overseas.</p>	<p>We Launched the Fast Track Program, which gives clients the opportunity to visit our region and work hand-in-hand with producers to create a sample of their product in a week time frame. This gives us a huge competitive advantage compared to overseas producers because we can produce quick-turn samples and clients have more control and involvement over the process.</p>
<p>Major clothing brands want to reshore. Consumers are demanding it but there aren't many large mills left. It's a risk for our small mills to dedicate capacity to larger contracts because it makes them susceptible to the losses that occurred here decades ago.</p>	<p>We Tested the Mill Network, a system for numerous cut and sew mills to work collectively on large contracts with standard pricing and quality control procedures. This allows producers to stay small and nimble while maintaining a diversified client base. However, it allows us, as a region, to capture the larger contracts from major brands that have a desire to bring their production back to the US.</p>
<p>The general population believes that all textile production has gone overseas. They are unaware of the possibilities that exist with reshoring and the movement toward more environmentally friendly production. As a generation retires and young people do not come into this industry there is a risk that the knowledge and skill here will be lost.</p>	<p>We are Fostering a New Generation of Textiles by educating stakeholders about opportunities in this industry. We are working with schools and colleges to train new workers and leaders. We are using environmentally friendly materials, helping Clients and producers market "green" efforts, creating greater efficiency to lower our carbon footprint and transferring mills to zero waste. We are also working with mill owners on <i>Generational Transition Planning</i> so that workers, contracts and knowledge are not lost but are leveraged for a new generation of production.</p>

Our Strengths, Weaknesses, Opportunities and Threats –

From our proven success of partnering amongst public sector entities, private industries and public goods organizations, like the Manufacturing Solutions Center and the Carolina Textile District, we know the way to successfully carry out our strategies is through taking a systems approach to strengthening these industries - an approach that creates public goods upon which many firms can draw and can benefit.

We have evaluated the industrial ecosystem for the furniture, textile and hosiery sectors and have identified gaps that need to be addressed in order to continue the recent growth seen in these sectors. Additionally, as these are sister industries that have grown up together due to their overlapping technologies and integrated needs, the cross-sector opportunities are vast. **We have selected Research and Innovation for bonus weight** for its implementation ready strategies. With our depth of manufacturers and existing public goods, we have the unique opportunity to implement new technologies and innovations on the production floor, which will significantly improve all areas of the industrial ecosystem and create positive economic impacts.

We have had discussions and focus groups with manufacturers in the furniture, textile and apparel/hosiery sectors and many of their critical supply chain sector representatives including logistics, plastics (foams), packaging and many others. We have also spoken with representatives from the EDA and USDA. Our Consortium includes private sector partners; the EDD, Western Piedmont Council of Governments (WPCOG), economic development professionals; county, city and town leaders; financial institutions; public schools, community college and university representatives; community and nonprofit organizations; utilities; and the NC MEP.

From these discussions, especially with individuals from the private sector, we gained a great understanding of what steps need to take place in the next two years and over the long term (5-10 years) to fill gaps in these industries and what well-designed public investment strategies need to be carried out in order to create a vibrant, self-sustaining ecosystem that attracts private investment from new and existing manufacturers and leads to broad-based prosperity.

Workforce and Training

STRENGTHS

- #1 State Furniture Employer in US is North Carolina - #1 MSA is Hickory MSA, #2 State Textile Employer in US is North Carolina - #17 MSA is Hickory MSA, #3 State Apparel/Hosiery Employer in US is North Carolina - #5 MSA is Hickory MSA.
- A strong tradition exists in training workers to become sewers, cutters, machine mechanics, machine operators, finishers and upholsters with 18,532 employed in the furniture, textile and apparel/hosiery sectors accounting for 29% of North Carolina's workforce in these sectors.
- Skilled mentors in these industries are available to pass knowledge down to a new generation of workers.
- 27% of the Hickory MSA employment is manufacturing compared with NC at 11.2% and the US at 9.0%.



- Public schools (K-12) and community colleges are actively seeking partnerships with private companies to increase training in the furniture and textiles industries.
- The Workforce Development Board's Workforce Investment Act (WIA) funding is managed through the Western Piedmont Council of Governments (WPCOG) and provides much needed skill development training and on the job training that positively impacts both the seeker and the industries addressing any skill gap issues.
- Burke County Public Schools has formed a program to expand high school Apparel and Design classes to better prepare students for furniture or textile jobs after high school. The students were learning only on domestic sewing machines, so the schools incorporated training on industrial machines with assistance from the Carolina Textile District and several private companies.
- Caldwell Community College and Technical Institute (CCC&TI) has provided custom training programs as well as individual employer screening, pre-hire training and interviewing, all at no cost to the employer. The college has developed on-demand "institutes" for customized training for major employers, which can include refresher training and re-certifications. These institutes are established to provide pools of talent to be tapped when needed as opposed to training one by one after hiring.
- In Catawba County a special fund is supplemented through a tax for technical education. The County's three school systems collaborate with Catawba Valley Community College (CVCC) on internships and externships to develop technical skills while in high school. In the Apprenticeship Catawba program industries have agreed to pay students while they are completing their high school careers with ½ day at school and ½ day on the job.
- Alexander County has made a \$1.8 M investment to expand its community college manufacturing training programs and is working toward implementation.

WEAKNESSES

- Lack of trained workers in the textile and furniture industries. NC Works reports that in the last 13 months manufacturers posted 860 jobs orders for furniture positions and 326 for textile and apparel positions. Many of these positions will be unfilled.
- Public schools (K-12) and community colleges have moved away from providing hands-on training in skills for our traditional industries.
- Thousands of Generation Y citizens in our region, whose parents or grandparents worked in textiles and furniture, have the impression that these factories and mills are dark and dirty, the jobs are boring and dangerous, and production jobs are not stable. Due to these misperceptions many young people have continued to avoid entering these industries.
- Youth unemployment rates ages are much higher than the overall unemployment with 16-19 age group with a 27.2% and the 20-24 age group at 13.7% compared to the total unemployment rate of 10.5% (2012 ACS).

OPPORTUNITIES

- Companies are asking for fast track training from the Manufacturing Solutions Center and a similar facility, a Consortium Partner, the Textile Technology Center (TTC) at Gaston College. In just two months requests from industry included training for 10 different types of positions including spinning, roving, combing, carding, weaving, knitting, sewing and sewing machine mechanics.
- There is an opportunity to educate students about the positive aspects of these industries through tours, presentations, social media and new partnerships.
- Companies can increase the interest of younger workers by creating an incentive program to hire people full time rather than as temporary workers, by offering better benefits and access to loans for home purchases, or by making improvements to their facilities and work practices that foster more work-life integration.
- Six furniture companies in Catawba County have committed to work with CVCC to create a Furniture Program and have committed trainers and materials for hands-on training and collaboration on program design.
- Alexander County and CVCC have applied to EDA in March 2014 for a grant to create the Advanced Manufacturing Center where private industry has committed to \$107,000 in match, an additional 327 jobs and \$12 M in private investment if the grant is funded.
- The average manufacturing weekly wage is \$743, which is 18.2% higher than the service sector. (BLS)
- The use of industrial sewing machines in the high schools' Apparel and Design class could be expanded across in the region; it will be important to form a sewing training program with our community colleges to provide opportunities for adults as well as worker certifications for specific machines mastery or specific skill sets.

THREATS

- If we don't identify young talent while in high school and educate them about the manufacturing setting and opportunities of today we can't be successful and as our experienced workforce approaches retirement, we have a limited opportunity to pull in new talent to pass on their knowledge.
- Companies have tried to set up training programs in house with little success, without a partnership with the industry and public institutions we won't be able to provide needed workforce.
- Without technology savvy employees we won't be able to implement the efficiencies that must happen for the industries to remain competitive.

Manufacturing Supplier Network

STRENGTHS

- Our largest strength in this area is **the Carolina Textile District (CTD), a Phase 1 IMCP grant recipient**. The CTD is a network of suppliers who work together to facilitate production and increase efficiency. In one short year the CTD has assisted over 300 clients from across the country and has formed a network of 28 companies from seven states. The web platform assists with Client Intake, project management, and measurement and evaluation. It allows the Management Team to pull aggregated data and client information instantly. The value chain model allows the management team to identify gaps in the system and turn those gaps into new business opportunities. For an entrepreneur or investor there is a mutually beneficial system of support through sales commitments of companies in the network.
- Textile and furniture companies have strong relationships with their suppliers and many try to source for economic and sustainability reasons within 100 miles of their facilities. On the textile side companies are often small, with 10-25 employees. Thus they are nimble, resilient and focused on what they do well.
- MSC has the ability to maneuver federal programs and launch a project rapidly. A good example is their current facility funded with Community Development Block Grant and EDA funds received in September 2011. The 30,000 sq foot facility was occupied by October 12, 2012 at \$100 square foot.
- Within 100 miles, including such cities as Greensboro, High Point and Charlotte, there are 655 furniture textile and apparel establishments – 311 of these establishments are in the Hickory MSA.

Assessment, cont.

WEAKNESSES

- Weaknesses for the supply chain in the textile sector include the fact that many suppliers are hard to find, should a manufacturer need to find a new supplier. They do not have websites and sometimes don't have a listed phone number.
- Organizations like the Manufacturing Solutions Center or the Carolina Textile District do not have enough shared staff to connect to all of the mills and facilitate the communication necessary to establish a relationship.
- In textiles smaller supply chain partners often lack resources to provide the most cost effective pricing.
- Before this furniture manufacturing began shifting overseas, our largest furniture companies employed 1500 people and our largest textile companies employed 600. Due to their size, the companies were vertically integrated; this is not always feasible in today's market and economy, nor does it make the companies as resilient and sustainable as they can be when diversified.
- Another weakness is that the furniture industry has seen a reduction in suppliers over the past several decades due to the loss of market industry strength. Manufacturers think there exists a perception that the suppliers don't think there is a large enough market in furniture to make it profitable for a supplier. Many of the latest innovations in upholstery furniture technology have actually come from the textile industry, so there is additional opportunity for crossover.

OPPORTUNITIES

- Companies could utilize a shared database of reliable suppliers with ratings and reviews of performance and quality. Also, companies could work together to encourage and promote a supplier show where various vendors could market products and services to our manufacturers.
- Older mill owners often need help with more modern forms of communication as they learn to utilize email, websites, social media and other tools. These mill owners may have a hard time demonstrating their capacity, as well as the different capabilities of their skilled workers and their equipment.
- Opportunities lie in the interest of a younger generation to become committed to the furniture and textile industry.
- In furniture and textiles an opportunity exists to help smaller suppliers by analyses and processes that increase efficiency to help make the supply chain lean and cost effective for the end user, the client.
- In today's smaller companies, an opportunity exists for additional, joint services for these smaller companies. This could include a joint recycling program or shared equipment.
- Additional shared staff, such as a Human Resources Manager or Marketing Coordinator, could be added. A shared staff person that could serve in an Outside Sales and Marketing role to attend domestic and international trade shows (Magic, Outdoor Retailer, etc.), exhibitions, product demonstrations, seminars and visits to overseas machine and equipment manufacturers.
- A great opportunity in the Supplier Network focus area is to further the brand recognition of the region. This includes joint marketing efforts that would allow for companies in the network to join financial resources to market the entire region nationally and internationally.
- While the region is well known for textile and furniture production, there is not brand awareness around the new, modern production practices and products. There is a real opportunity to re-brand the region as the modern makers of sustainable, environmentally friendly products.



"If you're out on your own you have nothing. If you're working together and sharing things then everybody has something and everybody wins." - Nand Thaper, CTD Partner

Assessment, cont.

- Re-branding efforts could include the creation of certifications and achievement of existing certifications, such as the newly announced “Fair Trade Apparel” designation, where textile manufacturers can earn certification for producing in a sustainable way. For furniture companies, the “Sustainable by Design” registration offered by the American Home Furnishings Alliance is a goal.
- Companies want to have a deeper US supply chain and purchase products domestically, even knowing that they might cost more, but can’t source all materials here because they aren’t available. They need assistance in analyzing the market to truly understand whether or not their customers will support an increase in cost if it meant that they were getting a completely American-made product.
- The furniture industry seeks a mechanism to broadcast widely the depth of the supply needs in furniture and the sales possible to gain suppliers catering to the sector. It would be beneficial to have a system for sharing supplier information.
- Furniture manufacturers are also interested in collective purchasing. This would apply to equipment manufacturers and innovations as well.

THREATS

- Proper infrastructure and support is often not in place for younger mill owners to be successful. There needs to be a system in place to help transition existing companies to new ownership, and management that will maintain the facility, retain jobs and capacity while connecting to new clients.
- The older owners are ageing out and retiring before enough younger entrepreneurs enter the trade to take up the work, which could mean losses of companies, equipment, capacity, resources and knowledge.

Research and Innovation

We have selected Research and

Innovation for bonus weight for its implementation ready strategies. With our depth of manufacturers and existing public goods, we have the unique opportunity to implement new technologies and innovations on the production floor, which will significantly improve all areas of the industrial ecosystem and create positive economic impacts.

STRENGTHS

- The Manufacturing Solutions Center (MSC) is specifically designed for research and innovation. MSC has a staff of knowledgeable and skilled professionals with an industry focus.
- MSC currently has incubator space where companies are conducting R&D, scaling their work and then graduating out to create jobs.
- NC State, the leading university around textile R&D, has a long standing relationship with MSC and many companies in our region.
- Our region has creative, innovative minds that can literally “make anything”. Manufacturing is our heritage and what we are skilled in doing.
- MSC’s rapid prototyping ability gets innovation to the factory floor and new products to market.
- We have a history with hosiery of sharing best practices and information about regulatory issues and the industries of furniture and textiles are asking for that assistance.
- NC State University has an outstanding furniture program and furniture partners in our region have worked with the NC Manufacturing Extension Partnership since 1994.
- MSC has strong partnerships with the NC Center for Engineering Technology and the Western Carolina University Center for Rapid Product Realization.
- Innovation Fund North Carolina (IFNC) is part of a pilot project between Innovation Fund America, the

The competitive advantage that MSC has over other research and development organizations is the facility’s proximity to industry and the companies it works with. As US EDA Deputy Assistance Secretary Tom Guevara stated in a recent speech,

“For too long, we have taken for granted that innovation can be separated from production. What we are finding is that, particularly for products and services where small changes in process can result in large changes in the final product or where new, high tech products are being made, manufacturing must be done in close coordination with basic and applied research.”

Ewing Marion Kauffman Foundation, Catawba Valley Community College and City of Conover to help entrepreneurs through pre-seed funding and mentorship for high-growth, scalable technology startups to bridge the financial ‘valley of death’ for start-ups.

Assessment, cont.

WEAKNESSES

- The funding necessary to carry out much needed projects, including identified problems that need a systematic approach, often remains in the university system and does not reach industry.
- Lack of access to new, advanced manufacturing equipment.
- Lack of skilled workers who can operate new, advanced manufacturing machinery.
- Need to add resources and capacity in the MSC's Research and Development area.

"It'll be different in 10 years. There'll be huge technological advances, like 3D printing for textiles. The US needs to 'get ahead of the curve'. If we're going to completely reshore this industry we've got to automate and be more efficient. We understand textiles and hosiery. Some other places in the country, they might understand 3D printing and others might understand textiles but we know both. We understand fabrics and materials – how they'll perform, how they'll stretch and how they'll fit. If the US is going to automate the textile industry, it'll have to be done by people that understand the potential for 3D printing and its application in textiles."

- Dan St. Louis, Manufacturing Solutions Center Director

OPPORTUNITIES

- Capitalize on new staff at MSC by creating a more seamless transition of intellectual property from R&D labs to the production floor where these innovations can be implemented, tested and revised to meet needs.
- In the textile sector, use the new young entrepreneurs who bring ideas from other industries to develop innovative ways to merge textiles with work in other fields such as healthcare, sports and technology.
- With the help of the MSC, connect with National Network for Manufacturing Innovation (NNMI) Institutes, recently announced by the President, to develop and produce cross-sector innovations as they are implemented on the production floor.
- The 5-axis CNC router, new technology being pioneered in the furniture industry, has the potential for expansion to additional private companies to create better operational efficiency.
- MSC could expand its various services including structural testing, rapid prototyping and reverse engineering to additional private companies.
- Shared R&D staff could attend international trade shows and conferences where new technology is debuted and featured and bring this information back to the companies in the IMCP Consortium.

THREATS

- Lack of capital and funding for companies and research organizations to purchase new equipment and adequate staff to meet all R&D needs.
- Knowledgeable and skilled staff age out quicker than young, innovative minds are brought to the table.
- The R&D side of the textile and furniture industries cannot keep up with the growth as demand continues to increase and work continues to be re-shored.

Infrastructure and Site Development

STRENGTHS

- The region is close to major transportation hubs: Our MSA is within 1 day's drive of 60% of the US population, which makes access to markets easier and quicker for companies.
- East/West connections: I-40 to I-77 (20 minutes); I-40 to I-26 (1 hour). North/South connections: US 321 to I-85 (25 minutes); US 321 is a 4-lane highway in our region with plans to expand to 6 lanes from Hickory to Granite Falls. US 70 and US 64 are multi-lane within our region. NC 16 provides direct access to Charlotte, the largest metro area in the Carolinas.

Assessment, cont.

- Greater Hickory MPO is staffed and led by the Western Piedmont Council of Governments, serving the four-counties of Alexander, Burke, Caldwell and Catawba since 1982. MPO has recently adopted a Long Range Transportation Plan, which includes multi-modal and multi-jurisdictional plans. The LRTP represents the consensus of 27 jurisdictions, including our four counties and its 23 cities and towns.
- The NC Department of Transportation manages road construction and highway management .
- Norfolk Southern provides rail service and maintains a transload facility in southern Caldwell County. Caldwell Railroad provides rail service along the US 321-A industrial corridor of Caldwell County from Hickory to the transload facility in Lenoir.
- The new transmodal facility near Charlotte-Douglas International Airport provides global trade opportunities.
- Caldwell County is one of five counties in an application to expand the Charlotte Foreign Trade Zone.
- Water, sewer, electric and natural gas are abundant and affordable utility services available to the region's industries. Duke Energy is the nation's largest electric utility, and Blue Ridge Electric is one of the country's largest electric cooperatives. Electric service is also provided through NC Electricities members Morganton, Granite Falls and Maiden, as well as Rutherford Electric. Piedmont Natural Gas is available to much of the region's businesses and industries.

WEAKNESSES

- Number and volume of trucking firms in the region has been dramatically reduced during the recession, especially in the furniture area. Fewer carriers are available today and even fewer have experienced with the furniture customer.
- The region lacks affordable access to adequate broadband width for modern business application, and it is not available in all rural areas.
- Inadequate recycling facilities are available to recycle unused materials, scraps and waste.
- Existing vacant manufacturing buildings often have inadequate ceiling heights and need major plumbing and electrical up-fits to accommodate modern manufacturing. While some state funds are available for manufacturing up-fits, no monies are available for expansion into partially used buildings.



OPPORTUNITIES

- Our existing, often smaller, textile and furniture companies are more energy efficient and more environmentally friendly.
 - Opportunity exists to create shared recycling facilities that can support the collection of scraps and waste.
 - Overall we have hundreds of acres of industrial land with great access to water, sewer, utilities and major highways (including available property at the Burke Business Park and land owned by the City of Hickory and already designated as an Industrial Park.
 - We have many vacant properties and facilities that have all necessary infrastructure and amenities for immediate manufacturing occupancy.
- Caldwell County is one of five counties included in expansion application of the Charlotte Foreign Trade Zone.
 - Our abundant and affordable utilities – including electric, water, sewer and natural gas – are part of the reason world-leading companies such as Google and Apple have come to our area and invested over \$1.5B.

THREATS

- Some aspects of our transportation system need attention, most particularly the 321 Bridge across the Catawba River separating Catawba and Caldwell Counties.
- Vacant, aging manufacturing buildings are often too large and need costly up-fitting for reuse by small to mid-sized manufacturers. Companies often find it cheaper to build new facilities, thus allowing existing facilities to remain vacant and deteriorate further.

Trade and International Investment

STRENGTHS

- By latest data available from the International Trade Administration the Hickory MSA ranks in the top 20 of MSAs in exports from furniture, textile and apparel.
- Furniture manufactured in the Hickory MSA has strong international recognition and large demand overseas.
- **Despite fewer employees since 2005, furniture exports from the region have increased 34.0% since 2000 to \$90.4 million. We currently rank as the 10th MSA for furniture exporting.**
- Exporting from textile mills is already strong overseas with success: The International Trade Administration (ITA) reports exports in regional textile mills totaled \$88,452,989 on 2012, or 5.2% of all Hickory MSA exports.
- The Hickory MSA's national rankings for exports from textile mills improved from 25th most exports of any MSA in 2008 to 18th most exports of any MSA in 2012. Textile exports increased by more than \$40 million.
- Buoyed by successes in textile collaboration, furniture makers formed the American Furniture Exporters with help from the USEAC (Exporting Assistance Center), the International Trade Division of the NC DOC and the Charlotte US Export Assistance Center.
- In 2013 the EDA recognized MSC for best practices and asked them to present in Panama at the Americas Competitiveness Forum to 32 countries from the Organization of American States. As a follow up, MSC hosted this group in April 2014 as part of the Americas Competitiveness Tour sponsored by the US DOC.

The Manufacturing Solutions Center (MSC) worked with the textile industry to use a broad array of tools available from the US Department of Commerce. Collaborative marketing in the textile industry has produced a return of 65/1 with over \$30,000,000 in export sales from a 2005 MDCP grant and this collaboration still exists and now has increased to 75/1 return. In 2011 MSC was recognized and invited to present in Washington DC for their success .

WEAKNESSES

- Textile companies lack access to an international salesperson to help them navigate distribution channels.
- The closing of apparel manufacturing facilities in the region caused exports to fall from \$84.6 million in 2005 to \$50.9 million in 2010. Exports from apparel manufacturing fell slightly from \$53.5 million in 2008 to \$51.3 million in 2012. As a result of this decrease, the Hickory MSA's national ranking fell from 7th to 14th.
- No system currently exists to educate foreign companies about the capabilities of our textile companies.
- Additional weaknesses are that furniture and textile companies aren't sure how to get their foot in the door in overseas markets and sometimes have trouble navigating the distribution channels in other countries. Staff that could help overcome these weaknesses would be extremely beneficial.

OPPORTUNITIES

- The opportunities to develop increased trade and international investment for furniture and textiles are massive. Textiles and furniture from our region already sell well in overseas markets and there is a huge demand overseas for US-made goods in these industries, especially furniture. The opportunities specifically lie in the ability for shared staff to help facilitate relationships with overseas vendors and distributors.
- Developing collective branding for our area will ease better recognition and understanding overseas of the goods being produced here, the capabilities of our region's companies and the opportunities for investment.
- Leverage success with previous MDCP grant and partnerships with USEAC, NC DOC and the ITA.
- Utilize joint SEAMS booth (with 38 textile related businesses) at the Atlanta 2014 Texprocess international trade show to create a presence at the Techtexil show in Germany in 2015.

THREATS

- Capitalizing on overseas demand for US production requires quick efforts to capture this demand. We must be mindful of trade barriers from other countries and ensure that policy discussions lead to positive relationships.
- We must understand how best to navigate specific opportunities in a way that will mitigate risk and insulate our companies from the type of extraction that resulted in the decline of these industries several decades ago.

Assessment, cont.

Operational Improvement and Capital Access

STRENGTHS

- The Industrial Extension Service (IES), NC MEP operated through NC State University, provides a major partner across our region. An NC MEP program E3 (Economy, Energy and Environment), developed in 2008 by the Environmental Protection Agency, the US Department of Energy and the US Department of Commerce, facilitates resources to address sustainability and profitability initiatives.
- The E3 process includes three steps: Assess, Transform, Sustain. Step one is an assessment of building practices, lean manufacturing, quality systems, environmental impact, energy efficiency, worker safety and carbon footprint.
- Through E3 the Industrial Extension Service has worked with 24 North Carolina communities and 51 companies including two furniture companies and eight textile or hosiery companies.
- Duke Energy, our region's largest and most widely used utility, is a partner in the E3 program.
- Hickory MSA air quality conditions are good in the Region and we are classified as Attainment for Ozone and Fine Particular Matter by the EPA.

WEAKNESSES

- Often capital is not available for energy efficiency upgrades or financing equipment purchases, specifically those that do not have a quick rate of return. In the last 5 years, standard industry practices have shifted from three year rate of return on energy efficiency upgrades and equipment investments to as little as one year.
- Banks and traditional lending organizations have decreased business loans to textile and furniture companies who need quick access to capital. Strong regional banks were built on manufacturing successes and had the support of industry;

however, as many businesses left the area, regional banks reflected the struggles of industries and left the area or merged with outside banking giants.

OPPORTUNITIES

- The IES program can expand this work by conducting the Assessment part of the process in more of our region's textile and furniture companies and focus on the second step of their three-part process.
- Funds were not previously available for the E3 Step 2, which is the "Transform" piece. Implementing energy and operational efficiency processes are expensive and companies do not have access to capital for these projects because they don't increase production capacity.
- The local entity of VEDIC operates a low interest loan pool funded with local and USDA RBEG funds and this resource and knowledge of vetting projects could be expanded to include additional revolving loan funds from EPA, EDA and USDA (RBEG) (IRP), HUD (AEDI), EPA (RLF), SBA (AP), EDA (RLF).
- With added leverage the banks would be in a better position to provide the remaining capital for energy efficient longer payback projects.
- Hiring shared expert on conducting up-fits and efficiency projects in manufacturing companies. This shared staff person would be a resource to advise what equipment works and doesn't work together, what brand is better, what has worked in other local companies, etc.
- Hiring shared regulatory staff could present an opportunity for a network of furniture companies to work together with a shared staff person who would keep all companies in the network up to date on the latest government regulations and compliance issues.
- Another shared staff could also help manufacturers to better track their products as they are created. For example, advanced manufacturing facilities produce parts that are stamped with the date they are created and which production line they were manufactured on.

"It's not your grandmother's textile mill," said economist Ted Abernathy. "The good news for the South is that the lowest-end jobs are not coming back. New jobs are in the \$35,000 to \$45,000 a year range."

From recent trade article, *"Textile Industry Comes Back to Life"*

In North Carolina, nine textile firms announced plans in 2013 to build or expand plants in the state, creating 993 jobs and investing \$381 million.

Assessment, cont.

- A separate shared staff person could facilitate waste disposal and recycling for both textile and furniture companies in the region. This shared staff could help companies recognize the need to have a lower carbon footprint and be good stewards of resources.
- Although local offices of the Small Business Administration (both the Small Business Centers and the Small Business Technology Development Center) assist start-ups with financial forecasting and developing business plans, limited available resources are available *to scale* manufacturing and production facilities.
- **THREATS**
- Ever changing federal regulations without having adequate staff or resources to keep the manufacturer in compliance with EPA and CPSC regulations. For example, flammability requirements for furniture are harder to meet with new EPA regulations on chemicals used for flame retardants.
- Local furniture companies typically do not have enough funding to hire in-house regulatory staff. The amount of regulations and federal/state requirements in these industries could be a threat to local furniture companies, specifically the Lacey Act, which requires them to provide detailed documentation on the source and origin of imported wood products.

SECTION C: IMPLEMENTATION STRATEGIES

Through thoughtful analysis of our industrial ecosystem we have developed five implementation strategies, which focus on our assets, comparative advantages and the potential of our people, companies and communities to collaborate and advance the US economy through the production of furniture, textiles and hosiery.

Our strategy takes ***an industry focused approach*** that builds an ecosystem defined by and governed by industry. This requires a new approach to economic development – a regional approach that breaks down the silos that exist between counties and states. ***An economy or an industry is not defined by county or state lines.*** Creating regional competitiveness through change to an industry, which will maximize efforts to create jobs and attract private investment, requires regional and national collaboration. Therefore, our strategic plan is based on organizations like the Manufacturing Solutions Center and the Carolina Textile District, a Phase I IMCP recipient, which ***don't just create jobs here, they create jobs everywhere.***

The Hickory MSA is defined by our four counties; however, ***our strategies and economic impacts stretch from Charlotte to Asheville and from Greensboro to Greenville, SC.*** Fostering this regional economy will be the economic engine of the future and will allow for the outlined investments in public goods to lower business risk in the face of global competition.

These sustainable and cohesive programs were formed through conversation and collaboration between multiple different entities across a region much larger than our four counties including economic development professionals; county, city and town leaders; community college and university representatives; financial institutions; utilities/electric cooperatives; nonprofit and community organizations; and our NC MEP. However, the most important group that contributed to this comprehensive, market based and unified strategic plan was our private industry partners.

Five Catalytic Strategies

1. Industry focused organizations
2. Engage a new generation
3. Green manufacturing transformation
4. Grow and expand MSC
5. Loan Program Support

Strategies, cont.

Attached to this proposal are Letters of Support from 51 organizations and 52 private companies, which have committed 687 jobs, a total private investment of \$20,340,000 and an additional \$1,556,196 to the implementation of the strategies. Based on these numbers, and the NIST data provided in the Assessment, we believe our comprehensive and integrated strategic plan will create 3,000-4,000 jobs over the long term.

Estimated long term economic impact (5-10 years)

- 3,000-4,000 jobs created
- \$200-250M increase in private investment
- \$130-140M increase in export sales
- Median income increased by 20%
- 55-60 companies reduce environmental impact

These strategies, which are place-based and centered on the unique assets and capabilities of our region, will spur integrated investments and relationships across county and state lines that create a virtuous cycle of development. The plan also includes a well thought out measurement and evaluation system that allows for continuous assessment, resulting in greater flexibility to ensure success for the short and long term.

Implementation Strategy 1: Industry Focused Organizations

Description and Purpose: Create catalytic and sustainable public good organizations based on the value chain model that organize demand and production, identify gaps in the supply chain to spur private investment and job creation, increase exports, and take an industry driven, systems approach to identifying and solving problems.

FOCUS AREA: Manufacturing Supplier Network, Operational Improvement and Capital Access, Trade and International Investment, Research and Innovation

BUDGET: \$850,000

SUSTAINABILITY: Various revenue streams including client fees and private industry contributions

PARTNERS: Private Companies, Manufacturing Solutions Center (MSC), Carolina Textile District (CTD), Western Piedmont Alliance of Manufacturing Partners (WP-AMP), NC MEP, American Furniture Exporters (AFE), Western Piedmont Council of Governments (WPCOG), Economic Development Corporations (EDCs), Local Governments, other partners as needed

POTENTIAL FUNDING SOURCES: HUD (IPIG pending) (AEDI), SBA (Accelerator Program pending), USDA (RBEG) (IRP), ARC (ADP/Technical Assistance), EDA (Economic Adjustment Assistance/Technical Assistance Programs), Private Companies, Community College System, North Carolina Department of Commerce, Golden Leaf Foundation, Z Smith Reynolds Foundation, additional funders as needed

A. Create the Western Piedmont Alliance of Manufacturing Partners (WP-AMP) to coordinate the IMCP process across the key organizations involved, serve as the governing body, decision making group, and staff for the IMCP designation and ensure long term, cross sector cooperation and engagement.

- Form organization from members of the Consortium, representatives from the WPCOG, MSC and each organized "District" organization to ensure industry control of the IMCP process. The WP-AMP Board must maintain a ratio of two industry representatives for every one representative from the public sector.
- Hire staff to provide administrative support for Designation, submit and coordinate funding applications to ensure non-duplication of services/requests, serve as point of contact with federal agencies, staff industry meetings, distribute regular newsletter updates to all partners and coordinate the measurement and evaluation process including annual manufacturer surveys that drive the metrics and impact assessments.
- Create online platform to be used by AMP and private companies to share resources and information (including suppliers, vendors, purchasing information), integrate seamlessly with industry leaders, share information obtained through analysis of data and trends and coordinate cross sector initiatives.

B. Expand the Carolina Textile District

- Support the increase in client demand by hiring additional Client Intake staff, hiring a Value Chain Coordinator to onboard new company Partners and assist in the coordination of production.

Strategies, cont.

- ii. Create shared staff positions to serve in Marketing, HR, Financial and Administrative roles for the CTD and small firms in the network that are not large enough to staff these positions internally.
- iii. Further develop and strengthen the CTD Mill Network, a program and system to take on larger contracts by coordinating the work amongst several, smaller firms. Staff an Outreach and Sales Coordinator to coordinate and obtain national and international contracts for the Mill Network.
- iv. Continue to extend the CTD value chain deeper into the supply chain to include companies that are carrying out the most innovative textile practices.
- v. Continue to develop best practices for the application of the value chain model in manufacturing to share with the Hosiery District, Furniture District and other communities across the Country that see this model as a way to drive economic impact.

C. Create the Carolina Furniture District and the Carolina Hosiery District

- i. Leverage resources obtained and lessons learned in the development and growth of the Phase I IMCP Carolina Textile District to create similar organizations for the furniture and hosiery sectors.
- ii. Conduct value chain mapping exercises and strategic planning sessions to conduct deeper analysis of the furniture supply chain and hosiery supply chain (based on needle count, cylinder size and machine type) and develop industry specific scope of work for the Furniture District and the Hosiery District.
- iii. Hire a Network Coordinator to facilitate the creation of each District and utilize District organizations to create shared staff positions through the networks and private industry contributions.
- iv. Create intake systems and surveys to organize demand coming from across the United States and overseas, continuously analyze industry trends and changes in the market, organize production and track success.
- v. Utilize network to identify gaps in the value chain. Through close partnership with the Manufacturing Solutions Center coordinate these opportunities with the MSC incubator so incubator graduates can plug directly into the value chains. Once gaps are identified utilize Districts to facilitate the creation of shared supplier companies (ex. plywood manufacturer) that would fill gaps.
- vi. Utilize the Carolina Textile District measurement and evaluation process to create industry specific measurement and evaluation processes to quickly obtain data and metrics that show impacts including products made, jobs created, private investment and environmental impacts.

Implementation Strategy 2: Engage a New Generation

Description and Purpose: Train and support a new generation of workers, leaders, owners and innovators to meet increased demand; retain and transition work, knowledge and infrastructure; and transform the work environment to ensure these sectors are sustained for the long term.

FOCUS AREAS: Workforce Development, Manufacturing Supplier Network, Operational Improvement and Capital Access, Infrastructure and Site Development, Research and Innovation

BUDGET: \$5.6 million

SUSTAINABILITY: Not required for all projects. For those that do require sustainability utilize community college system, local system systems and private companies

KEY PARTNERS: Public School Systems, Community College System, Private Companies, Manufacturing Solutions Center, Textile Technology Center at Gaston College, WP-AMP and newly created District Organizations, Media Outlets, Hospitals, Health Experts, Education Matters, NC MEP, Economic Development Corporations, Legal and Financial Experts, Local Governments, Small Business Center (SBC), Small Business Technology Development Center (SBTDC), NC Division of Employment Security, other partners as needed

POTENTIAL FUNDING SOURCES: DOL (Employment and Training Administration) (TAACT), USDA (REDLG) (RBEG) (IRP), HUD (IPIG pending) (AEDI), DOE, ARC (ADP), SBA (Accelerator Program pending), EDA (Economic Adjustment Assistance) (Technical Assistance), NC Department of Commerce, Community College System, Public School Systems, Z. Smith Reynolds Foundation, Golden Leaf Foundation, Kate B Reynolds Foundation, additional funders as needed

A. Implement cohesive training and apprenticeship programs for students and adult learners to establish a pipeline of future workers.

- i. Partner with Community Colleges to purchase equipment and conduct hands-on, skills training for students and adult learners, as well as a management training program that provides on-site learning, training and an industry mentor. Utilize existing community centers for training so it is accessible to all citizens in the region.
- ii. Leverage current high school classes (Apparel and Design, Woodworking, Carpentry), with the addition of an industrial instructor and industrial equipment, to provide training in hands-on, industry related skills. Pair the training with industry tours and ½ day internship/apprenticeship programs. Establish a clear pathway for these classes to feed into the Community College programs.
- iii. Create fast track training program within the Manufacturing Solutions Center and the Textile Technology Center at Gaston College for equipment operators for furniture and textiles – hire four specialist instructors (knitting equipment specialist, yarn formation specialist, weaving specialist and sewing machine specialist) and two administrators for scheduling, coordination and marketing of program.
- iv. Develop and launch new certification programs to create clarity, deeper understanding and more efficient communication with industry partners of specific skill sets and trainings (i.e. “Single Needle Sewing Certified”, “Gerber Cutter Certified”). Begin as a pilot within our region and then share nationally. Utilize the WP-AMP web platform to connect trainees with current jobs.

B. Conduct a regional branding campaign that tells the modern story of textiles and furniture to demonstrate how these industries provide well-paying jobs and opportunities for building a livelihood.

- i. Develop shared messaging, success stories, talking points and branded materials including paper handouts, social media, website, videos, ads, PSAs, brochures and additional marketing materials.
- ii. Educate young people and adults around NC products, the history of production in our region, modern manufacturing environments and production methods, advanced equipment and machinery, technological innovations, training opportunities, certifications and the availability of well-paying jobs.
- iii. Expand the Education Matters program to all counties in the region with a staff person as regional leader and a staff liaison in each county to increase CRC/Work Keys completion, coordinate STEM tours and serve as an intermediary between community colleges, public school systems and industry.
- iv. Influence key community stakeholders and the community at large by conducting speaking engagements at various events and meetings, and partnering with organizations (i.e. Catawba Science Center) to produce interactive manufacturing displays.

C. Create a system of support that spurs private investment and job creation from young entrepreneurs by facilitating the transfer of ownership from older owners to a new generation and encouraging the growth of new companies.

- i. Establish a mechanism that connects entrepreneurs to the older generation of textile and furniture owners that are aging out, retiring and are prepared to sell their business.
- ii. Utilize the value chain system to support entrepreneurs opening new businesses by demonstrating gaps that need to be filled, connecting them to the network of suppliers and providing them with new contracts.
- iii. Support the transition of existing businesses and the creation of new startups by:
 - iv. Creating a legal, business development and financial team of experts to assist entrepreneurs.
 - v. Employ use of Loan Program to ensure that entrepreneurs have access to capital.
 - vi. Partner with local SBC and SBTDC offices to support entrepreneurs as they grow and scale.

D. Incorporate additional capabilities and services into existing companies, and retrofit existing buildings to make the manufacturing workplace more attractive to a new generation of employees.

- i. Incorporate new technologies, equipment and capabilities throughout the production floor in existing companies (i.e. i-pads at each cutting table to instantly and electronically update inventory). Allow for changes to facility layouts and production flow to facilitate updates.

Strategies, cont.

- ii. Add more facilities that address health and wellness as well as more work-life integration (fitness centers, organic and healthy food services, HVAC, day care centers).
- iii. Fund staff for health services including nurses and physical therapists that address ergonomics and proper job functioning to prevent injuries, improve employee health and lower healthcare costs.
- iv. Develop set of best practices and blueprints for changes to share with other companies across the country.

Implementation Strategy 3: Green Manufacturing Transformation

Description and Purpose: Conduct a green manufacturing transformation that improves environmental quality through operational/energy efficiency programs, changes to existing buildings, environmental certifications, increased use of technology and the creation of low carbon footprint, zero waste facilities.

<p>FOCUS AREAS: Operational Improvement and Capital Access, Infrastructure and Site Development, Research and Innovation</p>	<p>BUDGET: \$7.5 million</p> <p>SUSTAINABILITY: Not required for all projects. For those that do require sustainability utilize private companies, increased sales generated through efficiency upgrades and certifications, revenues from rent and use of shared facilities and loan programs</p>
---	--

KEY PARTNERS: Carolina Textile District, Private Companies, North Carolina’s MEP (NC State University Industrial Extension Service), Local Governments, WP-AMP and newly created District Organizations, Utilities/Electric Cooperatives, Internet Providers, Public School Systems, Community Colleges, Local and Regional Foundations, EDCs, WPCOG

POTENTIAL FUNDING SOURCES: ARC (ADP), HUD (AEDI), SBA (Accelerator Program pending), USDA (RBEG) (REDLG) (IRP), EDA (Technical Assistance) (Economic Adjustment Assistance Program), EPA (TBA) (RLF), FCC Rural Broadband Fund, Land of Sky Regional Council of Governments, additional funders as needed.

A. Assist existing companies with transformation to make their existing buildings and operations more environmentally friendly.

- i. Leverage a wide variety of regional, state and federal programs, including E3, to conduct analysis and implementation of operational and energy efficiency projects within companies in our region and their suppliers.
- ii. Utilize loan program to obtain capital for existing building improvements and upfits.
- iii. Connect existing companies so they can partner to create a joint system for scrap and waste recycling including pick-up, processing and re-entry into the supply chain.
- iv. Create a program and set of best practices that provides a blueprint for existing businesses to follow to become a zero waste facility.

B. Obtain and develop certifications around green initiatives.

- i. Assist manufacturers in obtaining existing certifications (i.e. the Home Furnishings Alliance “Sustainable by Design” certification and the “Fair Trade Apparel” certification)
- ii. Conduct research and analysis to determine new certifications to be created to assist in the further branding around our manufacturer’s capabilities and quality.
- iii. Utilize green certifications in regional branding campaign to encourage a new generation to enter these sectors and in international branding campaign to frame our region’s commitment to green and environmentally friendly practices (logos, hang tags, postcards and other marketing materials).
- iv. Identify entrepreneurial, new business opportunities that can spur job creation for the support of these green initiatives.

Strategies, cont.

C. Create a clustered industrial park of zero waste facilities to lower carbon footprint of production and increase production efficiency.

- i. Build zero waste facilities of various sizes to support small- to mid-size manufacturing businesses, including startups transitioning out of the Manufacturing Solutions Center incubator so they have a support system as they make the transition, grow and scale.
- ii. Support all companies in the park by facilitating use of shared equipment, maintaining shared facilities (warehouse space, cafeteria, gym, community garden and daycare) and coordinating shared services (machine mechanics, delivery, trash and recycling pickup).
- iii. Establish office space at park for the Carolina Textile District, Carolina Hosiery District and Carolina Furniture District with allocated space for shared support staff (Marketing, HR, Financial, and Administrative).
- iv. Leverage existing public transportation system to facilitate access for workers.

D. Upgrade Internet Accessibility and Availability

- i. Provide shared broadband adequate enough for management of virtual showrooms at locations throughout the region, one place suggested is the Small Business Entrepreneurial Centers in the community colleges because they are manned centers.
- ii. Wi-Fi Access in manufacturing centers with adequate bandwidth for commercial application.
- iii. Access for school students K-12 with a personal computer to provide students with exposure and proficiency with computer/internet applications so they are workforce prepared. Our potential future innovators and entrepreneurs must be provided with access to learn the 21st century skills critical to their future success.

Implementation Strategy 4: Expand and Grow the Manufacturing Solutions Center

Description and Purpose: Establish the Manufacturing Solutions Center as the world's leader for Research and Innovation in the textile and furniture sectors and leverage MSC's existing American Furniture Exporters (AFE) network to create additional resources that increase export sales and international investment.

FOCUS AREAS: Research and Innovation, Trade and International Investment, Workforce Development, Manufacturing Supplier Network, Operational Improvement and Capital Access, Infrastructure and Site Development

BUDGET: \$3.8 million

SUSTAINABILITY: Community college system, North Carolina Department of Commerce, Private companies, established revenue streams from industry and University partners

KEY PARTNERS: Private Companies, Manufacturing Solutions Center (MSC), WPCOG, Western Piedmont Alliance of Manufacturing Partners (WP-AMP), Carolina Textile District, Carolina Hosiery District, Carolina Furniture District, NC State University, NC MEP (Industrial Extension Service), Western Carolina University (WCU) Center for Rapid Product Realization – an EDA University Center, Textile Technology Center at Gaston College, SEAMS Association, American Furniture Exporters (AFE), NC Department of Commerce, MDCP of US Department of Commerce, Charlotte United States Expert Assistance Center (USEAC)

POTENTIAL FUNDING SOURCES: SBA (Accelerator Program pending), ARC (ADP), EDA (Technical Assistance/Economic Adjustment Assistance), USDA (RBEG), HUD (IPIG) (AEDI)

A. Expand the Manufacturing Solutions Center (MSC) Incubator program and create co-working space to take an industry wide approach to addressing service, technical and commercialization issues.

- i. Purchase shared modern equipment at MSC for co-working space that can be utilized by both incubator clients and existing companies for new product commercialization and prototyping to provide access to both to the latest technological advances. (Examples: High end 3D printers, 3D printing for textiles, 3D knitting machines, Flat Bed Printing, Gerber cutting machines, Flat Bed Knitting, Industrial Sewing Machines).

Strategies, cont.

- i. Develop protocol for use of shared equipment and costing structure to ensure sustainability.
- ii. Hire three Industry Coordinators at MSC to serve companies by addressing issues on an industry level including coordination of regional meetings and trainings for sharing of knowledge from representation at trade shows and international conferences, visits with equipment manufacturers, monitoring of federal and state regulations, connecting with designers, sourcing of products, and success/pitfalls in building up-fits.
- iii. Set up four hosiery machines at MSC Incubator to allow for new business startups that will have access to MSC staff expertise who will teach entrepreneurs how to run equipment and produce samples.
- iv. Expand CAD and prototyping ability by hiring a CAD operator and testing coordinator to assist in prototyping new lines and commercialization of new products.
- v. Create marketing program with collateral to promote MSC capabilities and programs including:
 - a. Promote rapid prototyping abilities and partnerships with NC Center for Engineering Technology (NCCET) and Western Carolina University (WCU) Center for Rapid Product Realization (an EDA University Center).
 - b. Promote the MSC incubator to identify entrepreneurs who want to launch hosiery, textile and furniture business startups and connect them to the incubator opportunity and Innovation Fund North Carolina, a Kauffman Foundation effort.

B. Leverage MSC Incubator and co-working space to create a program that fast tracks innovation and establishes our region as the world leader for implementing new, innovative equipment in the workplace.

- i. Conduct applied research on flat bed printing for applications in furniture upholstery and textiles in order to streamline custom products.
- ii. Hire a Coordinator to classify, locate and educate growers of alpaca wool and sheep wool on what is necessary to make a good fiber while partnering with the Gaston Textile Technology Center to leverage the center's long staple spinning equipment to spin fibers from US farmers of alpaca wool or sheep wool to meet current domestic demand for these products and facilitate the onshoring of these contracts.
- iii. Partner with American company and hire staff person to pioneer use of 3D printers in textiles and utilize this new, emerging technology to ensure that the US is ahead of this curve.
- iv. Hire an R&D Coordinator within the Manufacturing Solutions Center to fast track innovations and assist in the quick and efficient transition of intellectual property from the university system to the production floor.
- v. Coordinator would form deeper relationships with universities, serve as a liaison between companies and various, regional R&D organizations and travel to established, global conferences about research and innovation to share information with all companies.
- vi. Facilitate innovation by creating branding and marketing materials to recruit R&D talent from other parts of the country, working closely with government agencies and officials to create a smoother process in recruiting talent from overseas, and developing an incentive system for sharing of research and innovation that allows companies to share information while also maintaining their competitive advantage.

C. Increase export sales by growing the American Furniture Exporters group and combining resources to attract international furniture buyers.

- i. Create "one stop shop" shipping and billing solution for international buyers that specifically allows for orders of small quantities.
- ii. Hire two staff people for two years. One to serve as an international trade sales representative to represent all furniture companies in American Furniture Exporters (specifically targeting markets in Canada, Europe and the Middle East because there is strong demand for NC furniture in these countries). The other would be an on-the-ground liaison to expand the number of companies involved in the network and coordinate the one-stop shop shipping and billing solution.
- iii. Leverage partnerships with the NC Department of Commerce furniture exporters program, Charlotte USEAC, US Department of Commerce
- iv. Participate in the Las Vegas Marketplace Furniture show, October and April High Point Market in North Carolina, and have international sales pavilions at both the Cologne and Dubai Furniture Show.

Strategies, cont.

- v. Develop set of best practices for navigating overseas regulations.
- vi. Prepare media information and marketing collateral that can be used overseas to promote the coordinated undertaking and one-stop shop for buyers, as well as marketing collateral that can be used within the US to promote our region's furniture companies and assist in company recruitment for AFE. Marketing strategy will leverage partnership with NC MEP's MNC program.
- vii. Conduct ongoing research and analysis of foreign markets and distribution channels to ensure our region's furniture companies stay ahead of changes in demand.

D. Follow the successful model of American Furniture Exporters to create a similar organization for the textile sector.

- i. Partner with EDA to connect with SelectUSA and International Trade Administration.
- ii. Hire international sales rep for two years to develop markets for Carolina Textile District overseas.
- iii. Target markets such as Japan, Canada and Western Europe since US quality is prized in those markets.
- iv. Conduct research and analysis to better define and understand foreign markets and distribution channels using the Gold Key Program of the US Commercial Service.
- v. Create sales and marketing materials to be used by overseas rep.
- vi. Utilize joint SEAMS booth at the Atlanta 2014 TexProcess international trade show to create a presence at the TexTextile show in Germany in 2015 and partner with SEAMS on future opportunities.

Implementation Strategy 5: Loan Program Support

Description and Purpose: Create the Western Piedmont Alliance of Manufacturing Partners (WP-AMP) Loan Program with various low interest loan pools to quickly extend funds to existing businesses, entrepreneurs and new businesses, which will support and provide resources for the entire body of work planned under the IMCP Designation.

FOCUS AREAS: Research and Innovation, Trade and International Investment, Manufacturing Supplier Network, Operational Improvement and Capital Access, Infrastructure and Site Development

BUDGET: \$15 million
SUSTAINABILITY: Loan repayments and interest

KEY PARTNERS: WPCOG, WP-AMP, Region E Development Corporation, Valdese Economic Development Investment Corporation (VEDIC), Private Companies, Manufacturing Solutions Center, Carolina Textile District, Carolina Hosiery District, Carolina Furniture District

POTENTIAL FUNDING SOURCES: USDA (RBEG) (IRP), HUD (AEDI), HUD(CDBG), EPA (RLF), SBA (AP), EDA (RLF)

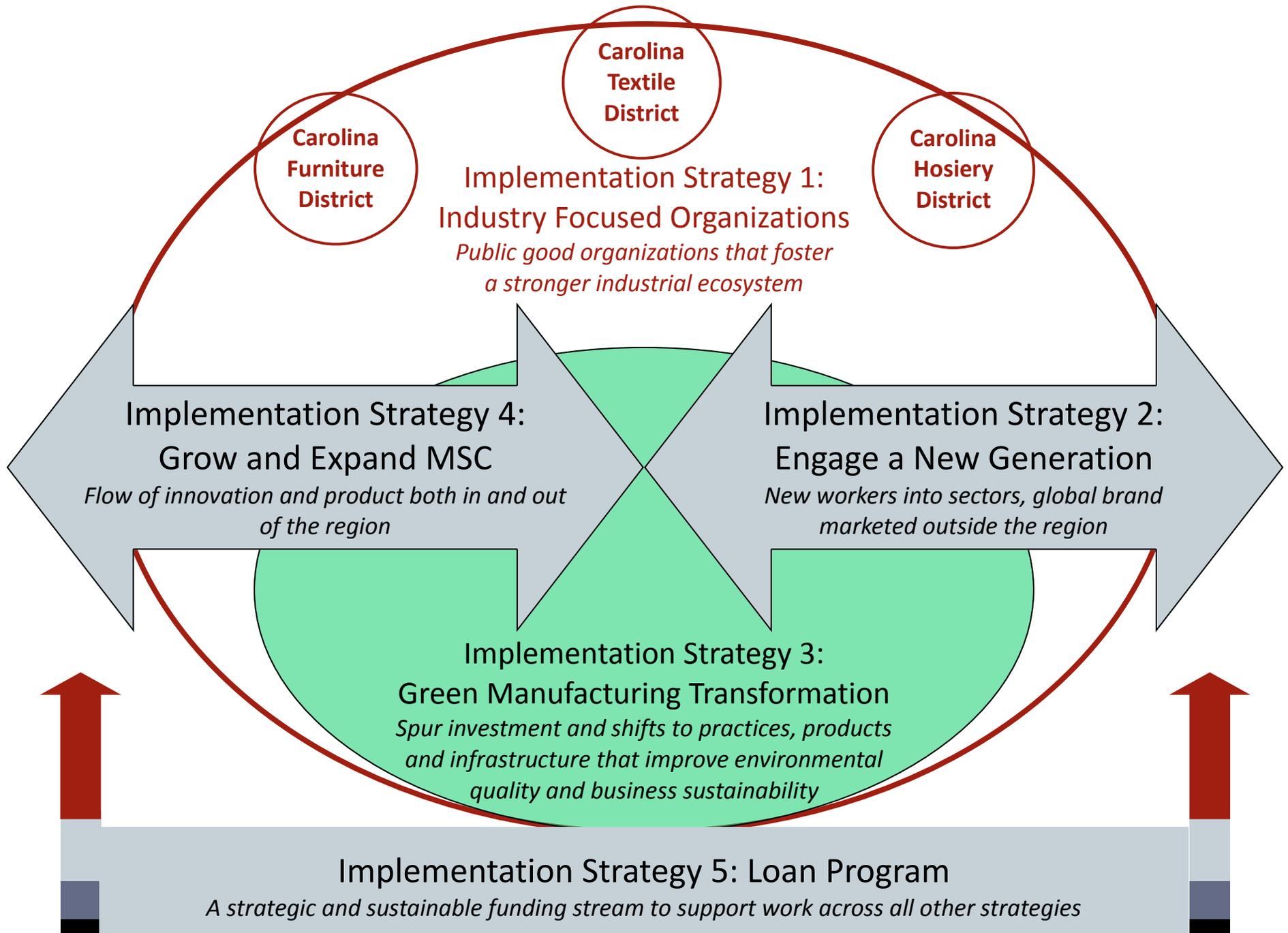
A. Create the WP-AMP Loan Program with various loan pools to lend funds to manufacturing companies.

- i. Leverage partnerships with Region E Development Corporation, an SBA Certified Development Company, and Valdese Economic Development Investment Corporation (VEDIC), an existing community loan organization, to administer the loan program and establish a decision making body.
- ii. Establish policies and procedures, selection criteria, loan requirements and marketing materials.
- iii. Hire two staff people to facilitate the creation and ongoing operation of the WP-AMP Loan Program.

B. Meet the various needs of manufacturing companies through the creation of low interest loan pools:

- i. Loan pool for operational efficiency upgrades to existing, occupied buildings and energy efficiency projects, which would charge projected yearly savings realized from upgrades. Also, a fund to assist owners of unusable vacant buildings/sites for bringing them to viability to be marketed and put back into service.
- ii. Loan pool for equipment and large raw material purchases that do not have a quick rate of return (with option for extending a line of credit) and pool for entrepreneurs wishing to purchase an existing company or start a new company.

Catalytic and Sustainable Strategies that Create National Economic Impacts from the Furniture and Textile Industries



SECTION D: IMPLEMENTATION STRATEGY PARTIES

- **Western Piedmont Council of Governments** is the Development Organization and IMCP Applicant. A regional planning organization, the WPCOG serves 28 local governments in a four-county area. The WPCOG will serve as the fiscal agent for any grants that would result from the IMCP designation, will serve as the primary contact for the proposal and will be responsible for reporting.
- **The Western Piedmont Alliance of Manufacturing Partners (AMP)** is an entity that will be created (Implementation Strategy 1) to serve as the governing body for decisions regarding grants that will result from the IMCP designation. This group will be created from members of the Consortium and will have a representative from the WPCOG, the Manufacturing Solutions Center, the Carolina Textile District, the Furniture District and the Hosiery District. The representative from each of these organizations would be selected from the private companies that participated in the IMCP Consortium. The WP-AMP Board must maintain a ratio of two industry representatives for every one representative from the public sector.
- **Manufacturing Solutions Center** is an accredited ISO/IEC testing facility that helps manufacturers from across the country increase sales, improve quality and improve efficiency to create or retain jobs. MSC works to bring manufacturing into the new era of changing technologies, global marketing and production innovations. Services also include research and development, prototyping, training, assistance with international marketing, sales and military procurement, renderings, 3D rapid prototyping and industry advocacy. MSC will be involved in and vital to carrying out all strategies, but especially Strategy 4: Expand and Grow MSC.
- **Carolina Textile District (CTD), a Phase 1 IMCP grant recipient**, is collaboration between Burke Development, Inc., Manufacturing Solutions Center and Opportunity Threads. **In September 2013 the CTD was a recipient of a \$163,000 Phase 1 IMCP grant.** To date the CTD has supported over 300 clients from across the country and works with 28 manufacturing companies across seven states. The organization is a network of textile related manufacturers that are growing and thriving together as they meet the demand for US textile production and revitalize the textile industry in North Carolina. The project facilitates greater collaboration among the various components of the network so that key business practices, processes and concepts can be shared and integrated throughout the cluster and the competitiveness of companies involved is strengthened. The goal of the project is to make the textile industry more competitive and poised to attract a substantial amount of new foreign contracts due to efficiencies that the network affords and the increased capacity that it allows regional textile firms to leverage. The CTD will serve as the network that carries out projects for the textile industry and will share best practices for the formation of the Furniture District and Hosiery District.
- **Burke Development, Inc., Catawba County EDC, EDC of Caldwell County, Alexander County EDC** are the economic development organizations from each County in the WPCOG four-county region. Each EDC will serve as a liaison between the WP-AMP and local governments/private industry.
- **Opportunity Threads** is a worker-owned cut and sew company in Morganton, NC that works to rejuvenate the textile industry, support local sustainable industry, and create jobs and long-term assets for the worker-owners of the company. Opportunity Threads is a key partner in the Carolina Textile District and will serve as an industry representative of modern textile production.
- **North Carolina State University and the Industrial Extension Service (NC MEP)** supports business in the workplace by helping companies increase productivity, efficiency, quality, and, as a result, profits. IES will partner with the WP-AMP to further advance the work of the E3 program and the MNC database.
- **North Carolina Department of Commerce** facilitates business recruitment, economic development, tourism, community assistance and workforce training programs. The NC DOC will provide support for projects under all focus areas and across all strategies.
- **Region E Development Corporation**, a SBA certified development company, and **VEDIC**, a locally operated investment corporation that manages USDA funds, will assist with the WP-AMP Loan Program.
- **WPCC, CVCC and CCC&TI and School Systems** are the community colleges in the four-county region and K-12 public and private school systems. Each will assist in carrying out various strategies, specifically in Implementation Strategy 2: Engage a New Generation.



Strategy Parties, cont.

- **Private Companies** from various sectors are involved and committed to this IMCP Proposal and the Projects and Strategies outlined. These include: Action Sport Systems, Inc., Appalatch Outdoor Apparel Company, Ashton LLC, Boottights, BSN Medical, C.R. Laine Furniture, Capris Furniture, Carpenter Decorating, Classic Molders, Contour Enterprises, Craftmaster Furniture, DALCO Nonwovens, Designmaster Furniture, EJ Victor, Ethan Allen, Fairfield Chair, Geiger, Hancock and Moore, Hanes Industries, Hickory Business Furniture, Hickory Mechanical, Inc., Hooker Furniture, HSM Solutions, Huntington House, Johnston Casuals, Kincaid Furniture, Lee Industries, Inc., Leggett & Platt, McKinley Leather, Mitchell Gold + Bob Williams, Paladin Industries, Piedmont Fiberglass, Premium Cushion, Inc., Pueri Elemental, Punker, Sample Specialist, Schneider Mills, Inc., Shenandoah, Shurtape, Smart Electric, Solmate Socks, Sutter Street MFG, Inc./William Sonoma, Tarason Packaging, Taylor-King, Timmerman Manufacturing, Troutman Chair Co, Turbotec and Valdese Weavers.
- **Education Matters**, an initiative of CVCC, is a partnership between business, government and education, that will aid in the implementation of student tours and other student activities across the four county region.
- Local **SBC offices**, operated out of the area community colleges, and the **NC Small Business Technology Development Center (SBTDC)**, operated out of the NC University System, will partner to support entrepreneurs, existing and growing businesses by providing a vast array of technical assistance, education and resources.
- **Morganton, Valdese, Hickory, Lenoir and Conover**, the largest local government partners in the region, and **Burke, Catawba, Caldwell and Alexander Counties**, the four counties in the WPCOG region, will assist with carrying out various projects, specifically concerning infrastructure and site development.
- **Duke Energy**, an electric and gas company that serves 7.2 million customers in the Southeast and Midwest, and **Blue Ridge Electric Membership Corporation** and **Rutherford Electric Membership Corporation**, which are regional, member-owned cooperatives, would participate in Strategy 3 to complete a Green Manufacturing Transformation, assist with USDA REDLG funds and also play an important role in the E3 program application and energy efficiency upgrades to existing facilities.
- **Textile Technology Center at Gaston College**, a centralized source of technical support for textile and fiber companies; **Appalachian State University and the NC Center for Engineering Technology**, located in Hickory, NC, and provides facilities for applied research in engineering related fields; the **Western Carolina University Center for Rapid Product Realization**, a university-based product development center; and **SEAMS**, a non-profit membership organization composed of sewn products and contract manufacturing companies, will partner with the Manufacturing Solutions Center for the successful and collaborative implementation of Strategy 4.
- **Catawba Science Center** is a local organization that provides interactive, hands-on science programs and holds exhibits for students and young learners that will aid in sharing the new, modern image of textiles and furniture with the next generation of workers and leaders.
- **American Furniture Exporters**, a group of U.S. furniture manufacturers working together to create a cost-effective program to promote and export American made furniture, will partner with our Alliance to expand the organization, and share their model and best practices with the textile and hosiery industries.
- **Other partners:** Media outlets, hospitals, health experts, legal and financial experts, internet providers, local and regional nonprofits and community organizations.

SECTION E: PERFORMANCE METRICS

Our vision for the future is that the furniture, textile and hosiery industries are strong, thriving innovative places to work. They continue to be economic drivers not only for our region but for US and global markets. They are run and managed by a workforce that spans generations, integrates the latest technologies and continues to take pride in and represent the best craftsmanship and production that the US has to offer in a globally competitive marketplace. We believe these metrics will accurately track our progress toward these goals and will allow us to quickly provide federal departments and agencies with hard data showing our successes.

Metrics, cont.

IMPLEMENTATION STRATEGY 1: Create Industry Focused Organizations				
	Metrics	Milestones	Impacts	Evaluation Methods
Short Term 2-3 years	<ul style="list-style-type: none"> ▫ Creation of the Districts ▫ Participation in web platform/ client intake systems ▫ Contracts obtained through web platforms ▫ Connections made with suppliers ▫ Online profiles created ▫ Connections to suppliers 	<ul style="list-style-type: none"> ▫ Organizations are created and fully staffed to address gaps in the supply chain and industry wide challenges. ▫ State of the art web platforms are in use and are being leveraged for data collection ▫ Participation from furniture, textile and hosiery companies, as well as their suppliers, across the southeast 	<ul style="list-style-type: none"> ▫ 50-60 companies in the Districts ▫ 500-600 clients assessed ▫ 100-200 contracts obtained ▫ 30-40 new supplier relationships ▫ 75% of district companies have online profiles ▫ 10-15 meetings/speaking engagements to seek suppliers 	<ul style="list-style-type: none"> ▫ Conduct annual surveys of all manufacturing Partners ▫ Utilize the Manufactured North Carolina (MNC) database to track profiles created and connections made to suppliers –part of NC MEP ▫ Leverage the web platforms to track clients and contracts
Long Term 5-10 years	<ul style="list-style-type: none"> ▫ Creation of furniture suppliers ▫ Completion of cross-sector projects ▫ Collective purchasing and shared production ▫ Shared services and staff ▫ Shifts from overseas to domestic suppliers 	<ul style="list-style-type: none"> ▫ There exists an ecosystem of strategic value chain organizations that are linked together and serve as a manufacturing engine for the US economy ▫ Private companies and public organizations work in partnership with the Districts to create and sustain well-paying jobs 	<ul style="list-style-type: none"> ▫ 10-15 new furniture suppliers started ▫ 8-9 cross-sector projects completed ▫ 15-20 companies doing collective purchasing or shared production ▫ 12-15 companies sharing staff through the District organizations ▫ 15% of supplier contracts shifted from overseas to domestic suppliers 	
IMPLEMENTATION STRATEGY 2: Engage a New Generation				
Short Term 2-3 years	<ul style="list-style-type: none"> ▫ Positive media impressions ▫ Public schools conducting industrial training ▫ Partnerships between colleges/ public schools and companies ▫ Increase apprenticeship, internship opportunities ▫ Decrease unemployment rate of youth (16-24) 	<ul style="list-style-type: none"> ▫ Generation Y and Z have a new understanding of the manufacturing work environment and opportunities available ▫ Young workers are being trained and connected to jobs ▫ Mills that need to be transitioned are identified, transition plans are created and implemented. ▫ Manufacturers make upfits to buildings. 	<ul style="list-style-type: none"> ▫ 100-125 positive media impressions ▫ 80% of area high schools conducting industrial training and 20% increase in manufacturing internships ▫ 25% increase in number of partnerships between colleges/schools and companies ▫ Reduce unemployment for 16-19 year olds below 20% and for 20-24 year olds below 10% 	<ul style="list-style-type: none"> ▫ Annual Partner Surveys ▫ Utilize Bureau of Labor Statistics and NC DOC job data ▫ Google Alerts and Analytics to track media/web impressions ▫ Implement tracking mechanism in public schools/colleges to maintain number of students trained/ partnerships ▫ American Community Survey (ACS)
Long Term 5-10 years	<ul style="list-style-type: none"> ▫ Graduates of college training programs ▫ Generational changes to work environments ▫ Workers under 40 in these sectors ▫ Job openings that are quickly filled 	<ul style="list-style-type: none"> ▫ Integrated training system serves as a direct pipeline into well-paying jobs and workers are continuously retrained on advanced, state of the art equipment ▫ An incentivized system is in place for younger entrepreneurs to enter these sectors and workplaces are appealing to a younger generation. 	<ul style="list-style-type: none"> ▫ 100-125 graduates of college training program and 200-300 workers under 40 in these sectors ▫ 20-25 companies make generational changes to work environments, practices or culture ▫ 20% reduction in job postings that stay open for more than 2 months 	

Metrics, cont.

IMPLEMENTATION STRATEGY 3: Conduct a Green Manufacturing Transformation				
	Metrics	Milestones	Impacts	Evaluation Methods
Short Term 2-3 years	<ul style="list-style-type: none"> ▫ Recycling programs started ▫ Improved internet access ▫ E3 assessments completed and transformations implemented ▫ Existing certifications achieved ▫ Companies marketing environmental efforts ▫ Reduction in companies' carbon footprint and waste 	<ul style="list-style-type: none"> ▫ Existing companies have made changes and upfits to become more energy efficient, have implemented recycling programs and have created joint recycling facilities ▫ The region is branding its environmental efforts and impacts with existing and new certifications ▫ Shared spaces, staff and services are increasing efficiency and lowering carbon footprint 	<ul style="list-style-type: none"> ▫ 10 companies start recycling programs ▫ 15% increase in companies with high speed internet access ▫ 10-15 E3 assessments completed, 3-5 transformation projects completed ▫ 10-12 certifications achieved ▫ 30% of companies in districts marketing their environmental efforts ▫ 5-8 facilities lower carbon footprint ▫ 5-8 facilities transferred to zero waste 	<ul style="list-style-type: none"> ▫ Annual partner surveys ▫ Leverage E3 partnership and program to track efficiency assessments and improvement
Long Term 5-10 years	<ul style="list-style-type: none"> ▫ Recycling facilities in place ▫ Companies shift to zero waste and reduce carbon footprint ▫ E3 improvements sustained ▫ New certifications implemented ▫ Entrepreneurs that have started new zero waste companies 	<ul style="list-style-type: none"> ▫ Region is national model for companies that increase efficiency, lower environmental impact, become certified in innovative green initiatives for both infrastructure and manufacturing processes ▫ An eco-industrial, clustered manufacturing space is thriving with strategically integrated businesses that increase efficiency and lower environmental impact by sharing common spaces and services 	<ul style="list-style-type: none"> ▫ 2 new recycling facilities in place ▫ 12-16 facilities transfer to zero waste ▫ 12-16 facilities lower carbon footprint ▫ 25-30 companies achieve certifications ▫ 5 entrepreneurs that start new, zero waste companies 	
IMPLEMENTATION STRATEGY 4: Expand and Grow Manufacturing Solutions Center				
Short Term 2-3 years	<ul style="list-style-type: none"> ▫ Entrepreneurs use MSC incubator program and coworking space ▫ Companies leveraging MSC/ Partners for prototyping, engineering capabilities ▫ New products launched ▫ Conferences/trade shows attended by shared staff ▫ Contracts obtained from overseas and products sold overseas ▫ Foreign businesses/investors exposed to company capabilities 	<ul style="list-style-type: none"> ▫ MSC has the newest technologies and most advanced equipment available for incubator program and coworking space, allowing companies to fast track prototyping and product development ▫ Product and process innovations are reaching the manufacturing facilities and are implemented on the production floor ▫ Companies use overseas staff and to promote capabilities/products 	<ul style="list-style-type: none"> ▫ 5-6 incubator participants/graduates ▫ 4-5 companies use coworking space ▫ 150-200 company projects conducted leveraging MSC for prototyping, reverse engineering ▫ 15-20 new products launched ▫ 8-10 conferences/trade shows attended by shared staff ▫ 12-15 new contracts obtained from overseas salesperson ▫ 75-80 foreign businesses/investors exposed to company capabilities 	<ul style="list-style-type: none"> ▫ Partner surveys ▫ NIST- NCSU 3rd party survey ▫ Exporting data from NC DOC and Charlotte USEAC ▫ Work with US patent office to track patents for processes/ products
Long Term 5-10 years	<ul style="list-style-type: none"> ▫ New, advanced equipment purchased by companies ▫ Best practices/regulatory info shared among companies 	<ul style="list-style-type: none"> ▫ MSC leads nation in sector innovation by pioneering development/industry application of advanced equipment 	<ul style="list-style-type: none"> ▫ 10-12 companies use coworking space ▫ 15-18 pieces of advanced equipment purchased 	

Metrics, cont.

IMPLEMENTATION STRATEGY 4: Expand and Grow Manufacturing Solutions Center (Cont.)				
	Metrics	Milestones	Impacts	Evaluation Method
Long Term 5-10 years Cont.	<ul style="list-style-type: none"> ▫ Process innovations implemented on production floor and companies training skilled workers on advanced equipment ▫ Positive policy discussions around international trade and investment ▫ Relationships with overseas vendors and distributors 	<ul style="list-style-type: none"> ▫ MSC houses the premier exporting systems and organizations for the furniture, textile and hosiery industries, with multiplied and leveraged impacts that drive the global market 	<ul style="list-style-type: none"> ▫ 40-50 industry focused meetings to share regulatory info/best practices ▫ 20-25 companies investing in training and 8-10 new process innovations ▫ 5-10 positive policy discussions ▫ 15-20 new relationships with overseas vendors and distributors 	<ul style="list-style-type: none"> ▫ Leverage the web platforms and intake systems of the Districts to track foreign clients and contracts obtained
IMPLEMENTATION STRATEGY 5: Provide Capital Access Support				
Short Term 2-3 years	<ul style="list-style-type: none"> ▫ Companies utilize loans for startup capital and scaling and line of credit for equipment purchases. ▫ Companies implement efficiency upgrades with loan funds ▫ Utilization of loan fund by expanding companies that are adding jobs 	<ul style="list-style-type: none"> ▫ Loan programs, including procedures and requirements, are in place ▫ Companies throughout the region are aware of loan program opportunities ▫ Process for extending a line of credit is developed and pioneered 	<ul style="list-style-type: none"> ▫ 15-20 loans given ▫ 15-20 lines of credit given for equipment purchases ▫ \$3M in loans for efficiency and operational improvement projects ▫ 60% of loans given to companies that are adding jobs 	<ul style="list-style-type: none"> ▫ Conduct annual surveys with partners ▫ Track the number of loans
Long Term 5-10 years	<ul style="list-style-type: none"> ▫ Increase in loans to manufacturers from traditional lending organizations ▫ Companies contributing to long term sustainability of the loan program 	<ul style="list-style-type: none"> ▫ Regional, cross-sector loan program is sustained, meets capital needs and spurs innovation/investment ▫ Loan program provides support/resources for green manufacturing transformation and transfer these industries to a new generation 	<ul style="list-style-type: none"> ▫ 10% increase in loans from traditional lending organizations ▫ 45-50 companies contributing to the long term sustainability of the loan program 	
OVERALL ECONOMIC IMPACTS ACROSS ALL FIVE CATALYTIC STRATEGIES				
	IMPACTS		EVALUATION METHODS	
Short Term (2-3 years)	<ul style="list-style-type: none"> ▫ 600-900 jobs created ▫ \$50-70M increase in private investment ▫ \$40-60M increase in export sales ▫ Median income increased by 10% ▫ 20-25 companies take action to reduce environmental impact 		<ul style="list-style-type: none"> ▫ Annual Partner Surveys ▫ NC DOC Data ▫ NIST ▫ ITA ▫ BLS ▫ ACS ▫ Grant Documentation ▫ Loan Reporting Documentation ▫ WPCOG Data Center 	
Long Term (5-10 years)	<ul style="list-style-type: none"> ▫ 3,000-4,000 jobs created ▫ \$200-250M increase in private investment ▫ \$130-140M increase in export sales ▫ Median income increased by 20% ▫ 55-60 companies take action to reduce environmental impact 			

SECTION F: FEDERAL FINANCIAL ASSISTANCE EXPERIENCE

The Western Piedmont Council of Governments (WPCOG) possesses extensive experience in managing federal funds in an effective and efficient manner. The WPCOG administers a variety of federal programs that benefit our regional economy and its communities. Since the creation of the WPCOG in 1968, it has administered more than **\$1 billion** in grants, with a majority coming from federal agencies. The WPCOG administers the following programs that utilize federal funds: Community Development Block Grants (CDBG), Appalachian Regional Commission (ARC), Small Business Administration (SBA), Economic Development Administration (EDA), Workforce Investment Act (WIA), Older Americans Act, U.S. Housing & Urban Development (HUD) – Housing Choice Vouchers Program, HUD Housing Counseling, HUD HOME Investment Partnerships Consortium (HOME), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA). The WPCOG annual budget exceeds \$16,000,000, of which the vast majority comes from federal programs.

Workforce Development: Each year, the WPCOG Workforce Development staff administers over **\$5,000,000 and assists over 500 people per year** in obtaining employment through skill training and education. This WPCOG program assisted in the creation of over 3,000 jobs during the last 5 years.

Community & Economic Development: The WPCOG Community & Economic Development staff administers a number of state and federal grant programs to provide stable housing, infrastructure, economic development and community development. These include CDBG, EDA, ARC, and HUD HOME Investment Partnerships funds. Below is a summary of the projects developed, managed and administered by the WPCOG from 2009 to 2013. During this period, WPCOG Community & Economic Development staff assisted in the creation 1,261 jobs and improved housing for 1,978 households.

WPCOG Community and Economic Development Projects 5 Years (2009-2013)							
Year	ARC/EDA	CDGB	HUD HOME	HUD/ Counseling/ Foreclosure Prevention	NC State Agencies	Number of Projects	Total
2009	\$172,218	\$2,029,749	\$1,184,021	\$253,600	\$19,392,699	23	\$23,032,287
2010	\$2,671,919	\$3,468,135	\$1,177,272	\$158,358	\$3,911,947	26	\$11,387,631
2011	\$172,876	\$2,450,647	\$1,036,272	\$3,500,000	\$13,419,994	23	\$20,579,789
2012	\$172,876	\$3,855,527	\$824,401	\$696,431	\$2,145,928	24	\$7,695,163
2013	\$332,669	\$3,313,038	\$777,392	\$584,820	\$1,065,000	20	\$6,072,919
Total	\$3,522,558	\$15,117,096	\$4,999,358	\$5,193,209	\$39,935,568	116	\$68,767,789

Transportation: Since 1983, the WPCOG has served as the Metropolitan Planning Organization for the WPCOG region. As the lead planning agency, the WPCOG administered more than **\$46 million in funds from the FHWA**. The WPCOG also administered more than **\$1 million in funds from the FTA**.

Small Business Administration Loans: The WPCOG manages the SBA's 504 Loan program for the region (via the Region E Development Corporation). This program assists businesses with credit that cannot be obtained through conventional lending sources. The program has assisted dozens of businesses, since 1982, with job creation through capital investment.

Area Agency on Aging: The WPCOG serves as the Area Agency on Aging under the Older Americans Act. The WPCOG manages aging program funds exceeding **\$5 million annually** that serve over 3,000 families.

Federal Financial Assistance Experience, cont.

Housing Choice Voucher Program: The WPCOG is a HUD recognized Public Housing Authority and operates the largest Housing Choice Voucher Program in the area. It serves 1,074 households annually with rental assistance to low income persons to ensure safe and affordable housing for those in need. The WPCOG manages more than **\$4.5 million annually** for this program.

SECTION G: GEOGRAPHIC SCOPE

North Carolina’s Hickory-Lenoir-Morganton Metropolitan Statistical Area (Hickory MSA) is a strong manufacturing region with 27% of its employment in the manufacturing sectors – 3 times the national average. According to third quarter 2013 data from the US Bureau of Labor Statistics (BLS), 37,917 of 140,700 jobs in the Hickory MSA, or (26.9%) are in the manufacturing sector. The Hickory MSA has a much greater percentage of jobs in the manufacturing than the State of North Carolina (11.2%) or the United States (9.0%). BLS data reveals that there were 785 manufacturing establishments in the Hickory MSA as of third quarter 2013.

The region is focusing its efforts on Furniture, Textiles and Apparel/Hosiery. The Hickory MSA is home to **18,532** of these employees and our region accounts for nearly 30% of the state’s workforce in these sectors. While the defined regional boundary of the application is the Hickory MSA, the region’s 311 furniture and textile establishments are indelibly interconnected with the **655 furniture and textile establishments in a 100 mile radius including Charlotte, Greensboro, High Point NC and Greenville SC to list a few. The Hickory MSA supplies nearly half of the establishments in the KTS.**

(Source: US Bureau of Labor Statistics).

The table to the right additionally reflects the importance of the Hickory MSA and North Carolina to these sectors, ranking them in the US by the US Cluster Mapping Website (<http://mvp.clustermapping.us>).

North Carolina Emp. Ranking in US	Hickory MSA Emp. Ranking in US
#1 - Furniture	#1 - Furniture
#2 - Textiles	#17 - Textiles
#3 - Apparel/Hosiery	#5 - Apparel/Hosiery

U.S. Cluster Mapping, Institute for Strategy and Competiveness

The Hickory MSA is a leading exporter of many manufacturing products **doubling its exports in the last 5 years with a total of \$1.698 Billion (top third of all MSAs).** The most recent data from the International Trade Administration (ITA) reveals that the Hickory MSA **ranks in the top 20 of MSAs in the United States for the value of exports in the furniture, apparel and textile industries.**

IMCP Industry Top-Third Requirement

NAICS Code	Manufacturing Industry	2012 Exports	2012 National MSA Ranking
337	Furniture and Related Products	\$90,423,906	10
315	Apparel	\$51,311,072	14
313	Textile Mills	\$88,452,989	18

Source: International Trade Administration, 2014

As part of the IMCP proposal, EDA requires that the Hickory MSA ranks in the top-third of the nation in its key manufacturing sectors in order for the region to build on its existing strengths. This application will use the location quotient guidance provided by EDA to determine Hickory MSA top-third rankings.

The first step in the analysis was to determine the location quotients (LQ) for Hickory MSA manufacturing industries. Using EDA guidance, the following formula was used to determine Hickory MSA employment LQ by manufacturing industry (2012 employment data provided by BLS):

Geographic Scope, cont.

$$\text{LQ} = \frac{((2012 \text{ Hickory MSA Industry Employment}) / (2012 \text{ Hickory Total Employment}))}{((2012 \text{ US Industry Employment}) / (2012 \text{ US Total Employment}))}$$

Once the LQs were calculated, the next step was to determine which manufacturing industries the Hickory MSA ranked in the top-third nationally. EDA guidance provided a table called “Top-Third Ranked Location Quotients for Establishments and Employment by 4-digit Manufacturing NAICS Codes.” The numbers in the table provide the employment LQ for each 4-digit manufacturing industry for the 17th ranked state. Employment LQs for Hickory MSA industries that were above the employment LQ for the 17th ranked state were considered in the top-third of LQ nationally, and are therefore eligible to be considered for IMCP funding based on employment LQ.

The results of the LQ employment analysis for the Hickory MSA can be seen in Table 3. Results show that employment LQs for 4-digit NAICS code sectors in the apparel, furniture, plastics, and textile industries exceed the top-third employment LQ cutoffs. This means that these Hickory MSA manufacturing sectors are eligible to be considered for IMCP funding.

Hickory MSA Location Quotients (LQ) and Top-Third Rankings by Industry, 2012						
NAICS Code	Industry	2012 Hickory MSA Employment	2012 US Employment	Hickory MSA LQ	Top-Third Employment LQ Cutoffs	Is Hickory MSA in Top Third Ranked LQ Quotients?
0	Total All Industries	139,686	131,696,378			
3131	Fiber, Yarn, and Thread Mills	477	28,140	15.98	1.00	Yes
3132	Fabric Mills	1,810	55,316	30.85	1.00	Yes
3133	Textiles and Fabric Finishing	935	34,477	25.57	1.00	Yes
3149	Other Textile Product Mills	111	63,567	1.65	1.13	Yes
3151	Apparel Knitting Mills	436	14,145	29.06	1.00	Yes
3159	Accessories and Other Apparel	201	12,436	15.24	1.08	Yes
3261	Plastic Products	2,214	515,233	4.05	1.07	Yes
3371	Household and Institutional Furniture	12,484	217,729	54.06	1.02	Yes
3372	Office Furniture and Fixtures	1,521	98,230	14.60	1.13	Yes

SECTION H: SUBMITTING OFFICIAL

H. Dewitt Blackwell, Jr., Executive Director of the WPCOG, has been authorized by resolution and letter to submit this Proposal for Manufacturing Community. The WPCOG is the Economic Development District for the region. The Point of Contact for the Consortium is Anthony Starr, Assistant Executive Director.

Letters of Support

Included are letters of support from **51 organizations and 52 private companies, committing 687 jobs, a total private investment of \$20,340,000 and an additional \$1,556,196 to implementation of the strategies.** There are 13 companies from outside the region including six from other states as far reaching as California and Vermont.

Business Partners

Action Sport Systems, Inc.

Appalatch Outdoor Apparel Company

Ashton LLC

Boottights

BSN Medical

C.R. Laine Furniture

Capris Furniture

Carpenter Decorating

Classic Molders

Contour Enterprises LLC

Craftmaster Furniture

DALCO Nonwovens

Designmaster Furniture

EJ Victor

Ethan Allen

Fairfield Chair

Geiger

Hancock and Moore

Hanes Industries

Hickory Business Furniture

Hickory Mechanical, Inc

Hooker Furniture

HSM Solutions

Huntington House

Johnston Casuals

Jonathan -Wesley

Kincaid Furniture

Lee Industries., Inc.

Leggett & Platt

McKinley Leather

Mitchell Gold + Bob Williams

Opportunity Threads

Paladin Industries

Piedmont Fiberglass

Premium Cushion, Inc

Pueri Elemental

punker

Sample Specialist

Schneider Mills, Inc

SEAMS Association

Shenandoah

Shurtape

Smart Electric

Solmate Socks

Sutter Street MFG, INC/William Sonoma

Tarason Packaging, LLC

Taylor-King

Timmerman Manufacturing

Troutman Chair Co

Turbotec

Valdese Weavers

XOAB LLC

Higher Education & Public School Partners

Alexander Schools

Burke County Public Schools

Caldwell EDC

Catawba Schools

Catawba Science Center

Education Matters

Gaston College

Manufacturing Solutions Center

NC Center for Engineering Technologies

NC State

Newton-Conover City Schools

Small Business & Technology Development Center

Western Piedmont Community College

Local Government

Western Piedmont Council of Governments

Alexander County

Burke County

Caldwell County

Catawba County

City of Claremont

City of Conover

City of Hickory

City of Lenoir

City of Morganton

City of Newton

Town of Cahaj's Mountain

Town of Catawba

Town of Drexel

Town of Gamewell

Town of Granite Falls

Town of Hildebran

Town of Hudson

Town of Long View

Town of Maiden

Town of Rhodhiss

Town of Rutherford College

Town of Sawmills

Town of Taylorsville

Town of Valdese

Economic Development Partners

Alexander County EDC

Burke Development Incorporated

Caldwell County EDC

Carolina Textile District

Catawba EDC

NC Department of Commerce

Western Piedmont Workforce Development Board

Western Piedmont Council of Governments

Finance and Utility Partners

Blue Ridge Electric

CVCC Foundation

Duke Energy

Region E Development Corporation

Rural Support Partners

Rutherford Electric

VEDIC