VISION FOR WESTERN NEW YORK’S ADVANCED MANUFACTURING CLUSTER

In 2011, Western New York (WNY), a five-county 1.5-million-person region made up of the state’s westernmost counties, formed a broad-based coalition—the WNY Regional Economic Development Council (WNY REDC). The group, made up of government, business and community leaders developed “A Strategy for Prosperity”, a regional economic development plan to guide cohesive and targeted economic development. The strategy has been regularly updated and continues to drive the region forward. Based on the strength of the WNY REDC’s plans and the region’s potential, New York State made a historic commitment to invest $1.5 billion in the region to boost Advance Manufacturing (Adv. Mfg.) as a key regional industry sector poised for growth in the regional strategy. Coalition members, industry leaders and equity partners have collaborated to:

- Improve Adv. Mfg. competitiveness;
- Increase innovation through access to applied research and scaled testing facilities;
- Improve productivity through the adoption of more effective operational processes;
- Expand the market for products through increased export assistance;
- Prepare formerly industrial land and factories for expansion of Adv. Mfg. facilities;
- Prepare an appropriately skilled workforce to meet Adv. Mfg. labor needs.

This investment has enabled WNY to become a national hub for Adv. Mfg. and R&D in vaccines production, utility infrastructure components, industrial gases, and precision motion control. The US runs on products made in WNY, by good union jobs. Build Back Better (BBB) funding will scale up existing Adv. Mfg. strategies through projects that spark innovation, advance inclusive workforce development, and develop infrastructure for Adv. Mfg.

Innovation

Since 2011, WNY has worked to fill gaps in our innovation ecosystem that impede equity and economic growth. Through assets such as UB Innovation Hub, 43North, Launch NY, Startup NY and the WNY Incubator Network, we attract start-ups throughout the five-county region and foster their growth through R&D, business expertise/support, funding, and access to incubators and equipment. We need to build the region’s unique specializations to enable industries like materials processing, chemicals, and health technology and capitalize on our area’s strong but underutilized materials-sciences R&D infrastructure. Buffalo Manufacturing Works was developed to innovate with existing ventures to promote competitiveness and growth. Proposed innovation projects address these deficiencies and accelerate growth.

Workforce Development

Guided by the strategy, regional stakeholders are designing employer-driven training programs that align skills to industry demand and form career paths to rapidly upskill job seekers, including in Adv. Mfg. Programs are specifically targeting the underrepresented and underemployed. The region encourages a multi-pronged approach that involves recruitment and assessment, wrap-around services, and job placement and retention. There are many regional assets working toward these same goals including Northland Workforce Training Center, Goodwill of Western New York, community colleges, BOCES and the Burgard High School Advanced Manufacturing program. Our proposed projects will bolster these existing strategies and explore expanding the geographic reach of effective training programs.
**Infrastructure**

Reversing environmental degradation left by the region’s industrial past is core to WNY’s smart growth strategy. Redevelopment of brownfield sites stops sprawl, uses existing infrastructure, revitalizes neighborhoods and attracts investment and jobs where people live. For example, NYS invested in the cleanup and reuse of the former Bethlehem Steel plant property on the shoreline of Lake Erie in Lackawanna, which is now actively being used by several companies. It also purchased 35 acres of underused property in Buffalo’s East Side and is transforming the area into an Adv. Mfg./training hub with the Northland Workforce Training Center and Buffalo Manufacturing Works as anchors. Proposed infrastructure projects will continue to realize the vision of the Corridor; and explore sites regionally for Adv. Mfg. companies to grow.

**WNY'S COMPETITIVE ADV. MFG. ECONOMIC OPPORTUNITY**

Representing 10% of the regional economy today, Adv. Mfg. emerged as one of WNY REDC’s core sector strategies with 61,360 workers across 1,581 firms that paid an average wage of $85,474 in 2020. The industry is 29% more specialized in WNY than it is in the U.S., with a location quotient of 1.29% in 2020, thanks in part to 800 self-employed manufacturers. About half of Adv. Mfg. jobs in WNY are in growing sectors, and about one-third are growing faster than the national average (Newmark study, prepared for InBN, page 19).

Yet it’s an industry threatened by hard-to-fill positions, an older workforce, looming retirement cliff, low racial diversity, little succession planning, aging infrastructure and limited industrial sites. Over 19,100 workers are 55+ and workers of color would have to more than double to meet the national average in terms of diversity. The pandemic intensified the need for a strong, highly skilled workforce pipeline, stronger supply chains and innovation. With shutdowns and supply chain disruptions, some manufacturers saw a drop in revenues and others had to cut labor costs. Data also shows that Adv. Mfg. became slightly more specialized from 2019 to 2021, indicative of a growing regional strength and potential in WNY. (Sources: EMSI, ACS-1Yr).

Within this industry, the US Cluster Mapping methodology identifies eight subsectors where WNY has its highest Regional Competitiveness and Specialization compared to the US: Lighting and Electrical Equipment; Upstream Chemical Products; Vulcanized and Fired Materials; Biopharmaceuticals; Food Production and Manufacturing; Metalworking Technology; Production Technology and Heavy Machinery; and Aerospace Vehicles and Defense. Representing $6.4B in GRP, this Regional Growth Cluster employs 30,034 individuals averaging a salary of $91,378 in 2021. WNY’s BBB efforts will boost growing, high-value subsectors such as these.

**COALITION MEMBERS**

**Empire State Development WNY Regional Office & WNY REDC:** New York State’s economic development agency and responsible for convening the WNY REDC.

**University at Buffalo Business & Entrepreneur Partnerships (BEP):** BEP connects academia and industry to commercialize technology and provides students with experiential learning/jobs.

**University at Buffalo Regional Institute (UBRI):** UBRI is an urban planning and policy research center and partner to WNY REDC on strategy and implementation.
**Invest Buffalo Niagara (InBN):** Invest Buffalo Niagara is the region’s nonprofit, privately funded economic development organization focused on job creation.

**Economic Development Group Inc., dba Northland Workforce Training Center (NWTC):** NWTC is the region’s signature workforce development initiative designed to upskill and right-skill workers to fill the needs of Adv. Mfg. employers focused on underrepresented communities.

**Buffalo Urban Development Corporation (BUDC):** BUDC is the City of Buffalo's not-for-profit development agency, reclaiming distressed land and buildings for future development.

**Buffalo Manufacturing Works (BMW):** The not-for-profit member-based consulting organization assists local manufacturers implement new technologies and processes to innovate.

**Goodwill of WNY:** Goodwill is a well-known not-for-profit organization based in Buffalo focuses on workforce development for traditionally underrepresented populations.

**PROPOSED PROJECTS TO SUPPORT THE CLUSTER**

**Innovation Projects**

**Hardware Accelerator**

**Lead Coalition Member: University at Buffalo Business & Entrepreneurship Partnerships**

The Hardware Accelerator will leverage the existing startup support infrastructure and programming with key community-based partners to bolster the regional economy for Adv. Mfg. by building a world-class accelerator at incubators throughout the five-county region for startups who are developing products through a program that serves innovators/entrepreneurs from idea to venture formation to private funding.

**Small & Medium Sized Manufacturer (SMM) Manufacturing Technology Program:**

**Lead Coalition Member: Buffalo Manufacturing Works**

This project helps small and medium sized manufacturing companies (SMM) overcome barriers to technology adoption by educating them on the implementation of automation technologies. Applications will include cobotic training for engineers and operators, using manufacturing coalitions like the Buffalo Niagara Manufacturing Alliance (BNMA) and the Manufacturing Alliance of the Southern Tier (MAST) to identify companies. BMW/EWI engineers will develop a rapidly re-deployable automation platform tailored to meet automation and early Industry 4.0 needs of WNY SMMs, and leverage the Northland campus’ existing resources.

**Economic Gardening Program for Manufacturers:**

**Lead Coalition Member: Invest Buffalo Niagara**

SMMs can be a catalyst for creation of generational wealth. The Economic Gardening Program will support a cohort with the greatest potential; help SMMs become local supply chain partners, expand revenue streams, and innovate to further diversify our Adv. Mfg. employer base.

**Workforce Development Projects**

**Labor Market Assessment:**

**Lead Coalition Member: Invest Buffalo Niagara**

A comprehensive Labor Market Assessment (LMA) will inform decision-makers across the Adv. Mfg. spectrum through robust, accessible and actionable data. The components will include an overview of the region’s workforce and industries, identification of living wage roles, job skills
transferability, skills gaps, and where needed skills can be attained. A Community-Facing Workforce Dashboard will enable custom filtering of skills, occupations, and industries.

**Manufacturing & Clean Energy Training at Northland Workforce Training Center**  
**Lead Coalition Member:** EDG Inc., dba Northland Workforce Training Center  
Through educational partners and trainers such as Allegany county’s Alfred State College and SUNY Erie, NWTC upskills workers and creates economic on-ramps to training, co-ops, internships, apprenticeships, and permanent employment for WNY residents seeking high-paying careers in Adv. Mfg. BBB funding will support NWTC’s current successful Adv. Mfg. programs and create a new clean energy technology program to train qualified workers to manufacture green products. Through expanded partnerships the programs will meet training needs of energy companies co-locating on the Northland Corridor, and create a living lab at the Micro Grid. Phase 1 BBB funding will explore expanded partnerships with area colleges that leverage training at NWTC to support hiring needs in WNY’s rural Adv. Mfg. communities.

**Goodskills Career Builder (GCB)**  
**Lead Coalition Member:** Goodwill of Western New York  
GCB is a partner-driven career pipeline program that prepares and links historically underserved people of color living at or near poverty levels to training programs and Adv. Mfg. jobs with career potential and upward mobility leading to generational wealth. GCB provides recruitment, assessment, individualized career planning, workforce readiness/technical skills training, technology access, job placement/retention services, and wrap around supports.

**Infrastructure Projects**

**Northland Corridor Redevelopment Area Phase 3**  
**Lead Coalition Member:** Buffalo Urban Development Corporation  
This project will realize the vision of the Northland Corridor as an Adv. Mfg. hub attracting private development, reshoring manufacturing, creating employment and training opportunities and spurring neighborhood revitalization. This project will build out and rehabilitate three key corridor properties for Adv. Mfg. companies and implementation of the BUDC Solar Microgrid, making the site more competitive while generating clean energy.

**Site Preparation for Manufacturing**  
**Lead Coalition Member:** Invest Buffalo Niagara  
Invest Buffalo Niagara commissioned site selection firm Newmark to complete the WNY Industrial Real Estate Development Strategy, a comprehensive blueprint to address the current dearth of buildings and sites available for local manufacturers to expand or start operations. Compared nationally to similar-sized regions, Buffalo Niagara has 50% to 66% less inventory of spaces. Funds will allow the region to prepare the sites for Adv. Mfg. companies in the urban core (City of Buffalo and Lackawanna); small industrial cities (City of Dunkirk); and in Niagara County.

**METRICS**

The proposed projects will create higher-paying jobs, grow the economy, generate wealth, increase economic equity and inclusion, and support innovation and entrepreneurship. Grant
funding will support regional capacity through stronger organizational networks, stakeholder engagement, and leverage local matching. Preliminary metrics for tracking outcomes include:

- Jobs created or retained, held by people of color, and in hard-hit, underserved areas
- Average earnings across all new jobs and jobs held by people of color
- Economic impact (direct and secondary impacts on jobs, labor income and output)
- Individuals completing training with demographic breakdown
- Growth in square footage of industrial space readiness
- Leverage/matching investment from local and other non-EDA funding sources
- Projects in progress and completed

**Accessibility of Matching Funds**

To date the coalition has secured almost $147,000,000 in matching funds from NYS, industry partners, coalition members, local foundations, City of Buffalo, and SUNY.

**Barriers to Implementation & Strategies to Mitigate**

Barriers to implementation are coordination, collaboration and problem-solving. To mitigate barriers, we will employ a Project Implementation Team (PIT) to implement an integrated work plan; monitor/report on progress across projects; offer strategic interventions to address challenges; provide opportunity for peer-to-peer assistance; and learn from successful national models. The PIT will meet with project leads regularly to assess needs and problem-solve.

**Timeline for Implementation**

**Phase I - Years 1-2 (Sept. 2021-Sept. 2023)**

- Continue to engage partners, further develop and enhance project proposals, identify additional matching funds, hire additional staff and complete Phase II BBB application.
- Conduct outreach and assessment to identify first cohorts for all innovation programs.
- Build ecosystem, design programs, purchase equipment, launch innovation programs.
- Hire consultant for LMA; complete LMA and launch Community-Facing Dashboard.
- For workforce projects already underway—assess, scale up, outreach, training, job placement
- Engage with industry, plan and design new programs for energy manufacturing training.
- Continue pre-development activities at Northland; begin construction on infrastructure.
- Hire site coordinator; begin planning and budget development for new manufacturing sites.

**Phase 2 - Years 3-4 (Sept. 2023-Sept. 2025)**

- Complete microgrid infrastructure and begin construction on Northland Corridor buildings.
- Ongoing workforce development projects—assess, outreach, training, job placement.
- Recruit students; launch the new energy manufacturing programs at NWTC.
- Outreach and innovation programming is ongoing; startups and SMM grow and expand.
- Site readiness activities/construction begin on select sites for Adv. Mfg. growth.

**Phase 3 - Years 5-6 (Sept. 2025-Sept 2027)**

- Continue Community-Facing Dashboard; data results in spin-off economic activity.
- Construction is complete and new/expanded businesses move to Northland Corridor.
- Site readiness activities at new sites are complete; new/expanded businesses move in.
- Outreach and innovation programming is ongoing; companies grow and expand.
- Ongoing workforce projects—assess, scale up, recruitment, training/job placement.