

SOUTHERN TIER **Upstate Revitalization Initiative Plan**



**Southern Tier
Regional Economic
Development Council**

**SOUTHERN TIER'S
ADVANCED ECONOMY
OF THE FUTURE**

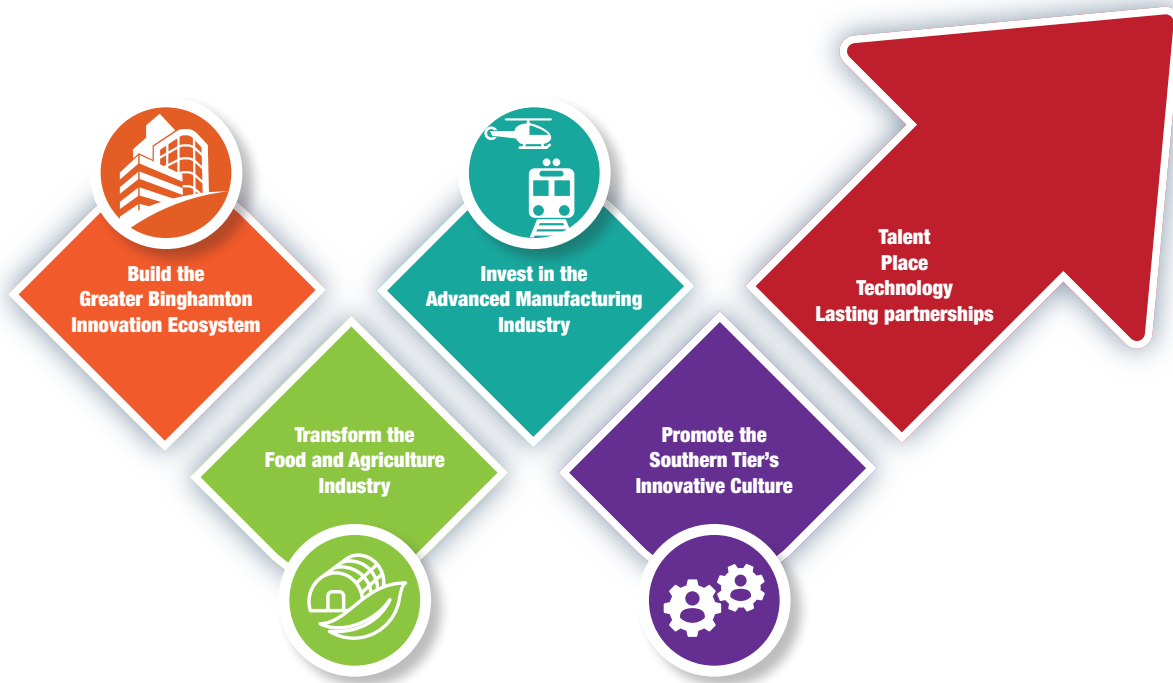


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Southern Tier Regional Economic Development Council

Message from the Co-Chairs

The Southern Tier is ready to be a hotbed of vigorous business growth and development and a destination for the next generation of the nation's best and brightest talent.

We are prepared to work hard during the next five years to execute our Upstate Revitalization Initiative Plan, which is strategic, realistic and designed to produce measurable results. Nearly 1,000 people across the region participated in developing our plan, and we will stand together to transform the Southern Tier and bring about an advanced economy of the future.

Throughout the planning process, we have built strong synergies among individuals, target industries, academia, the nonprofit sector and government. With this solid foundation of connections and relationships, the Southern Tier is poised to move forward immediately. The URI investment of \$500 million will leverage more than \$2.5 billion in private investment, create more than 10,200 jobs and have an overall economic impact of \$3.4 billion in the next five years. We will revitalize distressed communities, make our mark as a region of innovation, attract foreign investment and increase exports, leverage our natural resources, strengthen our industries ranging from advanced manufacturing to agriculture to tourism, and change our image.

By 2020 we expect the Southern Tier will be recognized for its innovation, highly trained workforce, strong communities and high-paying jobs. At the same time, we recognize the importance of reaching across regional boundaries to tap expertise and collaborate on opportunities that will enhance the economy of the entire state. We also have made certain that programs, services and jobs will be available to everyone who wants to be part of the Southern Tier's workforce and overall economic success.

On behalf of the Southern Tier, we thank Governor Cuomo for his vision and the opportunity to compete for an Upstate Revitalization Initiative award.

Sincerely,

A handwritten signature in black ink, appearing to read "Harvey Stenger".

Harvey Stenger, Co-chair
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A handwritten signature in black ink, appearing to read "Tom Tranter".

Tom Tranter, Co-chair
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Section I. Introduction and Executive Summary

Introduction

Picture a place with a reasonable cost of living and incredible natural beauty. Think of communities where you may run into your neighbor at the coffee shop — or while cheering at a professional sporting event. Add world-renowned institutions of higher education and residents known for their capacity to innovate. Now put all these advantages at the intersection of major highways and rivers, with easy access to half of the North American population.

That's the Southern Tier.

We're not blind to the challenges that lie ahead. Our region has struggled with declining population, an aging workforce, the loss of several major employers and two epic floods in just the past decade.

But today the Southern Tier is at a tipping point. With an Upstate Revitalization Initiative investment of \$500 million from New York State, we will capitalize on our many assets and overcome these obstacles to create an advanced economy. With this plan, we will build the Greater Binghamton Innovation Ecosystem to lift up the region's most distressed urban area, transform the food and agriculture industry to capitalize on the Southern Tier's natural resources, invest in the advanced manufacturing industry to infuse innovation at every level of our region's largest employer and, finally, promote the Southern Tier's innovative culture to attract tourists, foreign investment and entrepreneurs while encouraging residents to become regional ambassadors.



Students drive the economy by living, learning and playing in the Southern Tier, and have the potential to contribute to the economy by joining the workforce or starting businesses.

We will aggressively implement our plan to create the ideal conditions for economic growth by leveraging more than \$2.5 billion in private investment, creating more than 10,200 jobs and having an overall economic impact of more than \$3.4 billion in the next five years.

Building on a strong foundation of target industries, higher education institutions, the nonprofit sector and government agencies, the Southern Tier will take a collaborative approach to attract talent and investment for the development of industry clusters, especially advanced manufacturing, healthcare, food and agriculture and tourism. Our focus will be on increasing the size, quality and prosperity of the region's workforce through new business creation based on high-technology discoveries and other entrepreneurial activities, while ensuring healthy communities and protecting the region's natural beauty and resources.

This plan represents months of research and public engagement, with deep dives into the demographics and economics of the Southern Tier as well as input from industry and academic leaders, experts in their fields and nearly 1,000 residents. When the initiatives laid out in this plan have been realized, the Southern Tier will no longer be just a region in upstate New York. It will be a hotbed of vigorous business growth and development and a destination for the next generations of the nation's best and brightest talent.

Our plan is transformational

- ☒ Builds on the Southern Tier's assets
- ☒ Commits to job creation
- ☒ Focuses on cluster industries with high wages
- ☒ Invests in anchor firms and supply chain businesses
- ☒ Achieves regional connectivity
- ☒ Fosters collaboration — locally and inter-regionally
- ☒ Leverages private-sector investment
- ☒ Delivers workforce development, with a focus on hard-to-place workers
- ☒ Attracts talent
- ☒ Achieves global impact: exports, foreign investment and foreign spending
- ☒ Reinvests in communities
- ☒ Creates lasting public-private partnerships
- ☒ Positions the region for long-term sustainability

The Southern Tier is ready to go!

- ☒ Organizational structure designed for each initiative
- ☒ Budget, timeline and milestones formulated
- ☒ Year 1 projects totaling \$100 million identified
- ☒ Funding commitments in place
- ☒ Municipal and regulatory approvals secured
- ☒ Purchase agreements for property acquisition in hand
- ☒ Architectural design and preliminary engineering under way

The Upstate Revitalization Initiative award will be the spark that ignites the Southern Tier to once again become a hotbed of innovation and vigorous business growth and a destination for the next generations of the nation's best and brightest talent.



Executive Summary

Our plan to build the Southern Tier's advanced economy



Build the Greater Binghamton Innovation Ecosystem

Greater Binghamton will be a destination for talent and new business development. Revitalized urban centers in Binghamton, Johnson City and Endicott will maintain the area's legacy and position it as a major gateway, with strengths in advanced manufacturing, healthcare, culture and high-technology development. Innovation Districts will capitalize on public-private collaborations and the growing presence of Binghamton University.



Invest in the Advanced Manufacturing Industry

A focus on advanced manufacturing and the transportation sector will result in the Southern Tier being recognized as a destination for manufacturing business development, distinguished by its concentration of multi-national anchor companies, advanced infrastructure to support innovation and technology, rich education and research resources, specialized skilled workforce and vibrant communities.



Transform the Food and Agriculture Industry

The Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. A strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.



Promote the Southern Tier's Innovative Culture

The Southern Tier will be a well-recognized and highly desirable place to visit, live and grow a business. We will promote the region's quality of life and capacity for innovation, and ignite a fierce community pride that compels residents to be regional ambassadors and that attracts talent and inspires entrepreneurs.

\$2.5B
PRIVATE
INVESTMENT

JOB
CREATED
10,241

\$3.4B
ECONOMIC
IMPACT



STRATEGIES TO INCREASE REGIONAL WEALTH

Build the Greater Binghamton Innovation Ecosystem

Goal

Greater Binghamton will be a destination for talent, new business development and partnerships for commercialization of emerging technologies. Revitalized urban centers in Binghamton, Johnson City and Endicott will maintain the area's legacy and position it as a major gateway, with strengths in advanced manufacturing, healthcare, culture and high-technology development. Innovation Districts will capitalize on public-private collaborations and the growing presence of Binghamton University.

Strategy

1. Build three Innovation Districts that will become drivers of a new advanced economy in Greater Binghamton: the City of Binghamton iDistrict, the Johnson City Health and Cultural iDistrict and the Endicott Advanced Manufacturing iDistrict.
2. Establish the Transform Greater Binghamton Fund
3. Invest in regional strengths in advanced manufacturing, healthcare and science, technology, engineering and math (STEM) education.
4. Leverage and support the R&D capabilities of academia and industry in the region, giving Southern Tier companies a competitive edge, attracting new jobs and creating opportunities for a reinvigorated workforce.
5. Advance New York State Initiatives including Start-Up NY, Brownfield Redevelopment, Hot Spots, Veterans Initiative, Opportunity Agenda, SUNY 2020, Cleaner Greener and NY Rising. It is important to note that all three communities in the Greater Binghamton Innovation Ecosystem are NY Rising Communities. In addition, there are two designated Brownfield Opportunity Areas that will be transformed.

Outcomes and measurable impact

- URI investment: \$117,036,000
- Leveraged investment: \$589,180,000
- Economic impact: \$913,229,000
- Job creation: 2,341
- Wage increase: From average of \$32,440 to \$40,060
- Reduction in commercial vacancy rates: 50% or more in the urban cores
- New moderate and market-rate rental housing units: 550+
- Vacant single-family housing units renovated and occupied: 100
- Abandoned and blighted commercial buildings demolished: 23
- Commercial building façade improvements: 75
- New streetscaping: 25,000 linear feet
- Increase in median household income: 20%
- Reverse outmigration and attract talent
- Transformation of blighted areas in the urban cores of Binghamton and Johnson City, particularly brownfield areas
- The urban cores of Binghamton, Johnson City and Endicott recognized as the dynamic live, work, play hubs in Greater Binghamton



Game-changing investments

■ **Binghamton iDistrict:**

- Mixed-use developments such as 7 Hawley Street, Collier Street Commons, One North Depot and City Center Lofts
- Route 434 Greenway – Bike Trail
- Salvation Army Job Training Center
- Investments in business development projects
- Binghamton Waterfront Revitalization Projects

■ **Johnson City Health and Cultural iDistrict:**

- Southern Tier Health Sciences and Technology Innovation Park: Binghamton University's new School of Pharmacy and Pharmaceutical Sciences and Decker School of Nursing, and proposed Center for Regenerative Medicine, Binghamton Bio Foundry and Biopharmaceutical Hub
- The Goodwill Theatre Inc.
- Century Sunrise Mixed Use Development
- 59 Lester Street 10-acre Redevelopment Project

■ **Endicott Advanced Manufacturing iDistrict:**

- Flexible Printed Electronics Center
- Industrial 3D Printing Center
- Investments in business and industry growth
- Endicott iDistrict Downtown and Neighborhood Revitalization Plan
- Microgrid Pilot Project

■ **The Transform Greater Binghamton Fund**



Invest in the Advanced Manufacturing Industry

Goal

A focus on advanced manufacturing and the transportation industry sector will result in the Southern Tier being recognized as a destination for manufacturing business development, distinguished by its concentration of multi-national anchor companies, advanced infrastructure to support innovation and technology, rich education and research resources, specialized skilled workforce and vibrant communities.

Strategy

We will power the growth and development of the advanced manufacturing industry, focusing on the transportation equipment manufacturing sector in the Southern Tier with:

1. High levels of R&D and commitment to innovation in emerging technologies
2. Continuously recharging the skills pipeline and attracting STEM workers
3. Strengthening the advanced manufacturing ecosystem
4. Advancing New York State initiatives including Global NY, Start-Up NY, Hot Spots, Opportunity Agenda, Manufacturing Industry Cluster Program, Veterans Initiative, NY Rising, NYBEST, NYSTAR and Cleaner Greener.

Outcomes and measurable impact

- URI investment: \$183,000,000
- Leveraged investment: \$915,000,000
- Economic impact: \$1,162,575,000
- Jobs: 3,300 new jobs; retention of 34,000 manufacturing jobs, including 11,000 in the transportation industry cluster
- Increase annual exports in the region's manufacturing from \$11.6 billion to \$15 billion by 2020
- Achieve an average annual wage of \$65,000 in the region's manufacturing industry and \$79,500 by 2020 in the Transportation Products, Components and System Controls cluster
- Increase cutting-edge R&D and commercialization of technology
- Bring recognition to the Southern Tier and New York State as a leader in cyber security in the transportation industry
- Revitalize the communities that are the support structure for the manufacturing industry, especially Elmira, Hornell and Corning



Game-changing investments

- Invest in a \$150 million manufacturing facility in Broome County
- Invest in major anchor businesses such as Raymond Corporation, Lockheed Martin, Hilliard Corporation, Anchor Glass, Upstate Shredding and more to strengthen their competitive positioning and grow global exports
- Invest in supply chain businesses
- Build the manufacturing base with the Southern Tier Small Manufacturing Competitiveness Fund
- Enhance the manufacturing infrastructure to support growth in significant concentrations of cluster industry businesses such as the Hub for High Speed Rail Development in Hornell
- Enhance the community development structure of the major support communities of the advanced manufacturing industry such as Elmira, Corning, Norwich and Hornell
- Invest in high levels of R&D and commitment to innovation and infusion of emerging technologies in the manufacturing industry such as the Secure Electronics and Advanced Manufacturing Project, I86 Corridor Center for Technology Infusion, the Center for Transportation IoT Cybersecurity, and investments in R&D and start-up companies focused on transportation equipment design and manufacturing
- Create:
 - The Southern Tier Manufacturing Workforce Awareness and Recruitment Promotion Program targeted at the skilled worker
 - Talent attraction program as a subset of the Southern Tier Branding and Awareness Program as described in the Promoting the Southern Tier Innovative Culture Initiative
 - Workforce development programs developed jointly with the private sector and SUNY Delhi, Corning Community College and SUNY Broome.



Transform the Food and Agriculture Industry

Goal

The Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. Leveraging the global reach and strengths of Cornell University's College of Agriculture and Life Sciences, together with the region's natural assets and strong private sector investment, a strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.

Strategy

1. Develop and deploy new technologies to transition the Southern Tier from being a highly seasonal, occasional provider of food products to a reliable source of supply for the East Coast.
2. Promote and leverage existing and new support structures for growers and producers in the region, including the \$30 million Southern Tier Agricultural Economic Development Initiative, to help expand farms and increase their profitability.
3. Increase the diversity of and access to food processing facilities around the region, including slaughterhouses, meatpacking and poultry processing facilities, dairy processing facilities and aseptic packaging facilities for vegetables.
4. Leverage our location at the crossroads of upstate New York via the creation of a "food hub" network that facilitates market connections and distribution of food products for production centers in regions across the state.
5. Pioneer workforce development programs designed to bolster food and agriculture industries.
6. Advance New York State initiatives, including Opportunity Agenda, Veterans Initiative, Southern Tier Agriculture Initiative, Global NY, Start-Up NY, NYSTAR and Cleaner Greener.

Outcomes and measurable impact

- URI investment: \$100,000,000
- Leveraged investment: \$525,000,000
- Economic impact: \$645,750,000
- Job creation: 2,800
- A 30% increase in the five-year average of invention disclosures and patent applications related to agriculture technology and plant science
- 250 hard-to-place workers trained and placed
- Increase average annual food and agriculture wage from \$50,491 to \$55,541 by 2020
- 15% increase in regional output (\$) of crops (compared to a minimum of a 3% increase among the Southern Tier counties in the past five years)
- 5% increase in regional output (\$) of animal products (compared to a 2% decrease in the past five years)
- Three additional key crops with more than 6% produced in New York State
- Protecting or expanding farmland



Game-changing investments

- Plant Science Innovation and Business Development Center at Cornell University
- Southern Tier Agriculture and Food Development Cooperative
- Southern Tier Agriculture Development Fund, which will provide support to pioneering workforce development programs, with a focus on regional residents, hard-to-place workers and veterans
- Southern Tier Agriculture Education Fund
- Beef and Cattle Research Program
- Groundswell Farmer Incubator Capacity Improvement and Regional Expansion
- Basic infrastructure projects necessary to support expansion of food processing facilities such as the Waverly WWTF update to support the expansion of Leprino Cheese and the Village of Walton Biogas Project to support Kraft Food
- New construction or expansion of processing facilities for dairy, value-added foods, slaughter and meat packing, aseptic packaging and ultra-premium wine and beverages
- Investments in crop production such as the Vineyard Reclamation and Replacement Program
- Network of distribution hubs



Promote the Southern Tier's Innovative Culture

Goal

The Southern Tier will be a well-recognized and highly desirable place to learn, visit, live and grow a business because the region's distinct combination of educational strength, culture, innovation, leisure-related industries and natural resources creates a lifestyle that couples the convenience of larger cities with opportunities to lead a healthy lifestyle surrounded by natural beauty.

Strategy

1. Develop and implement a regional branding and promotion program that will serve as a unifying theme to promote the region's quality of life and capacity for innovation, and ignite a fierce community pride that compels residents to be regional ambassadors. Use the region-wide branding program as an umbrella for sub-brands focused on:
 - Building local pride
 - Promoting the region to alumni of the region's academic institutions, attracting them back to the region's beauty, affordability and diversity
 - Workforce recruitment, particularly in advanced manufacturing
 - Promoting key initiatives such as the region's food and agriculture and advanced manufacturing industries, and authentic communities and tourism destinations
2. Strengthen the region's tourism and community assets and use them to promote the region to visitors, prospective talent and investors.
3. Attract young talent via college towns and small towns. This includes strengthening the college town corridor that winds through the region and retaining more graduates of the region's world-class academic institutions, which attract more than 60,000 students each year.
4. Advance commercialization of technology by maximizing innovation and intellectual capital among private-sector and academic institutions.
5. Attract and nurture a critical mass of entrepreneurs by promoting the commercialization of research from the region's sources of innovation, retaining the brightest college graduates and providing an entrepreneurial ecosystem including incubators, seed capital, support services and attractive communities.
6. Advance New York State initiatives, including Hot Spots, Global, NY, Veterans Initiative, NY Rising, Opportunity Agenda, 76 West, NYSTAR, Cleaner Greener and Brownfield Redevelopment.

Outcomes and measurable impact

- URI investment: \$100,000,000
- Leveraged investment: \$500,000,000
- Economic impact: \$690,000,000
- Job creation: 1,800



Game-changing investments

- Southern Tier regional branding and promotion program
- Tourism Entrepreneurship Incentive Fund
- Southern Tier Tourism Institute
- Tourism destination, cultural and waterfront development projects
- Projects that advance commercialization of technology by maximizing innovation and intellectual capital
- Southern Tier Venture Seed Fund
- Master/Entrepreneur Main Street and Neighborhood Campus Program
- Promotion programs such as Authentic American Experience in Our Downtowns project
- Small town and college town community revitalization projects

MILESTONES

The Southern Tier intends to move forward expeditiously. Following are examples of projects that would produce results in the first three years of URI funding.

Groundbreakings and construction starts

2016		
Route 434 Greenway in Binghamton Cameron Manufacturing Expansion in I-86 Corridor Southern Tier Health Sciences Technology & Innovation Park: Renovation of 48 Corliss Ave for Binghamton University Decker School of Nursing and School of Pharmacy Century Sunrise Mixed-Use Development Upstate Shredding new facility Corning Community Health and Education Complex Finger Lakes Reuse new facility DeMet's Candy facility expansion Raymond Manufacturing Center of Excellence new facility Roxbury Stratton Falls Tourism Destination Norwich Best Western Hotel	2017	2018
	Plant Science Innovation and Business Development Center at Cornell University \$150 million manufacturing facility in Broome County Binghamton's 7 Hawley Street Mixed Use Shovel-ready Sites for Biopharmaceutical Hub in Johnson City iDistrict USDA-certified slaughterhouse Hornell Rail Technology Center Salvation Army Job Training Center Ultra Premium Beverage Center Goodwill Theatre Connector	Binghamton Waterfront Redevelopment Binghamton's Collier Street Commons Project

Dedications and ribbon cuttings

2016		
<p>Southern Tier High-Technology Incubator in Binghamton iDistrict</p> <p>City Center Lofts in Binghamton iDistrict</p> <p>Industrial 3D Printing Center in Endicott iDistrict</p>	2017	2018
	<p>Binghamton Route 434 Greenway dedication</p> <p>Hammondsport Waterfront</p> <p>National Pipe & Plastic's Relocation to Endicott</p> <p>Flexible Printed Electronics Center in Endicott iDistrict</p> <p>Century Sunrise Mixed Use Development opening</p> <p>Ultra Premium Beverage Center Opening</p> <p>DeMet's Candy Expansion dedication</p> <p>Southern Tier Health Sciences Technology & Innovation Park: Binghamton University Decker School of Nursing opening</p> <p>Upstate Shredding plant opening</p> <p>Corning Community Health and Education Complex</p> <p>Groundswell Farm Incubator Expansion</p> <p>I-86 Center for Technology Infusion</p> <p>Ithaca Hummus expansion</p> <p>Roxbury Stratton Falls</p>	<p>Plant Science Innovation and Business Development Center at Cornell University</p> <p>Salvation Army Job Training Center</p> <p>Binghamton's 7 Hawley Street Mixed Use Development</p> <p>Rail Innovation Hub Workforce Development Center in Hornell</p> <p>Goodwill Theatre Phase 2 opening</p> <p>Raymond Center for Manufacturing Excellence</p> <p>Binghamton Food & Beverage Business Incubator</p> <p>Ithaca's Collegetown Redevelopment</p> <p>Elmira's revitalization</p> <p>Hybrid Powertrain Test Center</p>

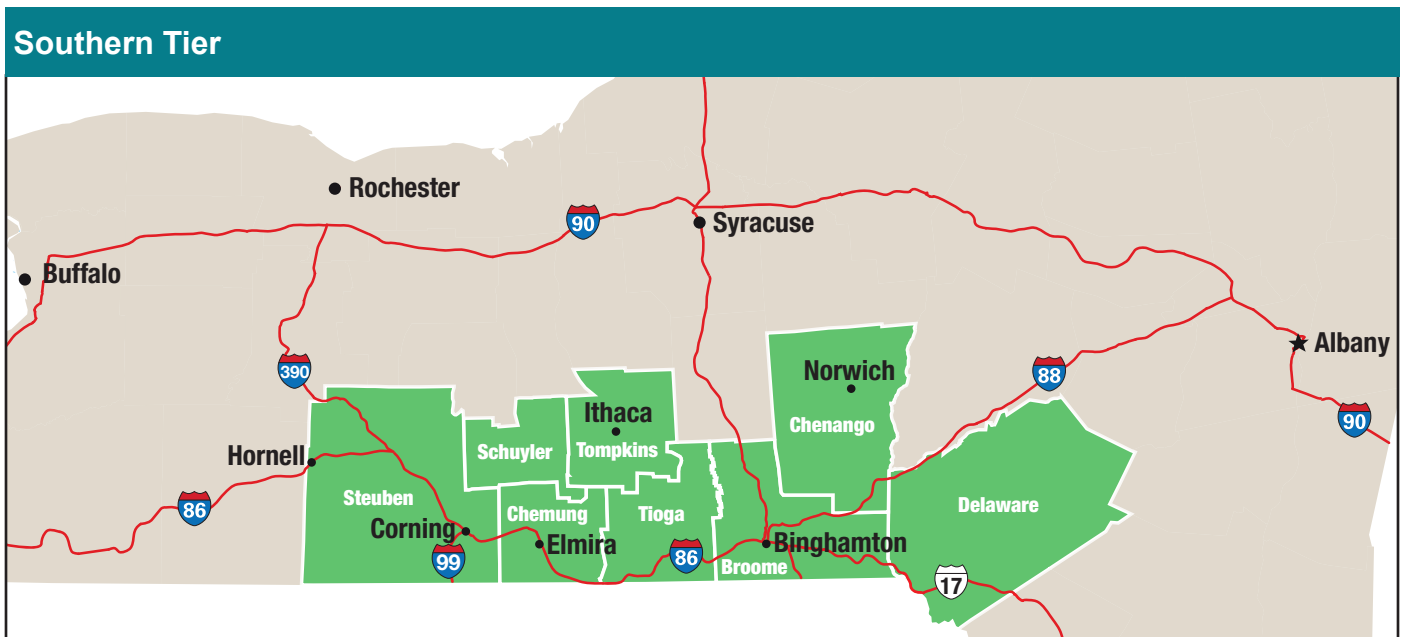
Announcements of game-changing projects

2016		
<p>Transform the Greater Binghamton Fund</p> <p>Secure Electronics in Advanced Manufacturing Project (interregional, academic, private-sector collaboration)</p> <p>Southern Tier Agriculture and Food Cooperative</p> <p>Southern Tier Agriculture Education Fund (workforce training)</p> <p>Authentic American Experience in Our Downtowns Project</p> <p>Lake Erie College of Osteopathic Medicine Opens in Elmira</p> <p>Launch of Southern Tier Venture Fund</p> <p>Southern Tier Promotion Alliance</p>	2017	2018
	<p>Center for Transportation IoT Cybersecurity</p> <p>I-86 Center for Transportation Technology Infusion</p> <p>Southern Tier Brand</p> <p>Southern Tier Manufacturing Workforce Awareness and Recruitment Program</p> <p>Talent Attraction and Retention Campaign</p> <p>Tourism Entrepreneur Incentivize Fund</p> <p>Master Entrepreneur Main Street & Neighborhood Campus Program</p>	<p>Southern Tier Tourism Institute</p> <p>Site(s) for Regional Food Distribution Center</p> <p>Site for Southern Tier Agri Mall</p>

Section II. Situation Analysis

Regional overview

The Southern Tier's 6,260 square miles lie in the southern portion of Western New York, including the eight counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga and Tompkins. The region is largely rural, though it's also home to a number of urban centers, including the tri-city area of Binghamton, Johnson City and Endicott and the cities of Corning, Elmira, Hornell, Ithaca and Norwich. The Southern Tier and its urban centers are centrally positioned; the upstate cities of Albany, Buffalo, Rochester and Syracuse can all be reached in a three-hour drive, and New York City is less than a four-hour drive away for most Southern Tier residents.



The Southern Tier is home to more than 650,000 residents, a population that has remained steady since 2000 as there have been increases at the state and national levels (4.1% and 13.3%, respectively, between 2000 and 2014). All counties in the region experienced a decline in population since 2000 with the exception of Tompkins County, which grew by 8.5%. Schuyler County lost the highest proportion of residents: 3.9% between 2000 and 2014.

A third of the region's population lives in Broome County, followed by 16% in Tompkins County and 15% in Steuben County. Broome County owes its high proportion to the more than 200,600 residents of Greater Binghamton. Other areas with high concentrations of residents include Steuben County with 99,000 residents (Hornell and Corning are major cities), Chemung County with 88,800 residents (Elmira is the major city) and Tompkins County with 102,300 residents (Ithaca is the major urban area).



Understanding our challenges and opportunities through research and public engagement

The Southern Tier embarked on a data-driven process as the Upstate Revitalization Initiative took shape. We examined figures ranging from employment trends to poverty rates. We conducted detailed industry cluster analyses. We examined strengths in emerging technologies, the effectiveness of workforce programs, ways to employ smart energy and smart growth as well as opportunities to extend our global reach.

Data couldn't tell the whole story, though. We needed to go to the source: local communities, business leaders, academic institutions and workforce development organizations, to name only a few. During 90 work sessions and meetings, 975 participants shared their insights and gave suggestions for transforming the region's economy.

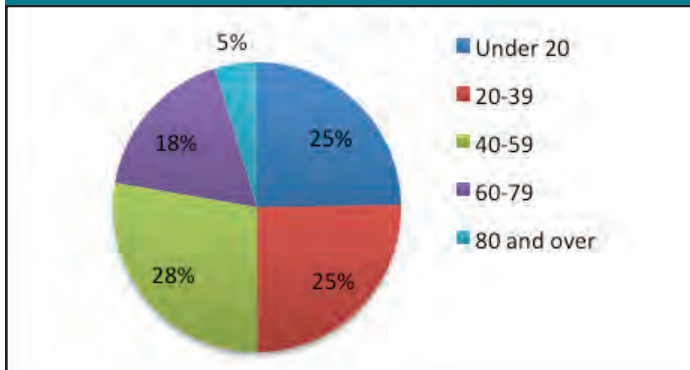
The result was an in-depth understanding of the region's unique challenges and opportunities. After months of analysis, meetings and discussion, we had a clear picture of those sectors of the economy that will be essential to the region's future as well as the leading indicators that show the potential for growth and renewal with investment from the Upstate Revitalization Initiative.

The Southern Tier is poised for transformation. We are optimistic about our future.



What challenges do we face?

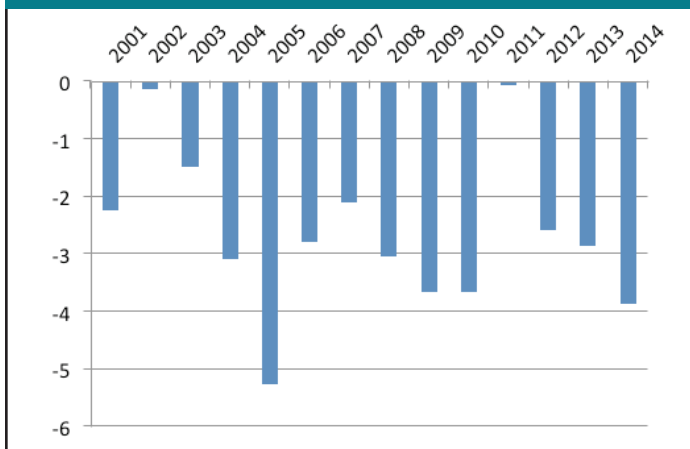
Southern Tier population by age group



Source: American Community Survey, 2009-2013

An aging population. The Southern Tier has an increasingly older population, which has important implications for the economy and creates gaps in essential workforce fields. The number of residents ages 60-79 increased by 18% between 2000 and 2013, compared to 17% in New York State as a whole. The population of residents age 80 and older also increased, by 14% in the Southern Tier and 22% in the state. In the next 10 years, these populations are expected to rise 15% and 6%, respectively, compared to a decline of 3% in the total Southern Tier population (Cornell PAD Projections). Coupled with losses to younger populations (-11% in residents 20 and under and -5% in residents 20-39), this demographic shift creates challenges for the region.

Average Southern Tier migration (annual)



Source: Cornell PAD

Movement out of the region. In every year since 2001, residents have migrated out of the Southern Tier. In 2014, the region lost 3.9% of its residents, with the highest outward migration in Chemung, Tioga and Steuben counties (8.4%, 6.9% and 6.9%, respectively).

Low household income: The median household income in New York State is \$58,003. The average of county median household incomes in the Southern Tier region is \$48,093, 18.7% lower. In the Southern Tier, Chenango has the lowest median household income (\$43,941), followed by Delaware (\$44,470) and Broome (\$45,958).

High portion of income spent on rent. Compared with 34% in 2000, 43% of the Southern Tier's residents spent more than a third of their monthly income on

rent in 2013 (ACS 09-13). Students make up a high proportion of renters in the region. High rents in the areas with the most students (Broome County and Tompkins County) can deter graduates from remaining in the region.

High concentrations of poverty in distressed communities. Several distressed Southern Tier communities have seen population decline by 1-5% since the 2000 Census. Binghamton has the highest portion of residents below the poverty line, but all of the region's distressed communities have large fractions of residents living in poverty and median household incomes far lower than the state median of \$58,003.

Distressed communities



Population



Population change
since 2000



Living below
poverty line



Unemployed population
below poverty line



Median household
income



Per capita income

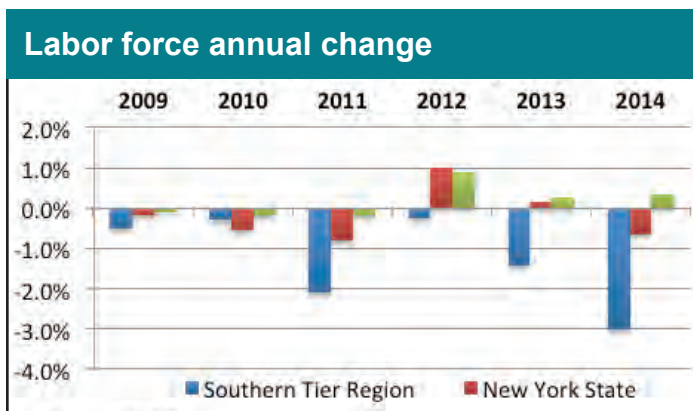


Hornell	Corning	Elmira	Endicott	Johnson City	Binghamton	Norwich
8,535	11,128	29,176	13,291	15,063	46,975	7,135
5%	3%	5.7%	2%	3%	1%	3%
19.3%	21%	29.2%	21%	20%	33%	24.4%
36.1%	37.6%	44.4%	34.6%	32.2%	53.5%	47.5%
\$39,072	\$44,905	\$30,804	\$32,599	\$37,878	\$30,978	\$31,643
\$20,304	\$29,362	\$17,699	\$20,623	\$21,463	\$20,576	\$20,325

Source: U.S. Census Bureau

Old housing stock. More than a third of the region's housing stock was built before 1939. In some areas, this proportion is even higher; 71% of housing in Hornell, 61% in Norwich, 38% in Corning and 40% in Elmira was built before 1939. In Binghamton, 53% of housing was built before 1939 and less than 5% was built since 2000 (ACS 09-13). Just 6% of the Southern Tier's housing was built since 2000. Quality of housing is important to young families and Millennials, and a lack of adequate and affordable ownership and renting options can deter job-seekers from moving here.

Vulnerable and hard-to-place workers. There were 60,965 residents living in poverty in the Southern Tier in 2013, with an average labor force participation rate of 46%, just below the 49% at the state level. The average unemployment rate among those living in poverty was 26%, compared to an unemployment rate of 8% for all socio-economic groups. Broome County and Tompkins County had the largest number of individuals living below the poverty line, 19,531 and 14,300, with unemployment rates of 29% and 11% among this population, respectively. However, Tioga County and Chenango County have the highest rates of unemployment among those living in poverty, 36% and 31%. This compares to the statewide rate of 30%.



Source: NYS DOL

Economic trends, 2010-2014

	Southern Tier	Upstate	NYS	U.S.
Private Sector Employment Growth	0.5%	4.1%	8.3%	8.8%
Private Sector Total Wage Growth (inflation adjusted)	-0.3%	4.4%	9.0%	10.7%
Private Sector Average Annual Wage Growth (inflation adjusted)	-0.9%	0.3%	0.7%	10.4%
Growth in Private Sector Establishments	1.6%	4.5%	6.1%	4.4%
Employment Growth in STEM-Intensive Industries	-6.6%	1.1%	8.7%	10.3%
Export Growth (2010-2014)	1.1%	-0.3%	6.8%	15.9%

Source: Brookings Institution

Our region is home to more than 26,500 veterans, and 7,306 were unemployed in 2013, yielding an unemployment rate of more than 30% in the Southern Tier. Veteran unemployment is more pronounced in rural areas and lower in urban areas; in Binghamton, Ithaca, Corning and Elmira, veteran unemployment was 11% or lower (ACS 09-13).

A shrinking labor force. Since 2000, the Southern Tier lost 6% of its labor force, even as the state and nation saw growth of 5% and 9%, respectively. Every county in the region, with the exception of Tompkins, lost labor force during this period. Broome and Chemung lost the most, 10%, followed by Delaware, Schuyler and Tioga, with 9% loss each. As the labor force declines, it inhibits the ability of firms to fill available or new positions, and thus constrains economic growth.

Employment is down in key industries of strength. Manufacturing, a bedrock of the Southern Tier economy, has lost 35% in employment since 2000. Though still the second-largest employment sector behind healthcare, this loss reflects the larger national shift away from production and toward service industries as economic drivers.

Long-term job loss. The region has lost more than 16,000 jobs since 2000, with a loss of more than 3,900 just since 2009. The Southern Tier lagged behind statewide job growth, as state jobs have increased by 6% since 2000. Greater Binghamton lost the most jobs, more than 12,500 and 16% of all current jobs, since 2000. Chenango, Schuyler and Tompkins were the only counties to gain jobs during the decade, with Tompkins contributing a net increase of 2,150 jobs (NYS DOL).

Lower average wage than the state. The average wage in the Southern Tier was just over \$43,700 in 2014, an 8% increase from 2010. However, this was

below the New York State average wage of \$65,900. An additional challenge is that of the top five industries by employment in the Southern Tier, only two had average wages above the state (manufacturing and educational services). While the cost of living is lower in the Southern Tier than other parts of the state, the lower average wage earned for occupations in the Southern Tier is a barrier to attracting talent from outside of the state.

Lower average wages in key population centers. The average wage in Binghamton across all industries was just over \$40,400 in 2014 — below the average wage for the region and far below the average for the state. Elmira's average wage was on par with the regional average. Corning had the highest average wage of all the metropolitan areas at \$51,400, while Ithaca had an average wage of \$47,700. Competitive wages are essential for attracting talent and population, and represent an even more critical need for the Southern Tier's urban areas (QCEW, 2014).

What opportunities can we embrace?

Talent and workforce

A highly educated population. More than half of the region's population have at least some college experience, 56%, similar to the state's 58% (ACS 09-13). However, a smaller proportion of Southern Tier residents had less than high school diploma (11%) in 2013 compared to the state (15%). This represents a five-point increase from 2000, and with a six-point increase in the proportion of residents with some college experience, indicates that the Southern Tier is on an upward trajectory.

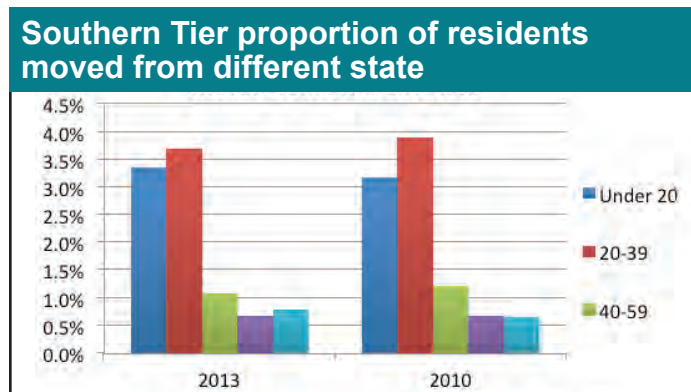
Highest proportion of students and graduates in the state. About 13% of Southern Tier residents are undergraduate or graduate students, above the statewide level of 10.2%. Due to the presence of Binghamton University, Cornell University, Corning Community College, Elmira College, Ithaca College, SUNY Broome, SUNY Delhi and Tompkins-Cortland Community College, the Southern Tier is home to 4.5% of all students enrolled in the state, yet just 3.4% of the total population (Census Bureau, 2013). Students drive the economy by living, learning and playing in the Southern Tier, and have the potential to contribute to the economy by joining the workforce or starting businesses.

Increasing diversity. The Southern Tier is not as racially diverse as New York State, with 90% white residents compared to 66% at the state level. However, since 2000, the number of white residents in the Southern Tier has declined by 3%, and populations of African-American and other racial/ethnic groups have increased by 24% and 30%, respectively, leading to a more culturally diverse population (ACS 09-13).

Economic indicators

Movement into the region for select age groups.

Chenango, Delaware, Tioga and Tompkins counties all experienced slight growth in the number of residents under the age of 20 moving into the region from a different state, likely a reflection of the healthy higher education industry. However, Chemung and Tioga also experienced growth in the number of adults in the 20-39 and 40-59 age

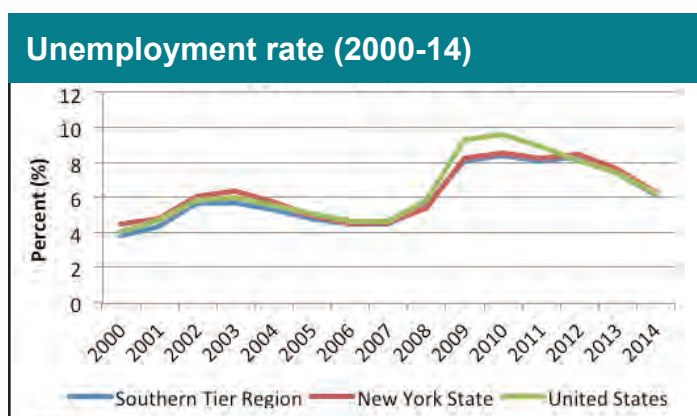


Source: U.S. Census Bureau

groups moving from other states, and Tompkins had an increase of 1.6 percentage points in the number of 20- to 39-year-olds moving from abroad (Census Bureau, 2013). This shift may be an early indication that the loss of young people experienced by the region during the past few decades may be counteracted by movement into the region.

Movement into distressed areas. Chemung and Steuben counties, including the metro areas of Corning and Elmira, saw 2.3% of their total populations move from out of state, second only to Tompkins County in the region and above the regional average. Though the populations in Hornell and Norwich are small, relatively large proportions of select age groups are relocating to these cities from other counties or outside the state. In Hornell, 6.2% of 20- to 39-year-olds moved from a different county in New York, and 9.7% did the same in Norwich — the highest proportions other areas in the Southern Tier. In addition, 5.9% of Norwich residents ages 20-39 moved there from out of state, second only to Ithaca's

8% in the region. Binghamton and the surrounding area continues to struggle in attracting population, with proportions of residents from other counties and other states lower than the regional average (ACS 09-13).

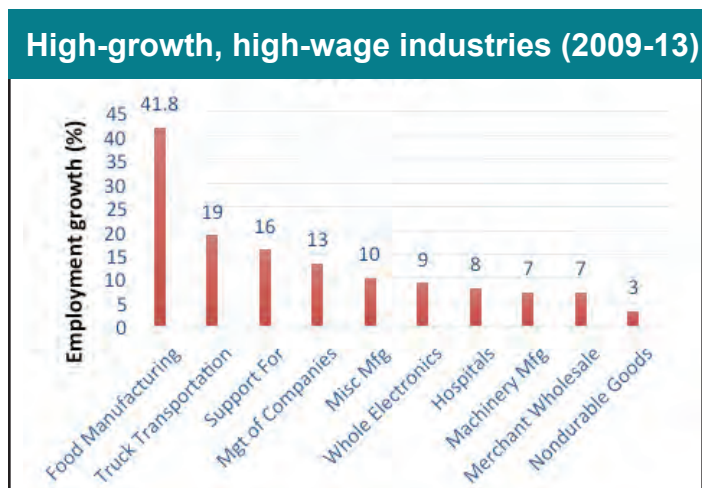


Source: NYS DOL

Unemployment down in post-recession years. The Southern Tier's unemployment rate, at 6.1% in 2014, is slightly below state and national unemployment rates (6.3% and 6.2%, respectively). This is down from a 14-year high of 8.4% in 2010, at the height of the recession. All counties in the region have an unemployment rate between 6% and 7%, though Tompkins County had a lower unemployment rate at 4.3% in 2014 (NYS DOL).

Employment in service-related industries is rising. Between 2000 and 2014, employment in healthcare, arts and entertainment, and hospitality increased by 16%, 17% and 18%, respectively. The two latter industries support the growing tourism industry in the

Southern Tier. Other industries also expanded employment, including company management (7%), other services (10%) and agriculture (13%). Even though wages in these industries remain below the Southern Tier average (the highest average wage in the above industries is \$40,800 in healthcare, below the regional average of \$43,714) (NYS DOL), expanded employment opportunities drive economic growth and are balanced by the lower cost of living.



The region has strong industry clusters in manufacturing and agriculture. Manufacturing is an area of strength for the Southern Tier in terms of institutional knowledge and employment, and contributes more than \$2 billion to the region in payroll each year (QCEW, 2014). Moreover, manufacturing had one of the highest average wages in the Southern Tier at \$61,800 in 2014, 41% above the regional average of \$43,700.

Manufacturing employs the second-highest number of residents in the Southern Tier, making up 13% of total workers in the region (above the 5% and 9% for the state and nation). The location quotient for manufacturing is 2.5, indicating a concentration of manufacturing in the regional economy. In subsets of the manufacturing industry, location quotients are

higher; transportation equipment manufacturing has a location quotient of nearly 9, illustrating a long history of success in the region thanks to companies such as Corning Incorporated, Raymond Corporation, Borg Warner, Lockheed Martin and Dresser-Rand. Manufacturing accounts for the most exports out of the region, more than \$11.6 billion in 2013 (EMSI), nearly a third of total regional exports. The manufacturing industry boasts high annual wages at \$60,862 in the overall advanced manufacturing industry; and \$73,800 in the transportation equipment manufacturing cluster.

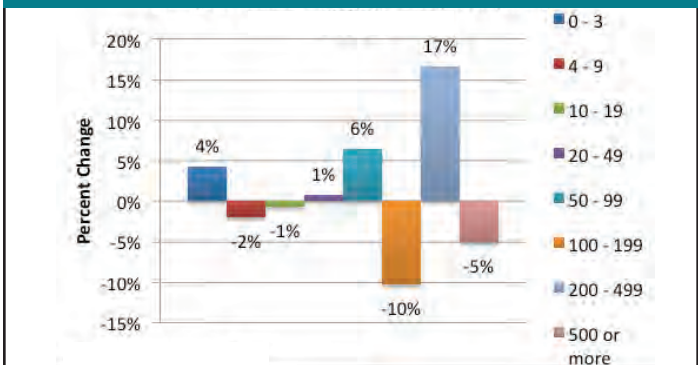
Agriculture is one of America's most profitable industries. The Southern Tier is home to more than 6,600 farms and possesses agricultural assets ranging from Cornell's commitment to

the industry in Cornell Cooperative Extension to the thriving dairy industry to unparalleled access to water. These advantages have allowed for growth in the region's agriculture and food manufacturing industries. Employment in food manufacturing has grown 41% since 2009 with more than 1,000 net new jobs, while the food processing cluster increased employment by 18% over the same time period (UBRI). The location quotient for agriculture and forestry is 1.9, indicating a strong presence in the economy, and food manufacturing contributes nearly \$4 billion in exports to the regional economy, while crop and animal exports contribute over \$830 million (EMSI). The eight counties of the Southern Tier regularly rank in the top 10 counties across the state for crop production, and they sold more than \$165 million in crops in 2012 (Agriculture Census, 2012). This strong agricultural base feeds into other key food and agriculture industries of the Southern Tier including, but not limited to, dairy, organics, premium beverage processing and value-added food processing. Overall, the agriculture and food system produces \$5.2 billion in output for the Southern Tier, or 9.5% of the region's total economy.

Gross regional production is on the rise, with an estimated increase in gross regional product of nearly 15% between 2011 and 2013. In 2013, the total gross regional product was \$28.2 billion (EMSI, 2013), and it stood at \$27.3 billion in 2012. Despite losses to the high-export manufacturing industry, the region is expanding economically.

Increase in number of small private firms. The increase in small firms compared to a decrease in large firms is an indicator of the strength of small business in the Southern Tier, as well as the growing and healthy entrepreneurial community. In the years since the recession, the Southern Tier has seen a net increase of 186 in the number of private firms. Net firm growth between 2009 and 2014 varied by county; Broome, Schuyler, Steuben, Tioga, and Tompkins all had net growth, while Chemung, Chenango, and Delaware lost firms (QCEW, 2014).

Change in number of firms by size (employment) 2009-14



Source: QCEW, NYS DOL

Location at the crossroads

The north-south highway I-81 connects the Southern Tier with Syracuse to the north, while the new I-86 highway links the region with an east-west route. I-88 cuts across the eastern portion of the region and up to Albany, I-99 connects the region with population centers in Pennsylvania. On the western end of the Southern Tier Region is I-390, an important corridor to Rochester, Buffalo and in particular the Canadian markets. On the eastern end of the region, Binghamton serves as a gateway to New York City and the East Coast via Route 17. The region is also home to rail exchanges. This transportation infrastructure allows products manufactured in the Southern Tier to ship to markets outside of the region, and facilitates intra- and inter-region travel.

Tourism destination

The Southern Tier attracts more tourists every year. From the Corning Museum of Glass, which enjoys an estimated 450,000 visits a year and \$12.4 million in visitor revenue, to the Watkins Glen Racetrack and the waterfalls of Ithaca, the region has a lot to offer tourists. In addition, the Southern Tier is the southern gateway to the Finger Lakes, which attract thousands of visitors annually to the wineries, breweries, distilleries, water sporting activities, natural attractions and beautiful waterfront communities on Cayuga, Seneca and Keuka lakes. Visitor spending reached \$.87 billion in 2013, representing an 18% rise from where it was two years earlier — notably more than the 12% increase reported across upstate, and on par with New York State's 18% increase. The region is also home to more than 60,000 college students, who have a link to the region's tourism industry via the many visitors who come to drop off students, attend campus events such as family weekends and homecomings and to tour schools. By better connecting these students, their families and college visitors to tourism opportunities in the region, the Southern Tier has the potential to increase its tourism revenue dramatically.

Tourism employment, growth and county-level spending benchmarked			
	SOUTHERN TIER	UPSTATE NY	NYS
Tourism As % Total Employment, 2013	4.4%	5.1%	5.3%
Tourism Employment Growth, 2009-13	8%	6%	11%
County Government Culture & Recreation Expenditures Per Capita, 2013	\$25.94	\$26.31	N/A

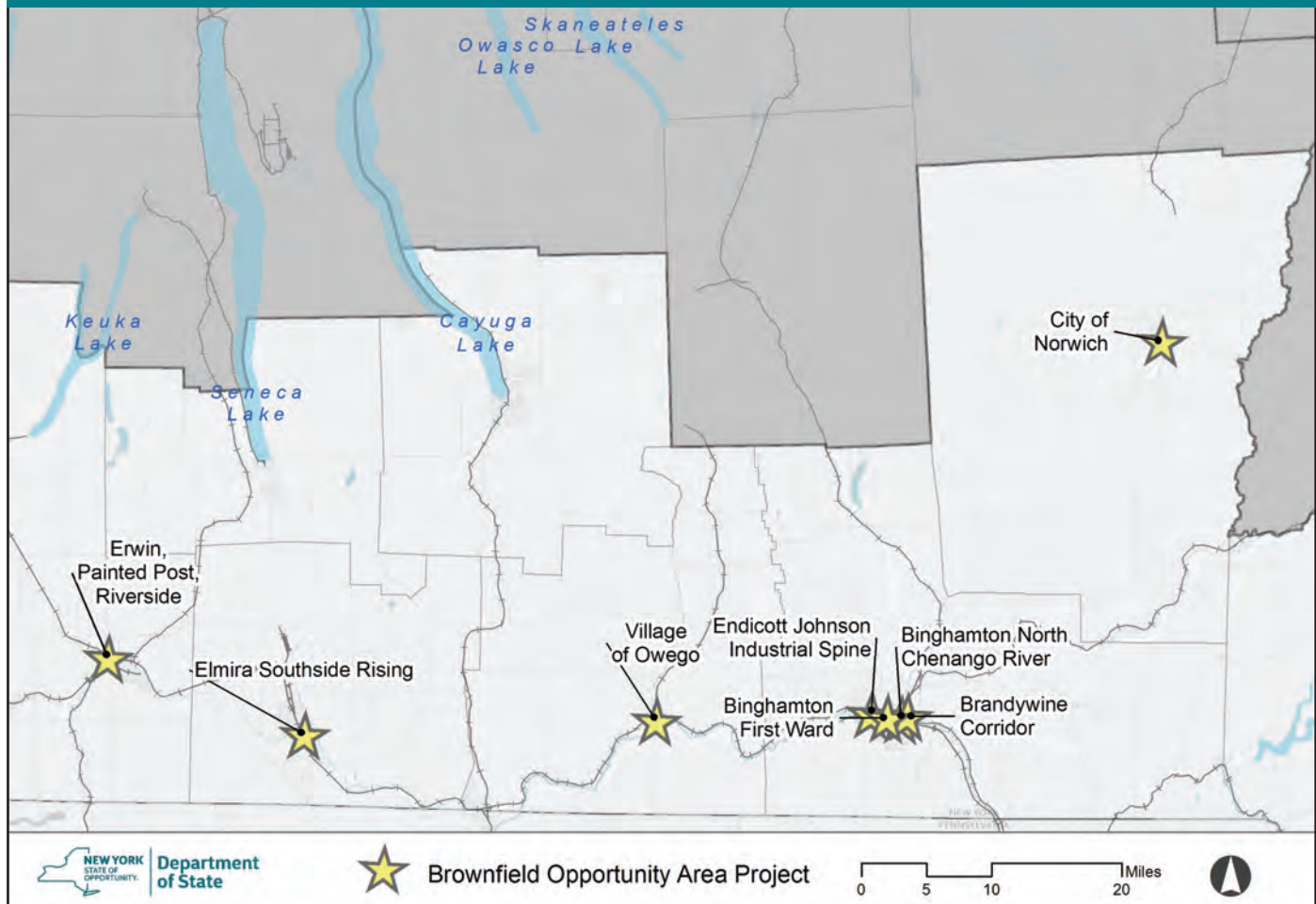
Source: NYS DOL; Office of the NYS Comptroller; U.S. Census Bureau
Tourism employment reflects private-sector employment only.

Resurgence from natural disasters and environmental issues

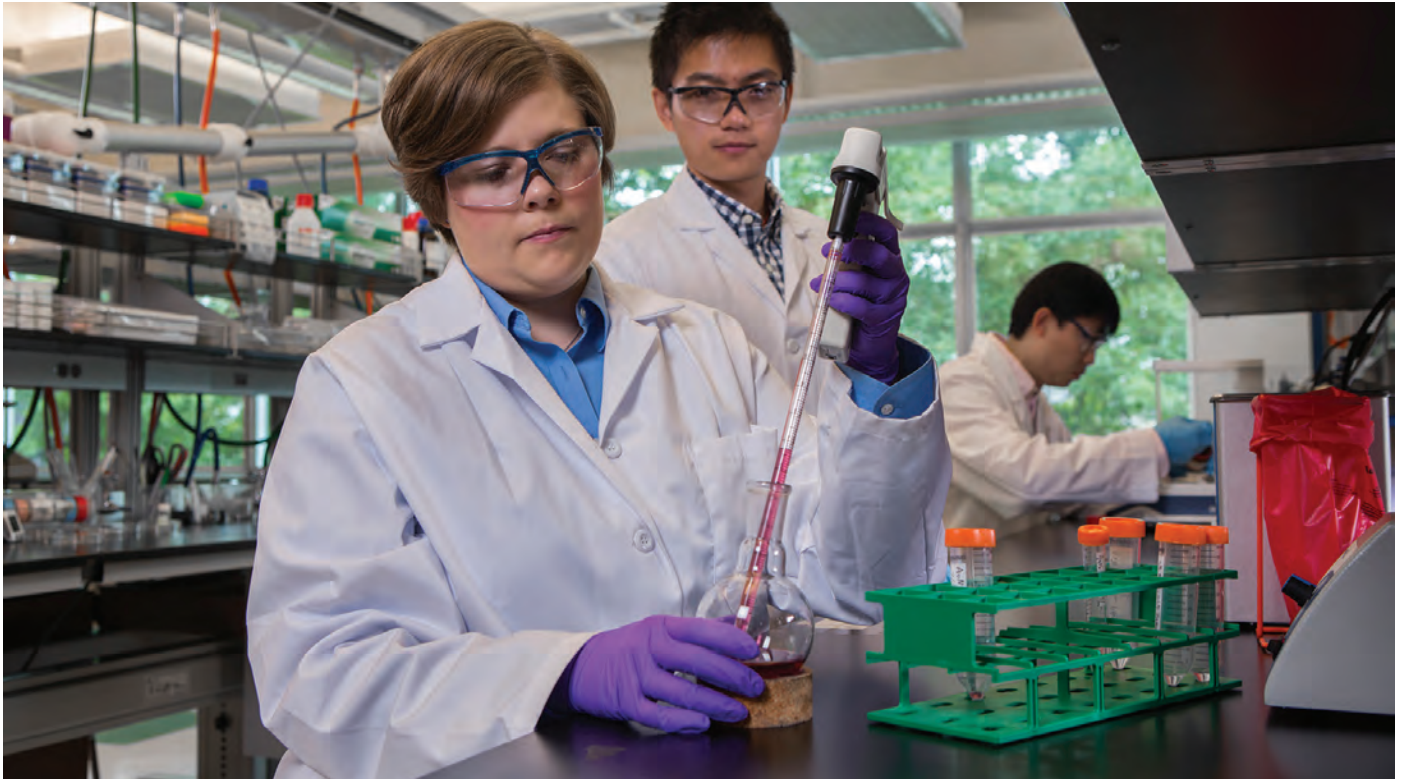
NY Rising: In the Southern Tier, 14 municipalities in three counties are participating in the NYRCR program. As the URI plan was developed, the Southern Tier closely consulted those communities that are distressed as a result of Hurricane Irene, Tropical Storm Lee and the summer floods of 2013. Each initiative in the plan provides an opportunity for these communities to benefit from both the NYRCR program, as well as the dynamic changes expected to occur in the Southern Tier with an infusion of URI funding. The targeted communities include the following:

- Tioga County: The Town of Nichols, Village of Nichols, Town of Owego, Village of Owego and Town of Tioga
- Broome County: The City of Binghamton, Town of Union, Town of Conklin, Town of Vestal, Village of Johnson City and Village of Endicott
- Delaware County: The Villages of Sidney and Margaretville

Brownfield opportunity areas: Southern Tier REDC



Brownfield Opportunity Areas (BOA): There are eight BOAs in the Southern Tier. During the URI planning process, serious consideration was given to ways the region could advance the BOA plans to transform properties that contribute to blight into catalysts for community revitalization, particularly in Elmira, Norwich, Binghamton and Johnson City.



The Southern Tier has a robust innovative culture, with levels of R&D, patents and STEM graduates that surpass the national average.

Strong innovative culture

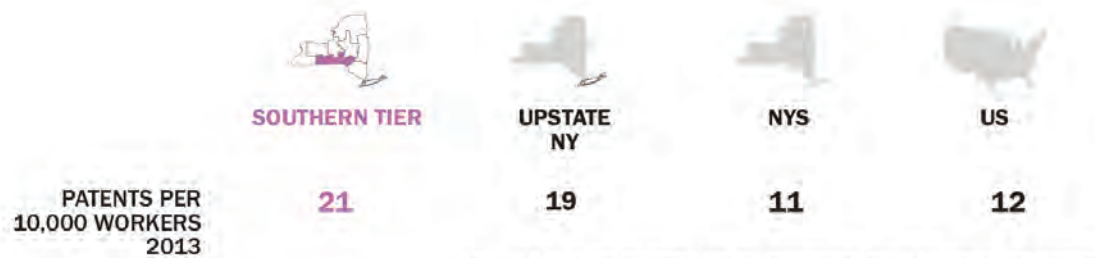
The research, teaching, training and networking resources of the region's higher educational institutions, especially Cornell University, Binghamton University, Ithaca College, Elmira College, Corning Community College, SUNY Broome, Tompkins Cortland Community College and SUNY Delhi, represent a powerful engine that can accelerate the Southern Tier's innovation economy. The region's colleges and universities, which educate more than 60,000 students annually and graduate more than 17,500 students each year, employ more than 4,100 faculty members.

The region's innovative performance has grown, with higher levels of R&D, more patents, and more STEM graduates. Per capita R&D spending is up nearly 50% since 2000, though it has dipped slightly since 2010. Patents are also growing, up 24% since 2000. Meanwhile, 34% of graduates in the region are awarded a STEM degree — up from 22% in 2000 and 31% in 2010.

The Southern Tier has an innovation index of 104.2, as compared to New York State at 98.5. This is attributed to world-class research universities such as Cornell and Binghamton, as well as private sector businesses with strong R&D activity such as Corning Incorporated and Lockheed Martin. This is further exemplified by the 1,732 utility patents filed between 2009 and 2013, and R&D expenditures of \$922.4 million during the same period.

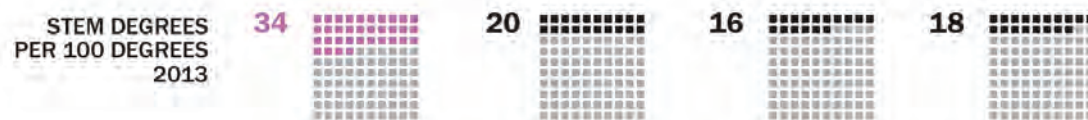
Since the Southern Tier Startup Alliance (Hot Spot) began programming in 2014, more than 3,100 entrepreneurs have attended networking, presentations and workshops at one of the alliance's partner incubators. As the two newest incubators (Rev: Ithaca Startup Works and IncubatorWorks in Elmira/Horseheads) grow and as the Southern Tier High-Technology Incubator opens, the number of entrepreneurs in the region is also expected to rise.

Innovative culture



¹ STEM occupations reflect 184 different jobs in science, technology, engineering and mathematics. These jobs typically require a college degree, are higher-paying and concentrated in STEM-intensive industries.

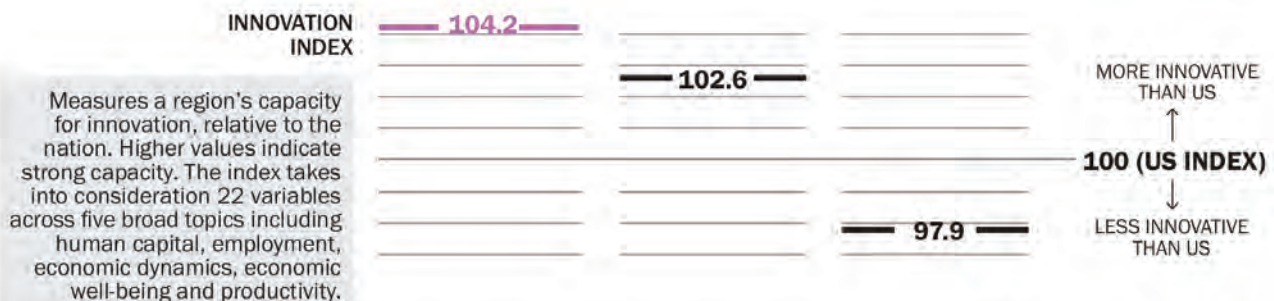
Source: NYS Department of Labor; U.S. Bureau of Labor Statistics.



Source: National Center of Educational Statistics; U.S. Bureau of Labor Statistics.



Source: National Center of Educational Statistics.



Source: Innovation in American Regions.



Source: Reference USA; NYS Department of Labor, UB Regional Institute

Section III. Vision and Initiatives

Southern Tier's overall vision

Building on a strong foundation of existing businesses and higher education institutions, the Southern Tier uses a collaborative approach to leverage its globally competitive advantages to attract talent and investment for the development of industry clusters. Our focus will be on increasing the size and prosperity of the region's workforce through new business creation based on high-technology discoveries and other entrepreneurship activities, while ensuring healthy communities and protecting the region's natural beauty and resources.

Vision for the Southern Tier's Upstate Revitalization Initiative Plan

The Southern Tier will no longer be just a region in upstate New York. The Upstate Revitalization Initiative award will be the spark that ignites the Southern Tier to once again become a hotbed of innovation and vigorous business growth and a destination for the next generations of the nation's best and brightest talent.

Strategies to Increase Regional Wealth



Build the Greater Binghamton Innovation Ecosystem

The Greater Binghamton Area will be a destination for talent and new business development. Revitalized urban centers and transformed neighborhoods will maintain the area's legacy and position it as a major gateway, with strengths in advanced manufacturing, healthcare and high-technology development.



Invest in the Advanced Manufacturing Industry

A focus on advanced manufacturing and the transportation sector will result in the Southern Tier being recognized as a destination for manufacturing business development, distinguished by its concentration of multi-national anchor companies, advanced infrastructure to support innovation and technology, rich education and research resources, specialized skilled workforce and vibrant communities.



Transform the Food and Agriculture Industry

The Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. A strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.



Promote the Southern Tier's Innovative Culture

The Southern Tier will be a well-recognized and highly desirable place to learn, visit, live and grow a business because the region's distinct combination of educational strength, culture, innovation, leisure-related industries and natural resources creates a lifestyle that couples the convenience of larger cities with opportunities to lead a healthy lifestyle surrounded by natural beauty.

Vulnerable and hard-to-place workers

The Great Recession, compounded by the Southern Tier's slow economic turnaround, has been particularly difficult for hard-to-place workers, ranging from veterans to those in an impoverished financial and social situation. The Southern Tier recognizes that this is a critically important issue, and is magnified in the more distressed communities throughout the region.

As described in the Situation Analysis, there were 60,965 Southern Tier residents living in poverty in 2013, with an average labor force participation rate of 46%, just below the 49% at the state level. The average unemployment rate among those living in poverty was 26%, compared to an unemployment rate of 8% for all socioeconomic groups. Our region is home to more than 26,500 veterans, of whom 30% are unemployed. This is predominantly in rural areas, which is an important factor as we consider the importance of the agriculture industry in the Southern Tier.

We don't believe a one-size-fits-all approach can be applied to the unemployed, underemployed and hard-to-place workers throughout the region. Rather, we have planned for a multi-pronged approach to engage hard-to-place workers based on geographic location, demand, traditional training and placement programs, links with academic and civic organizations and unique job training opportunities based on particular industry sectors.

Throughout the four initiatives presented in this URI plan, there are specific activities described that will involve the hard-to-place worker in the Southern Tier's economic revitalization. Below is a summary of such activities. More detail is provided in each of the four initiatives.

Overall activities to be integrated across initiatives:

- SUNY Broome, Tompkins Cortland Community College, Corning Community College and SUNY Delhi have expertise in providing training required by local employers, and as a result of the URI planning process are working even closer together to develop specialized programs in high-growth areas to help ensure a workforce that's in sync with the needs of companies throughout the region.
- The BOCES and VESID offices throughout the region will be engaged in an even more active way by joining with the private sector to sponsor job fairs and training programs across the region that are focused on low-income and disabled residents as well as veterans. Raymond Corp. already employs this successful approach and it will be duplicated. Specifically, the company participates in job fairs for the homeless and works closely with VESID to assist in the development of job skills for the disabled.
- Veterans affairs offices at each SUNY campus, which provide assistance to veterans in the college environment.



SUNY Broome's Manufacturing Technology Lab exemplifies the regional community colleges' dedication to workforce development.

Build the Greater Binghamton Innovation Ecosystem:

The Greater Binghamton Innovation Ecosystem will focus on reversing outmigration, training hard-to-place workers and attracting talent to rebuild its urban communities. There are three major activities that will focus on workforce training for hard-to-place workers:

- The Salvation Army Job Training Center will be a game-changing project in the heart of the most impoverished section of Binghamton's urban core. In this new facility, the Salvation Army will provide life skills and job training programs that have been successful in the Central New York region.
- Services for recent immigrants will be provided through the American Civic Association, which assists immigrants in their acculturation to America and offers English lessons.
- SUNY Broome is well positioned to provide specialized training programs in high growth, high-wage “technician” occupations that complement — and offer entry into — the more advanced and highly technical opportunities proposed, particularly in healthcare and advanced manufacturing.
 - SUNY Broome will provide basic technical skills needed in manufacturing such as blueprint reading, as well as “soft skill” training.
 - The college's plans also call for new programs that support the innovation economy. A histological technician certificate program will soon be launched, as will a certificate program for physical therapy aides. A new associate degree in manufacturing technology has been designed in response to local labor market demands. Programs in energy technology, mechatronics and aircraft maintenance also are in development. In addition, SUNY Broome will work with local employers to provide on-the-job-training to complement this basic skills training.
 - SUNY Broome also will undertake another unique approach by building “laddered credential-certification-degree” options for the hard-to-place worker.

Invest in the Advanced Manufacturing Industry:

A significant challenge to the growth of advanced manufacturing in the Southern Tier is the inability of the sector to recruit sufficient numbers of skilled college graduates. The exodus of college graduates is among the region's most pressing economic problems. There is a particular interest in employing the veteran in the advanced manufacturing industry. The following will be undertaken to train, recruit and place veterans and other hard-to-place workers.

- To better and more efficiently match employers with community college, college and university graduates of manufacturing-related programs, a consortium of colleges in the Southern Tier plans to undertake the creation of a central digital repository of prospective jobs and internships. This consortium, SUNY Broome, SUNY Delhi and Binghamton University, will create a pilot that may be scalable across the Southern Tier and New York State. Integrating manufacturers, colleges and students into a consistently updated repository will make the process of linking students and graduates with employment and internship options transparent, efficient and timely, a win-win for employers, graduates and the Southern Tier.
- SUNY Broome will develop a Specialized Technician Training Opportunities Program that leverages synergies among academia, target industries and workforce development systems. Training will be linked to stated needs of regional companies and input from SUNY Broome's Workforce Development Advisory Board. Job skills training will emphasize basic skills, special needs and sustainable/green practices

in manufacturing. The program will offer stand-alone certificates recognized by local employers, and therefore, hard-to-place workers will be more likely to participate in and complete training programs that bolster their hiring qualifications.

- The Southern Tier Small Manufacturing Competitiveness Fund is designed for new and existing small manufacturing companies (less than 20 employees) to allow them to innovate, adapt, increase productivity and efficiency to remain competitive in the global marketplace, and to create employment opportunities for local hard-to-place workers. The fund will target business growth in areas with the highest concentration of impoverished persons; specifically target census tracts in Binghamton, Corning, Elmira, Endicott, Hornell, Johnson City and Norwich; as well as rural areas identified in Chenango County, Delaware, Steuben, and Tioga County.
- The Advanced Rail Technology Center project in Hornell will provide job opportunities for hard-to-place workers, including veterans and low-income residents, and promote inclusive growth by using the manufacturing district as a platform to redevelop adjoining distressed neighborhoods. It will create educational, employment and other opportunities in Hornell.
- Raymond Corporation is among the largest employers in the region with 1,400 workers and it routinely engages in a variety of employment creation opportunity activities for the hard-to-place worker, such as participating in a job fair for the homeless and assisting in the development of job skills for the disabled through VESID. The Southern Tier recognizes the importance of engaging the hard-to-place worker in its future economy, and we must work hard continue placing an emphasis on hands-on training provided by both the private companies, community colleges, BOCES and other workforce development programs.

Transform the Food and Agriculture Industry:

- The Southern Tier Agriculture Development Fund will provide support to pioneering workforce development programs, with a focus on regional residents, hard-to-place workers and veterans. The fund will sponsor training programs for farmers. It will also support innovative and high-growth food and agriculture industries such as beef feeder cattle, wine-making, controlled environment agriculture, renewable energy, veterinary care, processing and agri-tourism. Jobs in these industries on average have higher wages than traditional farming (most near or above the regional average of \$46,000), and provide opportunities for regional residents, including veterans and low-income residents.
- The Energy Workforce Development Program will work with researchers, companies and workers to cultivate a skilled workforce versed in using new technologies developed through existing state programs run through NYSERDA, as well as 76West. The project will prioritize training for hard-to-place workers and will be synergistic with the Cornell Controlled Environment Training Program.

Section IV. Process and Guiding Principles

Our approach

The region as a whole came together with an unprecedented level of energy, creativity and diversity. Our approach to developing the Southern Tier's Upstate Revitalization Plan was based on six guiding precepts.

- Consider the Southern Tier as a whole, the sum of its strengths and competitive advantages and the dynamics that will drive innovation and transformation.
- Look deep and objectively to confront established thinking and face our challenges head-on, understanding that creative tensions must occur in order for new ideas to emerge.
- Have the foresight and courage to embrace the opportunities that are within our grasp and view them through a new set of lenses.
- Unabashedly and boldly undertake a set of initiatives that will forever transform the Southern Tier.
- Understand the importance of natural resources, place, talent and innovation in the planning process.
- Build lasting bonds to sustain the expected change by bringing together the right people, academic institutions, private and not-for-profit organizations and municipal leaders to drive transformation and reshape the Southern Tier's future.

Guiding principles

The Southern Tier's Upstate Revitalization Initiative Plan will be:

1. Driven by one vision and embrace strategic initiatives that build the region's economy without regard to political boundaries.
2. Visionary, transformational, measurable and self-sustaining on a long-term basis.
3. Clearly linked to the key strategic objectives and measures for success set forth in the Southern Tier strategic economic development plan.
4. A set of initiatives that leverage our world-class assets such as Cornell and Binghamton universities, industry leaders in manufacturing and commercialization of technology, tourism destinations, agriculture and more.
5. Identify meaningful ways for the Southern Tier to continue to be supportive of other state-wide economic development initiatives such as Smart Growth, Complete Streets, Start-Up NY, Hot Spots, Global NY, Opportunity Agenda, Veteran's Initiative, SUNY 2020, Cleaner Greener, NY Rising, Industry Cluster Program, Southern Tier Agriculture Initiative, 76 West, NY-BEST and Brownfield Opportunity Area (BOA) Redevelopment plan.

Philosophy

Our objective was to develop a dynamic plan that would maximize the innovation and intellectual capital of our private-sector and academic institutions, advance commercialization of technology, leverage private investment, engage in meaningful public-private sector partnerships, value and promote entrepreneurship at all levels and directly support the expansion of our industry drivers with a highly skilled workforce, physical infrastructure and vibrant communities.

Maximize intellectual capital: It has been nearly 70 years since Vannevar Bush articulated the importance of research and development to the growth of the economy, a belief that was later expanded by many economists to include the development of new knowledge. Knowledge, they said, is as important as labor and capital, and generates 5-80 percent of all economic growth.

The Southern Tier has a rich history and passion for innovation and technology, and our region's academic institutions and corporations are havens of knowledge. Our primary source of innovation for the future will be bold ideas that are implemented in the marketplace as a new product or in an organization as a new process or system.

The research, teaching, training, clinical study, testing and networking resources of private companies such as Corning Incorporated and Lockheed Martin, together with Cornell University and Binghamton University and our healthcare institutions, collectively represent a powerful engine that can accelerate the region's innovation economy.

Innovation at the local level: Innovation can begin at the community level and penetrate many aspects of our daily life. Actions can be taken at the local level to measure, support and develop an innovation community. At the same time, we cannot lose sight of the importance of diversity, tolerance, vibrancy and entrepreneurship at the local level that focuses on small business development, Main Street revitalization, historic preservation and the local creative economy. This approach assumes that all businesses and organizations have the opportunity and capability to be innovative, not just those driven by or dependent upon science and technology.

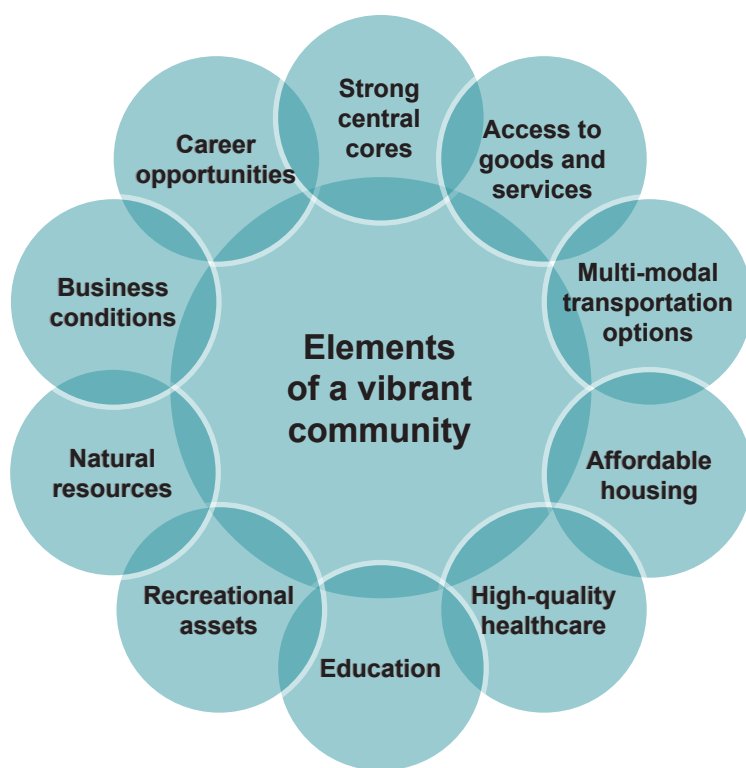
Furthermore, workforce strategies, especially tactics designed to attract Millennials, young professionals and young families, align directly with these innovation strategies. Find a place that supports the creative and innovative economy, and you will find young people. They are attracted by the type of work, by the culture and by the quality of life.

Meaningful public-private partnerships: Only by working together will the Southern Tier be successful in bringing about real change that is transformational and lasting. It is true that in Southern Tier's economy there is not adequate private capital to pay the high price of assembling and preparing appropriate sites for redevelopment, investing in basic infrastructure to support business expansion and planning for the workforce of the future. Simultaneously, local governments cannot bear the costs of public infrastructure and facilities so important to creating the environment businesses need to attract talent. Joint endeavors in all of the proposed initiatives will bring new knowledge to the marketplace whether that is in advanced manufacturing, new agricultural technologies, entrepreneurial activities or promoting our region through tourism. Such partnerships also will be essential if we are serious about undertaking revitalization of our aged downtowns and waterfronts, and converting obsolete or underutilized land to more productive uses. History has shown us that without such partnerships such projects frequently are too economically and physically complex.

The research, teaching, training, clinical study, testing and networking resources of private companies, together with universities and our healthcare institutions, represent a powerful engine that can accelerate the region's innovation economy.

Building on natural assets: One of the Southern Tier's greatest assets is its water, with rivers such as the Chemung, Cohocton, Canisteo, Susquehanna, Chenango, Delaware and Tioughnioga running through it and the Finger Lakes of Keuka, Seneca and Cayuga in the northern portion of the region. The region sits at the confluence of a number of watersheds, including the Chesapeake Bay Watershed (the largest in the nation), New York City Watershed and the Great Lakes Watershed. In a time when many other states in the U.S. are battling drought, the Southern Tier's water makes it unique and poised to fill gaps in agricultural production.

Value of entrepreneurship: We identified opportunities for innovation in the social and technological realms, and sought out best practices on how to leverage university and corporate R&D assets to encourage and support innovation and entrepreneurship. The region will create and sustain a culture that will attract young people and support the successful commercialization of new products and services, leading to job creation.



Return of vibrancy to our communities:

Quality of life is critically important to the private sector. Our human capital and institutional resources will ultimately depend on having vibrant urban cores. Vibrant communities have the capacity to improve perceptions of the region; without them private investment, new residents, innovation and entrepreneurship will be difficult to capture. Therefore, we must create attractive public realms that celebrate our heritage, and that simultaneously speak to our walkable communities and availability and diversity in housing.

Workforce: Workforce and economic development are interdependent. The demographics of the Southern Tier point to the necessity of attracting new, younger workers and their families to the area, while the availability of jobs is a primary driver in their location decisions. The Southern Tier has the competitive advantage of attracting

more than 60,000 students to its outstanding higher education institutions each year. As these students graduate, we are poised to keep them in our region to work at thriving businesses or start one of their own.

Also framing the issue are the preferences of Millennials, who demand a community and lifestyle that includes robust cultural assets, vibrant downtown and community life, walkability and public transportation. Upstate New York appeals because of the abundant natural areas and recreation opportunities, but rural areas across the country are also facing the same issues of retaining/attracting workers where these other items are concerned. Therefore, this task will also be closely aligned with the need to reflect a dynamic culture.

On the employer side of the equation, business owners are concerned about the availability of skilled labor, with middle-level or advanced skills in the science, engineering, technology and mathematics disciplines, as well as appropriate soft skills. Therefore, it is not enough to retain and attract young people; the employers and the region more broadly must retain and attract educated, skilled, young people.

Public engagement

We understood the plan would need to evolve from the contributions of groups throughout the region that shared STREDC's vision, were informed about the council's strategic objectives and priorities and were committed to generating ideas that would produce significant and measurable return on investment by New York State, as well as local private- and public-sector partners.

More than 975 individuals participated in 90 work group sessions, WebEx sessions, small group meetings and surveys. All meetings were driven by the same agenda, which focused on how the Southern Tier could use its assets and "innovation cultivators" to harness opportunities, accelerate public/private investment, create job opportunities, advance regional competitiveness and create the magnetism to draw and keep young, skilled workforce participants.

Ideas also were collected through more than 100 white papers submitted for consideration.

The focus continued to be on development of initiatives that would form the framework for the Southern Tier's URI Plan; that is, strategies that would fill voids in the region's innovation infrastructure and guide the region's future.

Stakeholders from throughout the Southern Tier agreed that the contours of a URI "action plan" would need to:

1. Capture and exploit the region's existing innovation drivers; specifically, our world-class universities and major corporations that have the capacity to infuse emerging technologies to advance key industry sectors
2. Leverage existing resources; particularly our natural resources
3. Strengthen the workforce and pursue talent
4. Create a dynamic community infrastructure and culture
5. Create an innovative and creative culture that will be a magnet for business recruitment, entrepreneurs and young talent

After agreeing on a preliminary group of four initiatives, the Regional Council sought the opinion of the broader public via an online survey. More than 500 people participated and there was strong support for each of the four initiatives.

- **Build the Greater Binghamton Innovation Ecosystem Initiative: 83%**
- **Invest in the Advanced Manufacturing Industry: 86%**
- **Transform the Food and Agriculture Industry: 89%**
- **Promote the Southern Tier's Innovative Culture: 88%**



During this plan's collaborative development, more than 975 people participated in work group sessions, WebEx sessions, small group meetings and surveys.

Decision-making process

The council reviewed the proposed initiatives and projects, subjected them to the test described below, and revised them as necessary, so they would incorporate more potent and attractive features.

Criteria for selection of initiatives based on expected outcomes

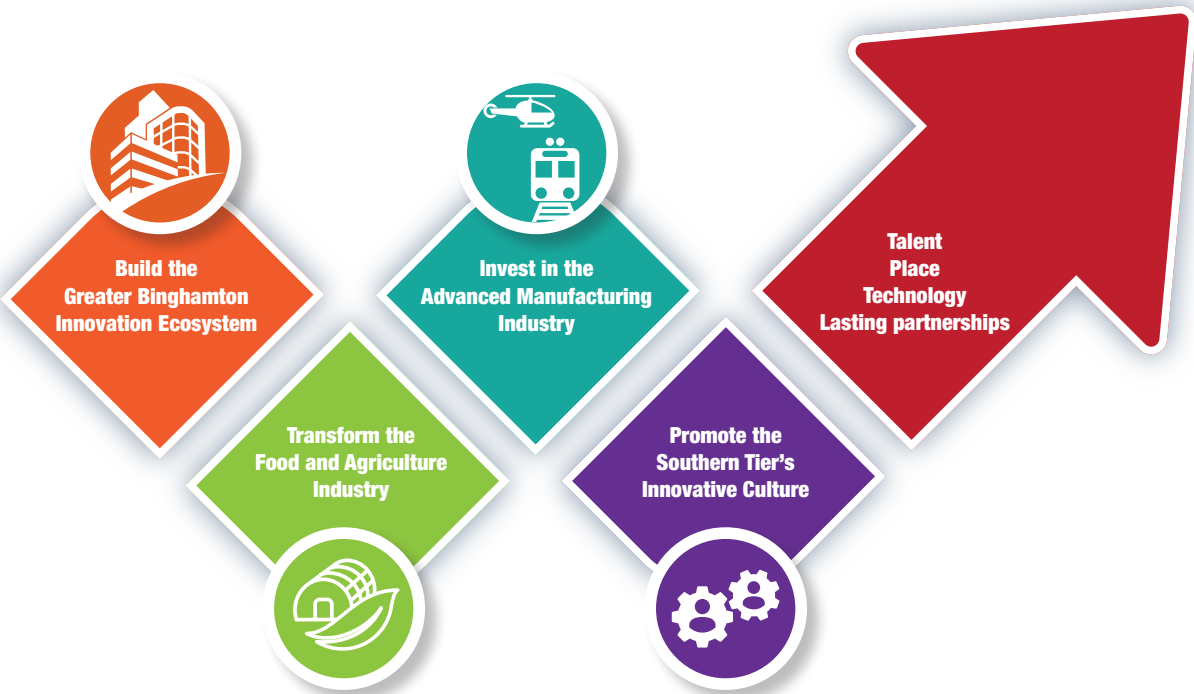
- ☒ Maximize leveraged funds; specifically, 5:1 ratio of private/local to New York State.
- ☒ Direct contribution to the Southern Tier's net increase in wealth and evidence that the associated jobs are wealth generating; that is, pay more than regional average by job category or profession. Note that attention must be paid to unemployed, underemployed and hard-to-place workers (veterans, convicted felons, etc.).
- ☒ Measurable outcomes that will gain national attention such as creation of jobs with competitive salaries and exciting career tracks, private investment in business expansion and new business development that outpaces the national average, renewed entrepreneurial spirit, expansion and development of major destinations for leisure and recreation, and revitalized civic and cultural centers that are attractive to a young and talented workforce.
- ☒ High-impact results that contribute to an enhanced image and compelling message that the Southern Tier offers a dynamic and competitive business environment: highly qualified and talented pool of workers, infrastructure capacity, intellectual capital, innovation and technology acceleration, state-of-the-art shovel-ready sites and effective public-private partnerships.
- ☒ Direct link or support of other NYS economic development programs and initiatives such as Start-Up NY, regional Hot Spot and Smart Growth with elements such as climate change disaster preparedness and response, energy efficiency and sustainability.
- ☒ Position industry sectors to expand and capture domestic and global markets.
- ☒ Position and promote the region's quality of life, particularly as an appealing and desirable place to live and work for young and highly qualified workers because it offers an attractive work-life balance, affordable cost of living and growth opportunities.
- ☒ Identify opportunities to include vacant or underutilized New York State properties.
- ☒ Demonstrate "readiness" as evidenced by such factors as involvement and investment by universities and colleges, commitment of private-sector investment, public-private partnerships, organizational structure to administer the initiative, etc.

Questions with which to "test" the proposed game-changing investments and projects were:

- ☒ Do the projects align or fit within an ecosystem of any emerging vital initiatives?
- ☒ Do the projects achieve the highest possible leverage for the users? Do they fit well with the emerging social and technological context?
- ☒ Under what circumstances are the projects economically viable, e.g. market demand, subsidy, redistribution of existing resources in a new way?
- ☒ Do the projects offer a good fit with the strategic capability of the region as it is or could be?
- ☒ Are there potential investors, anchors, champions for the project, and if so, under what circumstances?

Section V. Strategies to Increase Regional Wealth

SOUTHERN TIER'S
ADVANCED ECONOMY
OF THE FUTURE



Build the Greater Binghamton Innovation Ecosystem

Goal

Greater Binghamton will be a destination for talent and new business development. Revitalized urban centers in Binghamton, Johnson City and Endicott will maintain the area's legacy and position it as a major gateway, with strengths in advanced manufacturing, healthcare, culture and high-technology development. Innovation Districts will capitalize on public-private collaborations and the growing presence of Binghamton University.

Strategy

1. Build three Innovation Districts that will become drivers of a new advanced economy in Greater Binghamton: the City of Binghamton iDistrict, the Johnson City Health and Cultural iDistrict and the Endicott Advanced Manufacturing iDistrict.
2. Establish the Transform Greater Binghamton Fund.
3. Invest in regional strengths in advanced manufacturing, healthcare and STEM education.
4. Leverage and support the R&D capabilities of academia and industry in the region, giving Southern Tier companies a competitive edge, attracting new jobs and creating opportunities for a reinvigorated workforce.
5. Advance New York State Initiatives including Start-Up NY, Brownfield Redevelopment, Hot Spots, Veterans Initiative, Opportunity Agenda, SUNY 2020, Cleaner Greener and NY Rising. It is important to note that all three communities in the Greater Binghamton Innovation Ecosystem are NY Rising Communities. In addition, there are two designated Brownfield Opportunity Areas that will be transformed.

Outcomes and measurable impact

- URI investment: \$117,036,000
- Leveraged investment: \$589,180,000
- Economic impact: \$913,229,000
- Job creation: 2,341
- Wage increase: From average of \$32,440 to \$40,060
- Reduction in commercial vacancy rates: 50% or more in the urban cores
- New moderate and market-rate rental housing units: 550+
- Vacant single-family housing units renovated and occupied: 100
- Abandoned and blighted commercial buildings demolished: 23
- Commercial building façade improvements: 75
- New streetscaping: 25,000 linear feet
- Increase in median household income: 20%
- Reverse outmigration and attract talent
- Transformation of blighted areas in the urban cores of Binghamton and Johnson City, particularly brownfield areas
- The urban cores of Binghamton, Johnson City and Endicott recognized as the dynamic live, work, play hubs in Greater Binghamton
- Targeted workforce development programs





Game-changing investments

■ Binghamton iDistrict:

- Mixed-use developments such as 7 Hawley Street, Collier Street Commons, One North Depot and City Center Lofts
- Route 434 Greenway – Bike Trail
- Salvation Army Job Training Center
- Investments in business development projects
- Binghamton Waterfront Revitalization Projects

■ Johnson City Health and Cultural iDistrict:

- Southern Tier Health Sciences and Technology Innovation Park: Binghamton University's new School of Pharmacy and Pharmaceutical Sciences and Decker School of Nursing, and proposed Center for Regenerative Medicine, Binghamton Bio Foundry and Biopharmaceutical Hub
- The Goodwill Theatre Inc.
- Century Sunrise Mixed Use Development
- 59 Lester Street 10-acre Redevelopment Project

■ Endicott Advanced Manufacturing iDistrict:

- Flexible Printed Electronics Center
- Industrial 3D Printing Center
- Investments in business and industry growth
- Endicott iDistrict Downtown and Neighborhood Revitalization Plan
- Microgrid Pilot Project

■ The Transform Greater Binghamton Fund

Introduction

Greater Binghamton, the largest urban center in the Southern Tier, has a population of about 200,000 and a workforce of more than 75,000. Greater Binghamton's three unique downtown districts — Endicott, Johnson City and Binghamton — have been united for more than a century by common waterways, transportation networks, anchor institutions, commerce, government and social services. Once known as the "Valley of Opportunity," this area has a rich history of innovation and global business development led by IBM, Endicott-Johnson and Link.

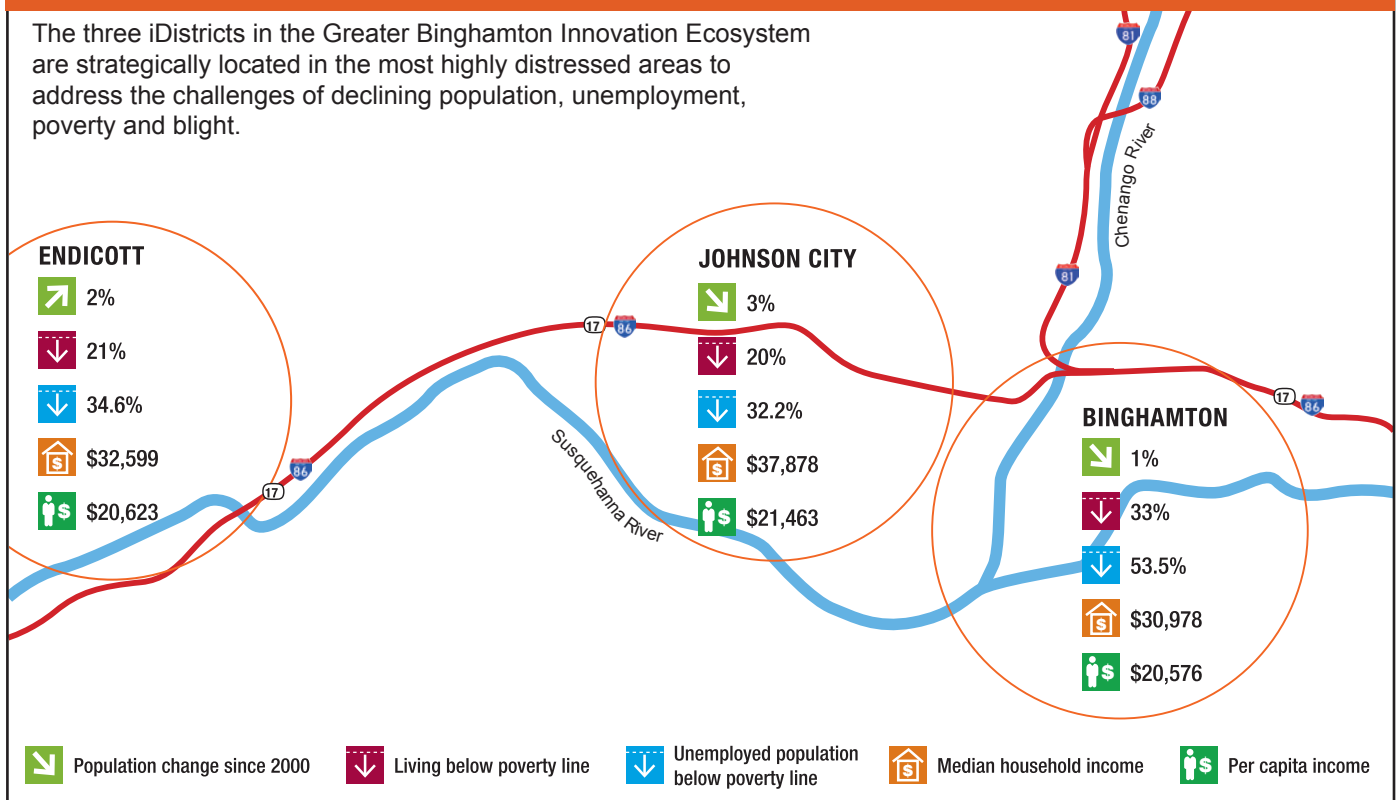
The demise of Endicott-Johnson and the departure of IBM left Greater Binghamton with high unemployment and blighted industrial properties. But their legacy also lies in strong cultural institutions, pioneering research and education in health sciences and engineering at Binghamton University, organizations such as the Southern Tier Start-up Alliance, a strong healthcare sector and globally competitive companies.

Evidence of the impact of Hurricane Irene and Tropical Storm Leo can be seen in all three communities in the Innovation Ecosystem, which are designated NY Rising Reconstruction Communities. Despite the significant redevelopment that has taken place since 2012, much more work is needed to restore Binghamton, Johnson City and Endicott so they can once again be vibrant communities.

A fresh approach to economic revitalization, one that builds on the Brookings Institution's Innovation District concept, will help Greater Binghamton capitalize on its assets in higher education, healthcare and advanced manufacturing. The model articulated by Brookings calls for leading-edge anchor institutions and companies to cluster and connect with start-ups, business incubators and accelerators. Greater Binghamton's physically compact and

Greater Binghamton

The three iDistricts in the Greater Binghamton Innovation Ecosystem are strategically located in the most highly distressed areas to address the challenges of declining population, unemployment, poverty and blight.





The Southern Tier Health Sciences and Technology Innovation Park will enable the translation of health sciences-based research into opportunities for pharmaceutical product development and other healthcare applications.

transit-accessible communities will offer mixed-use housing, office and retail to support the anticipated business growth and influx of talent.

City of Binghamton iDistrict: The Southern Tier High-Technology Incubator, set to open in 2016, will drive the City of Binghamton iDistrict. Binghamton University and its partners are building this facility with space for research, education and entrepreneurship. The incubator and its firms, focused on alternative energy, electronics and health, will spark a tech innovation culture in the city and connect that Binghamton neighborhood to retail, real estate, arts and government activities throughout the region. Signature investments for mixed-use housing, waterfront development, business development projects such as a food business accelerator and hub teamed with SUNY Broome and Cornell University, Triple Cities Makerspace and the LUMA Projection–Computer Mapping Inc. will further cultivate the innovation district.

Johnson City Health and Cultural iDistrict: The Southern Tier Health Sciences and Technology Innovation Park will drive the Johnson City Health and Cultural iDistrict, a cohesive community of academic and healthcare anchor institutions, healthcare-related businesses, cultural amenities and residents. Interprofessional education, enhanced healthcare, internationally recognized research initiatives and opportunities for biotech industry will be signatures of this iDistrict. The park will set the stage for collaborative relationships with partners focused on research, education and training.

There is a buzz, a recognition that Greater Binghamton is on the rise and it is time to invest in our economic and cultural amenities.

Endicott Advanced Manufacturing iDistrict: The Endicott Advanced Manufacturing iDistrict will be driven by the new Flexible Printed Electronics Technology and Industrial 3D Printing Centers and major anchors such as BAE Systems. The Endicott iDistrict will establish Greater Binghamton as the preeminent place for flexible hybrid electronics and manufacturing with thin, flexible-glass technology. Establishing a shared hub for advanced manufacturing technology accessible at lower cost than what companies can afford to provide alone creates a value proposition for companies to establish operations in Endicott. Companies such as National Pipe and Plastics already have announced plans to relocate to Endicott. The commercial and cultural attributes of the community, designed in the pre-suburban era, will attract new employees and residents.

Transform Greater Binghamton Fund: Municipal governments and economic development organizations will respond to consumer demand and stimulate additional private investment with the Transform Greater Binghamton Fund, which will support high-density development in Greater Binghamton's urban communities. Private developers plan to convert old warehouses in Johnson City into mixed-use housing, new businesses are blooming in Binghamton and tech start-ups are focusing on vacant industrial spaces in Endicott.

Invest in advanced manufacturing, healthcare and STEM education: Proposed investments in regional strengths in advanced manufacturing, healthcare and STEM education are in line with national areas of economic importance. Greater Binghamton is the proud birthplace of technological innovations that have transformed the world, including virtual reality and flight simulation. The region continues to be a leader in transportation, electronics and aerospace manufacturing. We will build upon our system of hospitals and the growth in healthcare jobs that has helped to offset our loss of manufacturing jobs. By training students in STEM fields, we will prepare the workforce of the future.

There is a buzz, a recognition that Greater Binghamton is on the rise and it is time to invest in our economic and cultural amenities. For instance, Modern Marketing Concepts (MMC) recently announced that it will transform a 42-acre corporate office complex in Greater Binghamton that was the home of Link Flight Simulation. The complex, which has been vacant for more than 20 years, will house an expansion of MMC and other businesses. MMC expects to add 600 new employees.

We have many entities at the table, working on strategies to leverage New York State's Upstate Revitalization Initiative and provide the 5:1 match necessary to capitalize on this extraordinary opportunity. Binghamton University, economic development agencies and the private sector have the knowledge, relationships and creativity as well as the continued capacity to cultivate these attributes into the future to drive long-lasting, sustainable change in the Greater Binghamton Innovation Ecosystem.

The Greater Binghamton Innovation Ecosystem will reverse outmigration and attract talent to rebuild attractive urban communities that are a cultural hub for the Southern Tier. Greater Binghamton will be a national leader in integrative healthcare. The diversified, advanced manufacturing industry will be flexible and nimble. The Southern Tier's Opportunity Agenda will be advanced with help for distressed communities and hard-to-place workers.

Foundation for economic growth in Greater Binghamton

Leading indicators and national trends

Tomorrow's growth can be found in healthcare, advanced manufacturing and STEM education.

Healthcare: Healthcare is among the fastest-growing sectors of our nation's economy with more than \$2 trillion spent annually. The coming decade is certain to see advances in areas ranging from personalized medicine to medical device development. Healthcare expenditures make up 18% of the GNP, and this share is projected to rise sharply, with projections of 34% by 2040¹. Healthcare is also one of the fastest-growing occupations² and among the best paid.³

The Southern Tier Regional Economic Development Council has identified healthcare as a strategic priority for our region, noting that the integration of healthcare providers, higher education and cutting-edge technology is a "catalytic, collaborative, comprehensive and competitive strategy to transform the Southern Tier."⁴ Healthcare and social assistance had the largest job gains in any sector from 2005-2010 across the Southern Tier. According to the New York State Department of Labor, there were 2,900 jobs added in the Southern Tier during this period, more than twice that of government, the second-largest sector of growth. The long-term projections for job increase from 2008-2018 for the Southern Tier in healthcare and social assistance is 6,640, with an additional 4,520 jobs in educational services⁵.

Advanced manufacturing: In addition to healthcare, manufacturing is a dominant force in the Southern Tier. It's the largest export industry in the region at \$11.6 billion annually, with nearly a third of all exports. With 34,000 workers, manufacturing remains the third-largest employment sector in the Southern Tier economy. Advanced manufacturing has been identified by the federal government as key for the future for American competitiveness in the global marketplace.⁶ Expected worldwide revenues from the advanced sectors of additive manufacturing and 3D printing industry will reach \$12.8 billion by 2018.⁷ According to Wohlers Report 2014, the industry grew to an estimated \$3.07 billion in 2013. By 2020, Wohlers Associates forecasts revenues from products and services in the industry to exceed \$21 billion. This will be driven by expanded use of the technology for the production of parts that go into final products, with opportunities for production applications orders of magnitude larger than the current usage focused on modeling and prototyping. Jobs in the 3D printing industry are expanding at an explosive rate. Forbes magazine reported that "35% of all job ads for engineers prioritized 3D printing and additive manufacturing as the most sought-after skill," the number of job ads citing 3D printing and manufacturing skills grew 103% year over year from 2013 to 2014 and these jobs are well paid.⁸

STEM education: As the region and the country strive to take advantage of these trends in healthcare and manufacturing, a workforce with a strong education in science, technology, engineering and math (STEM) will be vital. STEM occupations are growing almost twice as fast as non-STEM occupations, and they offer higher wages than other jobs.⁹ In the Southern Tier, the median annual salary in STEM careers is \$65,900, more than 86% higher than the median of all workers in the Southern Tier.¹⁰ The U.S. Department of Education projects rapid job growth in biomedical engineering, health sciences and software development. However, employers say there are not enough qualified workers to fill jobs that require STEM talent.¹¹ In Greater Binghamton, public and private institutions of higher education will work with private industry to bridge this gap.



Greater Binghamton is poised to take a step forward with URI and leveraged investments in transformative civic infrastructure and targeted, signature projects.

The rise of innovation districts in Greater Binghamton

Greater Binghamton’s communities have a history of being vital downtown spaces where people live, work, shop and *innovate*. Unique attributes define our place — the ethnic heritage of our residents, the Susquehanna and Chenango rivers, the legacies of great companies and products that were built here, and the presence of Binghamton University, which has grown dramatically in size and reputation during the past two decades. The Brookings Institution’s adept capture of the new geography of innovation in America resonates with us because we can see the sparks of rebirth in downtown Binghamton that entrepreneurs have brought and residents have responded to enthusiastically.¹² We can also see the patterns of deterioration that arise when industry pulls out of downtowns, as has happened in Endicott and Johnson City. We want to move away from the “geography of nowhere” that comes from suburban sprawl, which James Kunstler decried more than 20 years ago¹³, and embrace the “cityness” of our region — how our built environment reflects our desires, values and dreams.¹⁴ We are inspired by Jane Jacobs’ insights into the role that local economy, mixed-use development, diversity and bottom-up planning play in the maintenance of functioning urban ecosystems¹⁵ and the detangling of wealth generation and poverty creation that can often go hand-in-hand in development.¹⁶

Greater Binghamton is poised to take a major step forward with URI and leveraged investments in transformative civic infrastructure and targeted, signature projects. The U.S. Economic Development Administration’s Innovation Index gives the eight-county Southern Tier region a score of 102.2, which is better than the state (98.5) and the nation (by definition 100). However, if you look at Broome County and adjacent Tioga County, Greater Binghamton’s index jumps to 109.1.

In terms of human capital, Greater Binghamton achieves a score of 115 (vs. 97.3 for the state). Elevated levels of higher educational attainment and high-tech employment drive this impressive rating. With a score of 127.6 for productivity and employment, Greater Binghamton is well above the state (106.9). Greater Binghamton also boasts a remarkable number of patents per worker — an almost 250% higher clip than nationally and statewide.

Economic assets/innovation drivers

Higher education: The research, teaching, training, clinical study, testing and networking resources of the higher educational institutions in the Southern Tier, notably Binghamton University, Cornell University, Ithaca College, Elmira College, Corning Community College, SUNY Broome and SUNY Delhi, are available to the start-ups, established companies and government agencies in the Greater Binghamton Innovation Ecosystem.

Collectively, they represent a powerful engine that can accelerate the region's innovation economy by inventing engineering processes and material sets; investing in fundamental research that will pave the way for drug discovery and development; creating and applying analytics of needs, trends and service-delivery outcomes; by shaping, delivering and evaluating workforce development training programs; by providing physical space, workflow and workfloor designs and networking reach to and through alumni and sources of capital in support of company formations and expansions, product-line additions and competitiveness.

The direct and associated expenditures of Binghamton University alone resulted in an impact of more than \$1 billion on Broome and Tioga counties in 2013-14, supporting an additional 6,000 full- and part-time jobs beyond the university's 5,000-member workforce. The 9,000 Binghamton University undergraduate and graduate students who live off-campus spent more than \$124.5 million dollars on rent, food, utilities, transportation and other goods and services.

The Association of American Public and Land-grant Universities recently designated Binghamton University an Innovation and Economic Prosperity University. In 2007, the university took a significant step in “de-anchoring” itself from its suburban Vestal campus by opening the University Downtown Center in Binghamton. It has further invested in facilities in the iDistricts, including the Center for Advanced Microelectronics Manufacturing in Endicott (2005), the Southern Tier High-Technology Incubator in Binghamton (2016) and the School of Pharmacy and Pharmacological Sciences in Johnson City (2017). The university's presence in the communities is reinforced through programs and personnel of the Office of Entrepreneurship and Innovation Partnerships, the Small Business Development Center and the Trade Adjustment Assistance Center. Binghamton University is consistently ranked among the top 50 public universities in the nation by *U.S. News & World Report*.

Healthcare sector: Greater Binghamton has a growing, specialized healthcare sector with a geographically extended clientele. Healthcare employs 37,103 people, nearly 12% of the Southern Tier's workforce.¹⁷ United Health Services (UHS) and Our Lady of Lourdes Hospital serve as healthcare anchors.

Wilson Memorial Regional Medical Center, in Johnson City's Health and Cultural District, is UHS' largest facility with 300 beds. Wilson, a teaching hospital with acute-care specialties and high-tech diagnostics, is the regional trauma center. Encompassing an area that exceeds three village blocks, it is a destination for hundreds of employees, patients and visitors on a 24-hour basis. The adjacent private medical practices and ancillary services add to the number of people and vehicles that come into the heart of Johnson City for health employment and appointments. The Wilson campus has expanded over the years, and new construction continues. Wilson provides clinical placements for Binghamton University and SUNY Broome students and opportunities for faculty collaboration.

***Greater Binghamton
boasts a remarkable
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and statewide.***

Advanced manufacturing: Globally competitive manufacturing firms focused on high-tech materials and high-value electronics for the commercial, defense and aerospace industry continue as a dominant feature in the Southern Tier economy. Already at Endicott's Huron Campus are leading firms such as BAE Systems, an international defense and aerospace business, and i3 Corporation, which focuses on design and manufacture of high-complexity, high-performance, high-value printed circuit boards, fabrication and assembly, semiconductor packaging, systems integration, advanced laboratory services and contract R&D. In addition to these two companies in Endicott, 11 miles to the west in Owego is a major Lockheed Martin facility.

Through Binghamton University's Small Scale Systems Integration and Packaging Center, a New York State Center of Excellence, there is an extended global network of manufacturers large and small that have ties to the Endicott area. In the Southern Tier there are Corning Inc., Raymond Corporation, Amphenol and Unison Industries. Within New York State are General Electric, IBM, Ixus, Custom Electronics and others. Significant national partners include Microsoft and the Mayo Clinic. On a global scale, partners include Samsung, Lumin Dynamics and LG Electronics.

Innovation cultivators: Greater Binghamton has a number of well-regarded workforce development institutions as well as a network of resources for cultivating innovation, ranging from informal start-up networking groups to long-established municipal agencies.

State University of New York resources in the Southern Tier include Binghamton University, SUNY Broome, SUNY Delhi, Tompkins Cortland Community College and Corning Community College, all of which provide affordable access to higher education. The community colleges in particular are adept at anticipating and responding to diverse individual, community and global needs for lifelong educational opportunities. In Greater Binghamton, SUNY Broome offers workforce training programs for local industry, teaching basic and advanced manufacturing skills to students about to enter the workforce, as well as providing enhanced skills and skills refreshment for experienced workers. SUNY Broome supports the Greater Binghamton innovation ecosystem through investments and programs such as the planned transformation of the historic Carnegie Library in downtown Binghamton into a hospitality center. The college also will construct and equip a student incubator, the SUNY Bridge to Entrepreneurial Excellence (or "SUNY-BEE") in the Southern Tier High-Technology Incubator.

The Broome County Industrial Development Agency (recently renamed The Agency) and the Broome County Local Development Corporation make, spur and syndicate capital investments. They also manage corporate parks and real estate. The Binghamton Local Development Corporation provides low-interest microenterprise, "Main Street" façade and revolving fund loans. The Broome County Land Bank Corporation has the authority to acquire, hold, manage, develop, market and sell distressed, vacant, abandoned (including brownfield) and underutilized properties.

As Greater Binghamton's start-up scene heats up, several groups are helping entrepreneurs connect with each other and with services in the region. The Southern Tier Startup Alliance, a state-designated Innovation Hot Spot, brings together the contributions of incubators and entrepreneurial support structures. The Entrepreneurs Alliance, founded in 2015, aims to establish a mentoring and referral network in Greater Binghamton that allows for "creative collisions" between participants, thereby fostering ideas, innovation and growth. Triple Cities Makerspace has tools and equipment for wood- and metal-working that can be used for prototyping as well as 3D-printers. And the Alliance for Manufacturing & Technology, a NYSTAR- and U.S. Department of Commerce-funded non-profit, helps small- and mid-size manufacturers and high-tech startups.

The Three iDistricts

City of Binghamton iDistrict

The City of Binghamton iDistrict is the commerce center of the Greater Binghamton area. Binghamton University has received federal funding and a previous CFA award to undertake the construction of the Southern Tier High-Technology Incubator. With the 2016 opening of the incubator, an anchor in the region's Hot Spot program, this iDistrict will become home to start-ups, re-locations and spin-off companies, investors and corporate "skunkworks" teams involved in the commercialization of new ideas, business models and technologies emanating from Binghamton University and other regional innovation powerhouses. These dynamics, enhanced with URI and other investments, will result in Binghamton becoming a magnet for young professionals and entrepreneurs looking for an innovative environment in an attractive and exciting urban core.

Binghamton's renewal is urgent. It is the most highly distressed urban center in the Southern Tier. Based on 2013 Census estimates, the city's population of 46,975 has decreased 1% from the 2000 Census. A third of the residents are living below the poverty level. More than half of the unemployed population is living in poverty. The median household income, \$30,978, is significantly lower than the state's \$58,003. The per capita income is \$20,576.

We are already seeing significant signs of transformation, and the city has upped its game in terms of nurturing a restaurant and arts scene and working with the private sector to upgrade housing offerings for students and permanent residents. Binghamton's recent designation by The American Institute for Economic Research and Business Insider as a top-20 College Town reflects an improving ability to attract students and stem brain drain. Binghamton University's enrollment growth, coupled with the opening of the University Downtown Center in Binghamton. Since the construction of the Binghamton University Downtown Center, private developers have announced and constructed \$108 million in new housing in downtown Binghamton. That is nearly 460 new residential units and more than 1,130 beds at seven locations. This investment has spurred the opening of 10 new restaurants, seven of which have outdoor seating, and two craft breweries to serve the influx of students and young professionals.

Numerous redevelopment projects are under way such as the demolition of a former hotel at 50 Front Street making way for a private-sector investment in a new market-rate, mixed-use development.

Innovation at all levels will be supported as the Binghamton iDistrict is realized. The Southern Tier High-Technology Incubator, combined with other state programs such as Start-Up NY and 76 West, will continue to stimulate leveraged investments to make the city a hub of commerce and government as well as a driving force for innovation in the region. Organizations and groups providing business and legal services, mentoring and educational programs and funding resources will locate in the incubator or engage clients and other companies there. The objective is to provide coaching, programming and



The Southern Tier High-Technology Incubator, funded by federal and previous CFA awards, will be capable of attracting client companies from across the nation and internationally. It will include specialized laboratories and other features associated with industry-based R&D, including testing, evaluation and prototyping, a high-bay area and a co-working space. The facility will also house SUNY Broome's new Bridge to Entrepreneurial Excellence (SUNY-BEE) program.

networking opportunities to a wide swath of entrepreneurs and early-stage and innovation-oriented businesses that improve their odds of commercial success.

URI and other leveraged investments planned will focus on development of state-of-the-art commercial spaces in adaptively re-used historic commercial buildings, live-work spaces for entrepreneurs such as One North Depot, market rate housing for young professionals, and improvements to the cityscape, including public spaces, entertainment, riverfront revitalization, parking and transportation upgrades. In turn, retail, services and entertainment offerings catering to the tastes of the creative and design professionals will pop up, creating a secondary wave of employment growth and economic activity in Binghamton. There also will be a focus on workforce training for hard-to-place workers in the newly constructed Salvation Army Job Training Center.

Johnson City Health and Cultural iDistrict

The Johnson City Health and Cultural iDistrict will be a strong and cohesive community of academic and healthcare anchor institutions, healthcare-related businesses, cultural amenities and residents. It builds on the \$60 million SUNY 2020 investment to construct Binghamton University's School of Pharmacy and Pharmaceutical Sciences. With URI and private investment, we will transform a highly distressed urban core into a magnet that will provide the Southern Tier with interprofessional education, enhanced healthcare, internationally recognized research and opportunities for healthcare-based, high-tech industry.



Binghamton University's School of Pharmacy and Pharmaceutical Sciences, a SUNY 2020 project, will be a key element of the Southern Tier Health Sciences and Technology Innovation Park.

The centerpiece of the iDistrict is the Southern Tier Health Sciences and Technology Innovation Park ("The Park"), which will rejuvenate the New York State recognized Endicott-Johnson Brownfield Opportunity Area by bringing together the resources of Binghamton University's new School of Pharmacy and Pharmaceutical Sciences and Decker School of Nursing, SUNY Broome, Wilson Memorial Regional Medical Center and Lourdes Hospital. The Park will enable the translation of health sciences-based research from academic laboratories into opportunities

for pharmaceutical product development and other healthcare applications. It will attract entrepreneurs who will access Start-Up NY and other economic development resources to develop technologies, products and services for health sciences-based markets. The iDistrict will also assist in development of shovel-ready former brownfield sites for biotech companies that move to Johnson City.

At the proposed Center for Applied Regenerative Medicine, researchers will explore new treatments for those with chronic conditions ranging from osteoarthritis to autism spectrum disorders. This fast-growing field, dominated by companies and academic institutions in North America, presents a new area in which Greater Binghamton can do the type of collaborative research for which it is known. The regenerative medicine market is expected to grow at an annual rate of 23% between 2014 and 2020, expanding from \$16.4 billion to \$67.5 billion¹⁸. The proposed Binghamton Bio Foundry will enable the commercial development and pilot production of prosthetics, implants, tissues and organs through 3D printing technologies. The Plant Science Innovation and Business Development Center at Cornell University, outlined

in the Southern Tier Food and Agriculture Initiative section of this plan, may collaborate with Binghamton University's new School of Pharmacy and Pharmaceutical Sciences. The iDistrict will also benefit from the proximity of the Institute for Child Development, an internationally known provider of programs to children challenged by autism spectrum, developmental and learning disorders.

SUNY Broome is well positioned to market specialized training programs in high growth, high-wage "technician" occupations that complement — and offer entry into — the more advanced and highly technical opportunities proposed for the iDistrict. With a presence at The Park, SUNY Broome will work with Binghamton University and partners to recruit and retain trainees, especially hard-to-place workers; develop on-the-job-training and build ladderized credential-certification-degree options.

The Johnson City iDistrict also is part of the Broome County Endicott Johnson Industrial Corridor, which includes a 230-acre BoA area centered in the Village of Johnson City. The Brownfield Opportunity Area plan for this area calls for neighborhood revitalization, as well as health, cultural and educational assets, including Wilson Memorial Regional Medical Center, the Goodwill Theatre and the future Binghamton University School of Pharmacy and Pharmaceutical Sciences, to be constructed in the heart of the BOA.

The cultural aspect of the iDistrict will be anchored by the Goodwill Theatre. This performing arts complex will accommodate a range of cultural and theater performances and will be home to a professional equity company, encouraging lively, inspired exchange among theater and performance professionals and arts innovation within the Southern Tier.

Several elements of the Johnson City iDistrict are in place and ready to go: The Village of Johnson City has completed a major, \$475,000 Main Street revitalization program and has adopted the Health and Cultural District designation as part of its plan. This designation will provide strategic planning to foster neighborhood-building amenities. The heart of the village is a New York State Brownfield Opportunity Area (BOA), which gives priority in state grant review and tax incentives for brownfield redevelopment. In addition, Binghamton University will build its School of Pharmacy and Pharmaceutical Sciences' \$60 million facility at 96 Corliss Avenue, a former brownfield. The university has also acquired another brownfield site at 48 Corliss Avenue and plans to renovate the 90,000-square-foot historic facility to house its Decker School of Nursing as well as its academic and industry partners. In addition, the university plans to locate an elder care center in the iDistrict, funded with a \$1.5 million private endowment.

Infrastructure improvements will continue with The Agency's purchase of 10 acres at 59 Lester Avenue and commitment of \$4.5 million to redevelop the existing structure and entire site to accommodate future commercial development and companies seeking to develop research collaborations in the health sciences with Binghamton University. Regan Development has announced the purchase of 135-139 Baldwin Street. It plans to convert this former Endicott-Johnson factory brownfield site into the Century Sunrise mixed-use development project. Finally, the U.S. Air Force is providing \$17.3 million to demolish the former Johnson City home of BAE, which was abandoned following the 2011 flood. The Agency has plans for mixed-use development on the site.

Johnson City is ripe for renewal. More than 13.8% of the village's families live below the poverty line; per capita income for all households is \$21,666, compared with \$32,382 for New York State.¹⁹ Healthcare accounted for a growth in 1,400 positions, or 41%, from 2001 to 2014, while all other industries in the village collectively declined by 1,200 jobs, or 14.3%.²⁰ The iDistrict will accelerate growth in healthcare by supporting research and development; by increasing access to applied research and facilities for new product and process development; and by preparing a skilled workforce.

The Johnson City Health and Cultural iDistrict provides a coordinated plan and new resources to drive the revitalization of Johnson City and the advanced economy of the Southern Tier.

Endicott Advanced Manufacturing iDistrict

The Endicott Advanced Manufacturing iDistrict will be home to the new Flexible Printed Electronics Technology Center; the Industrial 3D Printing Center for Design, Visualization, and Manufacturing; the Microgrid Energy Pilot Plant; and the Hybrid Powertrain Test Center. Strategic investments in these centers will provide firms in Endicott and beyond with critical infrastructure to increase advanced manufacturing and professional technical employment in the Southern Tier. The centers will accelerate access to advanced manufacturing processes and equipment, giving local companies a “first to market” competitive advantage. In addition, the Endicott iDistrict will establish Greater Binghamton as the first and preeminent location for the development of flexible hybrid electronics and thin, flexible-glass technology.

The iDistrict also will promote the transformation of a blighted industrial district. The former site of IBM Endicott, now the Huron Campus, sits between the commercial core of Endicott — Washington Avenue — and a Little Italy district that is testimony to the Italian immigrants who once worked at Endicott-Johnson shoe factories. Today, this former manufacturing hub has a population of 13,291. In 2013 estimates, 21% of Endicott residents live below the poverty line. Of the population 16 and older, 34.6% of the unemployed population is below the poverty line. The median household income is \$32,599, 56% lower than the state’s median. The per capita income is \$20,623.

The innovation driver for the Endicott iDistrict will be the expansion of Binghamton University’s Center for Advanced Microelectronics Manufacturing (CAMM), part of the Small Scale Systems Integration and Packaging Center, on the Huron Campus. In late August 2015, the CAMM was announced as the leader of the New York node of a \$75 million initiative focused on further development of flexible hybrid electronics. The funding from the U.S. Department of Defense to the national Flex Tech Alliance, of which Binghamton University is a founding member, gives the CAMM endorsement as a leader in this innovative R&D sector and elevates the CAMM to national prominence.

The Endicott iDistrict will create the design, visualization and manufacturing infrastructure needed for disruptive technologies in alignment with the Southern Tier Advanced Manufacturing initiative. While the Huron Campus is host to manufacturing firms such as BAE Systems, i3 Electronics and Incodema Inc. (in planning), the majority of the former industrial site is unoccupied. It is beginning to suffer neglect, but it still could be restored into premier manufacturing space. The objective is to coordinate with the Advanced Manufacturing Initiative to strengthen and expand these existing businesses, building on the Southern Tier’s transportation, medicine, energy and glass and ceramics industries to populate and re-purpose the former IBM plant.

As well-paying jobs return to the Huron Campus, Washington Avenue’s commercial district will be revitalized and Little Italy will attract additional Italian-themed eateries due to increased consumer demand, the proximity of daytime workers and increase in discretionary income for local residents.

This iDistrict builds on expertise at Binghamton University and its industrial and academic partners. For example, planned equipment donations from Corning Incorporated will allow commercialization of product manufacturing with thin, flexible Willow® glass technology. A major aspect of these initiatives is the application and advancement of cutting-edge technologies for 3D printing, roll-to-roll manufacturing technologies for glass, polymers and

metals and computer-aided engineering for product design, visualization and testing. The Flexible Printed Electronics Technology Center and the Industrial 3D Printing Center focus on the emerging area known as additive manufacturing, which deposits material to form finished (or near-finished) artifacts using metals, composites, glass, ceramics and high-performance polymers. 3D printing creates products in aerospace, automotive, consumer goods, medical devices, pharmaceuticals, food and other industries impossible to achieve using traditional methods. A number of bedrock Southern Tier companies have expressed interest in the Industrial 3D Printing Center, including Corning Inc., Lockheed Martin, BAE Systems, Raymond Corp., General Electric and i3 Electronics.

We also plan a pilot facility for development and testing of microgrids, energy storage, energy conversion and energy control technologies in partnership with regional businesses. For example, Lockheed Martin is developing a biomass waste-to-energy system; its process generates “syngas” that can be a basis for energy generation or for other purposes such as manufacture of synthetic fuel or plastics. Local companies are working in the supercapacitor and battery area as well. The Microgrid Pilot Plant will enable manufacturers to mature their product offerings in a testbed environment, attracting investment capital and customers.

The Hybrid Powertrain Test Center will enable the Southern Tier to become a leader in medium and heavy-duty powertrain development. Cummins Inc. in Jamestown develops engines and engine technologies. Lockheed Martin in Owego has been a key player in military vehicle development. Corning Inc. has developed engine aftertreatment technologies for years. These corporate leaders, along with BAE Systems, have spent millions on engine and powertrain technologies. With federal vehicle greenhouse gas regulations to be announced in 2016, and the possible national adoption of California’s carbon cap and trade rules, this test center is essential for growth of the local transportation equipment industry.

Finally, as part of the iDistrict Initiative, the Broome County Department of Planning will develop a strategic plan for cultural and housing enhancement in Endicott. The plan will address the aging and deteriorated housing stock, recommend façade and streetscape improvements along the Main Street Corridor and Washington Avenue retail core, and create a conceptual reuse plan for the former Endicott Forging site, a cleaned-up brownfield in the heart of the iDistrict. The houses are sturdy and fundamentally sound, but need updating of mechanical systems, improvements for energy efficiency and interior and exterior renovation. They can then again serve their original function: affordable, attractive housing for workers.



The Endicott Advanced Manufacturing iDistrict will capitalize on the expertise of Binghamton University and its partners, including Corning Incorporated, creator of thin, flexible Willow® glass technology.

Physical and networking assets that link the iDistricts

Greater Binghamton has always functioned as one area. The foundational, connective elements of our innovation ecosystem are a common workforce, its housing stock, transportation network and county government. Community organizations, institutions such as schools and churches, cultural and commercial events provide the social fabric of the area.

The iDistricts will provide the economic diversification needed to sustain local employment. The economic impact from the entrepreneurship we cultivate across Greater Binghamton will cascade across the area, and we will pay close attention to the maintenance and enhancement of the physical, virtual and social networks that will sustain innovation.

It's easy to move throughout Greater Binghamton. Interstate 86 and Route 434 make east-west travel fast. Broome County Transit provides a network of buses. It is more difficult, however, for pedestrians and cyclists to get around. To address this challenge, we propose a Route 434 greenway: a pedestrian and bicycle trail along the Susquehanna River that will link Binghamton University's main campus with the Binghamton iDistrict. The greenway will promote healthy lifestyles, provide residents a practical alternative to car and bus transportation and enhance community appreciation of our natural environment. As reflected in Binghamton Metropolitan Transportation Studies since 1999, additional segments can be extended eastward to connect to Johnson City and Endicott.

In the virtual world, broadband is an enabling infrastructure critical to recruiting, retaining and promoting expansions of businesses competitive in the international, Internet economy. It has been shown to boost enterprise productivity, allow knowledge workers to engage and improve performance of emergency services. The Southern Tier Network, based in Corning, manages a fiber-optic backbone. New York State awarded the Southern Tier Network \$5 million in REDC Round 3 to expand the fiber ring into Tioga and Broome counties, and work is currently underway.

The digital network will enable data-intensive users in the iDistricts, such as design and engineering houses, cutting edge health care, advanced manufacturing companies and research institutes, to send and receive large files at fast speeds. Such infrastructure will one day enable a 3D bio foundry in Johnson City to process tissue profiles received from dozens of hospitals and doctors' offices, and in turn organize logistics for next-day delivery. The people, companies, educational institutions and government service providers interacting within the iDistricts will use high-speed fiber to expand connections throughout Greater Binghamton, regionally and nationally.

Multiple organizations have a part to play in building connections throughout the innovation ecosystem. Binghamton University and SUNY Broome link faculty and students to companies, entrepreneurs, government representatives, nonprofits and service providers. Already, company representatives sit on academic and research center advisory boards, take advantage of multiuser facilities and engage student teams. These mutually beneficial activities will further develop in each of the iDistricts and will be accelerated by targeted URI projects.

The Southern Tier High-Technology Incubator in Binghamton will provide space and programming to encourage conversations among entrepreneurs, interns, prospective hires,

The iDistricts will provide the economic diversification needed to sustain local employment.

professional service providers, technical experts, business counselors, university and government representatives, investors and strategic partners. Binghamton University's Office of Entrepreneurship and Innovation Partnerships collaborates with organizations throughout the region and state. Regular events, from Start-Up Suite Mixers and informal LinkedIn meetups to regional business plan competitions, also foster networking and innovation.

Our iDistricts are not built upon a single strength, but rather on the synergy of strengths in infrastructure, human capital and academic and industrial expertise. Greater Binghamton, which has reinvented itself several times over its history, stands ready for a new future.

Private investment

The Greater Binghamton Innovation Ecosystem initiative will achieve 5-to-1 private sector investment via:

- Private company investment in building facilities for commercializing drug discovery research
- Private investment in translational research projects through direct investment and funding via collaborative research projects
- Private company job and wage growth in new and existing health sciences and engineering fields
- Contributions made by the educational institutions in the region

Inter-regional collaboration

Binghamton University will collaborate with SUNY Upstate Medical University in the Central NY region on development of the university's proposed Center for Regenerative Medicine and Bio Foundry in the Johnson City Health and Cultural iDistrict.

In addition, there will be inter-regional collaboration between Binghamton University's proposed centers for Industrial 3D Printing and Flexible Printed Electronics, in the Endicott Advanced Manufacturing iDistrict, and academic institutions and corporations in other regions such as Clarkson University in the North Country, RIT and Xerox in the Finger Lakes region and Alfred University in Western New York. The CAMM's expanding portfolio involves extensive national and state-wide collaboration with firms such as Corning and GE in product development and manufacturing, as well as Cornell University, SUNY Upstate Medical University and Memorial Sloan-Kettering.

Signature projects

The \$20,000,000 Transform Greater Binghamton Fund will offer low-interest loans and grants for streetscape improvements, bike and pedestrian amenities, façade improvements, select demolitions, housing rehabilitation and development of model smart homes within the iDistricts.

Binghamton iDistrict

Route 434 Greenway – Bike Trail: A pedestrian and bicycle trail between the University Downtown Center in Binghamton and Binghamton University in Vestal, with the route connecting a school, a park and residential neighborhoods. The project will complete a critical link in the Two River Greenway trail that spans two counties and seven municipalities.

7 Hawley Street: The Binghamton Urban Renewal Agency project entails the construction of market-rate residential housing and commercial space downtown combined with a public parking garage in downtown Binghamton.

Collier Street Commons: With one of the main public parking structures in Binghamton nearing the end of its useful life, there are plans to demolish the ramp and replace it with mixed-use, market-rate residential and commercial space combined with a public parking garage.

City Center Lofts: \$2.5 million private project to develop a 20,000-square-foot property at 73 Court Street, Binghamton, into luxury housing above street-level commercial space.

Waterfront Revitalization: The City of Binghamton adopted a waterfront revitalization plan in 2005 that targets riverfront development, open space and environmental preservation, infrastructure efficiency improvements and flood-damage mitigation. Following two “100-year floods” during the past decade, the city will continue to pursue funding for projects that can prevent flood damage and loss of life.

The Salvation Army Binghamton Job Training Center: The Salvation Army will consolidate its facility at 127 Washington Street and East Side Thrift Store and Adult Rehabilitation Center in a new complex at 530-532 State Street, Binghamton. The \$8 million project will provide 18,000 square feet of indoor space for job training and skills development.

One North Depot Apartments: One North Depot will adapt and re-use a 59,000-square-foot, historically significant structure and provide affordable commercial storefront space and shared work space for entrepreneurs in the urban core of Binghamton, NY. Through a live/work program, tenants are able to start new businesses or operate existing entrepreneurial enterprises out of the lower levels of the building, and affordably live in loft apartments on the upper floors.

Johnson City Health and Cultural iDistrict

Southern Tier Health Sciences and Technology Innovation Park: An anchor is the Healthcare Education and Simulation Facility at 48 Corliss Avenue. This project involves placement of Binghamton University’s Decker School of Nursing, research labs and potential new programs in public health and nutrition. Additional space will be available for clinical and educational partners and biopharmaceutical company partners, community programming and additional partners. This facility will be adjacent to Binghamton University’s new \$60 million LEED Platinum School of Pharmacy and Pharmaceutical Sciences at 96 Corliss Avenue, being funded by SUNY 2020 and expected to be under construction in 2016.



The Goodwill Theatre will be the cornerstone of a cultural complex in Johnson City.

The Goodwill Theatre Inc.: Complete the stabilization of the 1899 Municipal Building Central Fire Station (Firehouse) at 48 Willow Street and the 1920 Goodwill Theatre building at 36 Willow Street in Johnson City. This will prepare both buildings to be connected by a new Community Hub building that will be the linchpin of a Cultural Complex.

JC Century Sunrise Redevelopment: Regan Development will purchase 135-139 Baldwin Street and convert this former Endicott-Johnson factory brownfield site into housing and commercial space.

59 Lester Avenue Redevelopment: The Agency will take the lead on redevelopment of a 10-acre site at 59 Lester Ave. A \$4.5 million commitment is in hand to redevelop the parcel, which will result in new office and commercial space for The Agency, the Greater Binghamton Chamber of Commerce and other businesses.

The Endicott Advanced Manufacturing iDistrict

Flexible Printed Electronics Center and Industrial 3D Printing Center: The first phase of the Endicott Advanced Manufacturing iDistrict will secure and renovate space for these centers. This \$25 million project includes \$5 million in requested funds and \$20 million in matching funds from the Flexible Hybrid Electronics Manufacturing Innovation Initiative.

Endicott iDistrict Revitalization Plan: A downtown revitalization plan will be developed, with a focus on the Washington Avenue and North Street commercial districts, and the surrounding residential neighborhoods.

Signature projects that are under development

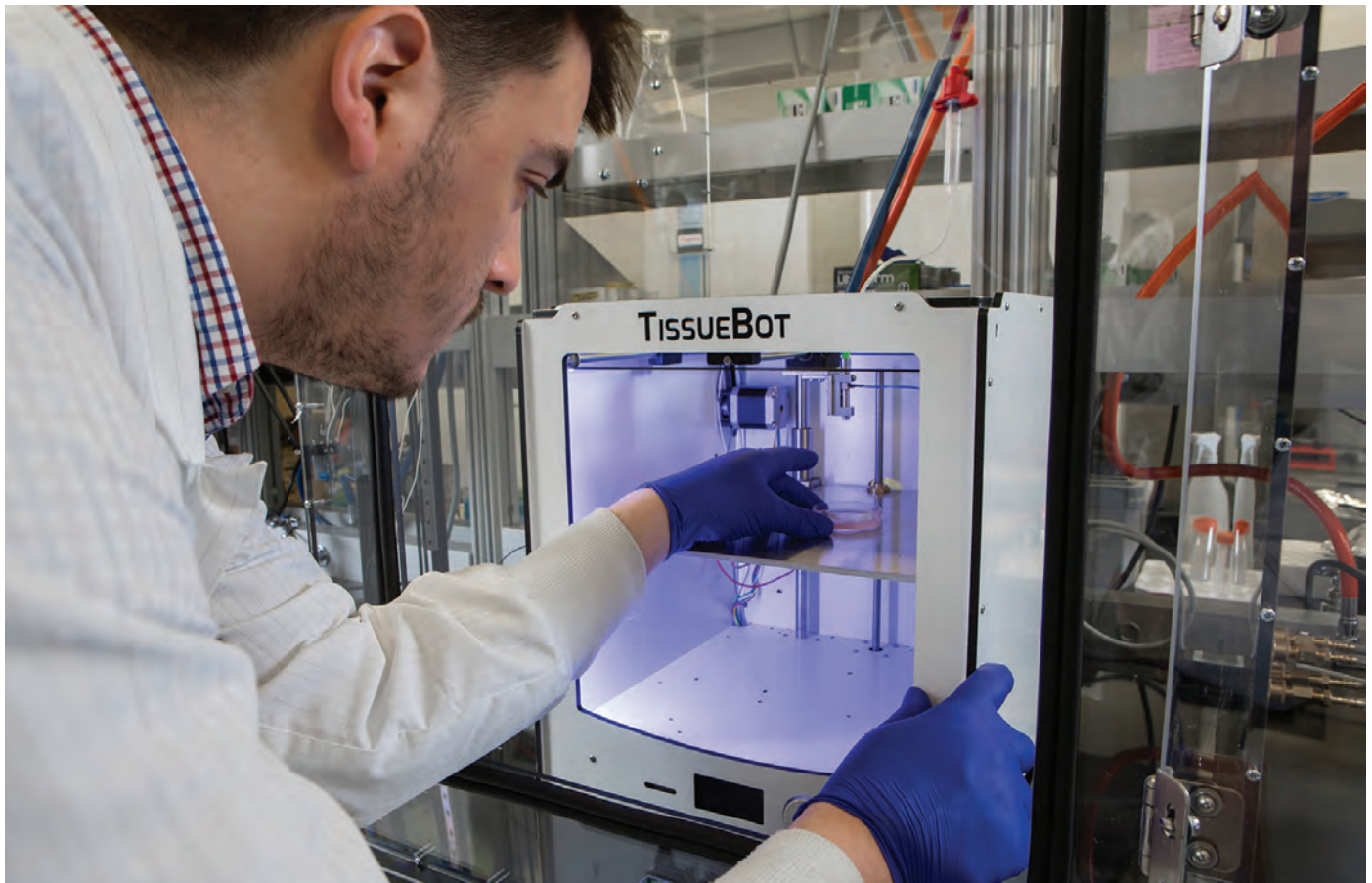
Biopharmaceutical Hub: The Biopharmaceutical Hub will bring together expertise in academic and industry-led research and product development, in partnership with economic development resources, to advance the region's leadership in pharmaceutical product development. Funds will accelerate research into smart drugs and drug-delivery systems and prepare brownfields and neglected industrial areas as shovel-ready sites for biotech partners.

Center for Applied Regenerative Medicine: The Center for Applied Regenerative Medicine will bring together academic and clinical research expertise in stem cells, 3D tissue and organ printing, cell reprogramming and human genome editing, advanced biomaterials, robotics and more to regenerate missing capabilities for those with chronic conditions ranging from osteoarthritis to autism spectrum disorders and brain trauma.

Binghamton Bio Foundry: 3D printing is revolutionizing the way healthcare is delivered; for example, progressive dental practices can now use a 3D printer for in-office, on-demand, personalized manufacturing of crowns and bridges. Medical researchers are exploring 3D printing for external prosthetics, too. A Bio Foundry would capitalize on these innovations to enable the commercial development and pilot production of prosthetics, implants, tissues and organs through advanced bio-manufacturing (3-D printing) technologies.

Hybrid Powertrain Test Center: Transportation equipment manufacturing is a key element of the Southern Tier economy. Hybrid powertrain technology may have applications wherever heavy objects need to be started, stopped, lifted and lowered (e.g., elevators, cranes, light rail).

Microgrid Energy Generation, Storage and Conversion Pilot Plant: A pilot facility for development and testing of microgrids, energy storage, energy conversion and energy control technologies. This project will use the Endicott municipal electric system as the distribution system in a microgrid pilot facility, and construct green energy generation and storage systems in partnership with regional businesses.



The Binghamton Bio Foundry will enable the commercial development and pilot production of prosthetics, implants, tissues and organs through 3D printing technologies.



By teaming academic researchers with industry partners, the Greater Binghamton Innovation Ecosystem will ensure that Southern Tier firms are able to compete in a changing economy.

Innovation and the advanced economy

The Greater Binghamton Innovation Ecosystem will help build an advanced economy in the Southern Tier. URI investments will foster a culture of business development within the region, capitalizing on the new technologies and knowledge creation. The expected job growth in educational services, healthcare, engineering and advanced manufacturing will provide wages above the regional median wage of \$32,440.

In the three iDistricts, URI investments will support and develop start-up firms, research facilities, academic institutions and other organizations that emphasize creative ideas and technologies. For example, the Endicott Advanced Manufacturing iDistrict is part of the overall Advanced Industries strategy. The disruptive technology assistance centers will aid manufacturing sectors that are on the rise and relevant to the already-established nexus of transportation products, components and control systems in the Southern Tier.

One to two decades ago, it was still common for corporations to invest in technology for the long term; this has become exceptional. Consortia that share research infrastructure and efforts across multiple companies can lift American industries. Flagship examples of this are the National Network of Manufacturing Initiatives that establish Institutes for Manufacturing Innovation. These institutes perform pre-competitive research that benefits all members immediately and the broader industry eventually. Our proposed disruptive technology assistance centers are modeled on this concept.

Manufacturing jobs, and in particular advanced manufacturing jobs, pay better than typical local wages. Job creation rests on company growth, including the ability to protect market share and to export goods and services. Company growth rests on superior competitiveness.

Superior competitiveness relies on creating better customer value, greater responsiveness and lower costs. Our new disruptive technology centers will assist companies in creating, prototyping and commercializing better products more quickly and economically. They will give companies access to expertise and infrastructure that they can't afford on their own.

The Binghamton University Center of Excellence's track record proves that businesses can be engaged with academia in practical ways that provide large returns on investment. New York state companies that partner with the center note that it has delivered \$1.1 billion of economic impact and helped to create or retain more than 1,900 jobs during the past 20 years. The consortium model is successful in connecting private and academic knowledge and skills to perform pre-competitive research. The proposed Endicott iDistrict centers are modeled after this approach. They focus on additional technology areas with significant potential for service growth to industry.

By teaming academic researchers with industry partners, the Greater Binghamton Innovation Ecosystem will ensure that industries in the Southern Tier are able to adapt, modernize and compete in a changing landscape.

We are not proposing to build new industries; rather, the Southern Tier has a well-established industry centered on transportation and smart energy products, components and controls. We propose to provide enablers for continued growth of companies in this industry and to ease entry of additional players in the region.

The major companies in the Southern Tier's industry cluster are already international players, some being foreign-owned and representing foreign investment, and all having significant exports. Strengthening the local supply chain that works with these companies will increase exports. Our larger companies that leverage the disruptive technology centers will have reduced cost for their own product innovation, perform well in their corporate contexts and attract additional investment from their foreign ownership.

By coupling the Endicott iDistrict with the downtown Binghamton incubator and competitive federal and state R&D challenges, technology transfer programs and tax incentives, such as Start-Up NY, we will attract and nurture startup ventures, including those launched by faculty or graduates opting to stay in the region and potentially companies from outside our region as well. One of our greatest resources, which has been insufficiently tapped to date, is our population of STEM students. This includes the significant human capital represented by international graduate students, who tend to return to their home countries or go to work for corporations willing to address their work visa needs.

By teaming academic researchers with industry partners, the Greater Binghamton Innovation Ecosystem will ensure that industries in the Southern Tier are able to adapt, modernize and compete in a changing landscape.

Global economy

The organizations that will benefit from the creation of the Greater Binghamton Innovation Ecosystem will develop new technologies that will be sought after on a global scale. This will increase exports as Southern Tier businesses enter established and new markets. While the specific products for export may be unknown at this time, the market for innovative products in the biomedical industry and the advanced manufacturing industry cuts across all markets. "Exports are a growing and substantial part of the U.S. economy, accounting for 13.8 percent of our nation's GDP. According to a study published by the Institute for International Economics, U.S. companies that export grow faster and are nearly 8.5 percent less likely to go out of business than non-exporting companies ."²¹

The pharmaceutical industry, for example, has experienced rapid growth in the past several years. The global pharmaceuticals market is worth \$300 billion a year, a figure expected to rise to \$400 billion within three years.²² “The opportunity in biopharmaceuticals is big and growing too rapidly to ignore. Today, biopharmaceuticals generate global revenues of \$163 billion, making up about 20 percent of the pharma market. It’s by far the fastest-growing part of the industry: biopharma’s current annual growth rate of more than 8 percent is double that of conventional pharma, and growth is expected to continue at that rate for the foreseeable future.”²³ The marketplace for these products is not bound by geography.

These organizations will be reaching out to new markets around the world, thereby increasing exports and foreign investment.

The Endicott iDistrict projects will increase global exports by providing tools and technology for companies to compete in the global marketplace more quickly and economically. The advanced manufacturing technologies that are subject of the iDistrict are in growing global demand.

The URI investment in the iDistricts will support research, research infrastructure and shovel-ready site development that will facilitate the growth of a strong base in advanced manufacturing and health sciences by bringing academia, industry and other partners together with opportunities for company relocation. Start-up firms will have access to incubation facilities, Start-Up NY resources and entrepreneurial programming.

Sustainability

Binghamton University, one of the main drivers in all three of the iDistricts, has a history of generating economic impact. Locating pharmacy and nursing students, along with faculty and staff, in Johnson City will create long-lasting and sustained economic impact. In addition, the plan is to engage in a promotion plan focused on retaining university graduates in the region. Binghamton University has a track record of retaining roughly a quarter of its graduates in the region.

The focus in Endicott is business creation and growth through advanced manufacturing technologies. In the short term, the impact is enabling access to critical equipment and manufacturing technologies beyond companies’ current capabilities. As the ecosystem develops, a critical mass of manufacturers, supply chain, educators and workforce developers will be established, and the neighborhoods of Endicott will be uplifted. Success begets success, and as jobs are created, opportunities for the community are created, increasing the attractiveness of Endicott as a place to live and do business.

Within the three iDistricts, there will be four R&D entities that will have a solid academic-private partnership structure. They include the Center for Applied Regenerative Medicine and Bio Foundry in the Johnson City Health and Science Innovation Park and the Industrial 3D Printing Center and Flexible Printed Electronics Center in the Endicott Advanced Manufacturing iDistrict.

These high-technology R&D and assistance efforts have been selected for their enduring value. The performance metrics for them will measure the ongoing vitality of the efforts, and leaders of these initiatives will use these metrics to adjust course as necessary. These centers will be modeled after the structure of successful, sustainable industry-university research consortia at universities across the country, including Binghamton University’s Center of Excellence in Small Scale Systems Integration and Packaging (S³IP). No single source of money sustains these research centers. Rather, a successful model across the country is to establish a diverse mix of membership fees, contracted research from industry

and federal sponsors (e.g., NIH, NIST, NSF, DoE, AFRL, ONR), work-for-hire for industry (e.g., analytical lab work) and university infrastructure investment in support of faculty research capability to provide long-term, ongoing operations. While we intend to attract work from our region and beyond, the centers will offer several value propositions to keep the fruit of the relationship local to New York State. First, we will work closely with the Start-Up NY program; second, offering access to infrastructure that would be otherwise unaffordable raises the opportunity cost of moving away; third, by emphasizing a strongly interactive, customer-centric partnership, the centers will offer partners expediency and economy that is difficult to match in a long-distance relationship; fourth, by emphasizing the local university talent pipelines, and ensuring that the Southern Tier is a preferred region for retaining those graduates, employers will find it advantageous to remain in the Southern Tier.

The Greater Binghamton Innovation Ecosystem will promote sustainability on the community level by following smart growth principles. These include: fostering strong, sustainable businesses in community centers; strengthening and direct development toward existing communities; fostering distinctive, attractive communities with a strong sense of place; creating walkable neighborhoods; taking advantage of green building design; creating a range of housing opportunities and choices; and mixed land uses. This sustainability throughout Greater Binghamton will be both stimulated and sustained by the Greater Binghamton Fund. As a loan fund, it will be evergreen and repayment to the fund will replenish the capital and be available for future investments.

Workforce development and hard-to-place workers

Hard-to-place workers will require special attention so that they can thrive in the Greater Binghamton Innovation Ecosystem. Our strategy includes:

- Workforce training through SUNY Broome to prepare people to enter the industrial workforce. Its aim is to provide basic technical skills needed in manufacturing such as blueprint reading, as well as “soft skill” training.
- Boosting services from the Salvation Army, which will offer life skills training for people in Binghamton’s most economically depressed neighborhood.
- Services for recent immigrants through the American Civic Association, which assists immigrants in their acculturation to America and offers English lessons.
- Veterans affairs offices at each SUNY campus, which provide assistance for veterans in the college environment.

SUNY Broome, Tompkins Cortland Community College, Corning Community College and SUNY Delhi have expertise in providing training required by local employers. New specialized programs in high-growth areas will help to ensure a workforce that’s in sync with the needs of companies throughout the Greater Binghamton Innovation Ecosystem. SUNY Broome’s plans already call for new programs that support the innovation economy. A histological technician certificate program will soon be launched, as will a certificate program for physical therapy aides. A new associate degree in manufacturing technology has been designed in response to local labor market demands. Programs in energy technology, mechatronics and aircraft maintenance are in development.

Organizational structure

Regional Economic Development Council of the Southern Tier Upstate Revitalization Plan

**Greater Binghamton
Innovation Ecosystem
\$117M URI Investment**

Binghamton iDistrict

Binghamton iDistrict
Southern Tier High-Technology Incubator start-up spin-offs
Downtown revitalization projects such as 7 Hawley Street, One North Depot and Collier Street Commons
Salvation Army Job Training Center
Route 434 Greenway Project
Waterfront Revitalization

Initiative-wide Projects

The Greater Binghamton Fund for Commercial and Residential Revitalization
SUNY Broome Workforce Training Programs

Johnson City Health & Cultural iDistrict

Southern Tier Health Sciences and Technology Park
School of Pharmacy and Pharmaceutical Sciences
Decker School of Nursing
Center for Regenerative Medicine
Bio Foundry
Goodwill Theatre cultural facilities
Century Sunrise Development and other mixed-use projects
Demolition and redevelopment of sites
Redevelopment of a 10-acre site at 59 Lester Avenue
Main Street and community revitalization projects

Endicott Advanced Manufacturing iDistrict

Flexible Printed Electronics Center
Industrial 3D Printing Center
Endicott iDistrict Revitalization Plan
Microgrid Pilot Project
Hybrid Powertrain Test Track
Investments in business and industry

Performance measures

- Jobs created
- Leveraged investment
- Median household income
- Poverty rates
- Housing vacancy statistics
- Housing unit statistics
- New business filings
- Reduced commercial vacancy rates
- Binghamton University research expenditures
- Patents filed by region
- Companies locating to region
- Companies expanding in region
- Economic impact as reported by companies, including employment multipliers
- Number of Start-Up NY companies established
- Number of iDistrict partner companies
- SBIRs and STTRs awarded

Year 1: Examples of Projects Ready to Go



Binghamton iDistrict

Lackawanna Train Station Revitalization
Bates Troy Expansion
7 Hawley Street Mixed Use Development
Route 434 Greenway Project
Salvation Army Job Training Center
City Center Lofts
City of Binghamton Waterfront Development Project Planning

Johnson City Health and Cultural iDistrict

Renovation of 48 Corliss Avenue: Southern Tier Health Sciences and Technology Innovation Park
Century Sunrise mixed-use development project
Goodwill Theatre Phase 2
Redevelopment of 59 Lester Avenue 10-acre site: Southern Tier Health Sciences and Technology Innovation Park

Endicott Advanced Manufacturing iDistrict

Relocation of National Pipe and Plastic to Endicott
Industrial 3D Printing Center
Downtown Endicott Revitalization Plan

Overall

The Transform Greater Binghamton Fund: Year 1
SUNY Broome Specialized Technician Training Program

Endnotes

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- ²⁰ As calculated by C. Harris, Southern Tier Labor Market Analyst, New York State Department of Labor
- ²¹ <http://www.trade.gov/cs/factsheet.asp>
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Invest in the Advanced Manufacturing Industry

“... manufacturing will be crucial to the U.S. economy in the future not for its ability to create jobs but for its potential to drive innovation and productivity growth, and for its role in international trade and competitiveness. That means if the U.S. is serious about promoting a recovery in manufacturing, it will stop measuring success by the number of people employed in the sector and start supporting technological advancements that make factories more productive, competitive and innovative.”

Goal

A focus on advanced manufacturing and the transportation sector will result in the Southern Tier being recognized as a destination for manufacturing business development, distinguished by its concentration of multi-national anchor companies, advanced infrastructure to support innovation and technology, rich education and research resources, specialized skilled workforce, vibrant communities and strengths in advanced robotics, advanced materials, autonomous vehicles and unmanned aircraft, secure electronics, 3D printing, renewable energy and energy storage.

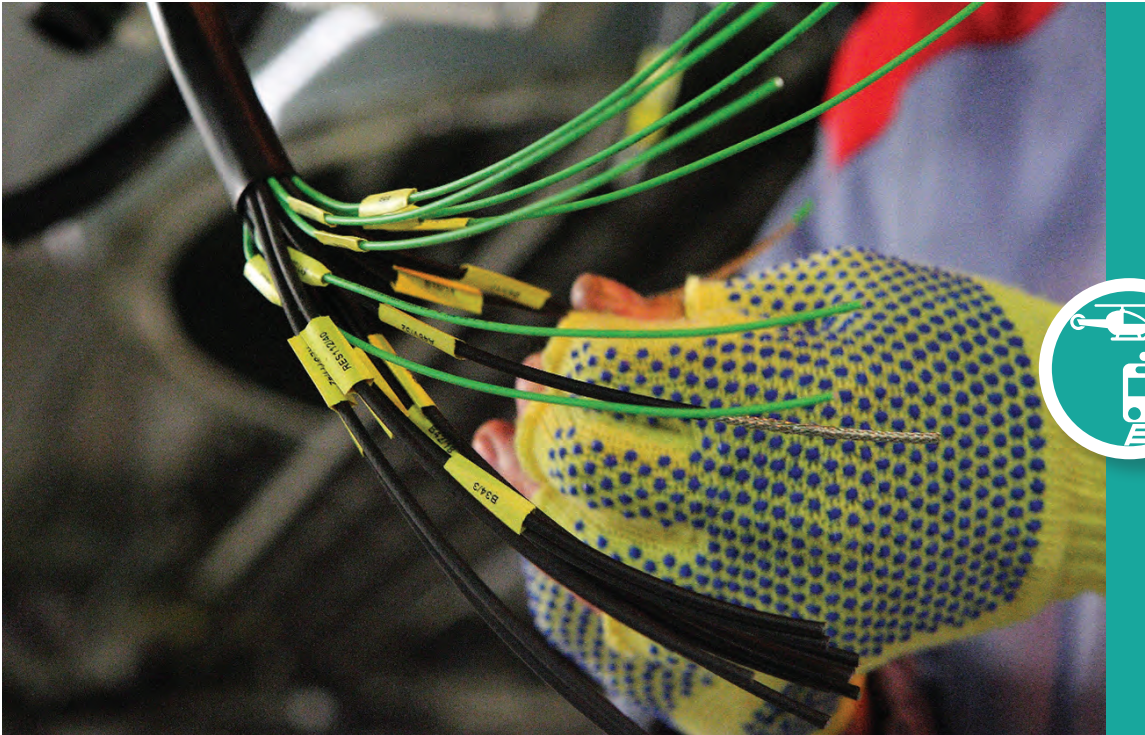
Strategy

We will power the growth and development of the advanced manufacturing industry, with a particular focus on the transportation equipment cluster, through:

1. High Levels of R&D and Commitment to Innovation in Emerging Technologies
2. Continuously Recharging the Skills Pipeline and Attracting STEM Workers
3. Strengthening the Advanced Manufacturing Ecosystem
4. Advancing New York State initiatives including Global NY, Start-Up NY, Hot Spots, Opportunity Agenda, Manufacturing Industry Cluster Program, Veterans Initiative, NY Rising, NY-BEST, NYSTAR and Cleaner Greener.

Outcomes and measurable impact

- URI investment: \$183,000,000
- Leveraged investment: \$915,000,000
- Economic impact: \$1,162,575,000
- Jobs: 3,300 new jobs; retention of 34,000 manufacturing jobs, including 11,000 in the transportation industry cluster
- Increase annual exports in the region's manufacturing from \$11.6 billion to \$15 billion by 2020
- Achieve an average annual wage of \$65,000 in the region's manufacturing industry and \$79,500 by 2020 in the Transportation Products, Components and System Controls cluster
- Increase cutting-edge R&D and commercialization of technology
- Bring recognition to the Southern Tier and New York State as a leader in cyber security in the transportation industry
- Revitalize the communities that are the support structure for the manufacturing industry, especially Elmira, Hornell and Corning



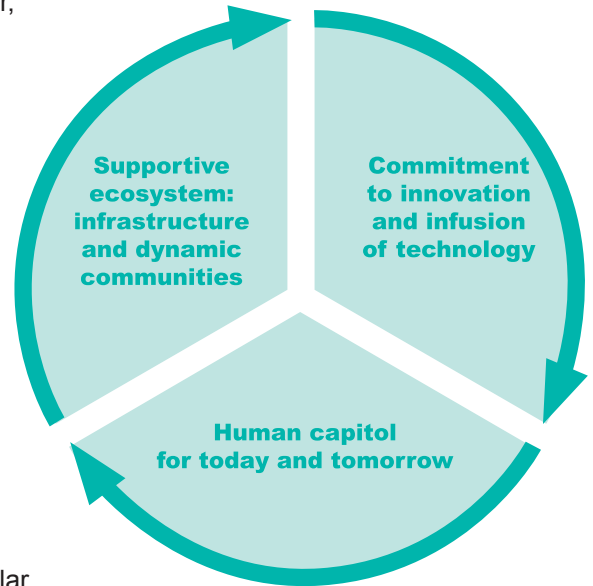
Game-changing investments

- Invest in a \$150 million manufacturing facility in Broome County
- Invest in major anchor businesses such as Raymond Corporation, Lockheed Martin, Hilliard Corporation, Anchor Glass, Upstate Shredding and more to strengthen their competitive positioning and grow global exports
- Invest in supply chain businesses
- Build the manufacturing base with the Southern Tier Small Manufacturing Competitiveness Fund
- Enhance the manufacturing infrastructure to support growth in significant concentrations of cluster industry businesses such as the Hub for High Speed Rail Development in Hornell
- Enhance the community development structure of the major support communities of the advanced manufacturing industry such as Elmira, Corning, Norwich and Hornell
- Invest in high levels of R&D and commitment to innovation and infusion of emerging technologies in the manufacturing industry such as the Secure Electronics and Advanced Manufacturing Project, I86 Corridor Center for Technology Infusion, the Center for Transportation IoT Cybersecurity, and investments in R&D and start-up companies focused on transportation equipment design and manufacturing
- Create:
 - The Southern Tier Manufacturing Workforce Awareness and Recruitment Promotion Program targeted at the skilled worker
 - Talent attraction program as a subset of the Southern Tier Branding and Awareness Program as described in the Promoting the Southern Tier Innovative Culture Initiative
 - Workforce development programs developed jointly with the private sector and SUNY Delhi, Corning Community College and SUNY Broome.

Strategy

This initiative will encourage the private sector, academic institutions and communities to work collaboratively to develop, discover, repurpose and connect to stimulate private investment, create jobs and increase export activity. This strategy also is closely linked to the Southern Tier's industry cluster plan, which is focused on the Transportation Products, Components and Systems Controls manufacturing industry cluster.

Based on an in-depth understanding of what it will take to advance the Southern Tier's manufacturing industry, we will undertake an aggressive, three-pronged, inter-related approach to strengthening the region's manufacturing industry with a particular focus on the Advanced Transportation Product, Components and System Controls sector.



1. **Supportive ecosystem to stimulate private investment.** Significant investments ranging from basic infrastructure, to state-of-the-art equipment, to the community support systems essential to attracting and retaining young talent are critical to advancing the region's manufacturing industry. This supportive ecosystem together with commercialization of technology will stimulate the private-sector investments that are essential to increasing competitiveness in the global economy.
2. **Commitment to innovation and infusion of technology.** The Southern Tier has a manufacturing mentality and understands that the profitability of individual companies depends on manufacturing efficiency, technical expertise and product quality. In order to sustain the Southern Tier's competitive edge in advanced manufacturing, there must be a continued commitment to internal corporate R&D as well as relationships with research universities to leverage existing strengths focused on the infusion of emerging technologies and commercialization of new innovations.
3. **Human capital.** The Southern Tier expects to see a resurgence in manufacturing through more highly skilled, niche manufacturing operations that require a technically savvy workforce. Whether manufacturers are seeking to develop new products, enter new markets or improve overall productivity, their workforce will be key to their ability to remain competitive and achieve their goals. The Southern Tier can become "best in class" with strategic investments that anticipate and meet future workforce needs, forge increased engagement between students and industry that inspire and better prepare the next generation to pursue careers in advanced manufacturing, transform the role of the schools in high-poverty areas to contribute to a culture shift in perceptions about education and work, and train adult incumbent and unemployed workers in workforce readiness. This must be accompanied with aggressive messaging about the value of these jobs given the significant "replacement demand" that will be generated by retirements in the next five years.

The Southern Tier's strength in advanced manufacturing

Understanding the dynamics at the national and state levels provided an important framework to look closely within the Southern Tier Region to determine whether advanced manufacturing could continue its historic dominance and be a driving factor in creating an advanced economy.

The Project Team conducted an in-depth assessment of the various manufacturing clusters in the Southern Tier to select the cluster with the greatest potential for growth and opportunity to create jobs with high wages. This selection was based on industry performance in terms of size of the industry relative to all industries, historic and projected employment growth, wages, supply chain, concentration (as measured by location quotient) and multiplier effect.

Our analysis also included leading indicators, national and global market dynamics and opportunities for infusion of technology and business expansion. The composite analysis led us to conclude that the Southern Tier continues to have significant strength in manufacturing and a particular strength in the transportation equipment manufacturing sector.

Manufacturing is a dominant force in the Southern Tier, and is the largest export industry in the region at \$11.6 billion annually, representing nearly a third of all the region's exports. It also has the strongest location quotient at 2.54. With 34,000 workers, manufacturing remains the third-largest employment sector in the Southern Tier economy, following government and education/health services.

Although the overall manufacturing industry saw a loss of 127 manufacturing businesses (17%) in the period 2000-2012, and a 33% loss of jobs between 2000 and 2013, several new and exciting dynamics are influencing the future of manufacturing.

The Southern Tier excels in the design, manufacture and assembly of products ranging from auto-making to high-speed rail to aerospace. Focusing on the transportation equipment manufacturing cluster provides us with a unique niche and an opportunity to increase jobs, private-sector investment, foreign investment and global exports.

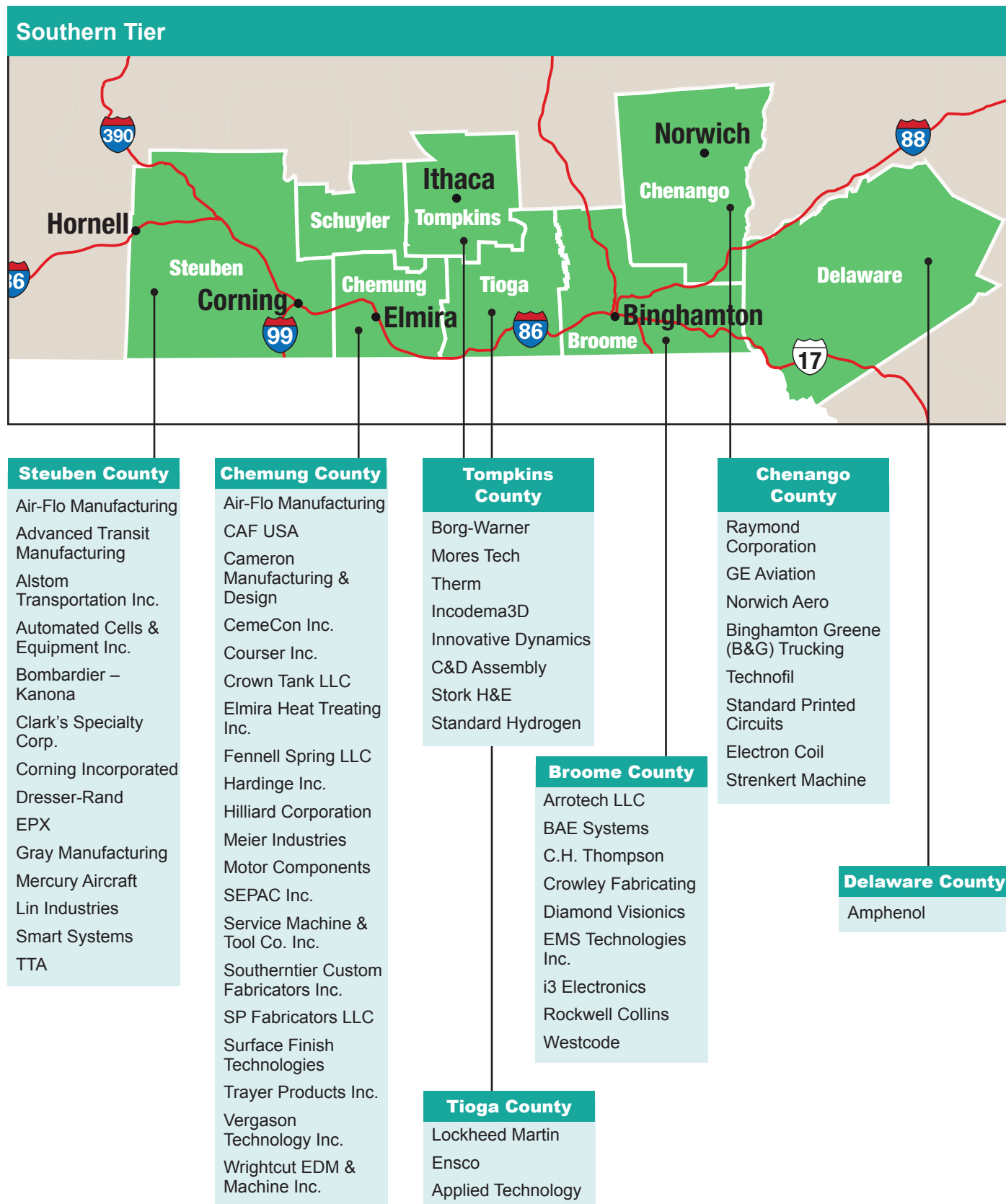
There are more than 70 firms involved as lead companies or members of the supply chain in the Southern Tier's Advanced Transportation Product, Components and System Controls design manufacturing sector. Major corporate leaders include multi-national firms such as Corning Incorporated, Hilliard, CAF USA Railway Solutions (Spain), Raymond Corporation (Japan [Toyota Industries Corp.]), BAE Systems (Britain), Alstom S.A. (France), Borg Warner, Dresser-Rand, GE, Lockheed Martin and Unison. This sector employs more than 11,000 workers with an average annual wage of \$74,235. It generates \$4 billion in exports annually, representing an increase of 44% in export value growth between 2009 and 2012. The strength of this industry section also is demonstrated by its multiplier effect of 2.46 and location quotient (LQ) of 8.968 — exponentially higher than the LQs of any of the region's other industry clusters.

There is a significant level of synergy across this sector, with at least one multi-national corporation or conglomerate involved in the advanced transportation equipment manufacturing sector in seven of the region's eight counties.

Focusing on the transportation equipment manufacturing cluster provides us with a unique niche and an opportunity to increase jobs, private-sector investment, foreign investment and global exports.

Advanced manufacturing companies in the Southern Tier

Advanced Transportation Products, Components and System Controls Cluster



Understanding the industry

National trends

The Brookings Institution says that “advanced industries represent a sizable economic anchor for the U.S. economy and have led the post-recession employment recovery. Modest in size, the sector packs a massive economic punch. As an employer and source of economic activity the advanced industry sector plays a major role in the U.S. economy. As of 2013, the nation’s 50 advanced industries were expanding at a rate of 5.4% annually and employed 12.3 million U.S. workers. That amounts to about 9 percent of total U.S. employment. And yet, even with this modest employment base, U.S. advanced industries produce \$2.7 trillion in value added annually — 17 percent of all U.S. gross domestic product (GDP). That is more than any other sector, including healthcare, finance, or real estate. At the same time, the sector employs 80 percent of the nation’s engineers; performs 90 percent of private-sector R&D; generates approximately 85 percent of all U.S. patents; and accounts for 60 percent of U.S. exports. Advanced industries also support unusually extensive supply chains and other forms of ancillary economic activity.”

The Brookings Institution analyzed the advanced industries across the country and reported in March 2015 that the 50 industries in this sector represent the chief anchor of America’s economy. From 1980 to 2013, advanced industries expanded at a rate of 5.4 percent annually — 30 percent faster than the economy as a whole. *“The success of the nation’s advanced industries is a prerequisite for future broadly shared prosperity in the United States.”*²⁴

The advanced industries sector

Manufacturing

Aerospace products and parts
Agriculture, construction and mining machinery
Aluminum production and processing
Audio and video equipment
Basic chemicals
Clay products
Commercial and service industry machinery
Communications equipment
Computers and peripheral equipment
Electric lighting equipment
Electrical equipment
Engines, turbines and power trans. Equipment
Foundries
Household appliances
Industrial machinery
Iron, steel and ferroalloys
Motor vehicle bodies and trailers
Motor vehicle parts

Motor vehicles
Navigation, measurement and control instruments
Other chemical products
Other electrical equipment and components
Other general purpose machinery
Other miscellaneous manufacturing
Other nonmetallic mineral products
Other transportation equipment
Pesticides, fertilizers and other agricultural chemicals
Petroleum and coal products
Pharmaceuticals and medicine
Railroad rolling stock
Resins and synthetic rubbers, fibers and filaments
Semiconductors and other electronic components
Ship and boat building
Medical equipment and supplies
Reproducing magnetic and optical media

Energy

Electric power generation, trans. and distribution
Metal ore mining
Oil and gas extraction

Services

Architecture and engineering
Cable and other subscription programming
Computer systems design
Data processing and hosting
Medical and diagnostic laboratories
Mgmt., scientific and technical consulting
Other information services
Other telecommunications
Satellite telecommunications
Scientific research and development
Software publishers
Wireless telecommunications carriers

Source: The Brookings Institution

In May 2015, the Brookings Institution also issued a report titled *America's Advanced Industries*, in which the institution asserts that the “advanced industries” sector will be of special importance to America’s future. The report makes the case that “America’s advanced industries are a critical anchor of national prosperity. Business leaders, government and the civil sector need to work together in new ways to augment their vitality.”

In addition, advanced industries provide high-quality economic opportunities for workers. Workers in advanced industries are extraordinarily productive and generate some \$210,000 in annual value added per worker compared with \$101,000, on average, outside advanced industries. Even workers with lower levels of education can earn salaries in advanced industries that far exceed their peers in other industries. In this regard, the sector is in fact accessible: More than half of the sector’s workers possess less than a bachelor’s degree.

On the national scene, the Transportation Equipment Manufacturing Sector is seeing a revival in employment and business development.

Establishments in U.S. transportation equipment manufacturing sector

	1st quarter 2014	2nd quarter 2014	3rd quarter 2014	4th quarter 2014
Private industry establishments	14,277	14,352	14,405	14,432

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics, Current Population Survey

Employment and wages also are on the uptick.

Transportation equipment manufacturing: U.S. employment and unemployment

	March 2015	April 2015	May 2015	June 2015
Employment, all employees (in thousand; seasonally adjusted)	1,603.7	1,604.9	1,608.4	1,608.0
Employment, production and nonsupervisory employees (seasonally adjusted)	1,142.8	1,144.4	1,150.0	1,155.8
Unemployment rate	4.6%	3.0%	3.9%	2.3%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics, Current Population Survey

How does the Southern Tier stack up?

Southern Tier's advanced manufacturing industry

Among the 35 Advanced Industries in the manufacturing sector identified by the Brookings Institution, the Southern Tier excels in eight. Most of these are clustered in the Transportation Products, Components and Control Systems sector such as Aerospace Products and Parts; Commercial and Service Industry Machinery; Computers and Peripheral Equipment; Engines, Turbines, and Power Transit Equipment; Navigation, Measurement, and Control Instruments; General Purpose Machinery; and Transportation Equipment.

According to the New York State Department of Labor, the Southern Tier's manufacturing industry employs 13.3% of all workers in the region; which is above the statewide average of 5.1% and national average of 9.0%. More specifically, the Southern Tier's advanced manufacturing industry employs more than 27,000 laborers (80% of the region's 34,000 manufacturing workers) with an average annual salary of \$60,862. This is 41% above the average of all other industries in the region (\$43,177). It also is high in comparison to the national average of \$44,888. In terms of exports, the Southern Tier's advanced manufacturing industry leads all other clusters in the region with exports valued at nearly \$12 billion, or equivalent to 32% of the entire region's exports.

Despite the Southern Tier having lost 2,058 (5.7%) manufacturing jobs in the past four years, there has been a net gain of 197 in just the past year; and wages continue to exceed other occupations in the region. Even when manufacturing's relative size in the economy is diminished, advanced manufacturing continues to make outsized contributions in exports, productivity growth, R&D and broader initiatives.²⁵

2012 NAICS Code	NAICS Title	Employment (2014 Q3)	Average Annual Wage (2014)
311	Food Manufacturing	3,363	\$47,663
312	Beverage and Tobacco Product Manufacturing	497	\$30,141
316	Leather and Allied Product Manufacturing	N/A	N/A
321	Wood Product Manufacturing	975	\$40,990
322	Paper Manufacturing	462	\$50,307
324	Petroleum and Coal Products Manufacturing	179	\$50,457
325	Chemical Manufacturing	1,287	\$63,813
326	Plastics and Rubber Products Manufacturing	596	\$41,129
327	Nonmetallic Mineral Product Manufacturing	2,106	\$64,686
332	Fabricated Metal Product Manufacturing	2,746	\$46,705
333	Machinery Manufacturing	4,289	\$59,617
334	Computer and Electronic Product Manufacturing	8,391	\$84,350
335	Electrical Equipment, Appliance, and Component Manufacturing	1,189	\$46,737
336	Transportation Equipment Manufacturing	3,939	\$63,203
337	Furniture and Related Product Manufacturing	933	\$38,951
339	Miscellaneous Manufacturing	1,281	\$46,913

Source: NYS DOL

Manufacturing also dominates the Southern Tier's global export activity with annual exports more than \$36 billion.

Industry	Exports (2013)
Total	\$36,561,047,172
Manufacturing	\$11,672,728,615
Government	\$9,263,334,581
Educational Services	\$2,174,210,224
Health Care and Social Assistance	\$1,810,966,251
Professional, Scientific, and Technical Services	\$1,320,577,833

Source: NYS DOL

As compared to other clusters in the Southern Tier, the location quotient is the highest for the manufacturing industry at 2.544.

Industry	Location quotient (2014 Q3)
Manufacturing	2.544
Agriculture, forestry, fishing and hunting	1.905
Educational services	1.789
Utilities	1.209
Retail trade	1.090
Accommodation and food services	1.010
Health care and social assistance	0.903
Other services, except public administration	0.857
Construction	0.852
Administrative and waste services	0.827
Transportation and warehousing	0.764
Wholesale trade	0.755
Arts, entertainment, and recreation	0.634
Management of companies and enterprises	0.623
Information	0.557
Professional and technical services	0.542
Finance and insurance	0.477
Real estate and rental and leasing	0.473

Source: NYS DOL

Critical mass in the Southern Tier's advanced transportation equipment manufacturing sector

The Brookings Institution recommends a focus on cultivating advanced industries with strong regional industry clusters based on local specializations, as well as those with high-value export potential. These industries are characterized by high levels of research and development and a heavy reliance on workers with science, technology, engineering and math (STEM) skills. Based on further local analysis, it was determined that within the Southern Tier's manufacturing industry there is particular strength in the Advanced Transportation Products, Components and System Controls sector.

Within the Southern Tier's top 20 industries by location quotient, 12 are manufacturing industries, and several are directly linked to the Advanced Transportation Equipment Manufacturing sector.

Southern Tier Region Top 20 Industries by Location Quotient (Minimum Employment of 500)			
NAICS Industry Code	Industry	2014 Employment	2014 Location quotient
3271	Clay Product and Refractory Manufacturing	644	8.66
3115	Dairy Product Manufacturing	2,014	7.80
3272	Glass and Glass Product Manufacturing	1,032	6.62
3345	Navigational, Measuring, Electro medical, & Control Instruments Manufacturing	4,545	6.21
6113	Colleges, Universities, and Professional Schools	17,967	5.05
3339	Other General Purpose Machinery Manufacturing	2,490	5.03
3344	Semiconductor and Other Electronic Component Manufacturing	2,950	4.25
3372	Office Furniture (including Fixtures) Manufacturing	833	4.21
3332	Industrial Machinery Manufacturing	661	3.22
6239	Other Residential Care Facilities	964	3.22
2123	Nonmetallic Mineral Mining and Quarrying	501	3.03
3211	Sawmills and Wood Preservation	517	2.97
7112	Spectator Sports	783	2.97
3341	Computer and Peripheral Equipment Manufacturing	800	2.60
8133	Social Advocacy Organizations	951	2.49
5417	Scientific Research and Development Services	3,016	2.47
3353	Electrical Equipment Manufacturing	677	2.46
3363	Motor Vehicle Parts Manufacturing	2,364	2.35
3254	Pharmaceutical and Medicine Manufacturing	1,128	2.12
6243	Vocational Rehabilitation Services	1,378	2.11

Source: Economic Modeling Specialists Intl. (EMSI)



Advanced manufacturing continues to make outsized contributions to the Southern Tier economy when it comes to exports, productivity growth and R&D.

This sector offers the greatest potential for significant growth in terms of supply-chain growth, commercialization of technology for business expansion, employee hiring, foreign investment and exports. In fact, seven of the eight Southern Tier counties are home to at least one multi-national corporation or conglomerate involved in the transportation equipment manufacturing sector.

Number of jobs	11,010
Employment trend	+197 (1.9%)
Average wages	\$74,235
Location quotient	8.968
Exports	\$3.9B
Multiplier - jobs	2.46
Multiplier - sales	1.68

ACHIEVING THE VISION OF TRANSFORMATION

Strategy 1. Supportive ecosystem

Stimulating private-sector investments to increase competitiveness in the global economy

New dynamics in the global and domestic economies affect the Southern Tier and the ability of its manufacturing sector to attract foreign investment and increased global exports.

Opportunity: transportation and environmental sustainability

Both U.S. and global energy and transportation policies have been steadily shifting toward reforms that will rebuild and strengthen the national and global economies, and promote energy independence that is environmentally friendly and provides affordable and dependable transportation options.

“New technologies have the potential to make our roads and transit systems safer, greener and more efficient,” according to Gregory Winfree, the administrator of the Department of Transportation’s Research and Innovative Technology Administration. “We are working hard to ensure that these technologies can be integrated safely into our existing system.”²⁶

Bus rapid transit and light rail will play an important role in the multi-modal future of cities of all sizes in the United States and around the world. Many U.S. urban areas already have begun to move away from reliance on cars toward multi-modal transportation systems that use buses, light-rail trains and protected bike lanes to increase efficiency, reduce commute times, reduce urban sprawl and promote smart growth and focus on sustainability.

Major projects planned throughout the country in the next decade will cause a marked increase in demand for advanced transportation manufacturing, and the Southern Tier’s transportation sector has the potential to be a player with its leading multi-national companies. BAE Systems in Endicott already has taken the lead, along with several partners, to build a fuel cell bus that blends energy from a fuel cell and electric power, providing a zero-emissions vehicle with improved fuel economy.

Energy efficiency in large vehicles such as trucks also is a major global issue being addressed by Southern Tier companies. In 2013-15, Corning Incorporated responded to China’s clean air diesel regulations and Europe Euro VI regulations with clean air diesel products. Corning Incorporated’s expansion of its Heavy Duty Diesel facility in Erwin is a prime example of the application of next-generation technology and advanced manufacturing to advance the region’s transportation industry.

Opportunity: U.S. transportation policy and market forces

Former Secretary of Transportation Ray LaHood has gone so far as to say that an influx in the demand for passenger railways “is coming ... there’s simply no stopping it.”

Momentum is building for public transit as population density increases congestion in cities across America; our nation’s two largest demographic groups, Millennials and seniors, both increasingly want to live in vibrant, accessible cities that are served by public transit. For them, high-quality mobility has become a quality-of-life issue that is driving investments in passenger rail. Amtrak services alone have jumped 44% in the past 10 years, according the U.S. Department of Transportation.

According to Amtrak and the International Union of Railways, there is recurring purchase of 500 new metro cars per year, and numerous new commuter rail system projects are in the works. These new projects can be found throughout the country in places such as Atlanta,

Charlotte, Cleveland, Dallas/Fort Worth, Denver, Detroit, Houston, Indianapolis, Minneapolis, Pittsburgh, San Antonio and St. Louis. However, the two most significant projects are Amtrak's proposed updating of the Northeast Corridor to allow for next-generation high-speed rail, costing a 2010 estimate of \$117 billion, and Amtrak's planned high-speed rail line between Washington, D.C., and Boston, which would cost a 2012 estimate of \$151 billion and take more than 25 years to design and build.

In March 2015, Congress approved a bill to authorize continued spending on Amtrak. The measure calls for spending \$1.4 billion for the passenger carrier in each of the next four years — no more than now, but a lot more than the zero level that some conservatives wanted.

It's not only the government that is in the business of high-speed rail, but also the private sector. A good example is the All Aboard Florida private passenger service from Miami to Orlando.

The Southern Tier's I-86 Corridor is home to three of the leading rail design and manufacturing companies in the world, including Alstom Transportation Inc. in Hornell (France), CAF USA in Elmira (Spain) and Bombardier (Canada) in Kanona. Alstom is preparing to undertake a \$130 million expansion in Hornell to design and produce the high-speed train from Boston to Washington, D.C. The Bombardier facility in Kanona is a center of expertise for rail vehicle overhaul and refurbishment for all types of passenger rail cars and has plans for expansion as contracts increase.

The Southern Tier's I-86 Corridor is home to three of the leading rail design and manufacturing companies in the world.

Hornell is strategically and uniquely positioned to benefit from the current and future investment in passenger rail that will occur in the Northeastern United States, the metropolitan New York area and across the country. The skilled workforce there has a history of focusing on the rail industry for five generations, supplying vital engineering, manufacturing and servicing needs of rail vehicles for more than 160 years.

Rail engineering and manufacturing is a highly specialized, technical and industrial activity. Due to Hornell's long history of rail activity, it possess both the skilled workforce and the vital cluster of supplier activity, with almost 200 suppliers in New York State and the surrounding area, that are required to be successful in the rail industry over the long term. That's why Alstom Transportation Inc. has identified Hornell as a potential site for its Advance Rail Technology Center to launch the global introduction of its next generation of AVELIA high speed trains for the United States and the rest of the world.

Growth in the Southern Tier not only will occur in the larger companies such as Alstom, but also among the small to medium-sized companies that have developed a niche in national and regional global supply chains. These companies succeed because they are value-add with a focus on quality. Businesses such as Gray Manufacturing, ATM, EPX, TTA, Mercury Aircraft and more are gearing up for expansion of their facilities, new equipment acquisition and new hiring projected at 250 in the next two years. An example is TTA in Hornell, which is planning a \$2 million expansion project and will add 25 new jobs in 2016.

Revitalizing the aged manufacturing communities

Quality of life will be a major driver in attracting scientists, engineers and the skilled workers to those communities that support advanced manufacturing. The Southern Tier's manufacturing towns that continue to show signs of aging by their old housing stocks, tired commercial districts, and overall aged infrastructure include Elmira, Corning, Hornell and Norwich.

Business leaders are looking beyond office space when deciding where to locate their companies, and they recognize that in order to attract a workforce they need to offer their employees more than a good salary. Appropriate housing and vibrant downtowns are prerequisites for many such workers.

Professionals are putting greater weight on work-life balance and activities outside the office. Ensuring these quality-of life attributes, such as housing variety, out-the-door recreation options, education and schools, cultural amenities and proximity to goods and services is increasingly important — not just to employers but to all community stakeholders concerned with cultivating an innovation ecosystem. Increasingly, the creative economy is synonymous with and supports the attraction of young professionals that will comprise an innovation district.

I-86 Innovation Corridor

For these reasons, it is imperative that the Southern Tier focus on revitalization of its Aged Manufacturing Communities, with a special need to put a magnifying glass on the I-86 Corridor. The corridor extends between Elmira and Corning, and has the highest concentration of advanced manufacturing and transportation equipment manufacturing companies in the Southern Tier Region. The I-86 Corridor is well positioned to see dynamic change and revitalization with an aggressive strategic action plan that was adopted in July 2015. The corridor has a combined population of nearly 90,000, and is home to major corporations such as Corning Incorporated, CAF USA, DeMet's Candies, Dresser-Rand, Hilliard Corporation, Anchor Glass, Emhart Glass, Hardinge, World Kitchen, Synthes and more.

Both the cities of Corning and Elmira exceed the estimated New York State poverty rate for families. Despite having a Fortune 500 company in the heart of the city and the revitalization of Market Street, the city of Corning also contains several pockets of poverty. The city of Elmira has pockets of poverty as high as 47% and per capital income as low as \$17,699.

During the next few years, the I-86 Corridor, is expected to feel the impact of the expansion of companies such as Corning Incorporated, the Hilliard Corporation, DeMet's Candy, Dresser-Rand, Anchor Glass, Emhart Glass and Bombardier in nearby Kanona. In addition, the new Lake Erie College of Osteopathic Medicine in Elmira will be creating new jobs. Cumulatively, there are a projected 600+ jobs to be added in the I-86 Corridor in the next five years.



	New York State		Corning city		Elmira city	
	Total	% below poverty	Total	% below poverty	Total	% below poverty
Families	4,637,549	11.70%	2,674	16.2%	6,051	29.2%
With related children <18	2,271,822	18.10%	1,443	29.3%	3,479	38.4%

Source: 2009-2013 American Communities Survey

Major investments are being planned by several anchor companies that have significant export activity such as the Hilliard Corporation. A world leader in motion control and filtration technologies with 630 local employees, it exports products to 60 countries.

Another example of growth is DeMet's Candy Co., a foreign-owned company with a planned expansion of \$29 million. Also expanding is Elmira's Anchor Glass Corporation, which has plans to improve its manufacturing capacity with a private-sector investment of \$19.2 million.

Game-changing investments

State-of-the Art Advanced Manufacturing Plant, Broome County: A major company proposes to invest \$150 million to construct a new value-added manufacturing facility in Broome County, resulting in creation of 600 high-paying jobs. The facility will be state-of-the-art, employing new energy technologies such as combined heat and power systems along with other energy-efficiency measures, with the goal of becoming New York's leader in energy efficiency and renewable energy technology in the manufacturing sector. The company will offer employment and training to veterans and hard-to-place workers, including the long-term unemployed and ex-offenders. Company products are expected to be sold and shipped in the United States and all over the world.

Southern Tier Small Manufacturing Competitiveness Fund: The project establishes a \$1.5 million low-interest loan fund for new and existing small manufacturing companies (fewer than 20 employees) to allow them to innovate, adapt, increase productivity and efficiency to remain competitive in the global marketplace, and to create employment opportunities for local hard-to-place workers. The fund will target business growth in areas with the highest concentration of impoverished persons; specifically target census tracts in Binghamton, Corning, Elmira, Endicott, Hornell, Johnson City and Norwich; as well as rural areas identified in Chenango County, Delaware, Steuben, and Tioga County. The project also will focus on incorporating the global marketing, foreign trade and foreign investment activity goals of the Southern Tier's Global NY Plan by providing these small businesses with the ability to access affordable capital to enable them to compete in both the regional and global marketplaces.

Raymond Manufacturing Center of Excellence: The Raymond Manufacturing Center of Excellence, with associated Employee Development and Wellness Center, is designed to enhance and maintain Raymond's standing as a preeminent global manufacturer. The project involves new construction and building renovations at both its Village of Greene facility and Town of Greene facilities, and addition of employee training equipment and production machinery and equipment. The Village of Greene facility will also receive a turning lane off of Route 12 into the facility to accommodate the increase in employees, during the next five years.

Corning Community Health and Education Complex in the City of Corning: The Corning Community Health & Education Complex is focused on the redevelopment of the former Corning Hospital site into a mixed-use commercial and residential development complex.

The project is a collaboration of the Guthrie Corning Hospital, Riedman-Purcell Development, City of Corning, Corning Community College and Steuben County Industrial Development Agency. The complex will provide market-rate housing to meet growing demand by young professionals employed by companies such as Corning Incorporated and Dresser-Rand; it will also be a focal point for workforce development training. Corning Community College's signature registered nursing program and other health science programs will be located in the new 21,000 square foot state-of-the-art facility.

Refresh Elmira Downtown Revitalization Program:

Elmira's quality of life and economy cannot be improved without strategically addressing key blighted, vacant and underutilized properties, improving the aesthetics of downtown and capitalizing on assets such as the Chemung River. The combination of business and academic institution expansions will impact the demand for housing, cultural and social amenities and access to business and technologies resources. Examples of projects in Elmira's revitalization strategy include:

- Redevelop Main Street and Water Street into a commercial, retail and residential hub. Examples include the Werdenberg building renovation and West Water Street Redevelopment Project.
- Redevelopment of the former Federal Building for mixed use.

In addition, federal funding has been secured for the North Main Street Cultural Corridor, a \$4.2 million project expected to start construction in 2017. Planned development includes a reconstruction and streetscape project to tie the cultural connector from W. 2nd Street to W. Water (NHS) project. A \$1.2 million project using National Highway System (NHS) funding is anticipated in 2018 for West Water Street. The city also is completing an application for Federal Highway System (FHS) funding for a rehabilitation project on Main Street Bridge for a \$1.4 million project in 2017. The Chemung River Development and Lake Street Pedestrian Bridge Renovation also are being planned.

Another driving force in the revitalization of downtown Elmira is the expansion of two colleges into the downtown core. This is synergistic with the strategies identified in the Promote the Southern Tier's Innovative Culture Initiative, described later in this plan. The Lake Erie College of Osteopathic Medicine recently announced plans to establish a campus in Elmira for the training of primary care physicians beginning in fall 2016. Initially there will be 80 medical students, growing to more than 300 in the next five years. Simultaneously, Elmira College will expand its athletic programs off-campus, with plans to use The Arena facility in downtown Elmira. Both of these plans will result in a major infusion of young talent and investments in housing and revitalized space for retail and commercial services. The city is finalizing its master plan, which will include these initiatives.

Chenango Rural Energy Access: The project is the construction of an 18-mile long natural gas distribution line from the Constitution Pipeline in the Town of Bainbridge to the Raymond Corporation plant in the Village of Greene. The distribution line will provide lower-



The manufacturing industry employs more than 34,000 Southern Tier residents.

cost, domestically produced, abundant, clean-burning natural gas to Raymond Corporation, providing significant energy cost savings, and securing 1,400 jobs.

Advanced Rail Technology Center in Hornell: This project leverages significant foreign investment of \$100 million by Alstom Transportation Inc. in facilities to design and manufacture a high-speed train that would serve the Northeast Corridor from Washington, D.C., to Boston and next-generation design of high-speed trains that Alstom would use as its global high-speed solution for the rest of the world. The rail industry is traditionally a GDP+ growth business, but this project is different. High-speed projects around the world have been proven to capture national public attention. This project will position the Southern Tier as a world leader in next-generation passenger rail and transit. It will also substantially increase foreign investment in the region, attract world-class engineering and technical workers to the Southern Tier and simultaneously change the character of the Hornell area. The initiative will provide job opportunities for hard-to-place workers, including veterans and low-income residents, and promote inclusive growth by using the manufacturing district as a platform to redevelop adjoining distressed neighborhoods. It will create educational, employment and other opportunities in Hornell. The project is expected to result in 500 new jobs, plus 250 additional jobs created in the supply chain.

Proposed project components include:

- Repurpose former industrial space into a high-tech engineering design center for the high-speed transit industry, to include a workforce training area.
- Infrastructure improvements at the complex entrances and in the rail yards
- Start-Up NY site for rehabilitation of Plant #3, to include an incubator for suppliers, especially WMBE, and a high-tech engineering design center for Alstom and universities to engage in technology transfer.



Alstom Transportation Inc. plans a \$130 million expansion in Hornell to design and produce the high-speed train for use on the Boston-to-Washington corridor.

Examples of other projects:

Downtown Hornell Revitalization: Mixed-use developments in Hornell's urban core include advancing the Fairlawn development and upper-floor residential development. These are essential for the growing number of young professionals, including engineers and contract administrators. Specific tasks to be completed include the use of "Smart City" technology for infrastructure development and increasing the connectivity from neighborhoods to jobs via sidewalk and bike paths.

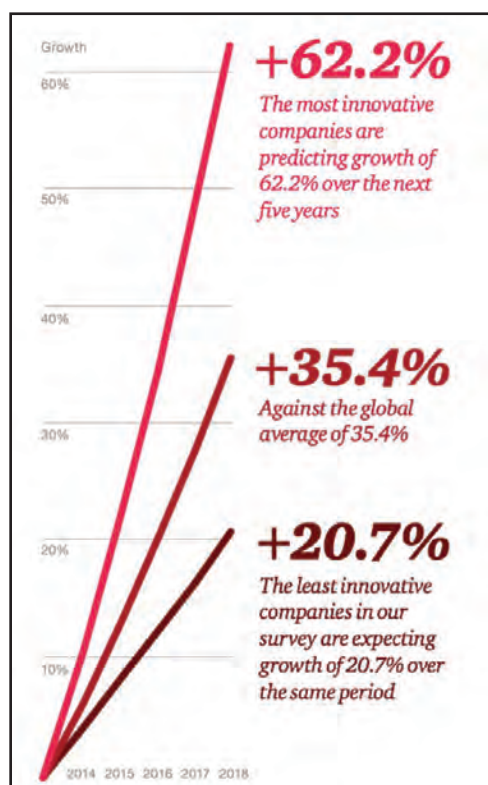
Expansion of TTA/Transitair: TTA/Transitair Systems is a direct supply chain company for the transportation industry and provides support to other transit-related companies in the region, including Alstom, Bombardier and CAF. It is in a highly distressed section of Hornell. Expansion of this railcar overhaul truck assembly company will allow it to be competitive in the rail industry.

3D Metrology: Incodema3D plans to take a new product for the aerospace industry from a prototype to fully certifying it to be ready for full-scale production. Incodema 3D is working with Cornell and Binghamton universities on this project, which consists of analyzing, testing and certifying metal printed parts.

Cameron Manufacturing Expansion: Cameron intends to purchase an additional facility that would be 250,000 to 300,000 square feet to accommodate expansion.

Strategy 2. Investing in innovation and emerging technologies

...a new future is needed for the region, one that is focused on innovation... Why?



Source: PriceWaterhouseCoopers, "Breakthrough Innovation and Growth: 2013 Innovation Survey."

According to the Brookings Institution, "Innovation remains the only lasting source of advantage for firms and places in the advanced industry sector, yet its speed and complexity are ratcheting up and demanding new strategies. Accordingly, both the private and public sectors need to radically rethink their technology development strategies. Lead actors in firms and government each need to ramp up the scale of their innovation efforts and reconsider the formats through which they conduct them. More R&D conducted within new, more open or networked innovation models will be necessary in the coming years."

The capacity for innovation and ability to infuse emerging technologies are key competitive advantages as well as critical needs for the Southern Tier's advanced manufacturers. Based on the Annual Survey of Manufacturers, we know that businesses involved in transportation equipment and machinery are an important part of global innovation. This is apparent among Southern Tier manufacturers such as Corning Incorporated, Lockheed Martin, Dresser-Rand, Raymond Corporation, Alstom, Borg Warner and more. The nature of their products requires them to be both labor and R&D intense, demanding a constant infusion of technologies to remain competitive.²⁷

We believe the McKinsey Global Institute's forecast for the role of manufacturing in the global environment also will hold true for the Southern Tier because "a strong pipeline of innovations in materials, information technology, production processes and manufacturing operations will give manufacturers the opportunity to design and build new kinds of products, reinvent existing ones and bring renewed dynamism to the sector."²⁸

Industry leaders in the Southern Tier say that the future of advanced manufacturing in the region will be focused on integrating emerging technologies into the design and manufacturing processes, particularly in electronics packaging and control systems, as well as energy storage. There is an expectation that investments in 3D printing, advanced materials and ongoing R&D with their academic partners will be critical factors for these companies to maintain a competitive edge.

This is further emphasized in a recent report from the Brookings Institution, which notes: "Already under way, the shift is being powered by three key technology developments. The first is the Internet of Things, in which embedded sensors transmit information from machine to machine, allowing them to work together and identify maintenance problems before a breakdown occurs. The second is advanced manufacturing, which includes 3-D printing, new materials and the 'digital thread,' where companies use very accurate digital models to guide all stages of product development, speeding the time to market and improving quality. Finally, there is distributed innovation, in which crowdsourcing is used to find radical solutions to technical challenges much more quickly and cheaply than with traditional in-house research and development."²⁹

The Southern Tier has powerful resources to advance several of these technologies, and specifically apply four of them to the advanced manufacturing sector with a focus on manufacturing processes and systems.

The McKinsey Global Institute has identified 12 disruptive technologies that it forecasts will transform life, business and the global economy and will have the greatest potential to drive substantial economic impact and disruption by 2025. The Southern Tier's private-sector R&D and universities have nationally recognized prowess in five of these disruptive technologies, and will apply them to strengthening the advanced manufacturing industry. They include the Internet of Things and mobile Internet, energy storage, 3D printing, flexible electronics, advanced materials and renewable energy.

Opportunities to advance emerging technologies in the Southern Tier

"Astonishing new technologies — ranging from advanced robotics and '3-D printing' to the 'digitization of everything' — are provoking genuine excitement even as they make it hard to see where things are going." Brookings Institution. America's Advanced Industries: What They Are, Where They Are, and Why They Matter. February 3, 2015.

The Southern Tier's businesses have an opportunity to increase their competitiveness and global exports with groundbreaking research and innovative strategies being introduced by Binghamton and Cornell universities, together with private-sector R&D by international corporate leaders.

Internet of Things and Mobile Internet



The Internet of Things and mobile Internet will become more present in transportation information systems and networks, with initiatives like Next Gen and e-enabled aircraft in aviation, positive train control for railroads and transit and connected and automated technologies for cars, trucks and buses.³⁰

The growing issue of cyber security is a threat to all systems that use embedded software/firmware systems, particularly those in the most complex military aerospace and ground systems, commercial aerospace equipment, rail and road transportation systems and industrial products all over the world.

The country's information systems and networks face new cyber threats, and these transformational changes will demand and enable new approaches to transportation security and resilience.³¹

General Keith Alexander, chief of the U.S. Cyber Command and director of the National Security Agency, said the United States saw a 17-fold increase in cyber-attacks between 2009 and 2012. In addition, individuals are being targeted by increasingly sophisticated, coordinated attacks to conduct identity theft or to use individuals' computers to attack others.³² As described in the White House's Strategic Plan for the Federal Cybersecurity Research and Development Program (2011a), a thorough understanding of cyber security vulnerabilities is needed to treat the causes of cyber security problems.

As stated in a report prepared for the National Institute of Standards and Technology, "According to various estimates, cyber security threats and attacks cost U.S. companies tens of billions of dollars a year in direct costs — spending on proactive and reactive cyber security technologies and activities—and likely much more in indirect costs, including the loss of intellectual property, service or product quality degradations, and reputational or customer loss. Although the total magnitude of these costs is unknown, the news media are replete with evidence that attests to the substantial impact inadequate cyber security has on companies and individuals."³³

***Southern Tier
businesses will
increase their
competitiveness
and global
exports by
leveraging R&D
from regional
universities and
the private sector.***

An issue for U.S. companies is the cost effectiveness of independently developing the technology platforms, resulting in a delay of new products and services to address the situation. Simultaneously, new technologies are being introduced in transportation so rapidly that the impact on the security and resilience of the overall system is not always well understood.

Given the Southern Tier's identification as a transportation industry cluster, investment in an information security technology support ecosystem is essential to its continued growth and vitality. Information security technology for transportation is readily transferable to other critical domains such as energy, medicine, finance and industrial process control. An initial focus on the transportation industry cluster will give rise to additional industry work in these other sectors.

As the number, complexity and potential impact of cyber threats continue to grow, increased academic-private R&D partnerships are crucial to the security of our nation's transportation infrastructure. In industry, the leaders in cybersecurity for mobile systems are in the defense aerospace industry. The Southern Tier is home to Lockheed Martin's Owego plant, which develops and manufactures avionics, control systems and computers for military helicopter and fixed wing aircraft, as well as BAE Systems, which develops and manufactures similar articles for military and commercial aircraft, as well as for hybrid buses and trucks. The capabilities, experiences and in-place supply chain relationships of these two entities will feature prominently in the Southern Tier's initiative, providing a jump start on progress and providing a natural flow to other participating companies in the Southern Tier's transportation advanced manufacturing industry cluster.

Binghamton University has extensive credentials in cybersecurity research and teaching. In particular, the university is addressing cybersecurity of the control systems of U.S. Navy ships; this work applies directly to control systems for other vehicles such as trains, trucks, buses and automobiles. In addition, the university performs cybersecurity research for the U.S. Air Force Research Lab in Rome, as it has for over a decade, addressing security of Air Force control systems.

Cornell University similarly has a well-established program of research and teaching in cybersecurity, addressing fundamental problems of security and reliability of the global critical computing infrastructure. Of note is its NSF-funded TRUST Science and Technology Center, and individual faculty member involvement in cybersecurity advisory boards to DARPA, DoD and Microsoft.

The proposed approaches will be academic-private sector partnerships based on a mutual understanding that smart and connected systems can enhance transportation system resilience. Southern Tier and other New York State companies that would benefit or be partners in the center include BAE Systems, Lockheed Martin, Rockwell Collins, Universal Instruments, Raymond Corporation, Alstom Transportation, Corning Incorporated, NYSEG, L-3 Communications, i3 Electronics and GE Aviation.



Energy storage and harvesting

There is a world-wide demand to find and use renewable energy sources. According to a recent analysis, “Energy storage technology has great potential to improve electric power grids, to enable growth in renewable electricity generation, and to provide alternatives to

oil-derived fuels in the nation’s transportation sector.”³⁴ Specifically, there is expected to be demand for application of energy storage in mass transportation vehicles, including light rail and buses.

The Southern Tier’s manufacturing sector and academic partners understand that the economy of the future will be fueled by environmentally sound practices and commercialization of technologies ranging from innovations in batteries and fuel cells to environmental sensors and power-aware computing. “Energy storage products are the key to pervasive hybridization and electrification of transportation, from automobiles and buses to trucks and trains.” (NYBEST, 2012).

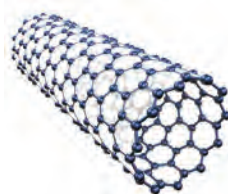
The Southern Tier is well positioned to gain a competitive edge in its transportation equipment supply chain with the commercialization of these technologies. For example, Binghamton University is a national leader in energy storage R&D. The NorthEast Center for Chemical Energy Storage (NECCES), an effort led by Binghamton University, includes as partners Rutgers University, Argonne National Laboratory, Cambridge University, MIT, the University of Michigan, the University of Illinois at Chicago, the University of California at Santa Barbara and the University of California at San Diego. The center, funded by the Department of Energy, supports basic research in the design of the next generation of lithium-ion batteries, which requires the development of new chemistries and the fundamental understanding of the physical and chemical processes that occur in these complex systems.



3D printing

3D printing will be a key factor in the future of advanced manufacturing by significantly reducing the cost of creating parts; however, technology has not yet allowed that to happen.³⁵ Currently, it’s a smaller niche in the engineering and scientific community due to the high cost and commitment of technology development. The Binghamton University EPIC 3D Printing Center in the Endicott

iDistrict will be an important tool in advancing the transportation equipment manufacturing sector in terms of production of components. Introduction of this emerging technology also creates an opportunity for the Southern Tier to develop a workforce with a unique skill set that’s likely to be in high demand. This technology, according to almost all projections, will become commercialized and begin to establish itself as a staple of the marketplace. The Southern Tier is in a prime position to take advantage of this.



Advanced materials

Corning Incorporated is a global leader in advanced materials, and its powerful internal R&D is enhanced through collaboration with Alfred, Binghamton and Cornell Universities. Corning ceramic substrates launched a global clean-air movement, taking billions of tons of harmful pollutants out of vehicle exhaust. As Corning makes

thin glass for consumer electronics, these same innovations are being applied to vehicle design. The tough, lightweight alternatives Corning offers for windows and sunroofs can help significantly lower the weight of a car — which, in turn, can improve fuel efficiency. Corning also is a player in dashboard touchscreens, colorful aesthetic outlines, and next-generation speakers are other high-end, glass-enabled features that automakers are beginning to



The NorthEast Center for Chemical Energy Storage at Binghamton University is a national leader in energy storage R&D.

incorporate in their designs. Corning's advanced materials also are used in aerospace and military vehicles, and the company's advanced materials are used in missile domes and telescope mirrors and lenses.

Game-changing investment to increase R&D and infusion of technology

The Southern Tier intends to embrace these technologies and make strategic investments in emerging technology centers and projects that will provide the transportation manufacturing sector, including large and small companies, with access to technology that is on the forefront of industrialization and commercialization.

It is important to note the synergy between this initiative and the Greater Binghamton Innovation Ecosystem, where the Endicott iDistrict will have a focus on advanced manufacturing in the fields of 3D printing and advanced materials. In addition, Binghamton University's national leadership role in the field of Energy Storage and Harvesting will be critically important to advancing the Southern Tier's transportation industry cluster.

Ongoing investments in R&D and start-up companies focused on advanced manufacturing, particularly transportation equipment design and manufacturing: The Southern Tier recognized that in the highly competitive global marketplace of advanced manufacturing and transportation products, innovation among the large multi-national companies alone is not enough to generate greater exports and create high paying jobs. There needs to be a continuous channel of new ideas, new business development and new job growth among start-up companies. For these reasons, the Southern Tier REDC will continue to support investment in spin-off companies, small firms in the supply chain that are investing in R&D, and start-up companies. This effort will dovetail with the Southern Tier Start-up Alliance (Regional Hot Spot), as well as leverage existing programs such as Start-Up NY, NY-BEST and 76West.

Battery Dry Room for the NorthEast Center for Chemical Energy Storage: NECCES is designing the next generation of lithium-ion batteries for transportation and to enable renewable energy. NECCES, affiliated with Binghamton University's Center of Excellence,

is partnering with Corning Incorporated, BAE Systems, GE, and Raymond Corporation to develop new materials and devices for the transportation industry. The project involves creation of a battery dry room, which is an essential component for manufacturers to build and test systems where the results will be reliable and reproducible.

The I-86 Corridor Center for Technology Infusion and High-Tech Engineering Design:

The center, in the I-86 Innovation Corridor, will advance technologies for the Transportation Products, Components and Control Systems manufacturing sector. A consortium of corporations will operate the center and share in the pre-competitive research, as well as undertake proprietary research projects. The center will have its own multi-disciplinary researchers, working in collaboration with Binghamton and Alfred universities.

The Southern Tier will assume a national leadership role in Secure Electronics and IoT Cybersecurity; and it requires that hardware and software be addressed. To this end, two game-changing projects are proposed: the Secure Electronics and Advanced Manufacturing Project, centered on developing and producing electronic processing hardware for the transportation industry with features supporting information security; and the Center for Transportation IoT Cybersecurity, addressing information security from the perspective of the software embedded in transportation system components and control hardware.

Secure Electronics and Advanced Manufacturing Project: This project will advance the Southern Tier's manufacturing leadership for electronics hardware capable of providing secure processing solutions to address security concerns requiring cybersecurity and trusted systems, anti-tamper, anti-counterfeit and trusted manufacturing capabilities. It addresses mandates from government agencies such as DoD and growing demand from private companies in the transportation sector for secure hardware. The need for the highest level of secure electronic processor hardware technology is fundamental to a wide range of transportation equipment. The need originated in military systems and now extends to the control systems for commercial aerospace, ground transportation, energy and industrial process equipment. Secure processors provide the hardware foundation for cybersecurity in these systems. The Southern Tier is well positioned to fill the demand for protected electronic processing hardware with its R&D activities and capacity for commercialization of technology for electronics packaging, embedded systems, advanced processors and production of integrated systems. Lockheed Martin will take the lead in a collaborative project involving partners such as Binghamton University's S³IP, the U.S. Air Force Research Lab in Rome (Mohawk Valley Region), SUNY Polytechnic (both the Quad C campus in the Mohawk Valley Region and Albany campus in the Capital Region), and potentially companies such as BAE Systems in the Southern Tier and General Electric and Global Foundries in the Capital Region. Binghamton University will draw additional academic institutions such as Rochester Institute of Technology (Rochester Region) and Clarkson University (North Country Region) active in electronics packaging and advanced materials. This team will be the nucleus growing into a critical mass of corporate leaders and supply chain companies positioning New York State as a force in the global competition to manufacture secure processing products.

These projects will position New York State as a force in the global competition to manufacture secure processing products.

There is synergy with existing resources and proposed projects in the Greater Binghamton Innovation Ecosystem Initiatives; in particular with Binghamton University's proposed EPIC 3D Printing Center and the Center for Flexible Printed Electronics in the Endicott iDistrict. These centers will focus on advanced design, visualization and manufacture and commercialization of new products for the Advanced Transportation Products, Components and Control Systems manufacturing industry.

The Center for Transportation IoT Cybersecurity: The Internet of Things (IoT) is the name given to the rapidly advancing vision of automated communication between equipment and autonomous decision making occurring without human instigation or mediation. Ensuring that this can be done in a trustworthy manner, safe from idle or nefarious interference, is an urgent issue and is growing in importance as transportation equipment becomes increasingly sophisticated, networked, autonomous and, therefore, increasingly vulnerable to cyber-attack. To do so depends, in part, on secure electronics processing hardware. Security of the IoT depends on security of the software comprising operating systems, communications and applications.

Transportation equipment by its nature will depend on the mobile Internet, raising its own unique vulnerabilities. Software cybersecurity must ensure that transportation components, systems and controls are safe from unauthorized access, that information is not disclosed beyond the authorization of requestors, that the software is operating as intended with the influence of agents such as viruses or malware, that actions by the system are traceable and auditable and that unauthorized inputs, commands and modifications are not accepted.

Manufacturers in the transportation industry cluster will produce some of the necessary hardware and software, but a significant portion will be procured from the supply chain; the end producers must integrate hardware and software components, build in appropriate software cybersecurity features to prevent, detect, resist and correct the effects of cyberattack, assuring the security and proper operation of the equipment and systems they produce.

The Transportation IoT Cybersecurity Center will provide laboratories and technical equipment to support multi-company pre-competitive research on a shared cost basis to achieve this (similar to the university-industry consortium model used at Binghamton University's S³IP). The center will allow for development and exchange of advanced ideas addressing fundamental needs of the companies it serves, complemented by research and company-specific development carried out by the center research staff. The center will provide state-of-the-art software development infrastructure and tools, particularly benefiting small to medium companies with low-cost access to world-class infrastructure. The center laboratories will provide for testing of systems under simulated cyberattacks in a closed setting to provide security performance assurance.

Binghamton University will take the lead on organizing the center, bringing to bear its longstanding experience in computer science and computer engineering as applied to software security system architectures. BAE Systems has expressed particular interest in secure embedded software and will be a lead partner in the initiative. Academic partners are expected to include Cornell University (Southern Tier Region) and Syracuse University (Central New York Region). The U.S. Air Force Research Lab in Rome is the USAF lead for information security; the existing partnership between Binghamton and AFRL will be leveraged to guide the center's development as well.

Strategy 3. Human capital

The Southern Tier's Advanced Manufacturing sector provides high-quality economic opportunities for workers with an annual compensation that is more than double the national average wage. Most important, the opportunity to earn such wages is not isolated to engineers and those with professional degrees as more than half of the sector's workforce has less than a bachelor's degree, thus allowing the hard-to-place worker an entry into this workforce.

Companies throughout the region — regardless of size — recognize that a highly skilled, qualified workforce is critical to their long-term success. There are several labor-supply challenges that make it difficult for employers to find qualified workers, which affects their competitive position.

A rapidly aging workforce. Like much of the state, the median age of the region's population is over 40. Approximately 25% of all manufacturing jobs across the region are held by workers 55 and older. This issue is magnified in the I-86 Corridor, where 22% of the population is over 60 years and the overall labor force will shrink by 12.6% (~42,000 people) by 2030. The University at Buffalo Regional Institute reports that "without strong career pipelines, employers in certain industries (manufacturing, etc.) may struggle to fill vacancies, as younger workers are typically finding work in other sectors."

Shrinking pool of qualified workers ... both now and in the future. Globalization and technological changes are rapidly, increasing the education requirements of the sector. The region has several effective training programs such as SUNY Delhi's Mechatronics degree in manufacturing processes with a focus on 3D printing, electrical instrumentation and controls. In addition, there are programs available through CSS Workforce NY, Greater Southern Tier BOCES, regional hub of the Empire State STEM Learning Network, SUNY Broome and Corning Community College programs. The region's P-TECH programs are critical to meeting the demand for STEM workers, such as the planned I-86 Corridor P-TECH program being led by Corning Incorporated, Corning Community College and BOCES.



Southern Tier companies recognize that a highly skilled, qualified workforce is critical to their long-term success.

Negative attitude toward manufacturing jobs. The Manufacturing Institute recently released The Skills Gap in U.S. Manufacturing 2015 and Beyond Report, which confirms that there is a significant shortage of talent in U.S. manufacturing.³⁶ Among executives interviewed, 84% agree there is a talent shortage and six out of 10 reported that open skilled production positions are unfilled due to talent shortage, despite increasing wages. Between 2004 and 2012, the U.S. manufacturing industry lost \$9 billion to \$25 billion per year of output because of open positions that went unfilled.³⁷

It is forecasted that the skills gap is widening, and during the next decade nearly 3.5 million manufacturing jobs will need to be filled. Based on the industry survey, 78% of companies agree that the talent shortage at all levels will impact their ability to implement new

technologies and increase productivity, as well as innovate, develop new products and grow exports.

Retaining college graduates. A significant challenge to the growth of advanced manufacturing in New York's Southern Tier is the inability of the sector to recruit sufficient numbers of skilled college graduates, particularly in STEM fields. Data suggest an inability of the Southern Tier to recruit and retain an educated, skilled workforce. The exodus of college graduates is among the region's most pressing economic problems. There is synergy between this project and the Promoting the Innovative Culture Initiative.

Focus on hard-to-place workers. The Southern Tier recognizes the importance of engaging the hard-to-place worker in its future manufacturing economy, and we must work hard to continue placing an emphasis on hands-on training provided by private companies, NYS Workforce Investment Boards, community colleges, BOCES, VESID and other workforce development entities.

There are several specific activities described in this initiative that are focused on the hard-to-place worker, and many have a direct focus on veterans. These include:

- A consortium of colleges in the Southern Tier plans to undertake the creation of a central digital repository of prospective jobs and internships that will make the process of linking students and graduates with employment and internship options transparent, efficient and timely.
- SUNY Broome will develop a Specialized Technician Training Opportunities Program, which will offer stand-alone certificates recognized by local employers, making it easier for hard-to-place workers to connect to real jobs.
- The Southern Tier Small Manufacturing Competitiveness Fund will give preference to businesses in distressed communities and also have a requirement to hire hard-to-place workers.
- The Advanced Rail Technology Center project in Hornell will provide job opportunities for hard-to-place workers, including veterans and low-income residents.
- Raymond Corporation's employee recruitment activities focused on hard-to-place workers will serve as a model on a regional basis. Specifically, the company routinely engages in a variety of employment creation opportunity activities for the hard-to-place worker, such as participating in a job fair for the homeless and assisting in the development of job skills for the disabled through VESID.

Game-changing investments to recharge the skills pipeline

"Characterized by high levels of R&D and a heavy reliance on STEM workers, advanced industries power U.S. economic growth and development."³⁸

The bottom line is that a strong workforce is essential for sustainability and growth; no workforce means no manufacturing, and no manufacturing means no economy. The Southern Tier must focus on attracting more qualified workers with different and more technical skill sets to ensure the future competitiveness of the sector. Steps need to be taken to expose young people to career opportunities, engage the existing workforce in technical skills training and aggressively recruit new talent at all levels ranging from scientists and engineers to the highly skilled hourly worker.

Online Job and Internship Repository: A significant challenge to the growth of advanced manufacturing in the Southern Tier is the inability of the sector to recruit sufficient numbers of skilled college graduates. The exodus of college graduates is among the region's most

pressing economic problems. To better and more efficiently match employers with graduates of manufacturing-related programs, a consortium of colleges in the Southern Tier plans to explore the creation of a central digital repository of prospective jobs and internships. This consortium, SUNY Broome, SUNY Delhi and Binghamton University, will create a pilot that may be scalable across the Southern Tier and New York State. Integrating manufacturers, colleges and students into a consistently updated repository will make the process of linking students and graduates with employment and internship options transparent, efficient and timely, a win-win for employers, graduates and the Southern Tier.

Southern Tier Manufacturing Workforce Awareness and Recruitment Promotion

Program: This project will be a subset of the branding program as outlined in the Promoting the Southern Tier Innovative Culture Initiative.

Specialized Technician Training Opportunities Program: This project leverages synergies among academia, target industries and workforce development systems. Training is linked to stated needs of regional companies and input from SUNY Broome's Workforce Development Advisory Board. Job skills training will emphasize basic skills, special needs and sustainable/green practices in manufacturing. By expanding academic pathways that allow students to obtain four-year degrees at SUNY Broome and other regional colleges including SUNY Delhi, more of the students will be motivated to stay in the region. Also, by offering stand-alone certificates recognized by local employers, hard-to-place workers will be more likely to participate in and complete training programs that bolster their hiring qualifications.

Global impact

Investments will be made in major anchor businesses to strengthen their competitive positioning and grow exports. Examples include Upstate Shredding, Hilliard Corporation, Lockheed Martin and Anchor Glass. Investments also will be made in foreign-owned companies to stimulate their increased investment in cutting-edge equipment, expansion of facilities to accommodate increased production capacity, and increased workforce. These include companies such as DeMet's Candy, BAE Systems, Raymond Corporation, Alstom and more.

Sustainability

A key element of this initiative is building long-lasting and productive partnerships between the business and academic communities to strengthen each businesses' competitive edge by providing state-of-the-art equipment and infusing emerging technologies. This initiative calls for development of two R&D centers; that is, the Center for IoT Cybersecurity and the Center for Technology Infusion. Both are regionally oriented and focused on the region's greatest strength; that is, the design and manufacture of transportation products, components and system controls.

Both centers will have the same funding and organizational structure, and will be modeled after the structure of successful, sustainable industry/university research consortia used at numerous universities across the country, including S³IP at Binghamton University. No single source of money sustains these research centers. This successful model involves a diverse mix of membership fees, contracted research from industry and federal sponsors (e.g., NIH, NIST, NSF, DoE, AFRL, ONR), work-for-hire for industry (e.g., analytical lab work) and university infrastructure investment in support of faculty research capability to provide long-term ongoing operations. URI investments will provide the initial stand up and operating funds required to launch the centers. The corporate sector will participate with a commitment of \$2 million in membership fees and \$15-\$20 million of countable in-house company investments. Binghamton University will be the lead and anchor for the centers.

While we intend to attract work from our region and beyond, the centers will offer several value propositions to keep the fruit of the relationship in New York State. First, we will work closely with the Start-Up NY program; second, offering access to infrastructure that would be otherwise unaffordable raises the opportunity cost of moving away; third, by emphasizing a strongly interactive, customer-centric partnership the centers will offer partners expediency and economy that is difficult to match in a long-distance relationship; fourth, by emphasizing the local university talent pipelines, and ensuring that the Southern Tier is a preferred region for retaining those graduates, employers will find it advantageous to remain local.

Inter-regional collaboration

Binghamton University, Cornell University and Corning Incorporated will be collaborating with Alfred University in the Western NY Region (WNY) on the application of advanced materials research in the design and manufacture of transportation products and components. There is an existing inter-regional relationship, and Alfred University's Center for High-temperature Characterization Laboratory and Center for Advanced Ceramics Technology have agreed to continue its partnership for this initiative; as well as Clarkson University's Center for Advanced Materials Processing in the North Country.

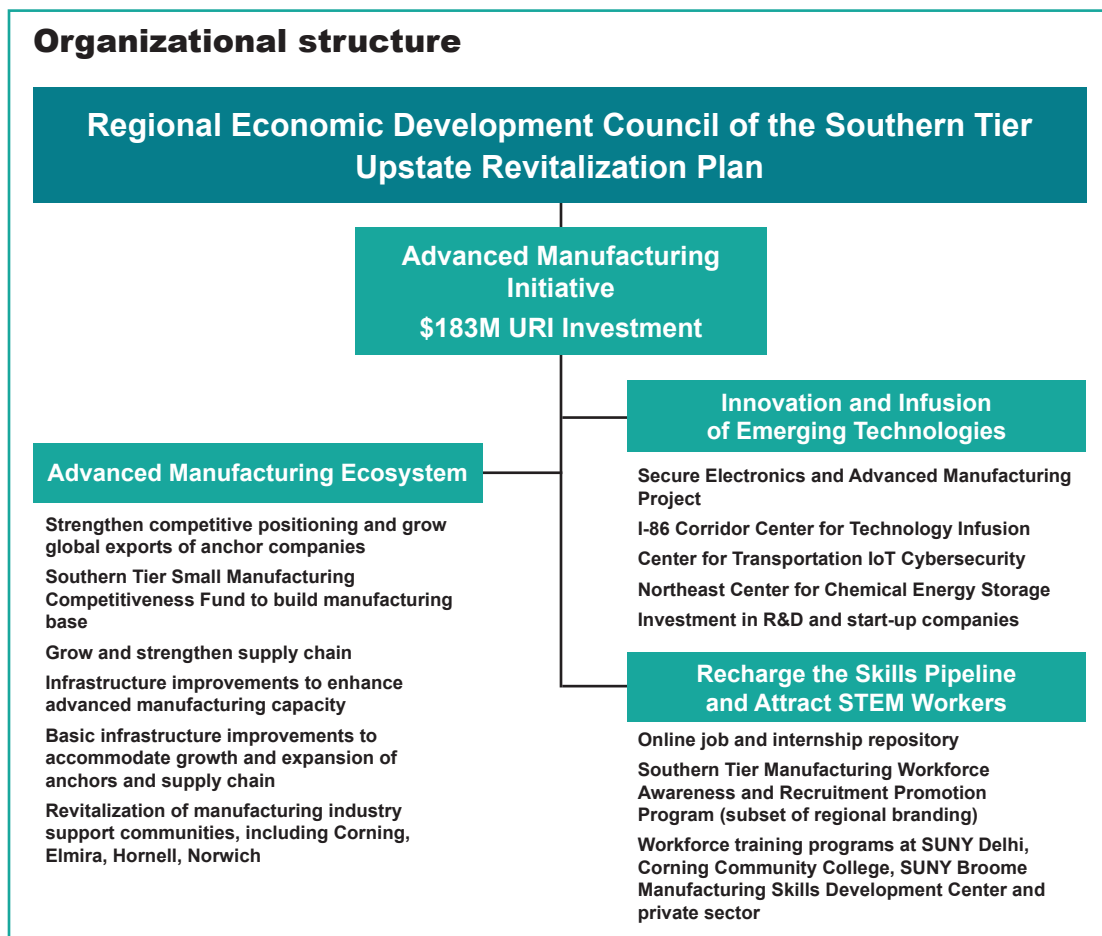
There also will be collaboration with the Central NY, Mohawk Valley and Capital Regions in the areas of secure electronics hardware R&D and cybersecurity software R&D; particularly with Lockheed Martin, Binghamton University and Cornell University of the Southern Tier working in collaboration with private companies such as Lockheed Martin and BAE Systems, the U.S. Air Force Research Lab in Rome and SUNY IT, Quad C, both in the Mohawk Valley Region; the College of Nanoscale Science and Engineering in the Capital Region and Syracuse University in Central NY. In addition, the Southern Tier is involved in the NSF-funded TRUST Science and Technology Center, and individual faculty members from Cornell and Binghamton are involved in cybersecurity advisory boards to DARPA, DoD and Microsoft.

The NorthEast Center for Chemical Energy Storage (NECCES), an effort led by Binghamton University, includes as partners Rutgers University, Argonne National Laboratory, Cambridge University, MIT, the University of Michigan, the University of Illinois at Chicago, the University of California at Santa Barbara and the University of California at San Diego. The center, funded by the Department of Energy, supports basic research in the design of the next generation of lithium-ion batteries. Also in the field of energy storage are opportunities for collaboration Cornell University Fuel Cell research program.

Existing inter-regional collaborations in the field of advanced materials will be enhanced. These include collaborations among Corning Incorporated, Binghamton University's Advanced Microelectronics Manufacturing Center, Cornell University's Center for Materials Research, together with Alfred University's Center for High-temperature Characterization Laboratory and Center for Advanced Ceramics Technology in the Western NY Region.

There is synergy with existing resources and proposed projects described in the Greater Binghamton Innovation Ecosystem Initiative; in particular with Binghamton University's proposed EPIC 3D Printing Center and the Center for Flexible Printed Electronics in the Endicott Advanced Manufacturing iDistrict. These centers will focus on advanced design, visualization and manufacture and commercialization of new products for the Advanced Transportation Products, Components and Control Systems manufacturing industry, which offers the opportunity for continued collaboration with Xerox Corporation in the Finger Lakes region, as well universities and companies such as Clarkson in the Central NY and the North Country regions.

Organizational structure



Performance measures

- Southern Tier is recognized as a leader in advanced manufacturing, particularly in transportation products, components and system controls
- Southern Tier is recognized as a leader in cybersecurity in the transportation industry cluster
- Job creation: 3,300 new jobs
- Private-sector investment of \$915 million
- Economic impact of \$1,162,575,000
- Increase annual exports in the region's manufacturing from \$11.6 billion to \$15 billion
- Achieve an average annual wage of \$65,000 in the region's manufacturing industry and \$80,000 in the transportation equipment sector during the next five years
- National recognition for commercialization of R&D
- Increase in workforce training
- Revitalize the communities that are the support structure for the manufacturing industry in terms of repurposing vacant downtown buildings, reduced vacancies in commercial spaces.

Year 1: Examples of Projects Ready to Go



Raymond Manufacturing Center of Excellence

Advanced Rail Technology Center in Hornell

Secure Electronics and Advanced Manufacturing Project

Upstate Shredding Media Plant

Corning Community Health and Education Complex

Elmira College and LECOM Driving Elmira Refresh

Leatherstocking Natural Gas Line (construction of 18-mile natural gas distribution line)

Cameron Manufacturing 300,000 square foot expansion

Transit Air Expansion

Anchor Glass Container Mfg. Plant Upgrade

Ice Bear Production Expansion

NorthEast Center for Chemical Energy Storage

Envision Elmira, The Werdenberg Building Project

Buckingham Manufacturing

Incodema 3D Metrology Project

Block Bindings

Finger Lakes Reuse

Tioga County Industrial Park Manufacturer Attraction Project

Southern Tier Small Manufacturing Competitiveness Fund

Downtown Hornell revitalization (HCR)

SUNY Broome CC Manufacturing Basics Certificate Program for Unemployed Workers (DOL)

Endnotes

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- ³⁰ Transportation Security and Resilience – Challenges in a Connected World. Michael G. Dinning. The CIP Report. Center for Infrastructure Protection and Homeland Security. Volume 14 Number 7. April 2015.
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- ³² For example, the IRS reported that 938,664 tax returns totaling \$6.5 billion in fraud were identified in processing year 2011 (TIGTA 2012). Approximately 80% of returns have been filed online in the 2012 tax season, suggesting that electronic identity theft is likely a very significant mode of conducting fraud (IRS, 2012).
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Transform the Food and Agriculture Industry

Goal

The Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. A strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.

Strategy

1. Develop and deploy new technologies to transition the Southern Tier from being a highly seasonal, occasional provider of food products to a reliable source of supply for the East Coast.
2. Promote and leverage existing and new support structures for growers and producers in the region, including the \$30 million Southern Tier Agricultural Economic Development Initiative, to help expand farms and increase their profitability.
3. Increase the diversity of and access to food processing facilities around the region, including slaughterhouses, meatpacking and poultry processing facilities, dairy processing facilities and aseptic packaging facilities for vegetables.
4. Leverage our location at the crossroads of upstate New York via the creation of a “food hub” network that facilitates market connections and distribution of food products for production centers in regions across the state.
5. Pioneer workforce development programs designed to bolster food and agriculture industries.
6. Advance New York State initiatives, including Opportunity Agenda, Veterans Initiative, Southern Tier Agriculture Initiative, Global NY, Start-Up NY, NYSTAR and Cleaner Greener.

Outcomes and measurable impact

- URI investment: \$100,000,000
- Leveraged investment: \$525,000,000
- Economic impact: \$645,750,000
- Job creation: 2,800
- A 30% increase in the five-year average of invention disclosures and patent applications related to agriculture technology and plant science
- 250 hard-to-place workers trained and placed
- Increase average annual food and agriculture wage from \$50,491 to \$55,541 by 2020
- 15% increase in regional output (\$) of crops (compared to a minimum of a 3% increase among the Southern Tier counties in the past five years)
- 5% increase in regional output (\$) of animal products (compared to a 2% decrease in the past five years)
- Three additional key crops with more than 6% produced in New York State
- Protecting or expanding farmland





Game-changing investments

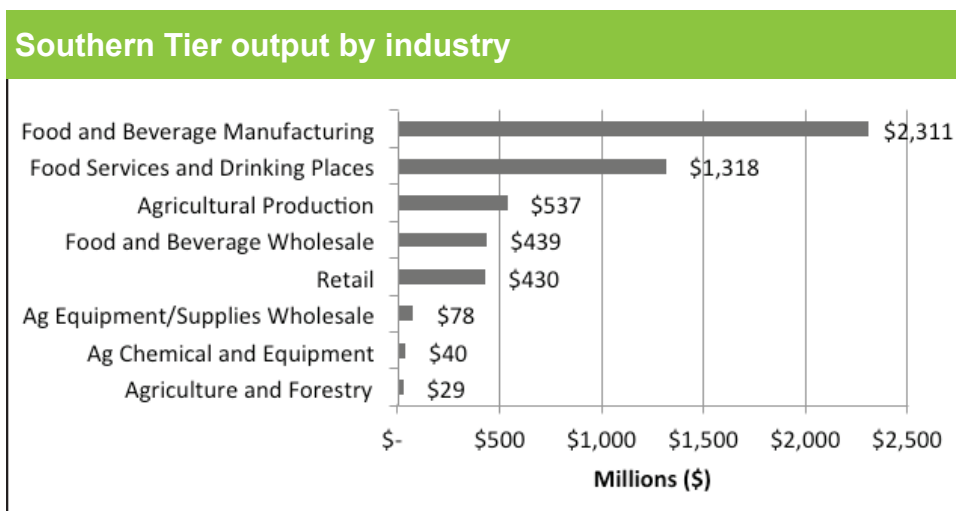
- Plant Science Innovation and Business Development Center at Cornell University
- Southern Tier Agriculture and Food Development Cooperative
- Southern Tier Agriculture Development Fund, which will provide support to pioneering workforce development programs, with a focus on regional residents, hard-to-place workers and veterans
- Southern Tier Agriculture Education Fund
- Beef and Cattle Research Program
- Groundswell Farmer Incubator Capacity Improvement and Regional Expansion
- Basic infrastructure projects necessary to support expansion of food processing facilities such as the Waverly WWTF update to support the expansion of Leprino Cheese and the Village of Walton Biogas Project to support Kraft Food
- New construction or expansion of processing facilities for dairy, value-added foods, slaughter and meat packing, aseptic packaging and ultra-premium wine and beverages
- Investments in crop production such as the Vineyard Reclamation and Replacement Program
- Network of distribution hubs

Southern Tier's strength in food and agriculture

Agriculture is one of America's most profitable industries. In the Southern Tier, food and agriculture industries play a diverse and critical role in the economy, with key sub-industries ranging from traditional crop production to organic production and from winemaking to world-class yogurt production. The eight counties of the Southern Tier regularly rank in the top 10 counties across the state for crop production, and they sold more than \$165 million in crops in 2012 (Agriculture Census, 2012). This represents cultivation of just over 1.1 million acres across the region, more than 5,600 farms and more than 9,000 full- and part-time farm operators (UBRI, Agriculture Census 2012).

This strong agricultural base feeds into other key food and agriculture industries of the Southern Tier including, but not limited to, dairy, organics, premium beverage processing and value-added food processing. The dairy industry, driven by demand for yogurt nationwide, produces more than \$500 million annually in milk sales and dairy product manufacturing for the region, and employs over 500 residents. The organic industry is also growing in the Southern Tier, where the number of organic operations and farms has tripled since 2002. The number of premium beverage firms (winemakers, craft brewers, distilleries) has increased by 17 firms since 2004, and contributes \$4.5 million to the regional economy each year. The food-manufacturing sector boasts relatively high wages of \$47,663 a year, and the value-added food industry is one the fastest growing in the Southern Tier, with an 18% increase in jobs since 2009 and just under \$430 million in annual output. These diverse industries are representative of the potential for growth in agriculture and food in the Southern Tier.

Overall, the agriculture and food system produces \$5.2 billion in output for the Southern Tier, or 9.5% of the region's total economy. These sectors make up 11.5% of the total regional employment with 45,000 jobs (including food service), and produce \$2.1 billion annually in value-added (inputs subtracted from total output) for the Southern Tier economy. The value-added as a percentage of the economy is 6.8%, higher than the New York State's 4.3%, illustrating that these industries drive economic growth in the Southern Tier (Schmit, 2012).



Source: Schmit, 2012

Agriculture and food industries in New York State have output multipliers of between 1.79 and 1.98, meaning that each dollar spent in these sectors generates nearly an additional dollar of activity in the overall economy. The food manufacturing sector has a high employment multiplier of 3.17, indicating that for every job created in food manufacturing three additional jobs are generated elsewhere. The food manufacturing multiplier is one of the highest in the state when compared across all industries (Schmit, 2012).

Opportunity for transformation

Why food and agriculture for the Southern Tier?

Our assets in agriculture are strong and unique. According to a 2012 survey of food manufacturers in New York State, the top five criteria for selecting a location included: quality of college/university research and assistance, proximity of consumer markets, quality of communication infrastructure, the region's overall quality of life and state branding/promotional activities (Schmit, 2012).

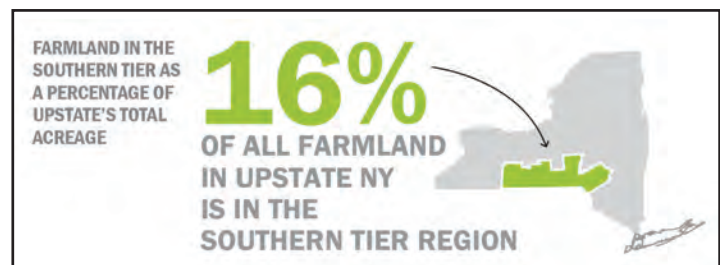
The Southern Tier is well positioned to meet these criteria:

- Home to the College of Agriculture and Life Sciences at Cornell University, ranked in the top 2 in the world as a college and first in plant sciences (QS World University Rankings, US News)
- Sits at the crossroads of rail lines and major interstates, giving us access to distribution
- Within 500 miles of more than 115 million consumers (freemaptools.com)
- 5,621 farms, second only to the Finger Lakes among regions in New York State
- An abundance of fresh water, which will become increasingly important as other regions of the country continue to struggle with drought

The regional trend in food production and distribution already has great momentum. Between 2009 and 2013 the food manufacturing sector gained more than 1,000 jobs in the Southern Tier, more than any other industry. The food processing cluster, or geographic concentration of related food industries, showed an 18% increase in jobs between 2011 and 2013 (UBRI, 2015).

An in-depth study conducted in Steuben County in 2015 reinforces the opportunity to use the food and agriculture industry to grow the region's economic base. The Steuben County planning effort resulted in a strategy to support local farmers and agriculture-related businesses in their efforts to create value-added products and promote the processing, marketing and distribution of the county's farm goods. The plan created a road map to attract and develop new agriculture-related enterprises involved in the production, storage, distribution and processing of agri-based products and services. The work also identified catalyst projects that would take advantage of the county's vibrant economic base, including a USDA-certified slaughterhouse, a local food enterprise center and commercial kitchen, vodka distillery and local malt house to support the growing beer and spirits industry.

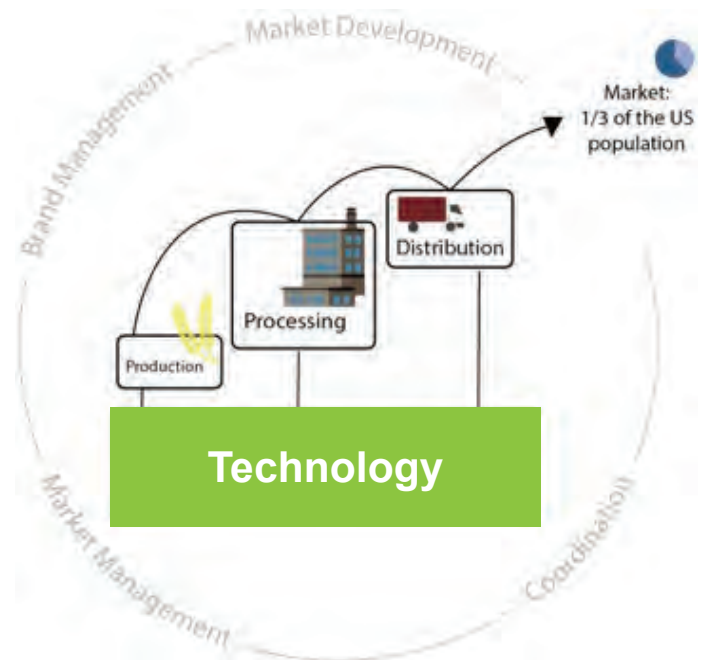
The United States is facing food production challenges. California traditionally produces more than 50% of key crops in the U.S. such as broccoli, lettuce, spinach, carrots, peaches and strawberries. The drought that began in 2012 has degraded California's ability to continue this rate of production, losing \$1 billion from the agriculture economy and more than 7,500 agriculture jobs just in 2014 (UBRI Deep Dive). Even as other regions in the United States continue to experience drought, the New York environment will become warmer and wetter, with a projected increase of 6 degrees in temperature and 12% increase in rainfall by 2050 (NYSERDA, 2014). The Southern Tier has an opportunity to fill gaps in production in other parts of the country that lose the natural resources necessary for high levels of agricultural production.



Source: U.S. Department of Agriculture, UB Regional Institute

What are the strategies for capitalizing on these opportunities?

First, we will develop and deploy agricultural technologies — extending the growing season through controlled environment agriculture (CEA) such as greenhouses, high tunnels and hydroponics while also leveraging new advances in plant science and renewable energy. These technologies will transform the Southern Tier and other regions of New York from being a highly seasonal provider of food products to a reliable source of supply for the East Coast. To enable this vision, we will pioneer the use of clean energy technologies to reduce the cost of controlled environment agriculture production, 75% of which is attributed to energy costs. Through plant metabolomics, we will support industrial processes, a vigorous startup environment and the development of a pharmaceutical cluster in the Southern Tier. This also provides synergy with Binghamton University's new pharmacy school in the Greater Binghamton Innovation Ecosystem.



Second, we will promote and leverage existing and new support structures for growers and producers in the region, including the already approved and funded \$30 million Southern Tier Agricultural Economic Development Initiative, to help expand farms and increase their profitability. We will complement this growth with workforce development programs to help educate future farmers and renew an aging farmer population, targeted at young, veteran, immigrant and low-income workers.

Third, we will increase the diversity of and access to food processing facilities around the region. Without slaughterhouses, meatpacking and poultry processing facilities, dairy processing facilities and aggregation and packaging facilities for horticultural crops, farmers are held back from increasing their production. Just as the explosion of the yogurt business helped grow New York State's dairy processing industry into the largest in the nation and to drive the dairy production industry to be the third largest in the nation, food processing is a critical link in the chain.

Fourth, we will facilitate distribution of raw and value-added products by leveraging our location at the crossroads of upstate New York and within a day's drive to a third of the U.S. population. Distribution will be increased within and outside of the Southern Tier via the creation of a "food hub" network. This network will manage market connections and collaboration among regional distribution hub facilities and between New York State regions— providing a framework for producers statewide to sell and value-added processors, wholesalers and retailers to buy product in market-sized quantities.

ACHIEVING THE VISION OF TRANSFORMATION

Strategy 1: Technology

The region's strength in agricultural innovation exemplified by Cornell's College of Agriculture and Life Sciences provides an unprecedented opportunity to increase volume and continuity in production with advances in plant science technology, controlled environment agriculture and renewable energy. Investment in these areas will not only increase the region's market share in New York State and throughout the East Coast, but also deploy new technology across the state via CALS' existing statewide network. This investment will contribute well-paying jobs to the local economy and exports out of the region.

Plant science and controlled environment agriculture

Revolutionary new tools, exemplified by genomics and big data, are transforming our ability to drive a pipeline for better plants that are sustainably grown and serve the East Coast market. In turn, closer connections with consumers, food industry practitioners, nutritionists, agronomists and climate experts provide new targets for crop improvement. Advances in fundamental plant biology and synthetic biology open new opportunities for plants to produce useful compounds (from pharmaceuticals to plastics) and gain new capabilities for improving our environment. These developments create opportunities for new businesses and the ability to enhance existing ones.

A key asset in plant sciences is Cornell University, home to the top-ranked plant science program in the world. Cornell's School of Integrative Plant Science (SIPS), the affiliated



Cornell University, home to the top-ranked plant science program in the world, provides unrivaled depth and breadth in plant science R&D.

Boyce Thompson Institute for Plant Science (BTI) and Robert W. Holley Center for Agriculture and Health (USDA-ARS) provide depth and breadth in plant science research and development that is unrivaled. SIPS was launched by the College of Agriculture and Life Sciences in June 2014 to provide a unifying framework for five disciplines with interrelated activities: horticulture, plant biology, plant breeding and genetics, plant pathology and plant-microbe biology, and soil and crop sciences. SIPS and about 100 researchers expended \$51.9M to conduct plant-related research during fiscal year 13-14. Sixty to 70 plant varieties, cultivars or germplasm generated by SIPS researchers are licensed annually and approximately 65 plant intellectual property disclosures are made annually. Researchers at BTI expended \$9.5M on plant research in the last fiscal year. Research conducted at BTI resulted in 40 technology transfer and collaborative industry agreements, 29 patent applications (10 in U.S. and 19 international) and seven invention disclosures in 2014. Both SIPS and BTI are supported by the New York State Food Venture Center and the Kevin M. McGovern Family Center for Venture Development in Life Sciences, both of which incubate and support plant-related businesses.

A key inhibitor of agricultural growth in the Southern Tier is the short growing season; most fruits and vegetables in New York State have a growing season of five months or less. For example, field-grown strawberries have a harvest season of two months in New York, compared to a harvest season of seven months in California (New York Department of Agriculture, California Grown). Greenhouses, high tunnels and other forms of controlled environment agriculture can double the length of the season, enabling the continuity necessary to capture larger markets.

As demand for local produce increases to \$7 billion in the U.S. (ICP, 2015), the need for continuity in the supply chain will also increase demand for controlled environment produce from \$3 billion to \$4 billion by 2020 (Rabobank, 2013). According to the U.S. Census of Agriculture, New York State was home to 435 controlled environment facilities in 2012 that produced a total of \$27.4 million in vegetables. This represents a 54% increase from 2007. In the Southern Tier, there were 39 controlled environment facilities, making up 9% of the New York total, compared to 19 facilities in 2007. Southern Tier facilities produced \$0.63 million in vegetables in 2012, a 14% increase from 2007.

This upward trajectory, coupled with improved processing and distribution capacity, access to water and proximity to unparalleled agricultural research facilities, makes the Southern Tier a natural location for a national controlled environment agriculture hub. Technology developed in the Southern Tier will be deployed to other regions in New York and the nation, spurring year-round production and decreasing dependency on a small number of production centers. Steps have already been made toward this goal, and the Food and Agriculture Initiative seeks to leverage these actions. For example, the Greenhouse Lighting and Systems Engineering (GLASE) project led by Cornell University and Rensselaer Polytechnic Institute seeks to reduce energy costs and the carbon footprint of greenhouses by building upon the investment of local, national and international partners (including NYSERDA, General Electric, Epistar and Price Chopper).

The Food and Agriculture Initiative will support projects that improve plant production efficiency and continuity in the Southern Tier and that catalyze new business growth via technology transfer with a focus on boosting the controlled environment agriculture market. Projects may include applied plant science research that enables greater production yield, business profitability, integration of plant science research and controlled environment agriculture, partnering with private investors to build CEA facilities, and the creation of businesses based on state-of-the-art plant science technology.

Renewable energy

The success of controlled environment agriculture in our region is closely tied to advances in renewable energy and energy efficiency. Seasonally produced food in New York State high tunnels, such as tomatoes, lettuce, spinach and strawberries, requires between four and nine times more energy than year-round imports (Albright and de Villiers, 2008). This is because controlled environment production in New York has higher electricity and heat costs during the winter. Seventy-five percent of all costs associated with running a controlled environment facility can be attributed to energy, and of that, 95% is related to heating and lighting. In order to make controlled environment agriculture viable in the Southern Tier, it is essential to lower the cost of energy related to running these facilities year-round.

The most common forms of fuel used to power controlled environment facilities are electricity and natural gas (Albright and de Villiers, 2008), and profitability of facilities thus depends heavily on market price of these fuels. In 2007, the dollar amount of energy needed to produce one pound of lettuce ranged from \$0.28 to \$0.73 depending on the growing method (supplementary light and carbon dioxide control). Energy prices were similar for the other crops studied by Albright and de Villiers.

In the next 25 years, industrial electricity prices are expected to grow by 22% and natural gas by over 90%, while transportation energy is expected to cost an average of 16% more across all fuel types (U.S. Energy Information Administration, Energy Outlook 2015). These projections indicate that current methods of producing and importing food products will get more expensive, and that there is opportunity for the Southern Tier to supply New York State and other metro areas with lower-cost regionally produced food.

The future of CEA will be highly profitable for the Southern Tier if key advances can reduce the energy costs of year-round production. Using local and renewable energy sources not tied to growing fuel costs, including LED lighting, anaerobic digestion, earth source heat, biomass energy, microgrid systems, solar and wind will also be important (see Appendix for more information).

The Food and Agriculture Initiative will support projects that elevate the Southern Tier as a pioneer in renewable and sustainable energy. Projects may include applied research linked to increased efficiency and production ability, integration of energy technology into existing facilities (electricity and natural gas, any new technologies), and the creation of a knowledgeable and skilled renewable energy workforce.

To make controlled environment agriculture viable in the Southern Tier, we must lower the cost of running these facilities year-round.

Game-changing investments

The Plant Science Innovation and Business Development Center at Cornell

University will rapidly advance new agricultural production technologies, demonstrate these technologies at a commercial level, provide a facility where entrepreneurs can test new practices and provide opportunities for private companies to locate adjacent to Cornell facilities and scientists. The center will consist of expanded capabilities in existing facilities as well as new facilities next to Cornell University. It will have controlled environment facilities, a facility for rapidly phenotyping plants, expanded capacity for plant transformation and for studying plant metabolomics and the capacity for businesses to test concepts and methods. Technologies such as lights, solar panels, glass systems and controls designed to enable controlled environment agriculture (CEA) in northern climates will be developed and evaluated. The center will foster partnerships between regional educational institutions that include Cornell University and Binghamton University and manufacturers with strengths in

glass and greenhouse materials (Corning Inc.), and will leverage existing private company commitment to CEA through GLASE.

A primary goal of the center will be to advance controlled environment agriculture in the Southern Tier. Technology, innovation and business development needed to do so include the following: form factor and growing systems, lighting, control systems, plants, nutrients, energy and private partnerships and business development (see Appendix for more details).

The project has a total project cost of approximately \$20 million over five years, with non-URI funding from Cornell University, the Boyce Thompson Plant Science Institute, the NY Farm Viability Institute, GLASE and private companies.

Additional project examples

The Beef and Cattle Research Program will leverage existing investment in beef research through the Cornell Cooperative Extension and the Cornell University Ruminant Center (CURC) to improve the efficiency and quality of beef production in the Southern Tier, New York State and the nation. Local actors in the beef industry including JBS, Pineland Farms Natural Meats and Gratitude Railroad will provide private investment in research, with supplemental funds from pharmaceutical and mineral companies also working in this area.

The Earth Source Heat project will capitalize on Cornell University's research to make the Southern Tier a leader in biomass and geothermal energy production, particularly as it applies to agriculture. This initiative will stimulate regional agricultural business in its pilot stage as a supplier of energy and heat to controlled environment agriculture facilities. Other related areas, such as geology, engineering and food processing, will also benefit.



Demand for dairy products has risen by 113% since 2001, driven in part by the popularity of Greek yogurt.

Strategy 2: Production

Production of raw products is the base upon which growth in the food and agriculture industries stand. Investing in projects that will increase production of the goods needed to create value-added products and commodity sales, including vegetables, grains and meat, will drive meaningful growth in the Southern Tier. Innovations in the production and sale of raw goods themselves also have significant potential to transform the economy of the Southern Tier, especially as traditional hotbeds of agricultural production lose market share due to weather and natural resource scarcity. This trend is illustrated by the drought in California, where 17,000 jobs and \$2.1 billion have been lost by the agriculture industry in 2014-15 (UBRI Deep Dive).

The drought in California has important implications for food production in New York and across the United States. California produces between 60% and 100% of most key U.S. crops, including broccoli, carrots, lettuce, peppers, spinach, grapes, strawberries and peaches. New York, by contrast, requires just 6% of total national product to feed its upstate population, but currently meets that threshold for only about six crops (beans, cabbage, squash, apples, sweet corn and onion) — relying on other regions to provide staple crops (UBRI). As prices for crops imported from California continue to rise (beans, tomatoes, kale, grapes and lettuce have all increased in price per unit since 2010), importing staple crops will become more expensive even as technology makes local production less expensive.

The Southern Tier already has a strong legacy for production of food and forage land. Out of 62 New York counties Steuben County ranks in the top 10 for forage land, corn for grain and silage, oats, cattle, pigs, sheep and horses, and even ranks 6th and 15th among national counties (3,000+) for oat and forage land respectively. Schuyler County ranks 6th in the state and 51st in the country for grape acreage with 1,335 acres used in the county. California is expected to scale back on production of corn, rice and forage land. As these crops use the most water at least economic return (UBRI), the Southern Tier is positioned to scale up production of these crops.

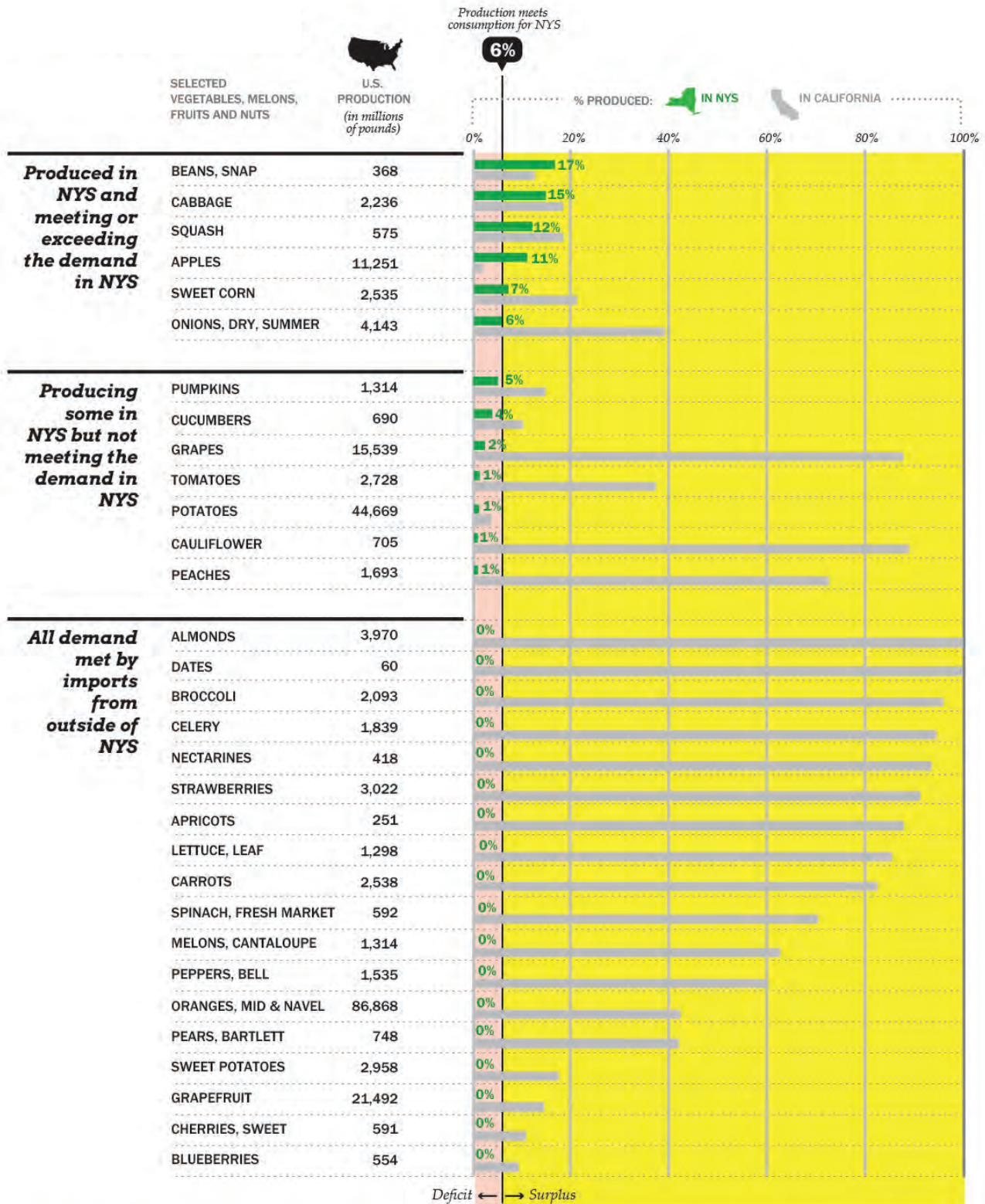
The following production sectors are areas where the Southern Tier has particular strength or opportunity for growth:

Produce and vegetables: Most crops consumed by New York residents are grown outside of New York State, with 50% or more of key crops produced in California. As the drought in the West continues to stifle production for traditional agriculture powerhouse states, the Southern Tier has an opportunity to scale up production to meet demand for food products both within the state and throughout the Northeast (see Appendix for more information).

Beef and cattle: Global demand and prices for beef have risen in recent years, putting pressure on suppliers of feeder calves. The Southern Tier is ideally positioned to grow the beef industry due to nearly 200,000 acres of vacant agriculture land and a central location for distribution. Investing in the beef industry in the Southern Tier will add jobs to farm operations, as well as in support industries such as veterinary, dairy, feed supply and lenders.

Organic: The Southern Tier has a unique opportunity to become a hub of organic products, because the smaller farm size is more conducive to the organic supply chain than larger operations found in other parts of the country. The national market for organic food products is expected to clear \$45 billion in 2015, with organic fruits and vegetables dominating despite growth in the organic meat, fish and poultry markets. National demand for organic products is expected to grow by 14% between 2014 and 2018 (U.S. Organic Food Market Forecast & Opportunities, 2014-18). The region is already expanding to meet this demand; in 2012 the Southern Tier was home to 148 organic operations and 167 organic farms, with total sales

Production of selected fruits and vegetables in NYS and California, 2014

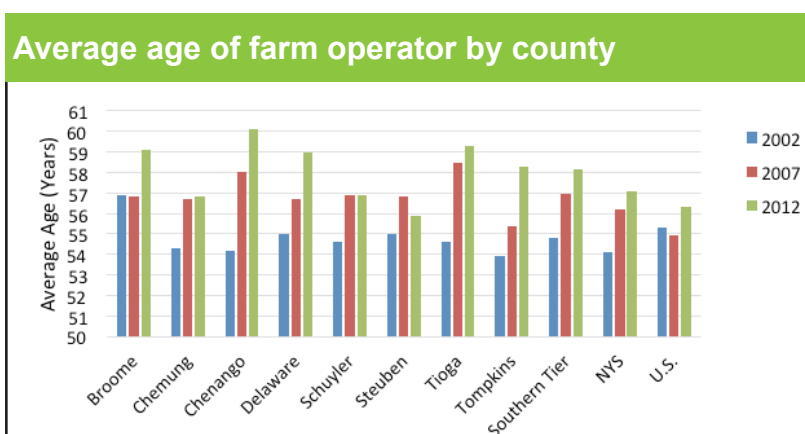


Production of 0% does not necessarily mean there is no production but that production levels are negligible, as compared to national levels produced.

Source: USDA National Agriculture Statistics Service, UB Regional Institute

of just over \$12 million (USDA Census of Agriculture). This represents a tripling in the number of organic operations in the Southern Tier since 2002.

Workforce development and training are essential in order to capitalize on these opportunities. This is of particular importance as farm operators get older. The average age of a farm operator approached 55 in 2012 in New York State. In the Southern Tier, the average age of a farm operator was higher at 58 in 2012, while the number of farm operators has declined 1% since 2007.



Source: USDA Agriculture Census, 2012

In addition to supporting farmer education and training programs, there is also need for development in critical support areas of production, including: veterinary programs, animal care programs, controlled environment agriculture technicians and processing technicians. There is the opportunity for the region to take advantage of existing capacity and expertise in Cornell's Small Farms Program, the network of Cornell Cooperative Extensions, Corning Community College, SUNY Broome, SUNY Delhi and the burgeoning Groundswell Farmer Incubator program targeting immigrants, veterans and vulnerable workers.

The Food and Agriculture Initiative also will support projects that increase capacity for production, including innovation in production efficiency. Projects may include research to improve production of fruits, vegetables and grain, investments in production capacity of farms and facilities, and workforce development. These investments will leverage New York State's commitment to agriculture through the \$30 million Southern Tier Agriculture Fund by augmenting capacity improvements with workforce development, research and market development.

Game-changing investments:

The Southern Tier Agriculture Development Fund (STAD-F) will include loan funds, loan guarantees and direct public capital investments with private match with the goal of bridging the funding gap for farmers who invest in CEA technology. Partners will include local and national financial institutions.

Vineyard Reclamation and Replacement Program in several counties, including Schuyler, Steuben and Tompkins. There is a shortage of vinifera grapes in the region, which is preventing wineries from increasing production to meet demand. It is projected that each 25,000-case winery results in 15-20 full-time, year-round jobs and up to an additional 30 part-time, seasonal positions.

The Ag Micro project, in Delaware County, is a continuation of a successful program designed to aid in growth and sustainability of agriculturally focused small business in Delaware County through provision of general business education and small business grants to offset expenses relating to start-up and/or expansion efforts.

The Groundswell Farmer Incubator Capacity Improvement and Regional Expansion will increase the Groundswell Farmer Incubator's ability to provide workforce training, business development and entrepreneurial support to vulnerable workers interested in pursuing agricultural careers. Groundswell targets new Americans, low-income residents and

previously incarcerated individuals, and provides training for careers in food and agriculture professions. Groundswell seeks funding to develop a training farm at its current location and expand its offerings beyond Tompkins County, building upon its track record of assisting more than 60 residents in securing agricultural careers since opening in 2010.

The Southern Tier Agriculture Education Fund will provide support to pioneering workforce development programs that bolster food and agriculture industries. It will be managed by the Southern Tier Food and Agriculture Development Cooperative. The Southern Tier Agriculture Education Fund will sponsor training programs for farmers, and will also support innovative and high-growth food and agriculture industries such as beef feeder cattle, wine-making, controlled environment agriculture, renewable energy, veterinary care, processing and agri-tourism. Jobs in these industries on average have higher wages than traditional farming (most near or above the regional average of \$46,000), and provide opportunities for regional residents, including veterans and low-income residents. The fund will be seeded in the amount of \$1 million per year, or \$5 million over five years — with all projects required to serve 25% hard-to-place Southern Tier residents and a conservative target of 200 total participants per year.

Examples of education programs include:

In the **Beef Industry Certificate Program**, participants will complete a 12- to 15-month program with lecture and hands-on training in the areas of grass feeding, leasing land for grazing, contract negotiation and business structure.

The Viticulture NYS Certified Apprenticeship Program will address the need for skilled labor in wineries, identified as a significant barrier to future growth for the entire industry. For example, Schuyler County Partnership for Economic Development is working with wineries and local colleges to create New York State Certified Apprenticeship Programs modeled after similar apprenticeships in California and Europe.

The Controlled Environment Training Program will cultivate a semi-skilled workforce to complement growth in the controlled environment industry. The training program will leverage investment in the Plant Science Innovation and Business Development Center at Cornell University and existing expertise in workforce development via the Small Farms Program, resulting in a workforce that is skilled in using controlled environment technology to produce crops. The program will be tailored to local workers, including veterans and low-income individuals.

The Urban Agriculture Module, proposed at the Willow Avenue location for Cornell Cooperative Extension Tompkins County in Ithaca, will provide training opportunities in aquaponics, hydroponics and controlled environment agriculture for youths and low-income households. These facilities will be used in connection with the Youth Farm project, Food Dignity project (a food security and business development effort organized and operated by low-income households throughout the county), Groundswell Training Center for new farmers and Community Gardening programs.

The Energy Workforce Development Program will work with researchers, companies and workers to cultivate a skilled workforce versed in using new technologies developed through existing state programs run through NYSERDA, as well as 76West. The project will prioritize training for hard-to-place workers and will be synergistic with the Controlled Environment Training Program.

Strategy 3: Processing

A survey of processing firms conducted by Cornell's Dyson School researchers found that firms in upstate New York sell more than 70% of product to locations in upstate New York, with just 10% of sales attributed to downstate, about 22% to other states and about 2% exported (Schmit, 2012). Exports of food and beverage products manufactured in the United States have increased by 26% since 2009, reaching \$63 billion in total exports and overtaking agricultural exports for the first time in 2013. National sub-industries with the largest growth in exports include craft beer and dairy, the latter of which had \$6.6 billion in exports in 2013 (Food Processing, 2014). This data suggests that with increased capacity there's an opportunity for upstate processors to expand market share within the state, nationally and internationally.

State-wide food and beverage manufacturing in particular has grown at a faster rate than manufacturing as a whole (18% growth compared to 11% since 1997), and has lost a smaller proportion of jobs.

Individual processing firms report average three-year revenue growth at 5.6%, and 37% of firms in 2009 expected to increase staffing, despite the economic recession (Schmit, 2012).

In the Southern Tier, there are about 200 employer firms in the food and beverage manufacturing sectors, with an additional 90 non-employer firms (non-employer firms contribute sales and output, but don't have employees). Of the sub-sectors within food manufacturing, dairy contributes the most output, at about \$268 million per year. The second-largest production sector is grain and oilseed milling, which includes rice, flour, malt, corn, oil and breakfast cereal production. Beverage manufacturing, with 36 firms (the same as dairy), produces almost \$7 million in output.

The Southern Tier has particular opportunities to support processing capacity in a number of sectors, including the following (more information in Appendix):

Value-added processing: Value-added processing is a \$25 million industry in the Southern Tier, with the majority of product shipped out of the region. Perishable food manufacturing, snack food manufacturing and miscellaneous food manufacturing all add about two jobs to the economy for every job created, and for every sale dollar, have a multiplier of \$1.50 in sales throughout the economy (EMSI, 2015).

However, nascent and mid-size value-added companies often face challenges related to reaching regional economies of scale, complying with safety regulations, navigating the distribution system and creating viable business plans. The Food and Agriculture Initiative will address these challenges by investing in projects that support value-added food companies.

Premium beverage processing: The Southern Tier is home to a growing premium beverage industry that includes liquors, spirits, wine and beer. Schuyler County is the fourth-ranked county in the state for the number of wineries (NYS Wine and Grape Foundation). The total number of beverage firms in the region has increased 85% in the past decade, and in 2013 alcohol manufacturing produced more than \$4.5 million for the region. The Food

Sector	Output
Animal food manufacturing	\$928,784
Grain and oilseed milling	\$69,650,276
Sugar and confectionery	\$18,380,218
Fruit and vegetable preserving	\$7,155,444
Dairy product manufacturing	\$268,560,792
Animal slaughtering and processing	\$29,296,189
Seafood product preparation	\$1,111,616
Bakeries and tortilla	\$2,289,557
Other food manufacturing	\$25,180,913
Beverage manufacturing	\$6,966,423
Total Southern Tier	\$429,520,211

Source: Business Patterns, 2013



The Southern Tier is home to a growing premium beverage industry that includes liquors, spirits, wine and beer.

and Agriculture Initiative will support growth in this industry by connecting small and start-up companies with processing/packaging resources that maximize profit in the premium beverage industry, including the construction of regional facilities to enhance capacity. In particular, a centralized location for wine production, warehousing and distribution is needed.

Slaughter and meat packing: In 2012, the Southern Tier had almost 3,000 cattle on feed for slaughter, with over 30,000 hogs, 18,500 chickens and 1,000 turkeys sold for slaughter (USDA Census, 2012). The lack of nearby slaughter options, coupled with the small size of most livestock operations in the Southern Tier and reluctance of slaughter/meatpacking facilities to take small orders, creates difficulty for these operations to find local slaughter facilities. The Food and Agriculture Initiative will support projects that increase slaughter and meat packing capacity in the Southern Tier including but not limited to exploring options for mobile slaughter facilities that come to farms rather than moving animals to a centralized processing facility.

Dairy processing: The number of dairy cows has leveled off during the past five years at just over 600,000, yet production has increased 10.2% (Harvest New York, 2015). Dairy manufacturing also has one of the highest job multipliers at 5.6, and nearly 500 employees in the Southern Tier. Demand for dairy products has risen by 113% since 2001, according to the National Agricultural Statistics Service, driven in part by the rise of Greek yogurt (2,500% increase in sales between 2006 and 2011).

Aseptic processing and packaging: Aseptic packaging refers to a process of sterilization that allows food products to be shipped and stored in sterile containers (most often paper or plastic). Aseptic packaging is one of the fastest-growing food-processing industries globally, increasing by about 9% annually since 2010 with a projected global market of about \$35 billion in 2015 (Freedonia Group). In the United States, aseptic packaging has grown about 8% annually to reach a \$5 billion market. The Food and Agriculture initiative will support the development of new aseptic processing facilities, as well as facilitate connections between farmers, aseptic packagers and consumers.

Game-changing investments

All In Meats is spearheading the construction of a **USDA-Certified Slaughterhouse in Chenango County**, scheduled for 2016-17. The project cost will include the purchase of property and construction of USDA-certified meat processing packaging and cook-chill food hub facilities that will serve multiple counties in the Southern Tier and the Central Region of New York. The project has a total cost of \$20 million, and projects job growth at 65-76 in beef cow operations and about 15 in poultry operations. Private investment will be secured from private equity investors, financial institutions (NBT and Key Bank), as well as funds from the Development Chenango Corporation.

The Ultra Premium Beverage Center, to be undertaken by Three Leaf Partners of California and located in the Schuyler County Business Park, will address logistic issues related to the production and export of ultra-premium wines. This facility is modeled after those in California that reduce overhead costs, storage and shipping expenses of independent wineries. Phase 1, to be undertaken in 2016, involves construction of a 20,000-square-foot facility and will employ 20 people.

The Binghamton Food and Beverage Business Incubator (BFBBI) was created as a nonprofit partnership of the City of Binghamton, Binghamton Local Development Corp., Broome County, SUNY Broome, Binghamton University, Cornell University/CCE and the Salvation Army. In the next five years, BFBBI will grow capacity to include mixing/packaging, vegetable processing, baking/chip production and beverage/liquid processing and production. It also is working toward the relocation of Healthy Brands, a 12-product line company into a formerly vacant 100,000-square-foot building in Binghamton's downtown. BFBBI will partner with the Salvation Army to provide jobs and workforce development opportunities to Binghamton's most vulnerable residents. Funds from URI will leverage funding from FEMA as well as an investment from the City of Binghamton and the Broome County Industrial Development Agency.

The Village of Walton Anaerobic Digester project will use waste from the Kraft Foods plant to produce biogas energy.

Ithaca Hummus plans a \$7-\$10 million investment to build a state-of-the-art production facility with the capacity to produce hummus for every grocery store on the East Coast by 2018. The company is housed in the Finger Lakes Fresh Foodhub. The new project would increase the company's revenue potential by a factor of 10. The company anticipates employing more than 50 people over five years.

Other project examples

Premium Beverage Processing and Production Facilities such as the Ithaca Beer Canning Line Expansion, the Hopshire Farm and Brewery Expansion, the Steuben Vodka Distillery and a local malt house in Steuben County to support the growing beer industry.

The Agriculture Development Center in Broome County will include a Taste of NY Market, Gallery Kitchen, classroom/learning area for workforce training programs, NYS Agriculture and Markets Milk Lab and lease space for NYS Farm Bureau, Northeast Organic Farming Association and the Broome County Farm Bureau.

The Virtual Community Kitchen will provide an online portal for the identification and reservation of community kitchen space, primarily benefiting food entrepreneurs.

The Commercial Kitchen Expansion, Test Café proposes an expansion to existing commercial kitchens in Tompkins County that will include a "Test Café" for entrepreneurs.

The Kirkside Park Community Kitchen in the Town of Roxbury will enable area farms, local bakers and artisanal food producers to prepare and package their goods for resale in a certified kitchen space.

Steuben County local food enterprise center and commercial kitchen.

A Regional Food Processing and Production Center that will support small to mid-scale value-added food producers and increase regional production of value-added products.

The Piggery Slaughter Expansion project and a USDA-certified Slaughterhouse in Steuben County.

Continued investment in the **Southern Tier Rural Initiative Fund**, a successful regional fund established with Round 1 CFA funding in 2012. The fund provides start-up and expansion capital funds to rural and forest-based businesses through low-interest revolving loan funds. Projects include yogurt processing facilities, dairy farms, breweries, hops farms, vineyards, wineries, pork and poultry production and wood products.



Facilitating the distribution of products from the field or kitchen to consumers is an essential step to improving the region's food and agriculture economy.

Strategy 4: Distribution

Facilitating the distribution of product from the field or kitchen to consumers is an essential step to improving the food and agriculture economy in the Southern Tier. The region envisions serving as a key aggregation and distribution center given its proximity to key East Coast markets (notably, New York City, Boston, Philadelphia, and Washington D.C.), not only for the Southern Tier, but also for production that originates across New York State. The Southern Tier's existing expertise in advanced transportation manufacturing positions it well to take advantage of innovation in cost-effective transportation of food products.

The Food and Agriculture Initiative will enhance distribution opportunities for farmers and food manufacturers across the state by creating a food hub organization that facilitates cost-effective transportation options, aggregation efforts, branding and connections with agri-tourism. In a 2013 nationwide survey of food hubs and producers, 39% of producers associated with food hubs hired more people, 47% increased acreage and 37% extended their growing season (National Food Hub Survey, 2013). The following are functions of the food hub, designed to improve distribution of product out of New York State while catalyzing production and processing within the Southern Tier and other regions.

- **Transportation.** Identify and invest in transportation alternatives that leverage the Southern Tier's existing transportation infrastructure and support increased distribution of product in a cost-effective manner, working within food hub market channels.
- **Wholesale Distribution.** In 2012, the wholesale food industry in New York produced \$321 million in value-added output and employed 2,756 individuals (Schmit, 2012). New York State food manufacturers, or value-added producers, sell about 23% of their

product to wholesalers/aggregators, compared to 38% of sales directly to customers and 21% to retailers (However, this result is somewhat skewed due to the makeup of survey respondents. Most survey respondents were smaller food processing firms, which are more likely to sell directly to consumers than larger food processing firms). The Food and Agriculture initiative will support both the construction and rehabilitation of wholesale facilities across the Southern Tier, as well as facilitate virtual aggregation/wholesale efforts through the Southern Tier Agriculture and Food Development Cooperative. Wholesale facilities will include refrigerated, dry, and hyperbaric storage options to ensure the quality of product delivered both within and outside New York State.

- **Market Making.** Creating the market for local food products involves cultivating connections with local small to mid-size farms, value-added food and beverage processors and consumers, which includes restaurants, grocery stores, caterers, schools and hospitals. The Southern Tier will leverage digital tools to connect small and mid-size producers with restaurants and consumers.
- **Branding.** In addition to having access to cost-effective shipping and sale methods, it is important that Southern Tier food producers cultivate a well-known and reputable brand for food and beverages products grown or manufactured in the region. The development and maintenance of the Food and Agriculture sub-brand will be a component of the regional branding project proposed in the Promoting the Southern Tier Innovative Culture initiative.

Game-changing investments

The Southern Tier Agriculture and Food Development Cooperative will leverage the network of Cornell Cooperative Extension (CCE) across all New York State regions and within nearly all counties to create a food hub that will target four key areas: technology implementation and advancement; distribution; market/business development; and workforce development. It will catalyze the creation of a large number of well-paying jobs in technology-driven agriculture fields, support the expansion of current producer operations and increase the likelihood of success of new agriculture-related businesses as well as hasten the velocity of growth of existing businesses.

The cooperative will have the following functions:

- **Technology Implementation and Advancement.** Identify controlled environment sites and developers, attract and execute private investment contracts and coordinate with existing commercialization leadership in the region to deploy, manufacture and export new agriculture technologies.
- **Distribution.** Identify distribution facility (hub) sites and developers, create a network of existing distribution facilities and manage aggregation efforts on the ground and online. Connect and leverage the Southern Tier brand, working with agri-tourism groups to elevate regional food products.
- **Market/Business Development.** Function as a “market maker,” linking producers with value-added processors and distributors/aggregators, ensuring that producers are linked into sources of demand to “pull” production from farms into the supply chain.
- **Workforce Development.** Cultivate and coordinate comprehensive training programs that support increases in production at all points in the supply chain via the Southern Tier Agriculture Education Fund.

The Cooperative budget will support a central staff housed in CCE, as well as programmatic staff throughout the region and in centers of workforce development programs (CCC, SUNY Delhi, SUNY Broome). The budget also encompasses network management costs associated with aggregation efforts, as well as development costs associated with creating a web-based aggregation/distribution portal. Most food hubs (including two of the most successful, the Leopold Center for Sustainable Agriculture in Iowa and the Michigan Center for Regional Food Systems) have operating budgets of approximately \$2 million per year. Because the Southern Tier Cooperative takes advantage of already existing infrastructure, the proposed project has no capital expense and a projected annual budget of about \$1 million (\$5 million over five years), with the total budget matched by employee salaries, space leased/provided by CCE, regional product sold and other services provided by partners.

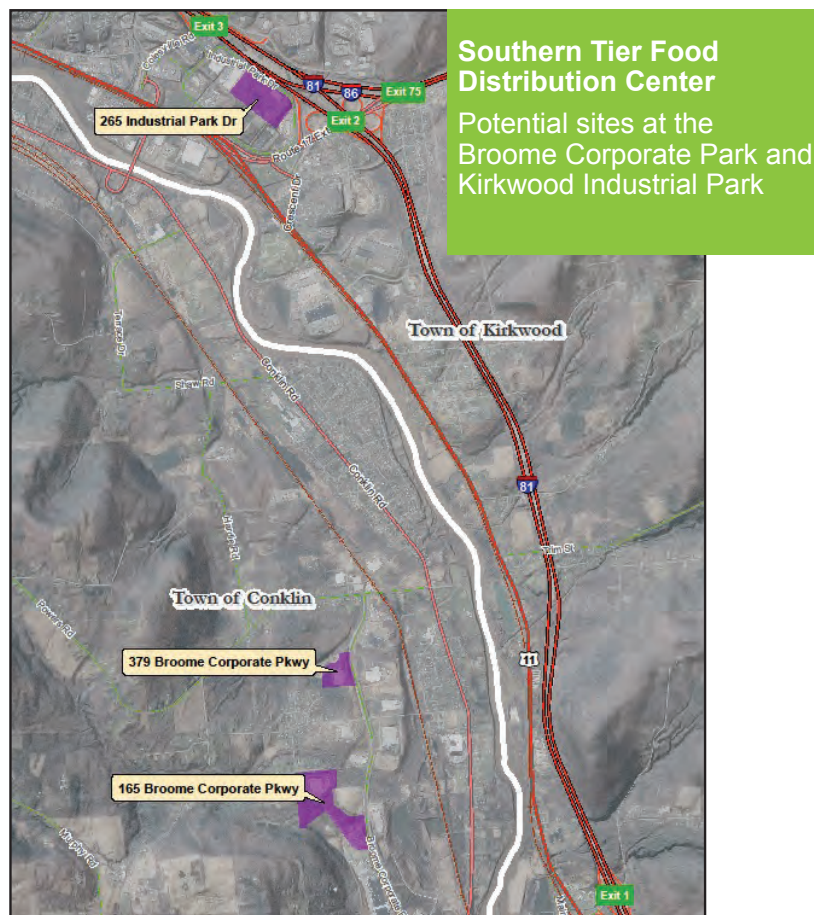
A Southern Tier Food and Agriculture Branding will be developed as a sub-brand of the Promote the Southern Tier Innovative Culture Initiative.

Other possible projects

The Southern Tier Agri-Mall will bring together local farmers, artists, restaurants and craft brewers in a one-stop facility that promotes Southern Tier-branded products, thereby offering a year-round opportunity for agriculture vendors to increase profits. The rural Ag Mall in Brattleboro, Vermont (population 12,046), went from 18 to 32 vendors in five years, showing that agriculture malls can be successful in rural settings similar to the Southern Tier. The capital expenditure for outfitting or building the Agri-Mall is likely to be about \$2 million, with an initial scoping study to be conducted by the Southern Tier Development Cooperative to assess possible locations.

Electric-powered Refrigerated Transportation, leveraging renewable energy technology to enhance distribution of crops and value-added products.

Southern Tier Food Distribution Center in Broome County, either at the Conklin Industrial Park or in Kirkwood at the Industrial Park. Both of these locations are owned and operated by the Broome County Industrial Development Agency.



Private investment

The food and agriculture initiative will achieve 5-to-1 private sector investment via:

- Private company investment in building facilities for food and agriculture production, processing, packaging, distribution, food manufacturing and regional slaughterhouse/meatpacking.
- Private investment in translational research projects through direct investment and funding via collaborative research projects (i.e., plant science and controlled environment agriculture).
- Private company job and wage growth in new processing, production and distribution facilities.
- Private company job and wage growth in existing farms and facilities due to increases in production and distribution capacity.
- Contributions made by the educational institutions in the region, including Cornell University, Cornell Cooperative Extension, Binghamton University, SUNY Broome and Tompkins Cortland Community College.
- Financial institution and bank programs that provide low-interest loans and revolving funds for food and agriculture projects. Examples of these programs include loans made by Tompkins County Area Development to support food entrepreneurs and the Dairy Revolving Fund in Chenango County.
- Federal funds to support food/agriculture facilities, workforce development and renewable energy, including USDA investment in the certification of slaughterhouse/meatpacking facilities, Department of Energy investment in the development of renewable and clean energy resources and Appalachian Regional Commission investment in commercialization and entrepreneurship related to the food bioeconomy.

Global economy

Technologies developed through the Plant Science Innovation and Business Development Center at Cornell University will create and support new agriculture within the Southern Tier as well as in neighboring regions and throughout New York State. They will be key in the Southern Tier's Global NY strategy as foreign investment is attracted in manufacturing and deployment of technology.

At the same time, the region's wine industry is attracting foreign investment both in terms of crop development through vineyard reclamation as well as construction of major production facilities. Most significant is the planned Ultra Premium Beverage Center in Schuyler County, which will be undertaken by foreign investors.

Another specific example is the aseptic packaging sector of the agriculture industry. As mentioned earlier in this plan, aseptic packaging is one of the fastest-growing food-processing industries globally, increasing by about 9% annually since 2010 with a projected global market of about \$35 billion in 2015 (Freedonia Group). The Food and Agriculture Initiative will support the development of aseptic processing facilities, as well as facilitate connections between farmers, aseptic packagers and consumers.

The Southern Tier also plans to pursue inter-regional collaborations. In doing so, this upstate New York collective will create a global presence and impact in the industry that no one region could achieve independently.



Cornell University's Teaching Dairy Barn, a state-of-the-art facility, supports the advancement of dairy management in the Southern Tier and beyond.

Sustainability

The Plant Science Innovation and Business Development Center at Cornell University will be the anchor R&D project in the area of new plant development and crop production. It will be sustained using a well-developed and successful model at Cornell University. The center will provide the infrastructure and equipment to advance controlled environment agriculture using existing expertise among Cornell faculty and Cooperative Extension personnel. The investment will allow Cornell scientists to develop the lighting, heating and control systems technology and the plant varieties needed to expand the controlled environment agriculture industry. This innovation and industry growth will allow these scientists to compete more successfully for federal research dollars, and the expanded industry can be tapped to support ongoing research and development work. Patent license revenues will be reinvested into the center. The network of Cornell Cooperative Extension as well as the emphasis on entrepreneurship at Cornell will ensure that developed technologies will be translated into job and economic growth in the region and the state.

In addition, the Beef and Cattle Research Program will be an essential part of moving the dairy cluster forward. The initial investment of URI funds to improve pasture infrastructure and support research staff will provide the momentum to continue the investigative work that will support a growing beef industry in the Southern Tier, thus expanding the number of jobs in the field. At Cornell University, dairy unit research efforts are well established; the work there is supported by user fees, grants and/or companies interested in evaluating novel products and management practices. This model will be used to sustain the beef cattle research effort financially beyond the period of the URI funding. Results of the research will be disseminated throughout the region and New York by a well-trained and experienced network of Cornell Cooperative Extension educators working directly with farmers.

As a loan fund, the Southern Tier Agriculture Development Fund will have long-term sustainability. The proceeds of the fund will replenish the capital and be available for future loans to ensure continued growth of the Southern Tier's agriculture industry.

Inter-regional collaboration

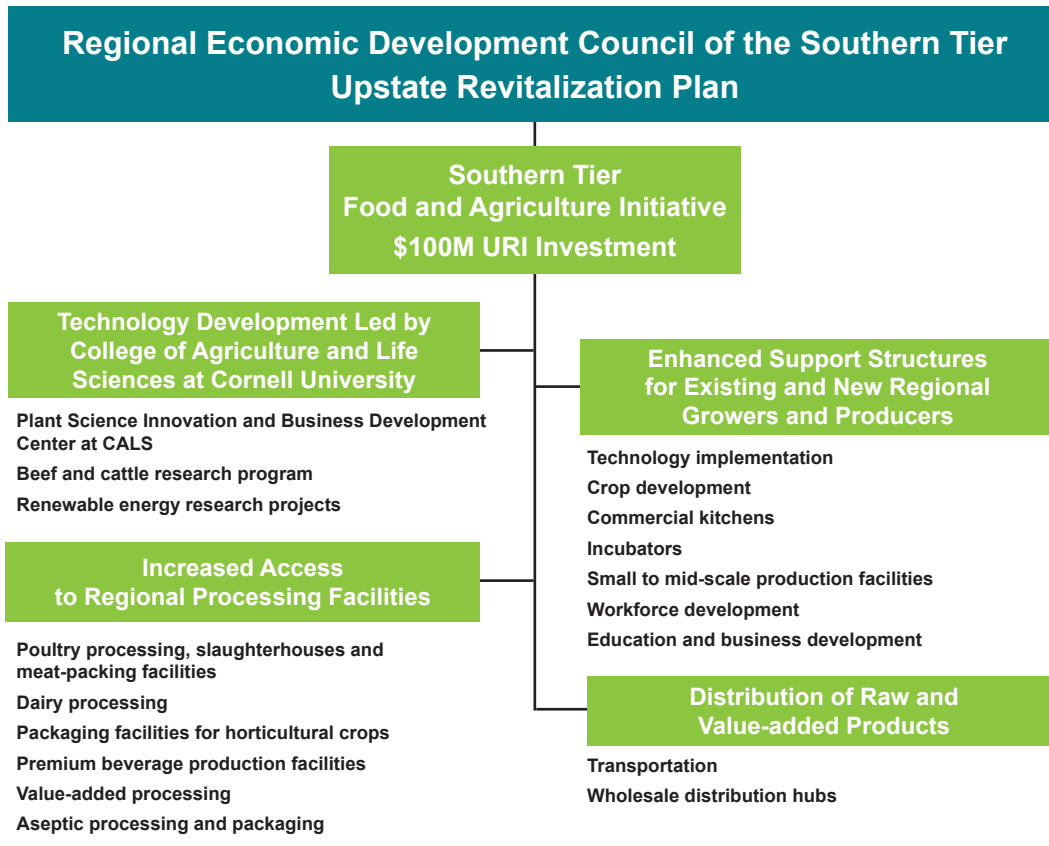
In the area of technology development, the Plant Science Innovation and Business Development Center at Cornell University will foster partnerships between regional educational institutions that include Cornell University and Binghamton University and manufacturers with strengths in glass and greenhouse materials (Corning Inc.), and will leverage existing private company commitment to CEA through GLASE.

As noted above, the Southern Tier is a natural location for a national controlled environment agriculture hub. Technology developed in the Southern Tier will be deployed to other regions in New York and the nation, spurring year-round production and decreasing dependency on a small number of production centers. Steps have already been made toward this goal, and the Food and Agriculture Initiative seeks to build upon these actions. For example, the Greenhouse Lighting and Systems Engineering (GLASE) project led by Cornell University and Rensselaer Polytechnic Institute seeks to reduce energy costs and the carbon footprint of greenhouses by building upon the investment of local, national and international partners (including NYSERDA, General Electric, Epistar and Price Chopper).

The Southern Tier has initiated discussions with the Finger Lakes and Central New York regions regarding an inter-regional collaboration with respect to R&D, education and training, production, processing, marketing and distribution in the overall food and agriculture arena, including the wine and beverage industry. Of particular emphasis will be establishing a partnership with Cornell University, a world leader in agriculture education, research and development, to apply new technologies and methodologies directed toward increasing production and industry efficiencies with regard to growing, harvesting and processing, as well as creating a coordinated and streamlined path for marketing and distribution of ag and food-related products, nationally and internationally. The regions will capitalize on the abundance of land, water and manufacturing locations in upstate New York as well as on a shared distribution network that includes an extensive centralized highway system, rail and deep-water portage.

Organizational structure

The Food and Agriculture Initiative will be achieved through the leadership of the Cornell College of Agriculture and Life Sciences (CALS), as well as the development of the Southern Tier Food and Agriculture Cooperative (see signature project description and collaboration with a region-wide branding effort). Note that the Food and Agriculture branding effort will be undertaken as a sub-set of the region-wide Southern Tier Branding and Promotion Program as described in the Promote the Southern Tier Innovative Culture Initiative.



Performance measures

The success of the Southern Tier Food and Agriculture Initiative will be assessed via key metrics for each strategy area, in addition to job creation, private investment and wealth creation. These metrics are listed below:

Strategy area	Metric
Technology	Number of new greenhouses
	Number of new plant science technologies/patents
	Number of new CEA technologies/patents
	Number of technology spin-off companies/jobs
Production	Number of participants in workforce programs
	Percent of participants in workforce programs who are hard-to-place
	Percent increase in regional output (crops and livestock)
	Percent increase in food exported outside region
Food and beverage processing	Percent increase in regional output
	Percent increase in food exported outside region
Distribution	Number of producers partnering with cooperative
	Percent increase in wholesale revenue/output
	Percent increase in food exported outside region

Note: These metrics are based on sample projects and are subject to change

Year 1: Examples of Projects Ready to Go



Plant Science Innovation and Business Development Center
at Cornell University: Phase 1 Design

DeMet's Candy Expansion

Ultra Premium Beverage Center in Schuyler Business Park: Phase 1

Vineyard Reclamation and Replacement Program – Year 1

USDA Slaughterhouse in Chenango County

Ithaca Beer Company Expansion

Hopshire Farm Brewery Expansion

Southern Tier Agriculture and Food Development Cooperative

Southern Tier Agriculture Education Fund

Southern Tier Agriculture Development Fund

Ag Micro Project in Delaware County (HCR)

Groundswell Farmer Incubator Capacity Improvement Project

Village of Walton Biogas Project to support Kraft Foods

Village of Waverly WWTP upgrade to support expansion of Leprino Cheese

Chicone Cabinet Makers

Kirkside Community Kitchen (DOS)

Appendix

Strategy 1: Technology

Possible sources of alternative energy for controlled environment agriculture:

- **LED lighting:** LED advancements can increase lighting efficacy by up to 50%, and improve crop yield by at least 15% in conjunction with carbon dioxide optimization. GLASE plans to pioneer LED research and implementation for greenhouses, cutting energy costs and increasing production.
- **Anaerobic digestion/Waste regenerators:** Food product waste makes up 18% of all landfill waste, and has more than 3 times the methane production potential of cattle manure and biosolids (EPA, 2008). Using food waste and agricultural waste in anaerobic digesters would provide energy with reduced costs and, if digesters were sited strategically, heat for CEA facilities.
- **Earth source heat:** Earth source heat takes advantage of existing research in biomass and geothermal energy to extract renewable energy, with the potential to serve 90% of the population in New York and Pennsylvania. The Southern Tier is particularly well suited for earth source heat energy extraction due to the vast amount of untapped natural resources and unique geological formations. Earth source technology is easily adapted to supply heat and energy to greenhouse and food processing facilities.
- **Biomass energy:** Biomass heating in the form of pellets fueling stoves or boilers is a reliable low-cost capital investment, and is becoming available in the Southern Tier. Agricultural or grass pellets need to be used with a boiler design that accommodates the differences in fuel quality and are still considered in the research and development stage in NY State (though in use elsewhere) but their production and use is highly complementary to agricultural and greenhouse waste streams.
- **Microgrids, smart meters and improved energy distribution systems:** Many farms do not have the utility infrastructure to implement solar farms and digesters. Improving grid support and distribution of natural gas will help ensure that farms that deploy renewables can also access year-round supported energy. New smart metering technologies can help farms and processing facilities manage energy loads more efficiently as well as more efficient application of water and fertilizer.
- **Solar:** Integrating solar array technology into new controlled environment structures will defray electricity costs. Corning Inc. is in the process of developing and commercializing this technology.
- **Wind:** Integrating wind turbine technology into new controlled environment structures when the location has a sufficient wind resource can assist with the cost of energy as part of diversified renewable portfolio.

Key research and development areas of the Plant Science Innovation and Business Development Center at Cornell University:

- **Form factor and growing systems:** A CEA research and demonstration facility will be constructed at the Center to conduct Near-term research that will lower operating costs and increase yield thereby making CEA facilities more profitable is required.
- **Lighting:** The CEA facility will provide the capacity to optimize the use of LED lighting systems for plants grown in CEA facilities in northern climates.
- **Control Systems:** Small-scale control systems are needed to monitor and regulate lighting, CO₂, temperature, nutrients, harvest timing and pest pressure. These should be designed

to incorporate data analytic tools such as optimal control, machine learning and artificial intelligence techniques to further enhance production of desirable plant characteristics.

- **Plants:** The ability to rapidly transform plants using genomic tools, and to study the small molecules in plants that largely determine the colors, flavors, aromas, antioxidants, vitamins, and many health-promoting properties of food provides a tremendous opportunity for business development.
- **Nutrients:** Improved understanding of plant nutrition will provide a competitive advantage for CEAs in the Southern Tier and this understanding will be developed in the CEA research and extension facility.
- **Energy:** The CEA research and extension facility will have the capacity to evaluate various sources of renewable energy (solar, anaerobic digestion) to reduce costs.
- **Private partnerships and business development:** New businesses will be supported by the network of business incubators in the Southern Tier that collaborate to form the Southern Tier Startup Alliance. In particular: the Southern Tier High Technology Incubator (STHTI) in Binghamton will provide the infrastructure needed for companies focusing on energy, electronics and health with specialized laboratories and other features associated with industry-based R&D, including testing and evaluation and prototyping.; IncubatorWorks in Elmira will offer flexible advanced manufacturing space and support services; the Kevin M. McGovern Family Center for Venture Development in the Life Sciences is dedicated to new life sciences technology startup development and is located on the Cornell campus; the Southern Tier Startup Alliance has proposed a \$5 million seed capital fund to provide critically needed “first money in” seed capital for regional startups under the guidance of STSA mentors and staff.

Strategy 2: Production

- **Produce and vegetable:** In New York State, 23% of the land in use is typically used to grow food. However, much of crop production is in support of the dairy industry with feed items such as corn, oats, and other grains. Corn silage production in New York ranks third in the country with a value of \$311 million in 2013. As such, New York State imports much of its produce (fruits, vegetables, and grains) from other states, Canada, and Mexico. As noted above, California has produced over 50% of national demand for crops such as almonds, broccoli, lettuce, carrots, spinach, celery, and peppers. In order for New York to meet demand for food products within the state, it must produce 6% of the national product, or 9% if the NYC metro area is included. To satisfy demand across the Northeast, including the New England states plus Pennsylvania and New Jersey, production would need to increase to 18% of the national product. Currently, New York produces close to 18% in beans and cabbage, and at least 6% in squash, apples, sweet corn, and pumpkin—but nowhere close to the 6% or 18% benchmark for other crops (UBRI Deep Dive). New York has particular strength in fruit production of grapes and apples, with total fruit output valued at \$332 million and apples accounting for \$233 million of that. Comparatively, market vegetables had a total output of \$409 million in 2010.
- **Beef and cattle:** The number of beef cows in New York State is on the rise, reaching nearly 115,000 in 2015 from a recent low of 65,000 in 1991. The Southern Tier had just over 19,000 beef cows in 2012, making up 22% of total New York beef cows. Though dairy cows still outnumber beef cattle 6 to 1 statewide, the number of dairy cows has decreased by 21% over the same time period. This trend is due in part to the finite amount of land appropriate for dairy cows in New York State, but also is influenced by the diminishing ability of traditional beef cow producers elsewhere in the country to supply product due to a lack of available water and competition from grain growers for pasture and hay land.

According to the USDA Agriculture Census, New York sales of beef cows (including beef cow herd and cattle on feed) came to more than \$170 million in 2012, driving direct employment of over 10,000 statewide. Prices for beef have risen in recent years due to stagnant supply of beef cows and a steady demand market, putting pressure on suppliers of feeder calves to produce more. Moreover, global demand for beef is increasing as economies improve and populations consume more meat.

Due to 191,177 acres of vacant agriculture land with adequate natural resources, growing demand for beef product, and an upward trajectory in beef cow farming, the beef and cattle industry provides a viable opportunity for the Southern Tier to increase market share. There is specific opportunity in the development of the feeder and stocker industries; stockers are farmers that buy calves from beef cow operators and bring more cattle to feedlots, thus increasing the demand for cow farmers. This in turn increases business flow to meatpackers, feed suppliers, veterinarians, transportation companies, lenders, with the added benefit of supporting the dairy industry via improvements to these resources. Moreover, the stocker occupation is ideal for young people starting out in the agriculture industry, and requires minimal capital investment to start.

- **Organic:** Organic farming is a niche that the Northeast region has embraced; the area has the highest percentage of organic farms nationally. New York State ranks among the top three states by number of organic operations (842 in 2011) and top 10 in acreage of organic crops (158,618 in 2011) (USDA ERS). Organic farming has significantly more associated costs than that of conventional farming; it requires more acreage, more labor, hard to source inputs, and rigorous certification and compliance requirements. In addition, organic animal production and milk production are limited by the amount of organic crops, produce, and pasture available.

Farmers can counteract these costs by charging a premium on organic products where local perception of health allows them to do so (Organic Produce, Price Premiums, and Eco-Labeling in U.S. Farmers' Markets). Organic farmers were surveyed regarding the top challenges faced in organic farming, and compliance to organic standards of inputs and certification ranked number one while demand for product did not rank (USDA ERS).

Strategy 3: Processing

- **Value-added processing:** Value-added processing is a \$25 million industry in the Southern Tier, with the majority of product shipped out of the region. This does not include cheese manufacturing, which has over \$100 million in output (EMSI, 2015). These sectors are growing; 18% between 2009 and 2013.

Value-added food processing also increases sales and jobs in the larger economy. Perishable food manufacturing, snack food manufacturing, and miscellaneous food manufacturing all add about 2 jobs to the economy for every job created, and for every sale dollar, have a multiplier of \$1.50 in sales throughout the economy (EMSI, 2015).

However, nascent and mid-size value-added companies often face challenges related to reaching regional economies of scale, complying with safety regulations, navigating the distribution system, and creating viable business plans for competing in the growing manufacturing market. The Food and Agriculture Initiative will address these challenges by investing in projects that support value-added food companies.

- **Premium beverage processing:** The Southern Tier is home to a growing premium beverage industry that includes liquors, spirits, wine, and beer. The northernmost county in the region, Schuyler County, is the fourth ranked county in the state for the number of wineries (NYS Wine and Grape Foundation). The total number of beverage firms in the region increased by 17 since 2004, a proportional increase of 85%, and in 2013, alcohol

manufacturing produced over \$4.5 million for the region. This momentum is indicative of a larger nation-wide trend toward local wine, spirits, and craft brewing: between 2007 and 2012, consumption increased for spirits (13%), wine (9%) and decreased for beer (-4.3%), though craft beer consumption rose by almost 10% (Beverage Information Group, 2013). The total market size for the alcoholic beverage market is \$198 billion in the U.S., and New York accounts for 5% of beer consumption, 8% of wine consumption, and 6% of spirit consumption.

The Southern Tier has particular advantages in premium wine production, due to natural resources and low cost of land. Geography in the northern counties of the Southern Tier includes proximity to lakes and sloped land (25-30 degrees); coupled with a cool climate, make these conditions ideal for growing grapes that traditionally have been grown in Germany and northern France.

Growing the already prosperous wine and beer industry in the Southern Tier provides an opportunity for capturing market value as the sector continues to grow nationwide. In addition, growth in these industries catalyzes larger economic growth; every dollar in sales for wineries, breweries, and distilleries returns about 70 cents to the economy, and every new job creates about 3 jobs elsewhere in the economy. The Food and Agriculture Initiative will support growth in this industry by connecting small and start-up companies with processing/packaging resources that maximize profit in the premium beverage industry, including the management and/or construction of facilities to enhance capacity.

- **Slaughter and meat packing:** In 2012, the Southern Tier had almost 3,000 cattle on feed for slaughter, with over 30,000 hogs, 18,500 chickens, and 1,000 turkeys sold for slaughter (USDA Census, 2012). The prevalence of small livestock farms and lack of immediate slaughter options creates difficulty for these operations to find local slaughter facilities. Moreover, just four companies control 80 percent of slaughter in the United States (NPR), and small farm operations can be challenged to find slaughter facilities that will accept business in small numbers (Kelly Young, NY Farm Bureau). This often means that Southern Tier farmers must ship their livestock out of the region for processing, most 100+ miles and as far as Wyalusing and Souderton, Pennsylvania, and often ship back to their local area for sale.
- **Dairy processing:** The number of dairy cows has leveled off over the past five years at just over 600,000, yet production has increased 10.2% (Harvest New York, 2015). Dairy manufacturing also has one of the highest job multipliers at 5.6, and nearly 500 employees in the Southern Tier. Demand for dairy products has risen by 113% since 2001, according to the National Agricultural Statistics Service, driven in part by the rise of Greek yogurt (2500% increase in sales between 2006 and 2011).
- **Aseptic processing and packaging:** Aseptic packaging refers to a process of sterilization that allows food products to be shipped and stored in sterile containers (most often paper or plastic based). Aseptic packaging is one of the fastest growing food processing industries globally, increasing by about 9% annually since 2010 with a projected global market of about \$35 billion in 2015 (Freedonia Group). In the United States, aseptic packaging has grown about 8% annually to reach a \$5 billion market.

Given the objective of using controlled environment agriculture technologies to extend the growing season and increase regional production as well as the Southern Tier's assets in dairy and premium beverage manufacturing, an aseptic processing facility is a logical step toward becoming an East Coast hub for food and beverage. The Food and Agriculture initiative will support the development of new aseptic processing facilities, as well as facilitate connections between farmers, aseptic packagers and end consumers.

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Promote the Southern Tier's Innovative Culture

Goal

The Southern Tier will be a well-recognized and highly desirable place to learn, visit, live and grow a business because the region's distinct combination of educational strength, culture, innovation, leisure-related industries and natural resources creates a lifestyle that couples the convenience of larger cities with opportunities to lead a healthy lifestyle surrounded by natural beauty.

Strategy

1. Develop and implement a regional branding and promotion program that will serve as a single unifying theme to promote the region's quality of life and capacity for innovation, and ignite a fierce community pride that compels residents to be regional ambassadors. Use the region-wide branding program as an umbrella for sub-brands focused on
 - Building local pride
 - Promoting the region to alumni of the region's academic institutions, attracting them back to the region's beauty, affordability and diversity
 - Workforce recruitment, particularly in advanced manufacturing
 - Promoting key initiatives such as the region's food and agriculture and advanced manufacturing industries, and authentic communities and tourism destinations
2. Strengthen the region's tourism and community assets and use them as effective tools to promote the region to visitors, prospective talent and investors
3. Attract young talent via college towns and small towns. This includes strengthening the college town corridor that winds through the region and leveraging the region's world-class academic institutions, which attract more than 60,000 students each year.
4. Advance commercialization of technology by maximizing innovation and intellectual capital among the private sector and academic institutions.
5. Attract and nurture a critical mass of entrepreneurs by promoting the commercialization of research from the region's sources of innovation, retaining the brightest college graduates and providing an entrepreneurial ecosystem including incubators, seed capital, support services and attractive communities.
6. Advance New York State initiatives, including Hot Spots, Global, NY, Veterans Initiative, NY Rising, Opportunity Agenda, 76 West, NYSTAR, Cleaner Greener and Brownfield Redevelopment.

Outcomes and measurable impact

- URI investment: \$100,000,000
- Leveraged investment: \$500,000,000
- Economic impact: \$690,000,000
- Job creation: 1,800





Game-changing investments

- Southern Tier regional branding and promotion program
- Tourism Entrepreneurship Incentive Fund
- Southern Tier Tourism Institute
- Tourism destination, cultural and waterfront development projects
- Projects that advance commercialization of technology by maximizing innovation and intellectual capital
- Southern Tier Venture Seed Fund
- Master/Entrepreneur Main Street and Neighborhood Campus Program
- Promotion programs such as Authentic American Experience in Our Downtowns project
- Small town and college town community revitalization projects



Watkins Glen International Racetrack, in Schuyler County, has 60+ years of road racing traditions. It is home to major NASCAR and SCCA events, as well as one of the nation's premier vintage events, the U.S. Vintage Grand Prix. Recognized as the premier U.S. road racing facility, its events attract several hundreds of thousands of racing fans from around the world each year.

ACHIEVING THE VISION OF TRANSFORMATION

Strategy 1: Branding and tourism marketing to promote the region's culture

The Southern Tier's tourism assets range from agri-tourism, wine and beer trails, waterfalls, world-class auto racing and museums, to gliding, fishing and other outdoor recreational activities. Each of these regional assets can be drawn together to build a synergy among destination communities spanning from Steuben County to Delaware County. By knitting these local cultures and experiences into one brand, the Southern Tier will become known as a premier destination for multi-generational families, international visitors and Millennials.

Domestic and international travelers are not only amazed by the region's natural beauty, but are drawn by the diversity of cultural and tourism destinations throughout the region, including:

- Corning Museum of Glass, in Steuben County, is the most visited art museum in New York State outside of Manhattan. It is a major driver of the upstate tourism economy with more than 450,000 visits annually. It is among New York State's most popular destinations for international travelers and recently built an international motorcoach entrance to accommodate the increasing number of visitors.
- Watkins Glen International Racetrack, in Schuyler County, has 60+ years of road racing traditions. It is home to major NASCAR and SCCA events, as well as one of the nation's premier vintage events, the U.S. Vintage Grand Prix. Recognized as the premier U.S. road racing facility, its events attract several hundreds of thousands of racing fans from around the world each year.
- The Roxbury Hotel in Delaware County is becoming a major lodging destination for visitors from NYC and around the world. The hotel was featured in the July 2015 issue of Cathay Pacific's "Discovery" in-flight magazine, in a piece titled "Beyond Hospitality." Its lavish and unique rooms have made it a popular destination in the Catskills.

- Tioga Downs Casino, on I-86 in Tioga County, attracts more than 1.2 million visitors each year with video gambling, live harness racing and a variety of live productions. It also hosts major regional events such as the World Beer Festival and the Summer Concert Series.
- The increasing private investment and growing popularity of wineries, breweries and distilleries in Schuyler, Steuben and Tompkins counties continues to be a driving force in the region's tourism industry. The Southern Tier is on its way to becoming a hub and innovative center of a bi-national ultra premium wine, craft beverage and culinary region.
- The region's colleges and universities educate more than 60,000 students annually, and Binghamton University, Cornell University and Ithaca College attract large numbers of prospective students and their families, corporate recruiters, academic visitors and alumni to the Southern Tier each year.

A uniform, shared identity will help the Southern Tier generate "pride of place," respect and appreciation for the region. This admiration must evolve, though, from its citizens, who act as ambassadors to visitors and potential young professional and entrepreneurial residents. Through a concerted community effort, we will instill regional pride that compels current residents to be Southern Tier promoters.

A recent and highly detailed econometric study into the impacts of tourism-related branding and marketing on cities has revealed significant outcomes. The study, "Destination Promotion: An Engine for Economic Growth" was presented at the annual meeting of Destination Cleveland in March 2015. The study was conducted by London-based Oxford Economics, an independent, globally recognized advisory firm that specializes in global forecasting. It analyzed the performance of more than 200 cities during a 23-year period, and it found widespread economic benefits from those actively promoting tourism. This study reflects a correlation between marketing expenditure of destination marketing organizations (DMOs) and long-term economic growth.

The Oxford Economics study reinforces the concept that investments in place branding and tourism marketing have impacts far beyond local tourism businesses. Adam Sacks, director of Oxford Economics, noted, "Statistical analysis over the past two decades shows that destinations with substantial and growing visitor economies have outperformed their peers in the general economy. Cities and States that coordinate destination marketing and economic development are generally better positioned to compete for new investments and corporate relocations."

Branding success requires a change of attitude within, and between, many organizations. It calls for a collaborative approach and may involve the need to overcome long-held disagreements, silos and turf protection. Managing obstacles, attitudes and processes are major steps toward brand success. Collaboration, networking and integration indicate a strong brand, which is the responsibility of more than the efforts of the tourism or economic development offices alone. Successful place branding includes the people responsible for wayfinding, urban planning, parking, parks, education and business licensing.

A collaborative approach toward place branding creates an unprecedented opportunity for an organization to showcase its role as a community and industry leader. The challenge is to sustain this heightened enthusiasm and use it as a catalyst to consolidate the organization's position as one of the region's most valuable leadership organizations. It's an ideal time to move people beyond internal politics and the outdated opinions.

Strategy 2: Strengthen community and tourism infrastructure

Tourism is an expression of the region's culture and brand as well as a key enabler of economic development. It can be an effective tool to promote the Southern Tier's highly desirable quality of life in an effort to attract talent, build a large pool of entrepreneurs, attract investment (particularly foreign direct investment) and build local pride.

In an era when technology and innovation are bent toward process management and a reduction of human effort, we have come to realize that among the most valuable resources missing in the Southern Tier are talented professionals and entrepreneurs and private investors.

Tourism is an enabler for attracting entrepreneurs and visitors who are captured by an experience and choose to start and locate their careers and businesses within the community. As a result, tourism works in concert with other entrepreneurial enablers — such as incubators, broadband infrastructure, financing, peer groups and mentors — to create a thriving entrepreneurial ecosystem.

Numerous reports indicate that young, talented professionals and entrepreneurs consider quality of life among the top priorities in making decisions regarding careers, and tourism is an important tool in introducing them to the region's assets.

Continued promotion of the region to visitors, especially Millennials and international markets, could boost the industry's growth and result in reversing the region's brain drain.

Entrepreneurs are likely to be influenced by a community's quality of life, which can be exemplified by their tourism experience. Young professionals, in particular, favor locations offering diverse activities — such as outdoor recreation, arts and cultural attractions — when deciding where to start their careers. And employees in flexible occupations such as law, finance, insurance, real estate and healthcare are also attracted to destinations because of their amenities, while studies have shown that natural attractions are important to drawing knowledge-based workers. To reach those people on an emotional level, which is where life event decisions (job changes, family moves) are often determined, we must reach potential residents the same way we reach short-term visitors and vacationers: through an effective tourism promotion program based on a strong tourism infrastructure.

Tourism is an expression of the region's culture and brand as well as a key enabler of economic development.

Attractive communities and well-recognized tourism destinations are important to building local pride. "In communities across America, attractions such as museums, historic buildings, cultural sites, sports teams, outdoor recreational opportunities, festivals, concerts and other events instill pride among local residents and create a better quality of life. These attractions are important community assets, which not only draw visitors to a region, but also appeal to businesses deciding where to locate a new plant or facility."

Tourism has been a growth industry in the Southern Tier in recent years, fostered by unique natural assets, top-performing cultural attractions and the burgeoning wine industry. The region's location — a four-hour drive from residents of two of North America's most important metroplexes, Boston-Washington and Toronto-Montreal — offers opportunities for further growth. Visitor spending in the Southern Tier grew 18% between 2009 and 2011, outpacing upstate trends. Visitor spending on lodging, food services, transportation, recreation and retail reached \$0.87 billion in 2011, representing an 18% rise from where it was two years earlier.

Tourism employment, growth and county-level spending benchmarked

	SOUTHERN TIER	UPSTATE NY	NYS
Tourism As % Total Employment, 2013	4.4%	5.1%	5.3%
Tourism Employment Growth, 2009-13	8%	6%	11%
County Government Culture & Recreation Expenditures Per Capita, 2013	\$25.94	\$26.31	N/A

Source: NYS DOL; Office of the NYS Comptroller; U.S. Census Bureau.
Tourism employment reflects private-sector employment only.

While tourism accounts for a comparatively low share of all jobs in the region, employment growth in tourism has outpaced upstate trends, supported by county-level spending on culture and recreation that is on par with the upstate average. Tourism has been a business- and job-creating industry for the region, adding 87 establishments and 700 new jobs (8,700 in 2009 to 9,400 in 2013); however, it represents only 4.4% of all jobs and the average annual wage is only \$21,000 as compared to \$42,235 among all employment sectors in the region. Between 2009 and 2013, regional jobs in tourism grew 8%, exceeding upstate growth, yet lagged behind the statewide increase of 11%.

In New York State, visitor spending on lodging, food services, transportation, recreation and retail reached \$87 million in 2011, representing an 18% rise from the previous two years. This is more than the 12% increase reported across upstate New York. While the Southern Tier outperformed all other upstate regions in growing visitor spending during this period, total visitor spending in the region represents a relatively small 6% of total visitor spending across upstate and an even smaller 2% of the statewide total. Visitor spending in the Southern Tier represents net new dollars to the regional economy, supporting and growing jobs, firms and the local tax base, while adding to residents' quality of life.

Trends among travelers also are changing. The Travel Industry Association (TIA), in partnership with Gourmet and the International Culinary Tourism Association, conducted a study of leisure travelers in the United States. The study found that a growing number of American leisure travelers engage in learning, interactive and culinary activities while traveling. Culinary travelers are younger, more affluent and better educated than non-culinary travelers and are motivated by a desire for unique experiences. This reinforces tourism and place-making research findings that emphasize unique assets and experiential opportunities as key components of successful community tourism development.

Strategy 3: Advance commercialization of technology by maximizing innovation and intellectual capital

The Southern Tier has a rich history and passion for innovation and technology, and our region's academic institutions and corporations are havens of knowledge. Our primary source of innovation for the future will be bold ideas that are implemented in the marketplace as a new product or in an organization as a new process or system. There is great potential to advance the commercialization of technology by maximizing the innovation and intellectual capital of our private-sector and academic research institutions.

The research, testing and product development resources of private companies such as Corning Incorporated, BAE Systems, Lockheed Martin, Raymond Corporation and Amphenol, together with Cornell University and Binghamton University, collectively represent a powerful engine that can accelerate the region's innovation economy. Given the strength of these innovation leaders in the Southern Tier, the possibilities for new business growth are vast and exciting.

A leading example of private-sector R&D is Corning Incorporated, which annually invests \$850–900 million in technology development. There are several exciting opportunities for commercialization of the company's research that will transform the world.

Other firms in the region, such as Lockheed Martin, continue to be engaged with cutting-edge technology ranging from avionics for military aircraft to mission computers and from electronic warfare systems to advanced electronic manufacturing and cybersecurity. BAE Systems is engaged in R&D in engine controls, in-flight entertainment systems for commercial aircraft and hybrid electric powertrains for buses and trucks. Raymond Corporation is investing in R&D for the commercialization of material handling and automated warehousing systems. Amphenol is undertaking R&D for commercialization of signals, communications and power distribution connectors for the transportation and military systems industries.

Cornell University and Binghamton University are premier research institutions in the Southern Tier, and also are key players in the potential for transfer of innovation and commercialization of technology ranging from their role in implementing Start-Up NY to cutting-edge technology of the future. There is an opportunity for the Southern Tier to reach beyond the bounds of the Start-Up NY program and continue to engage in public-private partnerships that have the opportunity to garner national and even global attention for the Southern Tier.



The region will increase entrepreneurship in part by nurturing a vibrant startup ecosystem.

For example, Cornell University is uniquely positioned in the Eastern United States to provide technology to existing and new high-tech manufacturing companies in the advanced synchrotron technology industry cluster. The Cornell High Energy Synchrotron Source (CHESS) is a world leader in synchrotron technology development. CHESS, a federally funded National User Facility, is one of only two such facilities in the United States and just five in the world. Cornell plans to create a public/private partnership by which CHESS would

transfer these technologies and provide development support to additional Southern Tier companies that could sell the products and services to global customers. Transfer of this technology provides opportunity for new business development employing professionals with high-tech wages.

At Binghamton University, the Center for Energy-Smart Electronic Systems, a National Science Foundation Industry/University Cooperative Research Center (I/UCRC), works in partnership with government, industry and academia to develop systematic methodologies for efficiently operating electronic systems, including data centers, by controlling resources and managing workloads to achieve optimal energy consumption. The center works with 25 industry members, including Facebook, Intel, Bloomberg and IBM, to transfer technologies created on the campus and at its three university partner campuses.

Strategy 4: Develop a critical mass of entrepreneurs

Young professionals and entrepreneurs play a critical role in driving the future of economic development within their communities. Regardless of the business sector, the power of a thriving pool of entrepreneurs is profound. While technology-related entrepreneurs tend to gain the most publicity, the entrepreneurs operating within industries such as tourism and agriculture also have a larger capacity to significantly catalyze the local economy.

A 2011 Kauffman Foundation study (Where Will the Jobs Come From?, Stangler, 2011) showed that from 1980-2005, nearly all net job creation in the United States occurred in firms less than five years old. The data also showed that without startups, net job creation for the American economy would have been negative in all but a handful of years. If one excludes startups, an analysis of the 2007 Census showed that young firms (defined as one to five years old) still accounted for roughly two-thirds of job creation, averaging nearly four new jobs per firm per year. Of the overall 12 million new jobs added in 2007, young firms were responsible for the creation of nearly 8 million of those jobs.

The Southern Tier region has outstanding sources of innovation and industry. Entrepreneurship has the capacity to contribute to the reshaping of the Southern Tier's economy, with the potential to generate jobs, introduce new products and services and promote greater upstream and downstream value-chain activities. Therefore, it is of particular importance to nurture entrepreneurship and build a vibrant entrepreneurial ecosystem.

We also know that the Southern Tier must invest in key success factors in order to create a critical mass of entrepreneurs.

- Attractive communities
- Retaining college and university graduates
- Vibrant start-up ecosystem and entrepreneurial community
 - Seed capital
 - Attracting talent and building the entrepreneurial pool
 - Academic and private R&D

A vibrant entrepreneurial ecosystem creates a virtuous cycle of startup formation

Increasing entrepreneurship in the region requires first and foremost nurturing and supporting a vibrant startup ecosystem and entrepreneurial community. A 2014 Kauffman Foundation study identified the strength of the entrepreneurial ecosystem as a critical factor in startup formation and success, and specifically identified links between business incubators and connections between entrepreneurs as critical success factors (Examining the Connections within the Startup Ecosystem: A Case Study of St. Louis, Motoyama & Watkins, 2014).

The Southern Tier Startup Alliance, the region's NYSTAR-designated Innovation Hot Spot, serves as a connecting bridge among its five member business incubators in the region and as a mechanism for interaction and cross-pollination of ideas and best practices among entrepreneurs. There is an opportunity to build on the Southern Tier Startup Alliance, a collaboration of Binghamton University, Cornell University, Corning Incorporated and the Ceramics Corridor Innovation Center, to combine the region's strengths with cutting-edge business incubation, acceleration and entrepreneurship.

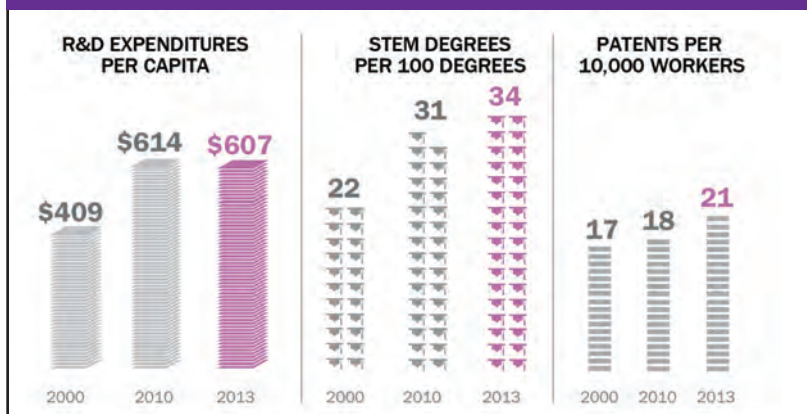
There is an opportunity to build synergies between this initiative and the Greater Binghamton Innovation Ecosystem with the Southern Tier High-Technology Incubator being built in downtown Binghamton, the pilot "Southern Tier Hardware Accelerator" program at Rev: Ithaca Startup Works and Incubator Works as an anchor in the I-86 Corridor Innovation Project. In addition, SUNY Broome was recently awarded SUNY 2020 funds to nurture a vibrant start-up community for student-led ventures by expanding on the Entrepreneurial Assistance Program (EAP) and the Certificate in Entrepreneurship. Renovations at the former New York State Inebriate Asylum, also known as "the Castle," could provide another exciting maker space in Binghamton, one where art, design, technology and entrepreneurship come together in new ways.

Despite these resources, the Southern Tier's need for increased support continues to be acute. A 2011 study funded by the Economic Development Administration concluded that the Southern Tier "has a modest amount of high potential startup deal flow, and an opportunity to increase this number dramatically." That study noted a lack of "access to support resources sufficient to capture the potential of current or anticipated deal flow from research and technology commercialization activities." The critical gap is in the oft-cited "Valley of Death" — the period nascent companies experience in the incubation phase before market entry. The study states that private investors "typically invest in companies in the late Demonstrating or Market Entry phases of commercialization to avoid significant technology and product market risk." The lack of investment capital at earlier stages of company formation dramatically limits the number of companies in the Incubation phase that can graduate and take off. "First money in" seed capital, deployed through the existing support network of the Southern Tier Startup Alliance, will increase the pace of high-growth startups taking off in the region and will create a virtuous cycle, attracting new entrepreneurs to join in and broaden and strengthen the community.

Seed capital is the engine of startup growth

According to a 2011 study conducted by the National Venture Capital Association, investment in venture-backed companies reaches between 0.1% and 0.2% of U.S. gross domestic product each year. However, these companies employed 11% of the total U.S. private-sector workforce and had revenue equal to 21% of the total U.S. GDP. The disparity between venture capital spent and the impact of venture-backed companies illustrates the multiplier effect of venture and angel funds on the U.S. economy.

Trends in R&D expenditures, STEM degrees and patents, 2000-13



Source: National Center for Education Statistics; U.S. Patent Office; U.S. Census Bureau, UB Regional Institute

Venture-backed companies typically fuel innovative industries such as the Internet, biotechnology and clean technology (NVCA, 2011). These companies often were founded on principles of innovation and entrepreneurial spirit, and coupled with high-growth potential; these qualities ensure positive trajectories even after the life of venture capitalists involvement.

From 2005 to 2015, New York State received 7% of all private venture capital and angel funding in the United States (CBInsights), behind California with 54% and Massachusetts with 10%, but ahead of Texas with 4%. Within New York, 98% of all investment dollars were concentrated in New York City, while the Southern Tier received less than half a percent (CBInsights), or just \$472 per capita compared to New York City's \$8,410 for the same period. The benefits of venture-backed companies highlight the economic differences in these figures; New York City receives more than 17 times the venture capital than the Southern Tier, also receiving the employment, innovation and wealth benefits associated with venture funding.

However, the Southern Tier is home to a far greater proportion of invention-driven startups. The Small Business Innovation Research program is the federal government's flagship funding program to support high-tech, high-growth companies. Through its SBIR and STTR programs, federal agencies award grant funding through rigorous peer-reviewed competition to companies around the nation. From 2008–2013, the Southern Tier received \$77 million in competitive federally funded SBIR and STTR awards, compared to New York City's \$113 million.

The critical gap is the lack of private investors willing to make the “first money in” equity investment in high-growth startups. The Southern Tier has seen successful venture-backed companies and exits, such as Kionix and Binoptics, each of which were SBIR-funded and went on to sell for more than \$200 million. These represented the creation of hundreds of high-quality jobs still residing in the Southern Tier. We could have more companies like this if more companies were able to make the transition from federal grant funding to venture capital. For this reason, we propose a \$5 million Southern Tier Seed Capital fund, to be administered by the Southern Tier Startup Alliance, leveraging New York State's operating support through the Innovation Hot Spots program and the region's five business incubators.

Building the entrepreneurial pool

Young professionals and entrepreneurs play a critical role in driving economic development within their communities. Regardless of the business sector, the power of a thriving pool of entrepreneurs is profound. While technology-related entrepreneurs tend to gain the most publicity, the entrepreneurs operating within the tourism and agriculture industries have a larger capacity to significantly catalyze the local economy.

Cultivating this segment of the region's population will become even more urgent in the near future as the region's population and workforce continue to age. Since 2000, the Southern Tier's population has declined slightly (< -1%). The age gap between young adults and retiring workers is substantial.

According to the Southern Tier Labor Market Information (LMI) update prepared in May 2015, the number of prime working-age individuals (ages 25-54) in the Southern Tier decreased by 30,030, or 11.2%, between 2000 and 2013. In contrast, the number of individuals ages 55 or older increased by 40,438, or 25.4% over the same period. As the current workforce is nearing retirement, an investment in our native Millennials will be necessary to ensure they possess the skill sets to meet the job requirements of the region's key innovative industries. Additionally, a strategy that can recruit back to the Southern Tier some of the native sons and daughters who are using their talent elsewhere would pay huge dividends.

The need to nurture entrepreneurship is particularly important, and the Southern Tier has the innovation assets upon which a vibrant entrepreneurial ecosystem can be built. Over \$1.5 billion is collectively spent on research by such leading institutions as Cornell University and Binghamton University, the Ceramics Corridor Innovation Center and Corning Incorporated. More than 4,100 faculty at regional colleges and universities educate more than 51,000 undergraduate and 10,000 graduate students annually, and according to the 2010 Census, more than 76,000 of the region's 658,000 residents hold a bachelor's degree. In addition, the Southern Tier has a disproportionately higher number of college and graduate students in relationship to the base population. We should do everything in our power to retain these individuals in the region.

The National Business Incubator Association's statistics show that 87% of incubator graduates in their study remain in business, compared to the 50 – 60% failure rate nationally for startups in their first five years. Of significance is that 84% of incubator graduates stay in the community where they were incubated, and every \$1 in incubator investment produces \$30 of lifetime tax revenue.

Innovation alone cannot advance the region's economy. As Jim Clifton, chairman and CEO of Gallup, notes, "an innovation is worthless until an entrepreneur creates a business model for it and turns that innovative idea in something customers will buy."

Strategy 5: Attractive communities are necessary to attract and retain talent

Southern Tier colleges and universities are magnets for attracting among the best academic talent in the United States and globally. They also serve as gateways to exposing more than 50,000 domestic and foreign students and their families to the region on an ongoing basis.

The history of upstate New York – and the Southern Tier in particular – is one of successful young people using their upward mobility to leave the region rather than growing their talents and their economic impact locally. By definition, leaders of future ventures and their key staff are people who have skills that are in demand and transferable.

As long as the narrative of the region is one of malaise and economic weakness, with hollow downtowns and empty storefronts, the region cannot expect its best and brightest and the large number of students that come here for an excellent education to put down roots.

The college towns of the Southern Tier — Greater Binghamton, Elmira-Corning and Ithaca — represent key attraction points to talented potential future residents and their families. Binghamton and Ithaca have received recognition on "best college towns" lists recently. Elmira was selected as the new home for the Lake Erie College of Osteopathic Medicine, which is to open in 2016. Ensuring that these towns, the corridors to and between them — and the college town neighborhoods in them — are lively, vibrant and attractive places will help provide an alternative narrative to that of upstate malaise and instead have students, their families and friends bringing home the story of a growing, exciting place to learn and live.

Focus on retaining college and university graduates

The region's colleges and universities attract and graduate more 17,500 students each year. Retaining these young, talented people and aligning them with local employers will be a key to future economic prosperity in the region.

The Southern Tier's share of engineering graduates is higher than any other upstate region — a comparative strength for the area. These graduates can support industries with a high



The college towns of the Southern Tier — Greater Binghamton, Elmira-Corning, Ithaca and Delhi — represent key attraction points to talented potential future residents and their families.

potential for STEM employment, such as those in advanced manufacturing; especially in target industry sectors such as battery storage and the region's advanced transportation products, components and control systems, which more than doubled in jobs from 2009 to 2013. However, as employment in STEM-intensive industries declined by 10% overall from 2009 to 2013, it will be important to focus on the Advanced Manufacturing Initiative to create the jobs needed to retain these STEM graduates in the region.

Game-changing investments

Branding and tourism promotion

The Southern Tier will need a single unifying theme to pull the region together. The project will begin with engaging a consulting firm to undertake development of a regional brand with a focus on target markets including local residents, tourists, international travelers, young professionals and entrepreneurs. Key elements should include development of multiple itineraries, encouraging diversity, foreign languages, training, wayfinding and interpretative signage, and unique experiences and assets that set the Southern Tier apart. Transparency, genuineness and community buy-in are critical to the success of a regional brand.

It will be important for the Southern Tier to engage a world leader such as Oxford Economics, Longwoods International or Resonance Consultancy, just to name a few examples of place-branding specialists, to explore the impacts that branding and tourism marketing have on the economic diversity and growth of their cities. The Southern Tier — very early on in the process — must ensure that there is continuity in understanding, knowledge, energy and support with regard to the determined brand strategy. This means that community branding for the Southern Tier must be established following a highly consultative and transparent process. The brand does not belong to any one person or organization; it must be adopted and owned by the entire Southern Tier.

The cost for engaging a consultative regional branding firm would range from \$250,000-\$350,000, depending on how detailed we want the branding recommendations to be. A good firm will also be managing the stakeholders with research, meetings and more; this is not just a consumer survey. The selected firm will provide consultative services; execution would include significant additional costs depending upon which recommendations will be acted upon.

Strengthen tourism infrastructure

Signature projects:

- Tourism Entrepreneur Incentivize Fund (grants and low-interest loan fund) for entrepreneurs investing in tourism venues, including Main Street destinations and assets to increase the length of stay
- Southern Tier Tourism Institute to provide specialized training programs (for hospitality workers, business and civic leaders and the community) and offer an “International Ready” Certificate
- Waterfront development projects on Cayuga, Keuka and Seneca Lakes
- Lodging and international tourism destinations such as The Roxbury at Stratton Falls

Other sample projects:

- SUNY Broome Center for English as a Second Language (ESL) will further stimulate recruitment into other colleges and the region.
- LUMA Projection–Computer Mapping Inc. is a successful entrepreneurial start-up founded by Binghamton University alumni who have developed a state-of-the-art computer mapping and entertainment business. With additional resources to invest in



LUMA, a projection arts festival, made its debut in September 2015 with seven striking computer animations on five major Binghamton buildings and an audience of several thousand.

production equipment, the company has the potential to deliver its acclaimed LUMA Projection Fest across the state and county, an ideal way to promote the Southern Tier's innovative culture.

- Community infrastructure projects to enhance the infrastructure of both our college communities and local Main Streets that connect the region and provide an authentic Americana and Southern Tier experience.
- Upgrade tourism destinations such as performing arts, wineries, breweries and distilleries; agri-tourism; museums; sports facilities; hiking/biking trails; scenic byway initiatives and major waterfront development projects
- Improve physical infrastructure necessary to build new high-value add tourism products (attractions, culture, sites, information centers, etc.)

Develop a critical mass of entrepreneurs

Signature projects:

- Talent Attraction and Retention Campaign modeled after the Global Entrepreneur in Residence Program at UMass that sponsors entrepreneurs for H1-B visas
- Southern Tier Seed Venture Fund
- Master /Entrepreneur Main Street and Neighborhood Campus Program in partnership with colleges and universities. Link vacant storefronts with college alums for retail development.
- Extension of "Big Gig" gigabit to residential areas to enhance marketability of region

Other sample projects:

- Develop and promote entrepreneurial communities that catalyze connections between entrepreneurs
 - Promote the innovation atmospheres of the college town environments to be vibrant and attractive to talent and supportive of an entrepreneurial attitude.
 - Enhance innovation infrastructure. Examples: makerspaces and passion centers with space for inventors and community centers affiliated with the network of Southern Tier Startup Alliance incubator sites
- SUNY Broome's "Entrepreneur-in-Residence" program at the "SUNY BEE" student incubator in the Southern Tier High-Technology Incubator

Attractive and vibrant communities

Sample projects:

- Community revitalization projects in college towns such as the Elmira Refresh downtown revitalization initiative with projects such as the Werdenberg Building Downtown Anchor Project and the Housing Visions Elmira South End Neighborhood Revitalization project. Also included is the Collegetown Redevelopment Project.

Other sample projects:

- Chain Works in Ithaca; a redevelopment and rehabilitation of 800,000 square feet of the former Emerson facility in a residential community and manufacturing complex.

Sustainability

The Southern Tier Seed Capital Fund will be evergreen, so proceeds to the fund from successful companies will replenish the capital and be available for future investments. The fund's fee structure is lean for a fund its size because it leverages the existing business incubation infrastructure in the region, specifically the Southern Tier Startup Alliance and its five member business incubators. Residence in the region will be a requirement for investment by the Southern Tier Seed Capital Fund, and companies that receive seed investment but leave the region will trigger a repayment provision, ensuring that the Southern Tier Seed Capital Fund's capital is used to grow companies in the Southern Tier.

The other funds, including the Tourism Entrepreneur Incentivize Fund, also will be self-sustaining with the repayment of loans being used to replenish the capital base of the funds.

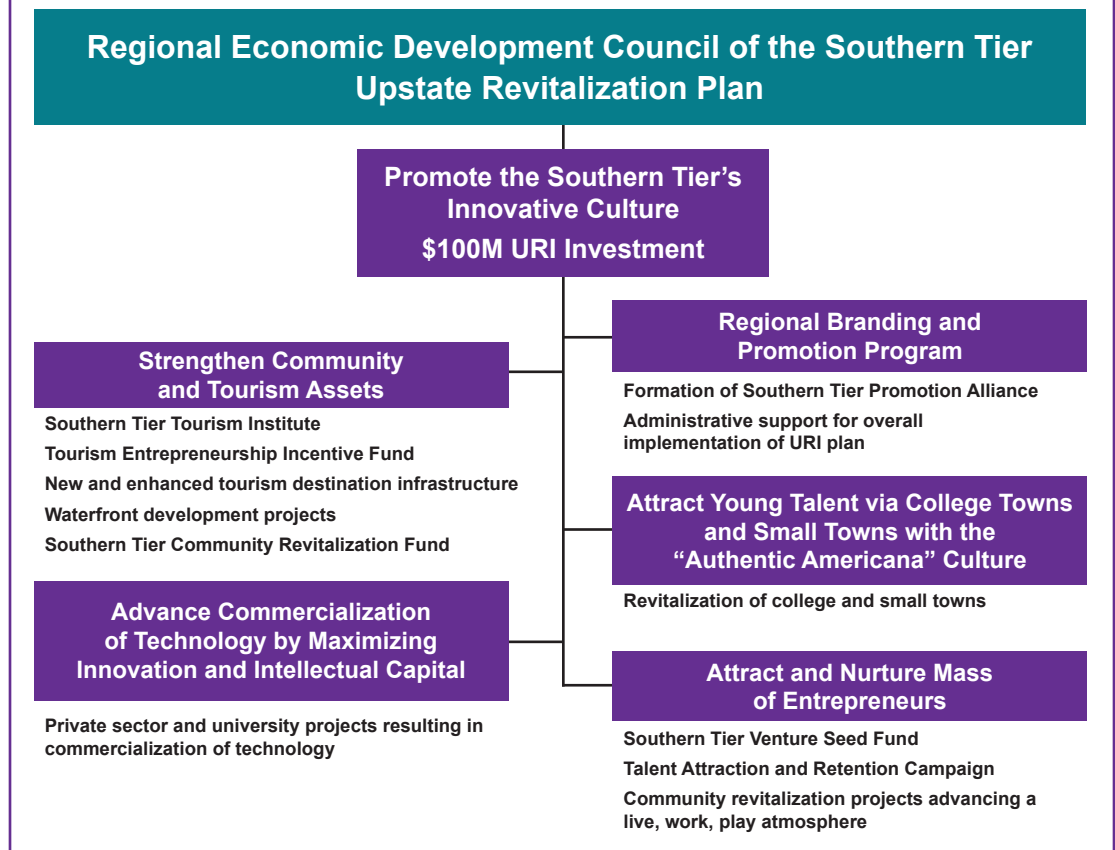
The Southern Tier Tourism Institute will use URI funding for stand up and initial operations; however, its ongoing operations will be sustained through membership and training fees.

Inter-regional collaboration

Through the Southern Tier Branding and Promotion projects, we will strengthen collaborations with the Finger Lakes and Central NY regions through joint tourism marketing programs such as the various wine trails on Cayuga, Seneca and Keuka Lakes; the Wine Water and Wonder international marketing program; Finger Lakes Wine Country Marketing Association; and the Finger Lakes Tourism Alliance. Collaborations with the Mohawk Valley region also will take place as the Southern Tier continues to work with organizations such as the Catskills Interpretive Center to promote tourism destinations throughout the Catskills.

Another example of inter-regional collaboration is in the premium beverage industry as it relates to tourism. The Southern Tier will collaborate with the Finger Lakes and Western NY regions to develop a bi-national ultra-premium wine, craft beverage and culinary region, with the potential to develop the concept of including Canada's Niagara wine region and eventually developing into an international destination.

Organizational structure



Performance measures

Activities undertaken under this initiative will be measured using the following metrics:

- Jobs created
- Leveraged investment
- Expanded tourism industry: new and expanded tourism venues and destinations, employment, visitations and visitor expenditures
- Increased number of workers trained in hospitality and related tourism fields
- Number of new entrepreneurial ventures
- Amount of seed venture funds available
- Number of Start-Up NY companies established
- Increase in the "return rate" and "stay rate" of graduates of the region's higher education institutions
- Increase in exports and investment by foreign-owned companies

Year 1: Examples of Projects Ready to Go

Southern Tier Branding Program

Collegetown Redevelopment Project in Ithaca (Firehouse Capital Project)

Finger Lakes Boating Museum

CPSI Biotech Advanced Cell Processing

Southern Tier Community Revitalization Program (continued investment)

Norwich Best Western Hotel Redevelopment Project

The Roxbury at Stratton Falls

Urbana Hammondsport Waterfront Redevelopment

Sciencecenter Reimagined (Market NY)

Southern Tier Start-up Alliance Capital Seed Fund

Removal of Watkins Glen WWTP from Seneca Lake waterfront (DEC)

eatBING Alliance

Authentic American Experience in Our Downtowns

Administrative Costs for Plan Implementation: Year 1



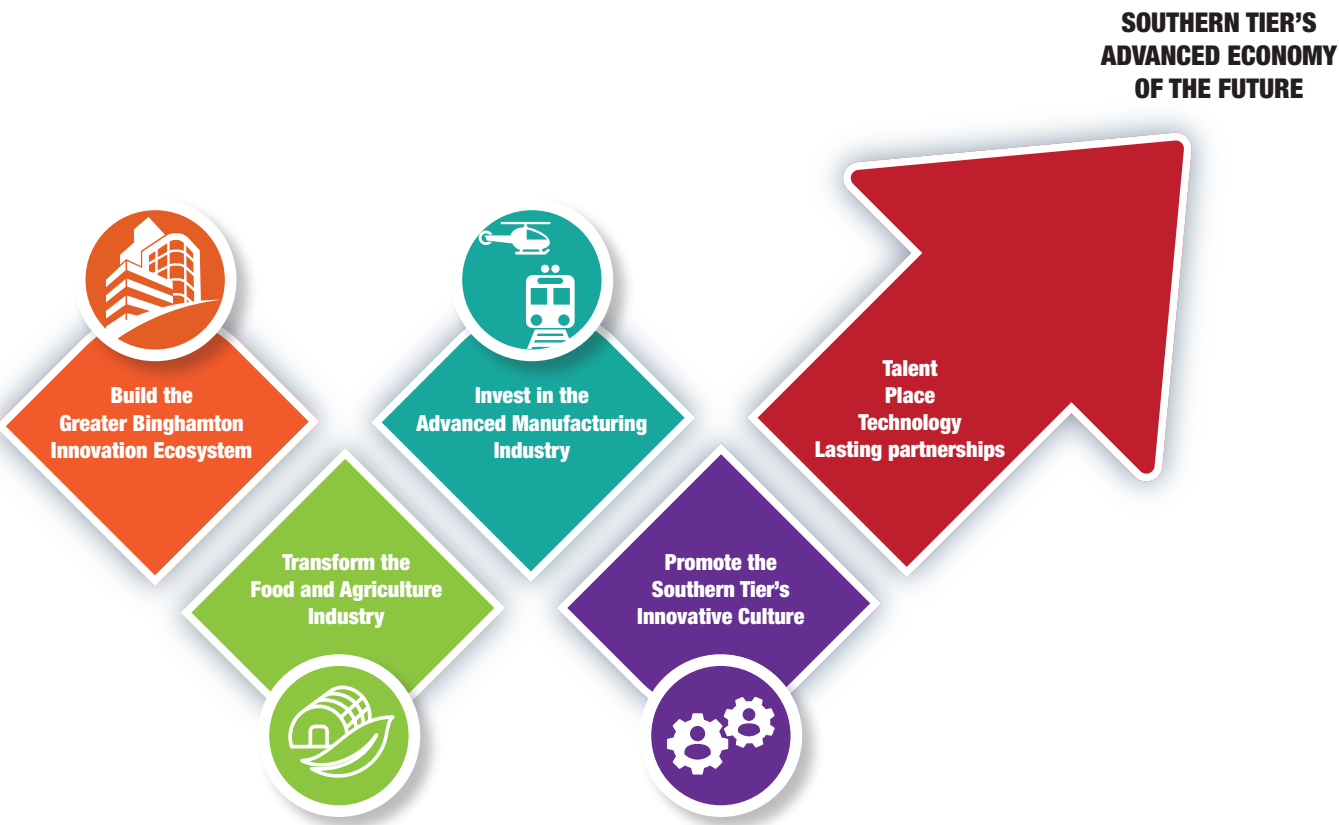
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Section VI. Implementation of the Plan



Anticipated Outcomes and Performance Measures

Overall economic impact

Southern Tier Upstate Revitalization Initiatives				
	URI Investment	Leveraged Investment	Economic Impact	Job Creation
Build Greater Binghamton Innovation Ecosystem	\$117,000,000	\$589,180,000	\$913,229,000	2,341
Invest in Advanced Manufacturing	\$183,000,000	\$915,000,000	\$1,162,575,000	3,300
Transform Food and Agriculture	\$100,000,000	\$525,000,000	\$645,750,000	2,800
Promote the Southern Tier's Innovative Culture	\$100,000,000	\$500,000,000	\$690,000,000	1,800
	\$500,000,000	\$2,529,180,000	\$3,411,554,000	10,241

Implementation Structure: Roles and Responsibilities

Regional Economic Development Council of the Southern Tier

Vision and goals
Approve projects to advance the Southern Tier URI Plan
Assess performance

ESD Regional Office Staff and Southern Tier URI Administrative Organization Staff and Consultants TBD

Overall plan implementation
Monitoring and reporting

Invest in the Advanced Manufacturing Industry

Partners: Businesses, county and municipal economic development agencies, private investors, municipalities, I-86 Corridor

Technology Development & Collaborations: Binghamton, Cornell and Alfred universities, private-sector R&D, Southern Tier StartUp Alliance, NY-BEST, NECCES, Industrial 3D Printing and Flexible Printed Electronics centers, I-86 Corridor Center for Technology Infusion

Administration: Southern Tier URI Administrative Entity and Individual Projects

Business Recruitment & Job Creation: All Southern Tier economic development agencies, I-86 Corridor, private sector

Workforce Development: Community colleges, WIB's, private sector such as Alstom Workforce Training Center and Raymond Corporation Center for Excellence

Build the Greater Binghamton Innovation Ecosystem

Partners: The Agency, Binghamton University, SUNY Broome, Salvation Army, municipalities, private investors, business community, cultural and healthcare organizations

Overall Administration: The Agency

Technology Development: Binghamton and Cornell universities, Lockheed Martin, BAE Systems, i3 Electronics, Corning Inc.

Business Recruitment & Job Creation: All partners

Workforce Development: Community colleges and Salvation Army

Promote the Southern Tier's Innovative Culture

Partners: Small businesses, lodging and tourism destinations, cultural institutions, tourism promotion organizations, Southern Tier StartUp Alliance and incubators, downtown development and economic development agencies, municipalities, colleges and universities

Innovation and Commercialization of Technology: Private-sector R&D, research universities, alliances and institutes

Collaborations: Regional marketing organizations and alliances such as Finger Lakes Wine Country; Finger Lakes Tourism Alliance; Wine, Water & Wonder; festivals and events

Administration: Coordination by Southern Tier URI Administrative Entity, Southern Tier Promotion Alliance, Southern Tier Tourism Institute, individual projects

Business Recruitment & Job Creation: All Southern Tier economic development agencies, private businesses

Workforce Development: Colleges and universities, Southern Tier Tourism Institute

Transform the Southern Tier Food & Agriculture Industry

Partners: Businesses, Cornell University CALS, Cornell Cooperative Extension, county and municipal economic development agencies, private investors, municipalities

Technology Development & Collaborations: CALS at Cornell, private businesses, Southern Tier StartUp Alliance, Southern Tier Agriculture Initiative

Administration: Technology – CALS, Cornell University. Production, Processing & Distribution – Southern Tier Agriculture Cooperative

Business Recruitment & Job Creation: All Southern Tier economic development agencies, Southern Tier Agriculture Cooperative, private sector

Workforce Development: Colleges, Cornell Cooperative Extension, Southern Tier Agriculture Cooperative

Build the Greater Binghamton Innovation Ecosystem Initiative

Investment, jobs, economic impact

		Year 1	Year 2	Year 3	Year 4	Year 5
Johnson City iDistrict Signature Projects						
48 Corliss Ave: Health & Science Tech Park	21,000,000	21,000,000				
Biopharmaceutical Shovel Ready	7,000,000		4,000,000	3,000,000		
Center for Regenerative Medicine	7,000,000			4,000,000	3,000,000	
Bio Foundry	7,000,000			4,000,000	3,000,000	
Century Sunrise Mixed Use Development	1,350,000	1,350,000				
59 Lester Ave 10-acre Site Redevelopment	3,000,000	3,000,000				
Goodwill Theatre Project	5,000,000	3,000,000	1,000,000		1,000,000	
Business Development Projects	1,000,000					
URI Investment	52,350,000					
Endicott iDistrict Signature Projects						
Flexible Printed Electronics Center	5,000,000		5,000,000			
Industrial 3D Printing Center	10,000,000	5,000,000	3,000,000		2,000,000	
Downtown Revitalization Plan	50,000	50,000				
Business and industry development projects	2,000,000	700,000		500,000	300,000	500,000
Microgrid	6,000,000			4,000,000	2,000,000	
Hybrid Powertrain Test Track	5,000,000			3,000,000	2,000,000	
URI Investment	28,050,000					
Binghamton iDistrict Signature Projects						
7 Hawley St Mixed Use Development	3,450,000	3,450,000				
One North Depot Mixed Use	2,000,000	2,000,000				
Salvation Army	1,125,000	1,125,000				
Collier St Commons	3,000,000			3,000,000		
434 Greenway	3,000,000	3,000,000				
Waterfront development projects	750,000			250,000	250,000	250,000
Business development projects	1,425,000		500,000	500,000	500,000	500,000
URI Investment	15,325,000					
Supporting all iDistricts Signature Projects						
SUNY Broome Workforce Training Center	1,850,000		1,750,000			
Transform Greater Binghamton Fund	20,000,000	5,000,000	4,000,000	4,000,000	3,000,000	3,000,000
URI Investment	21,850,000					
SUMMARY						
Total URI Investment	\$117,000,000					
Leveraged Investment	\$589,180,000					
Total Investment	\$706,216,000					
Economic Impact	\$913,229,000					
New Job Creation	2,341					

Invest in Advanced Manufacturing Initiative

Investment, jobs, economic impact

		Year 1	Year 2	Year 3	Year 4	Year 5
Strategy #1. Strengthening the Advanced Manufacturing Ecosystem						
Southern Tier Small Manufacturing Competitiveness Fund	5,000,000	1,000,000	1,500,000	1,000,000	1,000,000	500,000
New construction and expansion of manufacturing facilities	55,000,000	5,000,000	30,000,000	15,000,000	5,000,000	
Strengthen competitive positioning and grow exports	10,000,000	1,000,000	3,000,000	3,000,000	3,000,000	
Expand and strengthen supply chain	12,000,000	5,000,000	4,000,000	3,000,000		
Basic infrastructure improvement projects to advance business growth and expansion	5,000,000	2,500,000	1,000,000	500,000	500,000	500,000
Raymond Corp. Mfg Center of Excellence	7,000,000	7,000,000				
Corning Community Health and Education Complex	6,000,000	6,000,000				
Refresh Elmira Downtown Revitalization Program, Elmira College Downtown Athletics and LECOM	9,700,000	1,700,000	2,000,000	2,000,000	2,000,000	2,000,000
Hornell Rail Hub Infrastructure Project	30,000,000	5,000,000	15,000,000	10,000,000		
Downtown Hornell revitalization	1,300,000	250,000	500,000	250,000		
URI Investment	141,000,000					
Strategy #2. High levels of R&D and Commitment to Innovation and Infusion of Emerging Technologies						
I-86 Corridor Center for Technology Infusion	3,000,000		750,000	750,000	750,000	750,000
Battery Dry Room - NECCES	620,000	620,000				
Center for Transportation IoT Cybersecurity	5,000,000		1,700,000	1,200,000	1,100,000	1,000,000
Secure Electronics and Advanced Manufacturing Projects	20,000,000	10,000,000	10,000,000			
Investment in R&D and start-up companies	6,380,000		1,380,000	1,000,000	2,000,000	2,000,000
URI Investment	35,000,000					
Strategy #3. Recharge the Workforce Pipeline						
On-line Job and Internship Repository	40,000		10,000	10,000	10,000	10,000
Southern Tier Advanced Manufacturing Training Program	2,000,000		500,000	500,000	500,000	500,000
Manufacturing Workforce Awareness and Recruitment Program	2,500,000		500,000	750,000	750,000	500,000
Workforce training programs: private industry and colleges	2,460,000	500,000	500,000	460,000	500,000	500,000
URI Investment	7,000,000					
SUMMARY						
Total URI	\$183,000,000					
Leveraged Investment	\$915,000,000					
Total Investment	\$1,098,000,000					
Economic Impact	\$1,162,575,000					
New Job Creation	3,300					

Transform the Southern Tier's Food and Agriculture Industry Initiative

Investment, jobs, economic impact

		Year 1	Year 2	Year 3	Year 4	Year 5
Strategy #1. Technology Development Signature Projects						
Plant Science Innovation and Business Development Center	20,000,000	500,000	5,000,000	9,500,000	4,000,000	1,000,000
Beef and Cattle Research	500,000			500,000		
Renewable energy research projects	4,500,000		2,000,000	1,000,000	1,000,000	500,000
URI Investment	25,000,000					
Strategy #2. Production Signature Projects						
Southern Tier Agriculture Development Fund	5,000,000	500,000	1,000,000	1,000,000	1,500,000	1,000,000
Southern Tier Agriculture Education Fund	2,500,000	500,000	500,000	500,000	500,000	500,000
Production Capacity and Expansion Projects	7,500,000	500,000	2,000,000	2,000,000	2,000,000	1,000,000
URI Investment	15,000,000					
Strategy #3. Processing Signature Projects						
Small-scale production facilities	1,800,000		550,000	500,000	500,000	250,000
Pig, Poultry and Meat processing facilities	3,000,000		2,000,000	1,000,000		
Business development projects	5,000,000			5,000,000		
Basic infrastructure to support processing facilities	2,500,000		1,500,000	500,000	500,000	
Community and virtual commercial kitchens	400,000		200,000		200,000	
Premium beverage processing and production facilities	7,300,000	1,000,000	1,500,000	2,800,000	1,000,000	1,000,000
URI Investment	20,000,000					
Strategy #4. Distribution Signature Projects						
Network of Distribution Hubs	31,500,000			2,000,000	15,000,000	14,500,000
Southern Tier Agriculture & Food Development Cooperative	4,500,000	250,000	1,000,000	1,000,000	1,000,000	1,250,000
Southern Tier AgriMall and other distribution markets	2,500,000		200,000	300,000	1,500,000	500,000
Distribution modes	1,500,000			500,000	500,000	500,000
URI Investment	40,000,000					
SUMMARY						
Total URI Investment	\$100,000,000					
Leveraged Investment	\$525,000,000					
Total Investment	\$625,000,000					
Economic Impact	\$645,750,000					
New Job Creation	2,800					

Promote the Southern Tier's Innovative Culture Initiative

Investment, jobs, economic impact

		Year 1	Year 2	Year 3	Year 4	Year 5
Overall Administration of Initiative						
ST Promotion Alliance Staff and Consultant	1,250,000	250,000	250,000	250,000	250,000	250,000
URI Investment	1,250,000					
Strategy #1. Regional Branding and Promotion Program with sub-themes: workforce and talent recruitment, tourism visitation, food and agriculture						
ST Branding and Promotion Program	35,000,000	750,000	5,000,000	10,000,000	11,250,000	8,000,000
URI Investment	35,000,000					
Strategy #2. Strengthen the Region's Community and Tourism infrastructure						
Tourism Entrepreneurship Incentive Fund	2,500,000		1,000,000	500,000	500,000	500,000
Southern Tier Tourism Institute	500,000		150,000	150,000	100,000	100,000
Waterfront Development Projects	7,000,000	1,000,000	1,000,000	2,000,000	2,000,000	1,000,000
Authentic American Experience in Our Downtowns	500,000	500,000				
Tourism Destination Infrastructure	5,000,000	2,000,000	1,000,000	1,000,000	1,000,000	
URI Investment	15,500,000					
Strategy #3. Attract and Nurture a Critical Mass of Entrepreneurs						
Southern Tier Venture Seed Fund	6,000,000	1,000,000	1,500,000	1,500,000	1,000,000	1,000,000
Master Entrepreneur Main St & Neighborhood Campus	4,000,000	500,000	1,000,000	1,500,000	500,000	500,000
Gigabit Broadband Connectivity	2,000,000		1,000,000	1,000,000		
URI Investment	12,000,000					
Strategy #4. Attractive Communities as Magnets for Young Talent						
Small & College Town Community Revitalization Projects	17,250,000	2,000,000	4,000,000	5,000,000	4,250,000	2,000,000
ST Community Revitalization Loan Fund	4,000,000	1,000,000	1,000,000	1,000,000	1,000,000	
URI Investment	21,250,000					
Strategy #5. Commercializing Technology	15,000,000		5,000,000	5,000,000	5,000,000	
URI Investment	15,000,000					
SUMMARY						
Total URI	\$100,000,000					
Leveraged Investment	\$500,000,000					
Total Investment	\$600,000,000					
Economic Impact	\$690,000,000					
New Job Creation	1,800					

Timeline and Tasks: Year 1

Build the Greater Binghamton Innovation Ecosystem

- Establish The Transform Greater Binghamton Fund
- Begin development of jobs training capital projects including the SUNY Broome Specialized Technical Training Program and Salvation Army Job Training Center
- Undertake the Route 434 Greenway Project
- Begin design of City of Binghamton waterfront redevelopment
- Undertake development projects in City of Binghamton iDistrict such as Lackawanna Train Station, City Center Lofts and 7 Hawley Street
- Complete construction of Southern Tier High-Technology Incubator
- Launch the Southern Tier Health Sciences and Technology Innovation Park with renovation of 48 Corliss Street to house Binghamton University's Decker School of Nursing
- Begin construction of the Century Sunrise mixed-use development project in Johnson City
- Begin redevelopment of the 10-acre site at 59 Lester Avenue in Johnson City
- Begin Phase 2 of the Goodwill Theatre Project
- Launch the Industrial 3D Printing Center in the Endicott iDistrict
- Relocate and expand National Pipe and Plastic in Endicott iDistrict
- Undertake Endicott Revitalization Planning study

Invest in the Advanced Manufacturing Industry

- Invest in strengthening competitive positioning and growing exports
- Establish the Southern Tier Small Manufacturing Competitiveness Fund
- Expand job training programs at community colleges and establish the SUNY Broome Manufacturing Basics Certificate Program for Unemployed Workers
- Invest in private-sector and academic R&D and start-up companies
- Invest in expansion of advanced manufacturing companies; anchor firms and supply-chain businesses
- Invest in enhancing advanced manufacturing infrastructure
- Invest in basic infrastructure projects to support and advance business expansion
- Undertake development projects in "manufacturing communities" of Elmira, Corning, Hornell and Norwich
- Launch the Secure Electronics and Advanced Manufacturing Project
- Invest in the Raymond Center for Manufacturing Excellence

Transform the Food and Agriculture Industry

- Begin design of the Plant Science Innovation and Business Development Center at Cornell University
- Create the Southern Tier Agriculture and Food Cooperative
- Establish the Southern Tier Agriculture Development Fund
- Establish the Southern Tier Agriculture Education Fund
- Invest in small business development support projects: Groundswell Farmer Incubator and Ag Micro Project
- Invest in crop production such as the Vineyard Reclamation and Replacement Program
- Invest in production capacity and processing infrastructure projects such as DeMet's Candy, Ithaca Beer and the Ultra Premium Beverage Center in Schuyler County Business Park
- Invest in basic infrastructure to support processing facilities: anaerobic digesters and WWTP upgrades
- Invest in Southern Tier Rural Initiative Fund

Promote the Southern Tier's Innovative Culture

- Engage a nationally recognized marketing firm to begin creating a brand for the Southern Tier
- Establish the administrative, monitoring and reporting structure to implement the Southern Tier URI plan
- Undertake college town projects: Ithaca's Collegetown Redevelopment and Elmira Refresh
- Invest in tourism alliances, destinations and waterfront redevelopment projects
- Launch promotion programs such as the Authentic American Experience in Our Downtowns project
- Create the Southern Tier Startup Alliance Venture Seed Fund
- Invest in Southern Tier Community Revitalization Fund

Timeline and Tasks: Year 2

Build the Greater Binghamton Innovation Ecosystem

- Continue implementation of The Transform Greater Binghamton Fund
- Continue job training programs at SUNY Broome
- Complete SUNY Broome and Salvation Army job training capital projects
- Complete the Route 434 Greenway Project
- Identify City of Binghamton waterfront development projects
- Complete development projects in City of Binghamton iDistrict such as 7 Hawley Street
- Begin spin-off businesses from Southern Tier High-Technology Incubator and SUNY Bee
- Complete Southern Tier Health Sciences and Technology Innovation Park Phase 1
- Create shovel-ready site for biopharmaceutical facility in Southern Tier Health Sciences and Technology Innovation Park
- Complete construction of the Century Sunrise mixed-use development project in Johnson City
- Continue redevelopment of the 10-acre site at 59 Lester Avenue in Johnson City
- Complete Goodwill Theatre Project Phase 2
- Operation and expansion of Industrial 3D Printing Center
- Launch the Flexible Electronics Printing Center in the Endicott iDistrict
- Begin implementation of Endicott Revitalization Plan

Invest in the Advanced Manufacturing Industry

- Invest in strengthening competitive positioning and growing exports
- Continue investment in the Southern Tier Small Manufacturing Competitiveness Fund
- Establish the Southern Tier Advanced Manufacturing Training Program
- Launch the Manufacturing Workforce Awareness and Recruitment Program
- Invest in private-sector and academic R&D and start-up companies
- Invest in expansion of advanced manufacturing companies, anchor firms and supply-chain businesses
- Invest in enhancing advanced manufacturing infrastructure
- Invest in basic infrastructure projects to support and advance business expansion
- Undertake development projects in “manufacturing communities” of Elmira, Corning, Hornell and Norwich
- Continue the Secure Electronics and Advanced Manufacturing Project
- Launch I-86 Corridor Center for Technology Infusion and Center for Transportation IoT Cybersecurity

Transform the Food and Agriculture Industry

- Begin construction of the Plant Science Innovation and Business Development Center at Cornell University
- Continue operations of the Southern Tier Agriculture Cooperative: creating markets
- Continue implementation of the Southern Tier Agriculture Development Fund and Southern Tier Agriculture Education Fund
- Continue investment in production capacity and expansion projects
- Invest in small-scale production facilities
- Invest in USDA slaughterhouse and meat processing facility
- Invest in crop production projects
- Invest in commercial kitchens and premium beverage processing facilities
- Identify distribution markets and center locations

Promote the Southern Tier's Innovative Culture

- Implement brand and promotion program
- Continue administration, monitoring and reporting program to implement the Southern Tier URI plan
- Undertake small town and college town projects
- Invest in tourism alliances, destinations and waterfront redevelopment projects
- Continue to invest in the Southern Tier Community Revitalization Fund
- Invest in spin-off companies and commercialization of technology
- Continue to invest in the Southern Tier Startup Alliance Venture Seed Fund

Timeline and Tasks: Year 3

Build the Greater Binghamton Innovation Ecosystem

- Continue implementation of The Transform Greater Binghamton Fund
- Continue job training programs at SUNY Broome and Salvation Army
- Begin implementation of City of Binghamton waterfront development projects
- Continue to undertake redevelopment projects in City of Binghamton iDistrict
- Invest in business development, entrepreneurs and spin-off businesses in Binghamton
- Begin Collier Street Commons mixed-use project in Binghamton iDistrict
- Undertake Southern Tier Health Sciences and Technology Innovation Park Phase 3: Biopharmaceutical Hub, Center for Regenerative Medicine and Bio Foundry
- Complete redevelopment of the 10-acre site at 59 Lester Avenue in Johnson City
- Complete Phase 2 of the Goodwill Theatre Project
- Business recruitment and business expansion in Endicott iDistrict
- Continue implementation of Endicott Revitalization Planning study
- Initiate Microgrid Project and Hybrid Powertrain Test Track Project

Invest in the Advanced Manufacturing Industry

- Invest in strengthening competitive positioning and growing exports
- Continue investment in the Southern Tier Small Manufacturing Competitiveness Fund
- Continue investments in workforce training programs
- Year 2 of the Manufacturing Workforce Awareness and Recruitment Program
- Invest in private-sector and academic R&D and start-up companies
- Invest in expansion of advanced manufacturing companies, anchor firms and supply chain businesses
- Invest in enhancing advanced manufacturing infrastructure
- Invest in basic infrastructure projects to support and advance business expansion
- Undertake development projects in “manufacturing communities” of Elmira, Corning, Hornell and Norwich
- Continue investment: I-86 Corridor Center for Technology Infusion, Center for Transportation IoT Cybersecurity, other R&D and start-up companies
- Final year of the Secure Electronics and Advanced Manufacturing Project

Transform the Food and Agriculture Industry

- Plant Science Innovation and Business Development Center at Cornell University
- Undertake research projects such as beef and cattle
- Continue operations of the Southern Tier Agriculture Cooperative
- Continue implementation of Southern Tier Agriculture Development Fund & Southern Tier Agriculture Education Fund
- Invest in crop production such as the Vineyard Reclamation and Replacement Program Phase 2
- Invest in expansion of production capacity and processing facilities
- Invest in small-scale production facilities
- Invest in USDA pig, poultry and meat processing facilities
- Undertake business development projects
- Invest in beverage processing facilities
- Undertake basic infrastructure to support processing facilities
- Develop network distribution markets and network of distribution hubs
- Identify distribution modes of transportation

Promote the Southern Tier's Innovative Culture

- Implement brand and promotion program
- Continue administration, monitoring and reporting program to implement the Southern Tier URI plan
- Undertake small town and college town projects
- Invest in tourism alliances, destinations and waterfront redevelopment projects
- Invest in spin-off companies and commercialization of technology
- Continue to invest in the Southern Tier Startup Alliance Venture Seed Fund

Timeline and Tasks: Year 4

Build the Greater Binghamton Innovation Ecosystem

- Continue implementation of The Transform Greater Binghamton Fund
- Continue job training programs at SUNY Broome and Salvation Army
- Continue implementation of City of Binghamton waterfront development projects
- Continue to undertake redevelopment projects in City of Binghamton iDistrict
- Continue to invest in business development, entrepreneurs and spin-off businesses in Binghamton
- Continue Collier Street Commons and other mixed use projects in Binghamton iDistrict
- Complete Southern Tier Health Sciences and Technology Innovation Park Phase 3: Biopharmaceutical Hub, Center for Regenerative Medicine and Bio Foundry
- Undertake Phase 3 of the Goodwill Theatre Project
- Expand Industrial 3D Printing Center
- Business recruitment and expansion in Endicott iDistrict
- Continue implementation of Endicott Revitalization Planning study
- Continue Microgrid Project and Hybrid Powertrain Test Track Project

Invest in the Advanced Manufacturing Industry

- Invest in strengthening competitive positioning and growing exports
- Continue investment in the Southern Tier Small Manufacturing Competitiveness Fund
- Continue investments in workforce training programs
- Year 3 of the Manufacturing Workforce Awareness and Recruitment Program
- Invest in private sector and academic R&D; and start-up companies
- Invest in expansion of advanced manufacturing companies, anchor firms and supply-chain businesses
- Invest in enhancing advanced manufacturing infrastructure
- Undertake development projects in “manufacturing communities” of Elmira, Hornell and Norwich
- Continue investments: I-86 Corridor Center for Technology Infusion, Center for Transportation IoT Cybersecurity, other R&D and start-up companies

Transform the Food and Agriculture Industry

- Plant Science Innovation and Business Development Center at Cornell University
- Continue research projects
- Continue operations of the Southern Tier Agriculture Cooperative
- Continue implementation of Southern Tier Agriculture Development Fund and Southern Tier Agriculture Education Fund
- Invest in crop production
- Invest in expansion of production capacity and processing facilities
- Invest in small-scale production facilities
- Invest in basic infrastructure to support processing facilities
- Invest in distribution markets and network of distribution hubs
- Invest in distribution transportation modes

Promote the Southern Tier’s Innovative Culture

- Implement brand and promotion program
- Continue administration, monitoring and reporting program to implement the Southern Tier URI plan
- Undertake small town and college town projects
- Invest in college student retention program
- Invest in tourism alliances, destinations and waterfront redevelopment projects
- Invest in spin-off companies and commercialization of technology
- Continue to invest in the Southern Tier Startup Alliance Venture Seed Fund

Timeline and Tasks: Year 5

Build the Greater Binghamton Innovation Ecosystem

- Continue implementation of The Transform Greater Binghamton Fund
- Continue job training programs at SUNY Broome and Salvation Army
- Continue implementation of City of Binghamton waterfront development projects
- Continue to undertake redevelopment projects in City of Binghamton iDistrict
- Continue to invest in business development, entrepreneurs and spin-off businesses in Binghamton
- Complete Collier Street Commons and other mixed-use projects in Binghamton iDistrict
- Complete Phase 3 of the Goodwill Theatre Project
- Business recruitment and expansion in Endicott iDistrict
- Continue implementation of Endicott Revitalization Planning study
- Complete Microgrid Project
- Complete Hybrid Powertrain Test Track Project

Invest in the Advanced Manufacturing Industry

- Invest in strengthening competitive positioning and growing exports
- Continue investment in the Southern Tier Small Manufacturing Competitiveness Fund
- Continue investments in workforce training programs
- Invest in private-sector and academic R&D and start-up companies
- Invest in expansion of advanced manufacturing companies, anchor firms and supply-chain businesses
- Invest in I-86 Center for Technology Infusion, Center for Transportation IoT Cybersecurity, other R&D and start-up companies

Transform the Food and Agriculture Industry

- Plant Science Innovation and Business Development Center at Cornell University
- Continue research projects
- Continue operations of the Southern Tier Agriculture Cooperative
- Continue implementation of Southern Tier Agriculture Development Fund and Southern Tier Agriculture Education Fund
- Invest in crop production
- Invest in expansion of production capacity and facilities projects
- Invest in premium beverage processing and production facilities
- Invest in distribution markets and network of distribution hubs
- Invest in distribution transportation modes

Promote the Southern Tier's Innovative Culture

- Implement brand and promotion program
- Continue administration, monitoring and reporting program to implement the Southern Tier URI plan
- Undertake small town and college town projects
- Invest in college student retention program
- Invest in tourism alliances, destinations and waterfront redevelopment projects
- Invest in spin-off companies and commercialization of technology
- Continue to invest in the Southern Tier Startup Alliance Venture Seed Fund

MILESTONES

The Southern Tier intends to move forward expeditiously. Following are examples of projects that would produce results in the first three years of URI funding.

Groundbreakings and construction starts

2016		
<ul style="list-style-type: none"> Route 434 Greenway in Binghamton Cameron Manufacturing Expansion in I-86 Corridor Southern Tier Health Sciences Technology & Innovation Park: Renovation of 48 Corliss Ave for Binghamton University Decker School of Nursing and School of Pharmacy Century Sunrise Mixed Use Development Upstate Shredding new facility Corning Community Health and Education Complex Finger Lakes Reuse new facility DeMet's Candy facility expansion Raymond Manufacturing Center of Excellence new facility Roxbury Stratton Falls Tourism Destination Norwich Best Western Hotel 	2017	2018
	<ul style="list-style-type: none"> Plant Science Innovation and Business Development Center at Cornell University \$150 million manufacturing facility in Broome County Binghamton's 7 Hawley Street Mixed Use Shovel-ready Sites for Biopharmaceutical Hub in Johnson City iDistrict USDA-certified slaughterhouse Hornell Rail Technology Center Salvation Army Job Training Center Ultra Premium Beverage Center Goodwill Theatre Connector 	<ul style="list-style-type: none"> Binghamton Waterfront Redevelopment Binghamton's Collier Street Commons Project

Dedications and ribbon cuttings

2016		
<p>Southern Tier High-Technology Incubator in Binghamton iDistrict</p> <p>City Center Lofts in Binghamton iDistrict</p> <p>Industrial 3D Printing Center in Endicott iDistrict</p>	2017	
	2018	
	<p>Binghamton Route 434 Greenway dedication</p> <p>Hammondsport Waterfront</p> <p>National Pipe & Plastic's Relocation to Endicott</p> <p>Flexible Printed Electronics Center in Endicott iDistrict</p> <p>Century Sunrise Mixed Use Development opening</p> <p>Ultra Premium Beverage Center Opening</p> <p>DeMet's Candy Expansion dedication</p> <p>Southern Tier Health Sciences Technology & Innovation Park: Binghamton University Decker School of Nursing opening</p> <p>Upstate Shredding plant opening</p> <p>Corning Community Health and Education Complex</p> <p>Groundswell Farm Incubator Expansion</p> <p>I-86 Center for Technology Infusion</p> <p>Ithaca Hummus expansion</p> <p>Roxbury Stratton Falls</p>	<p>Plant Science Innovation and Business Development Center at Cornell University</p> <p>Salvation Army Job Training Center</p> <p>Binghamton's 7 Hawley Street Mixed Use Development</p> <p>Rail Innovation Hub Workforce Development Center in Hornell</p> <p>Goodwill Theatre Phase 2 opening</p> <p>Raymond Center for Manufacturing Excellence</p> <p>Binghamton Food & Beverage Business Incubator</p> <p>Ithaca's Collegetown Redevelopment</p> <p>Elmira's revitalization</p> <p>Hybrid Powertrain Test Center</p>

Announcements of game-changing projects

2016		
<p>Transform the Greater Binghamton Fund</p> <p>Secure Electronics in Advanced Manufacturing Project (interregional, academic, private-sector collaboration)</p> <p>Southern Tier Agriculture and Food Cooperative</p> <p>Southern Tier Agriculture Education Fund (workforce training)</p> <p>Authentic American Experience in Our Downtowns Project</p> <p>Lake Erie College of Osteopathic Medicine Opens in Elmira</p> <p>Launch of Southern Tier Venture Fund</p> <p>Southern Tier Promotion Alliance</p>	2017	2018
	<p>Center for Transportation IoT Cybersecurity</p> <p>I-86 Center for Transportation Technology Infusion</p> <p>Southern Tier Brand</p> <p>Southern Tier Manufacturing Workforce Awareness and Recruitment Program</p> <p>Talent Attraction and Retention Campaign</p> <p>Tourism Entrepreneur Incentivize Fund</p> <p>Master Entrepreneur Main Street & Neighborhood Campus Program</p>	<p>Southern Tier Tourism Institute</p> <p>Site(s) for Regional Food Distribution Center</p> <p>Site for Southern Tier Agri Mall</p>

Year 1: Examples of Projects Ready to Go

URI Investment	
Build the Greater Binghamton Innovation Ecosystem	
Binghamton iDistrict	
7 Hawley Street Mixed Use Development	3,450,000
Salvation Army Job Training Center	1,125,000
Bates Troy Expansion	675,000
City Center Lofts (NYSERDA Green Innovation Program)	400,000
Route 434 Greenway Project (Cleaner Greener)	3,000,000
Lackawanna Train Station Revitalization	75,000
City of Binghamton Waterfront Development Project Planning (LWRP)	50,000
Johnson City Health and Cultural iDistrict	
Southern Tier Health Sciences and Technology Innovation Park: Renovation of 48 Corliss	21,000,000
Century Sunrise mixed-use development project	1,350,000
Goodwill Theatre Phase 2 (Parks, Arts, etc.)	3,000,000
Southern Tier Health Sciences and Technology Innovation Park: Redevelopment of 59 Lester Avenue 10-acre site	3,000,000
Endicott Advanced Manufacturing iDistrict	
Relocation of National Pipe and Plastic to Endicott	700,000
Industrial 3D Printing Center	4,000,000
Downtown Endicott Revitalization Plan	50,000
Overall	
The Transform Greater Binghamton Fund: Year 1	5,000,000
SUNY Broome Specialized Technician Training Program	500,000
Subtotal	\$47,375,000
Invest in the Advanced Manufacturing Industry	
Raymond Manufacturing Center of Excellence	7,000,000
Advanced Rail Technology Center in Hornell	5,000,000
Secure Electronics and Advanced Manufacturing Project	5,600,000
Corning Community Health and Education Complex	6,000,000
Upstate Shredding Media Plant	1,000,000
Elmira College and LECOM Driving Elmira Refresh	1,700,000
Anchor Glass Container Mfg Plant Upgrade	1,200,000
Cameron Manufacturing 300,000 sf expansion	800,000
Leatherstocking Natural Gas Line (18-mile natural gas distribution line)	1,500,000
Southern Tier Small Manufacturing Competitiveness Fund	1,000,000
NorthEast Center for Chemical Energy Storage	620,000
Ice Bear Production Expansion	496,200
Finger Lakes Reuse	500,000
Transit Air Expansion	300,000
Envision Elmira, The Werdenberg Building Project	120,000
Buckingham Manufacturing	45,000
Incodema 3D Metrology Project	375,000
Block Bindings	200,000
Tioga County Industrial Park Manufacturer Attraction Project	350,000
Downtown Hornell revitalization (HCR)	250,000
SUNY Broome Mfg. Basics Certificate Program for Unemployed Workers (DOL)	77,000
Subtotal	\$34,133,200

Transform the Food and Agriculture Industry	
Plant Science Innovation and Business Development Center at Cornell University: Phase 1 Design	500,000
DeMet's Candy Expansion	2,000,000
Ultra Premium Beverage Center in Schuyler Business Park: Phase 1	1,000,000
Vineyard Reclamation and Replacement Program – Year 1	500,000
USDA Slaughterhouse in Chenango County	1,007,800
Village of Walton Biogas Project to support Kraft Foods	1,480,000
Village of Waverly WWTP upgrade to support expansion of Leprino Cheese	2,000,000
Southern Tier Agriculture and Food Development Cooperative	250,000
Southern Tier Agriculture Education Fund	500,000
Southern Tier Agriculture Development Fund	500,000
Ag Micro Project in Delaware County (HCR)	200,000
Groundswell Farmer Incubator Capacity Improvement Project	110,000
Hopshire Farm Brewery Expansion	60,000
Ithaca Beer Company Expansion	175,000
Chicone Cabinet Makers	164,000
Kirkside Community Kitchen (DOS)	135,000
Subtotal	\$10,581,800
Promote the Southern Tier's Innovative Culture	
Collegetown Redevelopment Project in Ithaca (Firehouse Capital Project)	1,200,000
Southern Tier Branding Program	750,000
Southern Tier Start-up Alliance Capital Seed Fund	1,000,000
The Roxbury at Stratton Falls	1,375,000
Authentic American Experience in Our Downtowns	500,000
Norwich Best Western Hotel Redevelopment Project	250,000
Urbana Hammondsport Waterfront Redevelopment	410,000
Removal of Watkins Glen WWTP from Seneca Lake waterfront (DEC)	600,000
Finger Lakes Boating Museum	50,000
Sciencecenter Reimagined (Market NY)	300,000
CPSI Biotech Advanced Cell Processing	175,000
eatBING Alliance	50,000
Southern Tier Community Revitalization Program (continued investment)	1,000,000
Administrative Costs for Plan Implementation: Year 1	250,000
Subtotal	7,910,000
Total	\$100,000,000

Detailed project descriptions are included in Appendix 3

Appendix 1

Letters of commitment and support



Advanced Material Analytics LLC

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

September 1, 2015

Re: Upstate Revitalization Initiative – Southern Tier Plan

Dear Mr. Perales:

I am writing in support of the Southern Tier region's Upstate Revitalization Initiative (URI) plan. The innovation ecosystem aspects of this proposed project have the potential to benefit our company's growth trajectory.

Founded by graduates of Binghamton University in 2014, Advanced Materials Analytics (AMA) designs materials characterization and quality control instrumentation and software, and provides associated testing and data acquisition services to meet the needs of industrial customers, research institutions and analytical labs active in the pharma, biomedical, environmental, food and beverage, and oil & gas sectors throughout North America.

Being located in the same Innovative Technologies Complex on Binghamton University's campus where the company leases incubator space, AMA is able to readily access the expertise and infrastructure resident in particular in the Advanced Diagnostics Laboratory and the Integrated Electronics Engineering Center. The operational efficiencies from the proximity and working relationships so established are powerful incentives for AMA to maintain its R&D base in New York.

Looking forward, successful implementation of the URI in the Southern Tier will increase the pool of customers and strategic partners for high-tech ventures such as AMA. Moreover, the outlook for placing student interns, well-trained graduates, and technologies with high-growth companies will continue to brighten as colleges and universities throughout the region intensify their innovation, entrepreneurship – both in the classroom and in the context of experiential learning – professional placement, R&D, and industry outreach programs.

In sum, I endorse the planned URI for its potential to greatly bolster efforts underway to re-invigorate the economy of the Southern Tier, and hope you will give it every consideration.

Swastisharan Dey
President
Advanced Material Analytics LLC



DONNA A. LUPARDO
Member of Assembly
123rd District

THE ASSEMBLY STATE OF NEW YORK ALBANY

CHAIR
Committee on
Children and Families

COMMITTEES
Economic Development, Job Creation,
Commerce and Industry
Environmental Conservation
Higher Education
Transportation

August 31, 2015

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Secretary Perales,

I am writing to express my strong support for the Southern Tier's Upstate Revitalization Plan. It is an exciting time in the Southern Tier, and this plan outlines the investment needed to continue the positive momentum we are seeing in the region.

As an elected representative from Broome County I have seen the progress the region has made over the last several years, and have witnessed successful partnerships that have developed from the REDC process. Realizing the opportunity the Upstate Revitalization Fund can provide, I made it a priority of mine to work with the community to ensure we have one of the best proposals in the state. I attended many of the meetings and workgroups the REDC held to identify the region's priority initiatives and projects. I also personally met with many of the groups who put forward proposals and wrote support letters on their behalf. Based on what I have seen, I believe the Southern Tier has a very competitive proposal.

We have worked to identify projects that will not only create jobs, but assist with diversifying our economy in the Southern Tier. Four major priority initiatives were identified that will build upon the strong foundation that exists in the area: promoting our innovative culture to attract entrepreneurs, talent, and investment; establishing the Southern Tier as a world recognized leader in new agriculture technology and as a key food supplier for the East Coast of the United States; building upon the region's advanced transportation equipment manufacturing; and creating Greater Binghamton Innovation Districts, which will serve as an innovation driver and spearhead urban revitalization in those designated communities.

I attended the URI conference in Buffalo and had the opportunity to watch all of the regional presentations. I was very proud of our delegation and am very confident in the way we have structured the proposal. We have a very diverse plan – from supporting Binghamton University's new School of Pharmacy by establishing a Health Sciences Technology and Innovation Park, to supporting local agriculture and agritourism, to assisting local businesses expand and revitalize our urban core. The state has the opportunity to make a lasting impact on the region for years to come by supporting the Southern Tier's Upstate Revitalization Plan.

Sincerely,

Donna A. Lupardo

Donna Lupardo
Member of Assembly

ALBANY OFFICE: Room 626, Legislative Office Building, Albany, New York 12248 • 518-455-5431, FAX 518-455-5693
DISTRICT OFFICE: State Office Building, 17th Floor, 44 Hawley Street, Binghamton, New York 13901-4416 • 607-723-9047, FAX 607-723-9313
E-MAIL: lupardod@assembly.state.ny.us

BAE Systems
Electronic Systems
1098 Clark Street
Endicott, NY 13760

BAE SYSTEMS

September 18, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Dear Mr. Perales:

BAE Systems fully supports the Southern Tier's URI proposal.

We are situated squarely within the proposed Endicott iDistrict and see benefits not just to our company, but to the advanced manufacturing industry throughout the Southern Tier. The proposed investments in cybersecurity technology and the Endicott iDistrict centers for 3D printing, flexible printed electronics, microgrid integration, and powertrain testing are relevant and important to the transportation industry. These are cutting edge technologies that are shaping our industries' future.

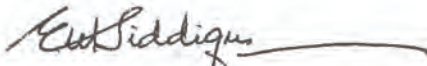
We are excited by the concepts expressed in the proposal and pleased to have helped shape it. We look forward to participating actively in the detailed project planning to come and endorse its prospects for revitalization of advanced manufacturing in the Southern Tier.

Please give the Southern Tier's proposal your strongest consideration.

Best regards,



Stephen J. Trichka
Vice President and General Manager, HybriDrive Solutions
BAE Systems



Ehtisham U. Siddiqui
Vice President and General Manager, Controls & Avionics Solutions
BAE Systems



Broome County Health Department

Debra A. Preston, County Executive . Claudia A. Edwards, MS, Public Health Director

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales,

I am writing to support the Southern Tier's Upstate Revitalization Plan's proposal to establish a *Health Sciences and Technology Innovation Park* serving the region with quality healthcare education, responsive health services, nationally recognized research initiatives, and innovative high tech industry. We are excited about the plan to collocate Binghamton University's Decker School of Nursing and its partners near Binghamton University's new School of Pharmacy and Pharmaceutical Sciences. This partnership will expand the Southern Tier's educational and research programs, grow its industrial partnerships and serve as a healthcare anchor for our region.

At the Broome County Health Department, we are responsible for assessing and monitoring a variety of public health concerns that impact the health status of community residents. If this project is funded, we look forward to providing opportunities to incorporate population health management concepts, such as chronic disease prevention, control of vaccine preventable diseases, and a reduction in premature mortality into joint classes with nursing and pharmacy students and include activities such as a response to a mass casualty or natural disaster.

This plan for the *Health Sciences and Technology Innovation Park* has our full endorsement and commitment and will contribute to the economic resurgence of our region. We look forward to working with our colleagues across the region to support job growth and economic diversification around the Southern Tier.

Sincerely,

Claudia A. Edwards
Public Health Director
Broome County Health Department

225 Front Street . Binghamton, New York 13905
Phone: (607) 778-3930 . Fax: (607) 778-2838 . www.gobroomecounty.com



Cornell University
Cooperative Extension

Extension Administration

Cornell University
365 Roberts Hall
Ithaca, NY 14853-5905
t. 607 255-2237
f. 607 255-0788
e. cce@cornell.edu
www.cce.cornell.edu

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

August 7, 2015

Dear Mr. Perales,

It is my pleasure to write in support of the Southern Tier's Upstate Revitalization Initiative (URI) plan, and in particular the Food and Agriculture Initiative.

The Southern Tier has unparalleled assets to support transformative growth in American food and agriculture. In Cornell University, it has the number one program for plant and animal science in the world—an exceptional resource for driving innovation and best practices in agriculture and the broader bio-economy. The region already supports an agricultural ecosystem that includes over 6,600 farms, and sits at a transportation crossroads that provides access to one third of the total U.S. population. The natural resources of the Southern Tier, including land and water, are linchpins for the above assets and make the region an ideal place to increase agricultural production, food products and their distribution.

The proposed URI plan is a priority for Cornell Cooperative Extension because of the opportunity it affords to improve people's lives and the communities they live in. The Food and Agriculture Initiative will grow the Southern Tier economy by catalyzing entrepreneurial opportunities and expanding existing businesses. Success in these endeavors requires a skilled workforce and the ability to leverage new technologies and innovation. Cornell Cooperative Extension has a century-long tradition of knowledge dissemination and welcomes the opportunity to participate in this regional undertaking. Given support from the URI, we will partner with the programs throughout the region to provide education and training that will promote sustainable growth in the food and agriculture sectors of the Southern Tier.

Should the Southern Tier be selected as a URI winner, we would look forward to working with a variety of constituents and partners to transform the Southern Tier economy. I am confident that our partnership and combined investment in this initiative will result in tremendous growth for the economy in this part of Upstate New York.

Sincerely,

Christopher B. Watkins, Ph.D.
Director, Cornell Cooperative Extension
Associate Dean, Colleges of Agriculture and Life Sciences and Human Ecology
Herman M. Cohn Professor, Postharvest Science, Department of Horticulture

Building Strong and Vibrant New York Communities

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

September 21, 2015

Cesar A. Perales, Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Dear Mr. Perales:

The Southern Tier URI proposal has my full support.

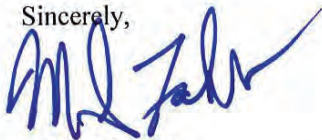
Throughout my career, and in my father's career before me, our companies have worked for the betterment of the Southern Tier, built many enduring structures, established companies, and provided good-paying jobs for the hard working people in our region. I'm proud to have taken ownership of Endicott Machine Tool, now named Engineering Manufacturing Technologies (EMT), and invest in its growth as an advanced manufacturer in the heart of the proposed Endicott iDistrict.

We have maintained EMT's presence in the Southern Tier not only because the region has infrastructure readily available for manufacturers, but most importantly it has a legacy of skilled and dedicated workers needing only decent opportunities. I firmly believe that infrastructure and technology investments being proposed in the Southern Tier URI will further stimulate the advanced manufacturing ecosystem of the Southern Tier. The Endicott iDistrict puts focus on reinvigoration of the historic Endicott industrial core by emphasizing development of technology centers on the cutting edge of advanced manufacturing.

We are excited by the prospects offered by this plan, and look forward to assisting in development of detailed implementation plans.

I encourage your evaluation team to accept the Southern Tier proposal.

Sincerely,



Maynard Fahs,
CEO, Fahs Construction Group
CEO, Hearth Management, LLC
Engineering and Manufacturing Technologies
101 Delaware Ave, LLC
Incodema 3D, LLC
330 Main Street Holdings, LLC
Windsor Technology
Oryx Insurance
Hamister Group, Inc.
Cerebral Assessment Systems



Broome County Farm Bureau Inc.
840 Front Street
Binghamton NY 13905
607-722-4586
First In the Nation

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

July 30, 2015

Dear Mr. Perales,

It is my pleasure to write in support of the Southern Tier's Upstate Revitalization Initiative (URI) plan, and in particular the Food and Agriculture Initiative.

The Southern Tier has unparalleled assets to support transformative growth in American food and agriculture. In Cornell University, it has the number one school for plant and animal science in the world—an entity that supports innovation and best practices in agriculture here in the region. SUNY Broome and Cornell Cooperative Extension of Broome (CCE-BC) are working together in a collaboration that includes linkages between SUNY Broome's Downtown Culinary Center and CCE-BC commercial production kitchen. The region already supports an agricultural ecosystem that includes over 6,600 farms, and sits at a transportation crossroads that provides access to one third of the total U.S. population. The natural resources of the Southern Tier, including land and water, coupled with excellent infrastructure for food production and manufacturing, make the region ideally suited for growth in food and agriculture.

The proposed creation of an Agricultural Development Center at Cornell Cooperative Extension of Broome County (CCE-BC) as part of the URI plan is a priority for the Southern Tier. CCE-BC proposes to renovate their original farmhouse for the creation of an Agriculture Development Center to contain space for a Taste NY store, state-of-the-art classrooms to foster agriculture education and training among farmers, producers, dislocated workers, veterans and SUNY students with the ability to participate in agriculture courses. Many recognize that one of New York's greatest challenges is to grow the next generation of agriculture workers. CCE-BC proposed Agriculture Development Center will serve as a distance learning site for Cornell University as well as work with SUNY Broome and Binghamton University to offer agriculture related classes.

The Agriculture Development Center will serve as a catalyst for our agriculture hub in bringing many non-traditional partners together to enhance the available resources for growing the next generation of farmers and

food producers. SUNY Broome and Cornell University have already expressed interest in utilizing the distance learning classrooms to increase the numbers of students, both traditional and non-traditional, who are able to access their world-class faculty. The Department of Labor has recognized a need for a training curriculum for agricultural workers and this center would help serve that purpose. Together with a commercial production kitchen and regional farmers market also on CCE-BC's campus, as well as NOFA-NY Certified Organic, LLC and Broome County Farm Bureau, the Agriculture Development Center will provide an opportunity to access the full range of education, technical assistance and support to grow a safe and reliable food system to feed the region and beyond!

Should the Southern Tier be selected as a URI winner, we would look forward to working together to catalyze growth in agriculture in the Southern Tier. XX organization strongly supports the consideration of this initiative for funding and looks forward to being a part of the next generation of the agricultural movement in the Southern Tier.

Sincerely,

David Johnson President



Farmers' Market Federation of New York

117 Highbridge St, Suite U-3

Fayetteville, NY 13066

315-400-1447

844-300-6809 (fax)

www.nyfarmersmarket.com

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

August 3, 2015

Dear Mr. Perales,

It is my pleasure to write in support of the Southern Tier's Upstate Revitalization Initiative (URI) plan, and in particular the Food and Agriculture Initiative.

The Southern Tier has unparalleled assets to support transformative growth in American food and agriculture. In Cornell University, it has the number one school for plant and animal science in the world—an entity that supports innovation and best practices in agriculture here in the region. SUNY Broome and Cornell Cooperative Extension of Broome (CCE-BC) are working together in a collaboration that includes linkages between SUNY Broome's Downtown Culinary Center and CCE-BC commercial production kitchen. The region already supports an agricultural ecosystem that includes over 6,600 farms, and sits at a transportation crossroads that provides access to one third of the total U.S. population. The natural resources of the Southern Tier, including land and water, coupled with excellent infrastructure for food production and manufacturing, make the region ideally suited for growth in food and agriculture.

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The Agriculture Development Center will serve as a catalyst for our agriculture hub in bringing many non-traditional partners together to enhance the available resources for growing the next generation of farmers and food producers. The Farmers' Market Federation of NY would utilize this center as we conduct training across the state on the various nutrition programs farmers selling at farmers' markets can accept, as well as on food safety, marketing, and other topics. We would also be able to use this center for our statewide trainings for farmers' market managers on a variety of topics to grow a professional farmers' market manager cohort. This Agriculture Development Center will truly provide an opportunity

Our mission is to support and promote the viability of farmers' markets through innovative services, programs and partnerships that maximize the benefits of markets to sellers, buyers and communities.

to access the full range of education, technical assistance and support to grow a safe and reliable food system to feed the region and beyond!

Should the Southern Tier be selected as a URI winner, we would look forward to working together to catalyze growth in agriculture in the Southern Tier. The Farmers Market Federation of NY strongly supports the consideration of this initiative for funding and looks forward to being a part of the next generation of the agricultural movement in the Southern Tier.

Sincerely,

A handwritten signature in purple ink, appearing to read "Diane Eggert", with a long, sweeping horizontal stroke extending to the right.

Diane Eggert
Executive Director

Our mission is to support and promote the viability of farmers' markets through innovative services, programs and partnerships that maximize the benefits of markets to sellers, buyers and communities.



2666 Main St
Whitney Point, NY 13862

(607) 692-7669
Fax (607) 692-7076

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

August 5 2015

Dear Mr. Perales,

On behalf of the Food and Health Network of South Central NY, I would like to express support for the Southern Tier's Upstate Revitalization Initiative (URI) plan, and in particular the Food and Agriculture Initiative.

The Southern Tier has unparalleled assets to support transformative growth in American food and agriculture. In Cornell University, it has the number one school for plant and animal science in the world—an entity that supports innovation and best practices in agriculture here in the region. SUNY Broome and Cornell Cooperative Extension of Broome (CCE-BC) are working together in a collaboration that includes linkages between SUNY Broome's Downtown Culinary Center and CCE-BC commercial production kitchen. The region already supports an agricultural ecosystem that includes over 6,600 farms, and sits at a transportation crossroads that provides access to one third of the total U.S. population. The natural resources of the Southern Tier, including land and water, coupled with excellent infrastructure for food production and manufacturing, make the region ideally suited for growth in food and agriculture.

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The Agriculture Development Center will serve as a catalyst for our agriculture hub in bringing many non-traditional partners together to enhance the available resources for growing the next generation of farmers and food producers. SUNY Broome and Cornell University have already expressed interest in utilizing the distance learning classrooms to increase the numbers of students, both traditional and non-traditional, who are able to access their world-class faculty. The Department of Labor has recognized a need for a training curriculum for agricultural workers and this center would help serve that purpose. Together with a commercial production kitchen and regional farmers market also on CCE-BC's campus, as well as NOFA-NY Certified Organic, LLC and Broome County Farm Bureau, the Agriculture Development Center will provide an opportunity to access the full range of education, technical assistance and support to grow a safe and reliable food system to feed the region and beyond!

The Food and Health Network's *Regional Food System Assessment for SCNY* documents trends in the regions aging farmers, at the same time as growing demand for local food and renewed interest in agriculture and food entrepreneurship. The Agriculture Development Center is an important link for ensuring that the next

generation of farm and food business owners and employees has access to necessary resources and training for a thriving agricultural economy. Should the Southern Tier be selected as a URI winner, we would look forward to working together to catalyze growth in agriculture in the Southern Tier. The Food and Health Network of South Central NY strongly supports the consideration of this initiative for funding and looks forward to being a part of the next generation of the agricultural movement in the Southern Tier.

Sincerely,

A handwritten signature in dark ink, appearing to read "Erin Summerlee". The script is cursive and fluid.

Erin Summerlee
Coordinator, Food and Health Network of South Central NY



HURON
REAL ESTATE ASSOCIATES, LLC.

1701 North Street Endicott, NY 13760 Office: (607) 755-3190 Fax: (607) 755-7867

September 18, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Dear Mr. Perales:

Huron Real Estate Associates fully supports the Southern Tier URI proposal. We are the property owner and manager of the Huron Campus in Endicott. The campus was the founding location of the IBM Corporation and home to their former micro electronics manufacturing operations in Endicott. The campus is now home to a diverse set of tenants such as BAE Systems, i3 Electronics, and Binghamton University Center for Advanced Microelectronics Manufacturing, Cadence Design Systems, Microchip Technology, IBM and others. We are acutely aware of the need to revitalize the advanced manufacturing ecosystem in the Southern Tier in general, and bring jobs to Endicott, in particular. We are excited by the Endicott iDistrict advanced manufacturing concept and eager to support detailed planning efforts. The Huron campus offers near-turnkey manufacturing space with deep infrastructure already in place such as high capacity utility grid service and industrial wastewater treatment. It is well suited for a spectrum of operations in the advanced manufacturing sector ranging from research and development labs to startup companies to high rate production.

Huron Real Estate Associates has been actively recruiting tenants for this space and will fully support the economic development efforts of the Endicott iDistrict plan. Please give the Southern Tier's proposal your strongest consideration.

Sincerely,

Christopher J. Peltó
President



September 22, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Dear Mr. Perales:

I wish to give strong endorsement of the Southern Tier URI proposal. Incodema is an advanced manufacturing company located in the Southern Tier working to employ 3D printing technology as a commercial manufacturing process. We deliver products to customers across the company built by our 3D printers, and we are expanding rapidly. The 3D printing center proposed for the Endicott advanced manufacturing iDistrict is extremely relevant and entirely complementary to our efforts to advance our understanding in application of 3D printing to industrial commercial applications.

Incodema is investing heavily in 3D printing technology, believing firmly that this is a key element of advanced manufacturing in the future, and an engine for growth of our company and others in the manufacturing sector. We are excited by the concepts expressed in the proposal, look forward to participating in the detailed project planning to come and anticipate eagerly the competitive benefits it will convey.

Please give the Southern Tier's proposal your strongest consideration.

Sincerely,

Sean Whittaker
Founder and CEO
Incodema, Inc.

407 Cliff Street, Ithaca, NY 14850
T: 607-277-7070 | F: 607-277-5511
www.incodemagroup.com

INNOVATION

Optimizing outcomes through
Pharmacy Intelligence™

August 27, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales:

I am writing in support of the establishment of the Southern Tier Health Sciences and Technology Innovation Park, part of the Southern Tier region's Upstate Revitalization Plan. The research and development aspects of this proposed project have the potential to advance our company's current and future initiatives.

The health care sector is among the fastest growing sectors of our nation's economy with more than \$2 trillion spent annually. We are seeing advances in areas ranging from personalized medicine, to smart drug delivery, device development, and health care management. By locating Binghamton University's Decker School of Nursing and industry partners near Binghamton University's new School of Pharmacy and Pharmaceutical Sciences, this plan will not only expand our region's educational and research programs, but also play a critical role in providing translational opportunities in these areas for companies developing new medicines, simulation platforms, health assessment tools and services, and medical applications.

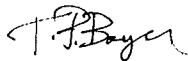
As a pharmacy automation solution provider, we at Innovation Associates optimize outcomes for pharmacies in enhancing patient safety, increasing operational efficiencies, and setting new benchmarks for quality, productivity, and customer satisfaction. We are collaborating with Binghamton University faculty on research in this area and have established a satellite location in the University's Start-Up Suite at the Innovative Technologies Complex and are participating in the Start-Up NY Program. The University has nurtured innovation in the region and the Southern Tier's Plan will continue to do so.

530 Columbia Drive ♦ Johnson City ♦ New York 13790
Tel: 607/798-9376 ♦ Fax: 607/729-5008

The new facility proposed at the Health Sciences Campus will benefit Innovation Associates by providing access to pharmacy-based research, experts, best practices, and trends. This bodes well for the continued competitiveness of our firm in the global marketplace.

The Health Sciences and Technology Innovation Park is an important example of a resource that can be leveraged to sustain the Southern Tier region as an innovation leader.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. P. Boyer', with a stylized flourish at the end.

Thomas P. Boyer
Chief Operating Officer
Innovation Associates, Inc.

TP/skc



Mayor Gregory W. Deemie

OFFICE OF THE MAYOR
VILLAGE OF JOHNSON CITY

MUNICIPAL BUILDING
243 MAIN STREET • JOHNSON CITY, NY 13790

PHONE: (607) 798-7861
FAX: (607) 798-7865
www.villageofjc.com

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales,

As Mayor of the Village of Johnson City, I have worked tirelessly to revitalize our downtown core. Projects such as Binghamton University's School of Pharmacy and Pharmaceutical Sciences, which is expected to open in the fall of 2017, have the potential to give our community an important boost of energy and capital. Already, we have seen a proposal for a \$29 million high quality, affordable housing project in Johnson City, and I look forward to additional projects like that in the months and years to come.

We are building on that momentum through the development of a Health Sciences Technology and Innovation Park in Johnson City which will bring Binghamton University's Decker School of Nursing and its partners in close proximity to the new School of Pharmacy and Wilson Hospital. Bringing nursing faculty, staff and students from Binghamton University to the site will transform that section of Johnson City. With this plan in place, we are already seeing private developers coming forward to offer retail, dining and housing nearby. One day, I can imagine companies interested in product development, medical devices and other health-related fields coming to our village to capitalize on the proximity to researchers in nursing, medicine and pharmaceutical sciences.

The Southern Tier's Upstate Revitalization Plan has transformative potential for our region and our community has come together to support the vision laid out in the Plan. Please let me know if you need any additional information to support the Plan and its creation of a Health Sciences Technology and Innovation Park in Johnson City.

Respectfully,

Gregory W. Deemie, Mayor
Village of Johnson City
Office-607-798-9803
Cell-607-343-6100

LightSpin Technologies, Inc.

85 Murray Hill Road, ES 2407
Binghamton University ITC
Vestal NY 13850
Tel: 607-725-5143
bowling@lightspintech.com

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Initiative – Southern Tier Plan

Dear Mr. Perales:

I am writing in support of the Southern Tier region's Upstate Revitalization Initiative (URI) plan. The research and development aspects of this proposed project have the potential to advance our company's current and future initiatives.

LightSpin Technologies was founded in 2001, and today provides superior photodetector technology and the world's fastest thin film photorefractive device. Given the regional synergies in technical expertise and infrastructure that we would like to leverage, we recently relocated our research and development unit from New Haven, Connecticut to incubator office and lab space in the Innovative Technologies Complex at Binghamton University, have been accepted into the Start-Up New York program and look forward to working with nanofabrication, testing and characterization resources available at both Cornell and Binghamton Universities.

Successful implementation of the URI in the Southern Tier will further expand the region's educational and research programs, increase translational opportunities for companies and research institutions, build deal-flow for investors, and improve the outlook for matching well-trained graduates with high-growth technology companies such as LightSpin.

Moreover, the planned URI can accelerate the development of a vibrant entrepreneurial ecosystem that can lead to a sustainable drive to re-grow and broaden the economic basis of the region. As such, I wholeheartedly support the Southern Tier's plan, and encourage you to give it your full consideration.

Sincerely,



Jared Bowling
President

Helen M. Irving, RN MBA
President & CEO

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460 West 34th St., 15th Fl.
New York, NY 10001-2320
LiveOnNY.org

646-291-4444 (General)
646-291-4600 (Fax)
800-Gift-4-NY (24-hour)

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Initiative Plan

Dear Mr. Perales,

On behalf of LiveOnNY, I would like to express support for the Southern Tier's Upstate Revitalization Initiative (URI) Plan, and in particular the Greater Binghamton Innovation Ecosystem.

LiveOnNY enjoys productive relationships with Binghamton University, a leading education institution in the Southern Tier. Our research collaborations with Professor Mohammad Khasawneh, Department of Systems Sciences and Industrial Engineering, have yielded improvements to many of our health care delivery systems, including workflow and process re-design, productivity assessment and capacity planning, strategic planning and future-state analysis, and digital human modeling for ergonomic assessment.

The Plan's proposal for a Health Sciences and Technology Innovation Park has tremendous potential. It will bring together Binghamton University's new School of Pharmacy and Pharmaceutical Sciences, its Decker School of Nursing and its medical partners to the forefront of interprofessional training. Students who collaborate in this way will go on to become pharmacists and nurses with vital cross-disciplinary knowledge and communication skills. Such a foundation will lead to improved patient care and to the collegial relationships valued by hospitals like ours. The planned facility will also open avenues for enhanced student participation in health sciences research, from drug and device development to health systems engineering.

Nursing and pharmacy students are an important part of our professional community. My colleagues and I are therefore eager to see the programs at Binghamton University evolve in response to new challenges and opportunities in health care.



Caring for New Yorkers
through Organ Donation

I am pleased to lend the support of LiveOnNY to this important proposal. We look forward to continued collaborations with Binghamton University as they work with their regional partners to develop the Health Sciences and Technology Innovation Park as part of the Upstate Revitalization Initiative.

Sincerely,

A handwritten signature in black ink, appearing to read "Helen Irving".

Helen Irving, RN, MBA
President & CEO

Lockheed Martin Mission Systems and Training
1801 State Route 17C Owego, NY 13827-3998



September 18, 2015

Howard Zemsky
President/CEO
Empire State Development
633 Third Avenue
New York, NY

RE: Letter of Support for Southern NY Regional Council - Upstate Revitalization Initiative Proposed
Project: Secure Electronics and Advanced Manufacturing Consortium.

Dear Mr. Zemsky,

As Vice President and General Manager of the Lockheed Martin Mission Systems and Training site in Owego NY, I am very pleased to offer our organizations full support to the Southern New York Regional Development Councils Upstate Revitalization Initiative project to develop a center of excellence and an industry cluster for the development and production of secure electronics systems and advanced electronics manufacturing applications. This project will satisfy a growing demand from both commercial / private sector companies and government agencies for complex secure processing technology. The Southern Tier Region, with Lockheed Martin as the lead industry partner, in collaboration with Binghamton University and our Upstate partners SUNY Polytechnic / CNSE and Air Force Research Lab, Rome NY are well positioned to meet the demand for secure electronic processing and ancillary advanced manufacturing techniques to support these products. We anticipate that our technology partnership will radiate from the Southern Tier throughout Upstate New York as we develop and refine a unique supply base in the State to support secure processing product development and manufacturing.

This coalition will create a deep pool of experts and infrastructure in the area of secure processing. As the lead industry partner in this proposed consortium, New York State and our State University system partners will have our full support and the resident technical resources and expertise to successfully develop and produce the next generation of secure processing and advanced manufacturing technology.

Lockheed Martin Mission Systems and Training in Owego NY is a large employer with over 2,500 employees designing and manufacturing advanced technology systems for global customers. We have a strong base of technology development and engineering, and have led technology development projects such as the proposed secure processing and advanced manufacturing initiative. We very much depend on the region's vibrancy to attract a strong talent pool, and are deeply committed to supporting the economic health of the Southern Tier and all of Upstate New York. It is for that reason that I am serving on the Southern Tier Regional Economic Development Committee (REDC).

I am very excited about the prospects for this proposed consortium and I request your support for this high technology project.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel R. Spoor", written over a horizontal line.

Daniel R. Spoor
Vice President and General Manager



August 24, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales,

I am writing to support the Southern Tier Region's plan to develop a *Health Sciences and Technology Innovation Park* serving the community with quality healthcare education, responsive health services, nationally recognized research initiatives, and innovative high tech industry. We are excited about the region's plans to co-locate Binghamton University's Decker School of Nursing and its partners adjacent to Binghamton University's new School of Pharmacy and Pharmaceutical Sciences and Wilson Hospital. This partnership will expand the region's educational and research programs, grow industrial partnerships and serve as a healthcare anchor for the Southern Tier community.

MedTech is an active association of pharmaceutical, biotech and medical technology companies, their suppliers and service providers, and research universities. MedTech connects New York State's Bio/Med industry through collaboration, education and advocacy. We have collaborated with Binghamton University on advocacy, programming and initiatives since our origins in 2004. The plans for the Health Sciences and Technology Innovation Park aligns closely with our mission, goals and objectives in that it will enable the development of the relationships, tools, and programs that enable New York State companies to bring tomorrow's medical solutions to the healthcare marketplace.

This plan for the Park has our full endorsement and commitment and will contribute to the economic resurgence of the region. We look forward to working with our colleagues in the Southern Tier to support job growth and economic diversification that will benefit all of Upstate New York.

Sincerely,

A handwritten signature in black ink, appearing to read "Jessica Crawford".

Jessica Crawford
President
MedTech Association



THE RAYMOND CORPORATION | P.O. BOX 130, 22 SOUTH CANAL ST | GREENE, NY 13778-0130 | WWW.RAYMONDCORP.COM

Howard Zemsky
President/CEO
Empire State Development
633 Third Avenue
New York, NY 10017

September 16, 2015

Re: Southern Tier Regional Economic Development Council URI

Dear Mr. Zemsky:

On behalf of The Raymond Corporation ("Raymond"), I write this letter in support of the Southern Tier Regional Economic Development Council's URI. The URI recommends an award to Raymond.

By way of background, Raymond is a global provider of material handling technology, including electric lift trucks, automated vehicles, and telematics solutions. Raymond is an indirect subsidiary of Toyota Industries Corporation of Nagoya, Japan. Toyota Industries Corporation's North American headquarters are located in Columbus, Indiana. Raymond is based in rural Greene, New York and currently employs in excess of 1800 employees (inclusive of all employment categories.) We are a key member of the Southern Tier's Advanced Transportation Products, Components and Systems Control Cluster.

The demand for our products is cyclical. Based upon our current projection for the demand of our products through the year 2020, we have formulated a plan to properly to configure our campus and satellite facilities and our staffing. This plan includes the creation of The Raymond Corporation Manufacturing Center of Excellence. The Raymond Center of Manufacturing Excellence, with associated Employee Development and Wellness Center, is designed to enhance and maintain Raymond's standing as a preeminent global manufacturer ("Project.") The Project involves new construction and building renovations at both Raymond's Village of Greene facility and Town of Greene facility, the addition of an employee training facility, and the acquisition of production machinery and equipment. The Village of Greene facility will also receive a turning lane off of Route 12 into the facility further enhancing Raymond's main campus by providing a safe alternative means of ingress into Raymond's parking area.

Assuming our 2020 production goals are met and our projections are accurate, Raymond contemplates creating an additional 100 full-time jobs in relation to the Project. The Project will also assist our efforts to retain jobs in Greene notwithstanding the cyclical nature of our business. A key to the addition and retention of these jobs is the continuance improvement of our manufacturing facility consistent with Toyota Industries Corporation's standards and to ensure that Raymond's facility meets or exceeds those standards for all of its facilities in North America.

Thank you for your consideration of these comments and we look forward to your support for the Southern Tier Regional Economic Development Council's URI.

Very truly yours,

Michael G. Field
President and Chief Executive Officer

MGF/lc



1055 Saw Mill River Road
Suite 204
Ardsley, NY 10502
tel: 914-693-6613
fax: 914-693-1282

September 1, 2015

Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales,

For 25 years, Regan Development Corporation, a family run business, has developed over \$384 million worth of residential and commercial real estate and affordable housing developments in New York, New Jersey and Connecticut, improving the lives of thousands in the process. We have the opportunity to evaluate as well as participate in many opportunities for commercial property development driven by University growth.

The Upstate Revitalization Plan's proposal to establish a Health Sciences and Technology Innovation Park in Johnson City has our full support. Binghamton University's establishment of a new School of Pharmacy and Pharmaceutical Sciences has already spurred some development in Johnson City. In fact, Regan Development has an option on 135-139 Baldwin Street, a former Endicott-Johnson factory within the Johnson City iDistrict. We are applying for \$1.8 million in State funds through the CFA to convert this dilapidated site into 80 units of housing and approximately 4,500 square feet of commercial space. This mixed use project will eliminate a blighting structure, redevelop an abandoned brownfield site, and supply much needed workforce housing for staff at Wilson Hospital, Binghamton University, and local employers.

Binghamton University's proposal to bring its Decker School of Nursing and partners to Johnson City will make the area even more appealing to the kind of development we envision, including additional housing, retail and restaurant space nearby. And if the Southern Tier Health Sciences and Technology Innovation Park takes root the way that the schools expect, we could see some significant start-up businesses in the medical devices and healthcare fields, too.

I applaud the thinking behind the Upstate Revitalization Plan and look forward to seeing the exciting growth envisioned at the Health Sciences and Technology Innovation Park in Johnson City. I hope you will give the Plan your full consideration.

Sincerely,



Larry Regan



Developmental Disabilities Planning Council

ANDREW M. CUOMO
Governor

SHEILA M. CAREY
Executive Director

August 26, 2015

Hon. Cesar A. Perales
Secretary of State
NYS Department of State
123 William Street
New York, New York 10038-3804

Re: Upstate Revitalization Plan / Strategic Implementation Assessment Team

Dear Secretary Perales:

I am writing on behalf of the New York State Developmental Disabilities Planning Council (DDPC) to support the Southern Tier's Upstate Revitalization Plan. This Plan will leverage the resources in our academic and health care institutions and industry to transform the Southern Tier. We are especially interested in the region's plans to establish a Health Sciences and Technology Innovation Park in Johnson City, New York. For over 40 years, the DDPC has been developing and funding innovative, disability-related projects which improve the lives of people with intellectual and developmental disabilities. Our mission and current State Plan objectives focus on enhancing the use of appropriate supports and services for people with intellectual and developmental disabilities and their families.

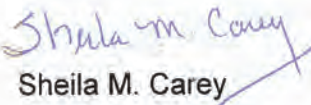
As part of this effort, we have had the pleasure of working with Binghamton University's Decker School of Nursing and have personally witnessed their ability to effectively manage substantial and long-term grants. Currently, the Decker School holds a "Partners in Health for People with Disabilities (PHEPD)" grant from DDPC, which requires them to use evidence-based interactive curriculum to improve the awareness, attitudes, knowledge, skills, clinical care competencies and confidence in health care professionals who work with patients with disabilities and their families/caregivers. Binghamton has successfully implemented the PHEPD curriculum components into their existing programs so that all students participate. They offered lectures online to accommodate students from across NY State and have developed community-based relationships across the region to allow students more choice in their experiences. With this grant, as with others, Binghamton University has delivered outcomes that have exceeded our expectations. Their role in the education of our healthcare workforce is of the highest caliber and we are extremely lucky to have this institution of excellence in our region.

One Commerce Plaza, Suite 1230, Albany, NY 12210 | (800) 395-3372 | www.ddpc.ny.gov

Locating the Decker School of Nursing in Johnson City will enable the school to continue the excellent educational experience they provide by expanding their facilities, including state of the art simulation laboratories, and inter-professional training with partners including the School of Pharmacy and Pharmaceutical Sciences, local hospitals including UHS and Lourdes, and others. We fully support their plans to establish a facility in Johnson City and look forward to continued collaborations.

If you have any questions or need additional information regarding DDPC's support, please contact me.

Sincerely,


Sheila M. Carey



Cesar A. Perales
Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

September 1, 2015

Dear Mr. Perales,

The Southern Tier Startup Alliance is pleased to support the application of the Southern Tier Regional Economic Development Council for funding through the Upstate Revitalization Initiative (URI). In the 5 years of the URI, the projects funded by the state's investment in the region will increase its capacity to develop, support, and retain the entrepreneurial community in the Southern Tier.

Backed by a strong partnership between Cornell University, Binghamton University, and Corning Enterprises, the Southern Tier Startup Alliance (STSA) is a member organization of business incubators in the region focused on providing support to people starting and growing companies in the Southern Tier. By pooling resources, the STSA is able to offer programming, workshops, and mentoring opportunities at member incubators that facilitate the growth of startups into mature, sustainable businesses for the region. By bringing coherence to a growing regional ecosystem of entrepreneurs and support organizations, the STSA creates a whole that is greater than the sum of its parts. The STSA is an enthusiastic supporter of the Southern Tier community and its talented entrepreneurs, and is a proud partner of the region's REDC. As the facilitator of the region's proposed Southern Tier Seed Venture Fund, the STSA will be able to connect startups with high growth potential to the capital needed to launch into their respective markets and create jobs for the region. This Venture Fund will address the extraordinary shortage of seed capital in a region that is bursting with innovation supported by its powerful network of research universities and research laboratories. These investments will ensure products developed in university and corporate laboratories will be turned more quickly into engines of economic growth and prosperity.

This Fund forms an integral component in a holistic regional plan for prosperity. The Southern Tier's constellation of collaborative organizations, including the STSA, has sought to ensure that entrepreneurs are supported in an ecosystem of services that maximizes their chance of flourishing in the national and international marketplace. The STSA's member incubators make up an important component, as well as the significant investments by the region's universities, colleges, Industrial Development Agencies, and business communities. All of these services and investments will be incorporated into the region's regional brand, through which the Southern Tier will be known as a place where entrepreneurs can reach their goals of creating competitive business, while enjoying and irresistible and unreplicable lifestyle that allows innovators to thrive in their work and enjoy the region's leisure opportunities. The region's plans for urban and downtown revitalization and its support for the region's bursting cultural and recreational resources ensures that entrepreneurs considering moving to or staying in the region need not choose between competitiveness or leisure enjoyment when living and working in the Southern Tier.

Thus, the Southern Tier's application is truly a cohesive framework for success; it leaves no stone unturned in creating a region that is desirable to live in and one that is globally competitive. The STSA will continue to enhance its support services to entrepreneurs through its array of incubators in collaboration with its corporate and university partners. With the support from the URI, the region will fill gaps in entrepreneurial services that have stunted the region's growth potential, and will enhance the region's ability to market itself as both a global leader in innovation, and as a place for the full enjoyment of life- both inside and out of the workplace. With your help, our region can realize its fullest potential, and its entrepreneurial community can once again make the Southern Tier a focal point of innovation, and truly make New York State a state of opportunity for all residents, in all of the state's regions.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Schryver', with a long, sweeping horizontal line extending to the right.

Tom Schryver

Executive Director, Southern Tier Startup Alliance

August 26, 2015

Cesar A. Perales, Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

Dear Mr. Perales:

On behalf of SUNY Broome Community College and the Southern Tier of New York, I ask for your support of our Region's Upstate Revitalization Plan (URI).

SUNY Broome has been a leader in workforce development since its inception in 1946, and we intend to play a key role in the deployment of our Region's URI plan in areas of workforce development, entrepreneurship, food and agricultural education and training, training for hard-to-place workers in the health care field, and more.

For decades the College supported large, secure industries in New York State by providing a consistent flow of highly skilled workers trained in a range of technologies. In the past two decades, the area's economic stability eroded due to global competition and rapid technological changes, resulting in upheaval to regional job stability.

During this time of tumultuous change, SUNY Broome continued to address workforce challenges by providing education and training to companies across the region. Programs included Worker Outplacement, Succession Planning, Lean Six Sigma, Supply Chain Management, Metallurgy, Project Management and Technical Writing, along with an array of both credit and non-credit programs and certificates in technical and soft-skill areas. By partnering with key associations such as the American Society for Quality (ASQ) and the American Production and Inventory Control Society (APICS), workers from both the private and public sector have been able to transition, improve, and maintain skills in areas to help the region remain competitive during trying times.

In the past year, SUNY Broome had more than 3,000 workforce course registrations with more than 20,000 contact hours in technical, supervisory, computer, and business areas. The College frequently partners with Broome Tioga Works and has developed a Manufacturing Basics Certificate in alliance with them to ensure sustainable growth for incoming workers. SUNY Broome also partners with the New York State Department of Labor to host job fairs on campus, bringing in more than 70 employers annually and over 500 job seekers each year.

August 26, 2015

Page 2

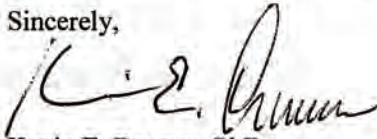
The College is also a leader in international workforce development, bringing in students and professionals from nations including Mexico and Colombia to the SUNY Global Center in Manhattan where they study proposal development, economics, innovative strategies for business, and more. This Fall, SUNY Broome has partnered with SUNY Central to bring in students from Bocalos, Mexico, to study Mechatronics, Renewable Energy, and other state-of-the-art technologies.

With more than 80% of the College's 6,900 plus students enrolled in degree programs, SUNY Broome remains dedicated to supplying the State with well-educated graduates. Most importantly, this continuum of support extends from preparing today's youth for a future college education to supporting business and industry with the agility and future-oriented reputation for which SUNY Broome is best known.

SUNY Broome has been very involved for several months in the development of strategies and planning for the region's URI proposal. Working closely with Binghamton University, Empire State Development Corporation, and an array of community leaders in economic development from both the private and public sectors, we established a plan to best address the ever-changing needs and opportunities in the Southern Tier.

SUNY Broome is well-aligned with the goals of the Opportunity Agenda. Mr. Perales, and team members, you have often expressed how important it is to have a dream and you have encouragingly noted that, when you do the right things, those dreams can come true. In the past few years we at SUNY Broome have expanded our vision and reach to an entirely new group of students who have come primarily from throughout New York, but also from the country and the world to Binghamton to live in our new residence hall to receive an outstanding higher education. We have created new internships with business and industry and currently have 200 job and internship opportunities for our students and alumni to access, and we are eager to begin developing programming in agribusiness, agricultural technology and other areas covered in our URI plan. We are ready to continue to expand our dreams and visions into new realities for New York and would appreciate your support with our Region's Initiative.

Sincerely,



Kevin E. Drumm, PhD
President

Cesar A. Perales
Chairman, State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, New York 10038-3804

August 5, 2015

Dear Mr. Perales,

It is my pleasure to write in support of the Southern Tier's Upstate Revitalization Initiative (URI) plan, and in particular the Food and Agriculture Initiative.

The Southern Tier has unparalleled assets to support transformative growth in American food and agriculture. In Cornell University, it has the number one school for plant and animal science in the world—an entity that supports innovation and best practices in agriculture here in the region. SUNY Broome and Cornell Cooperative Extension of Broome (CCE-BC) are working together in a collaboration that includes linkages between SUNY Broome's Downtown Culinary Center and CCE-BC commercial production kitchen. The region already supports an agricultural ecosystem that includes over 6,600 farms, and sits at a transportation crossroads that provides access to one third of the total U.S. population. The natural resources of the Southern Tier, including land and water, coupled with excellent infrastructure for food production and manufacturing, make the region ideally suited for growth in food and agriculture.

The proposed creation of an Agricultural Development Center at Cornell Cooperative Extension of Broome County (CCE-BC) as part of the URI plan is a priority for the Southern Tier. CCE-BC proposes to renovate their original farmhouse for the creation of an Agriculture Development Center to contain space for a Taste NY store, state-of-the-art classrooms to foster agriculture education and training among farmers, producers, dislocated workers, veterans and SUNY students with the ability to participate in agriculture courses. Many recognize that one of New York's greatest challenges is to grow the next generation of agriculture workers. CCE-BC proposed Agriculture Development Center will serve as a distance learning site for Cornell University as well as work with SUNY Broome and Binghamton University to offer agriculture related classes.

The Agriculture Development Center will serve as a catalyst for our agriculture hub in bringing many non-traditional partners together to enhance the available resources for growing the next generation of farmers and food producers. SUNY Broome and Cornell University have already expressed interest in utilizing the distance learning classrooms to increase the numbers of students, both traditional and non-traditional, who are able to access their world-class faculty. The Department of Labor has recognized a need for a training curriculum for agricultural workers and this center would help serve that purpose. Together with a commercial production kitchen and regional farmers market also on CCE-BC's campus, as well as NOFA-NY Certified Organic, LLC and Broome County Farm Bureau, the Agriculture Development Center will provide an opportunity to access the full range of education, technical assistance and support to grow a safe and reliable food system to feed the region and beyond!

Should the Southern Tier be selected as a URI winner, we would look forward to working together to catalyze growth in agriculture in the Southern Tier. The Business & Public Services Division at SUNY Broome Community College strongly supports the consideration of this initiative for funding and looks forward to being a part of the next generation of the agricultural movement in the Southern Tier. The Division includes programs in Business, Business Information Technology, Entrepreneurship and Hospitality, as well as courses in Sanitation and Safety, Kitchen Chemistry, Nutrition, IT for Service Industries, and Business Plans together with appropriate courses in the Chemistry and Biology departments in the STEM Division that would be a perfect resource and foundation for this initiative. We recognize the importance of well-trained and educated workers for supporting and growing the region's agricultural industry and would welcome the collaboration involved in this unique and transformative initiative.

Sincerely,



Associate Vice President and Dean
Business and Public Services and Academic Services

THIRD LEAF PARTNERS

September 14, 2015

Judy McKinney Cherry, CEcD
Executive Director
Schuyler County Partnership for Economic Development
910 South Decatur Street
Watkins Glen, New York 14891

Dear Judy,

Third Leaf Partners is excited about the opportunity to work with SCOPED on the creation of a plan for an ultra-premium wine production facility located at the Schuyler County Business Park. From our discussions with local wineries it appears there is strong demand for a shared facility that can be constructed to provide individual space for the growth of wineries that are already exceeding the intended production capacity at their existing locations while their customers continue to ask for more wine each year. The Center could also provide space for specialized service providers (such as a laboratory, high-speed bottling line, etc.) that are part of the supply chain for ultra-premium wine production. In addition, we envision creating space for expanded warehousing and distribution capacities to be added to the facility. Finally, the Center could also provide opportunities for new internationally supported wineries to locate their ultra-premium wine production at the Center for sales to international and domestic markets.

To satisfy this demonstrated demand, Third Leaf Partners is looking to develop plans for a 22,000 square foot, climate controlled facility that could lease space to up to four wineries. The total investment in the first phase of development is projected to be \$2,600,000. We also project that the four wineries could create up to 16 additional jobs. This is the first phase of development and we believe there is potential to continue expanding the space over the next five years. This could result in the addition of 40,000 square feet of space at a total development cost of \$3,200,000, leading to the creation of 12 additional jobs.

Third Leaf Partners manages, operates, and advises winery and hospitality brands at all stages of development. My partners and I have worked closely with a range of companies, including Freemans Restaurant (New York), Meadowood Napa Valley (St. Helena), Blackberry Farm (Tennessee), Freemans Sporting Club (New York, Tokyo) and Fellow Barber (New York, San Francisco), in addition to also successfully operating and growing wine businesses globally, including Sandhi and Domaine de la Côte (Santa Barbara), Mulderbosch (South Africa), Antica Terra, Evening Land and Gothic (Oregon), Erewhon (New Zealand), ENTER.Sake (Japan), Annona (Italy), and Bonnet Rouge (France). Our newest venture is Empire Estate, a winery producing riesling in the Finger Lakes.

In addition to developing and executing the plans and strategies for these businesses, we have raised the capital to launch and/or grow these businesses either directly as the project principals or as advisers to the business owners. We believe this shared facility fits within our realm of experience with regard to the development of the project, the capital raising effort, and the operation and expansion of the business.

We look forward to seeing the plans for this project advance as soon as possible. Although there is strong demand for this concept, the capital expenditure to develop this facility would exceed the amount of revenue the business could generate. Therefore, the use of funding through the Upstate Revitalization Initiative would be a prerequisite to successfully moving the project forward.

Respectfully,



Alexander Pagon
Managing Partner



August 26, 2015

Cesar A. Perales, Chairman
State Implementation Assessment Team (SIAT)
c/o Department of State
123 William Street
New York, NY 10038-3804

Re: Upstate Revitalization Plan

Dear Mr. Perales:

We are excited to see the community coming together with the development of the Upstate Revitalization Plan, which will bring together academia, industry and healthcare providers in a strong collaborative partnership to transform the region.

Matthew J. Salanger, FACHE
President & Chief Executive Officer
United Health Services

Specifically, the proposal for a Health Sciences and Technology Innovation Park in Johnson City, NY, has tremendous potential. We at the locally owned, not-for-profit UHS healthcare system are inspired by the transformative change outlined in this plan.

UHS Wilson Medical Center
UHS Binghamton General Hospital
UHS Chenango Memorial Hospital
UHS Delaware Valley Hospital
UHS Primary Care
UHS Senior Living/Adult
UHS Home Care
UHS Medical Group
UHS Foundation

It is unusual to see a project that can improve health education, patient outcomes and medical research all at once, but this one can do just that. Bringing future nurses and pharmacists to one location will open new possibilities for interdisciplinary professional development, including case studies, simulations and more.

Having them work together in more structured ways will also help these students establish collegial relationships with each other early on, which should benefit their employers and patients down the road. The new park will also open avenues for innovative health sciences research, from medication and device development to new treatments and therapies.

We are also excited by the plans for facilities to be provided at the park, as they will contribute greatly to the continuing education of our professional staff, enabling us to better serve our patients.

The growth and economic revitalization that can be realized in Johnson City and across the Southern Tier through the creation of the Health Sciences and Technology Innovation Park are inspiring.

As the largest healthcare system in the Southern Tier, UHS is very enthusiastic in its support of this project. Please let me know if I can supply any additional information.

Best regards,

Office of the President
10-42 Mitchell Avenue
Binghamton, New York 13903
(607) 762-2263
(607) 762-3203 fax
Matthew_Salanger@uhs.org

Appendix 2

Concepts to address

Innovation

The Southern Tier is a leader in innovation and advanced industries. Innovation will be a cornerstone of our advanced economy in terms of new business development, retention and growth of anchor firms, job creation, high-paying jobs, exports and foreign investment. Our URI plan harnesses and stimulates their growth potential and emerging technologies through:

- Research centers and facilities
- Academic institutions
- Private-sector R&D
- Collaborations and formal alliances among the academic and private sector across the state and the country that emphasize creative ideas and technologies
- Investments in existing companies to help them adapt, modernize and compete in a changing landscape
- Support and development of start-up firms

Sections	Pages
Section I. Introduction and Executive Summary	7-8, 10, 14
Section II. Situation Analysis: Strong Innovative Culture	29
Section IV. Process and Guiding Principles	36-37, 39
Section V. Strategies to Increase Regional Wealth	41-54, 60-62, 67-91, 99-100, 104-107, 130-131, 136-140

Leveraging private-sector investment

The Southern Tier is committed to achieving the 5-to-1 private sector to public sector investment.

Sections	Pages
Section I. Introduction and Executive Summary	7-15
Section V. Strategies to Increase Regional Wealth	41-42, 50-59, 67-68, 81-84, 89-91, 99-100, 110-111, 114-115, 118-119, 123, 130, 142-144

Connectivity

Establishing strong synergies among individuals, target industries, academia, the nonprofit sector and government will be an important part of the formula needed to create the ideal conditions for economic growth in the Southern Tier. Our URI plan is centered on developing connections within and across different industry clusters and geographic areas of the entire region. It also is closely linked to the industry cluster plan adopted by the Southern Tier REDC on September 1, 2015; that is, the Transportation Products, Components and System Controls Manufacturing Industry Plan. In addition to this industry cluster, our plan builds on two additional clusters and builds critical mass in Food & Agriculture and Tourism.

Sections	Pages
Overall: Section IV. Process and Guiding Principles	35-39
Industry Clusters and Critical Mass	67-96, 99-103, 134-135, 137-140
Across Geographic Areas of the Region	67-146
Synergies among individuals, industries, academia, non-profit sector and government	Entire plan

Sustainability

The Southern Tier's plan is designed for the URI investments to contribute to long-lasting and sustainable changes in our region's economy.

Sections	Pages
The Southern Tier's commitment to sustainability of the transformation brought about by this plan is described throughout the plan.	Entire plan
Additional statements on sustainability as it relates to ongoing operations of programs, funds, centers and institutes to be established.	62-63, 94, 121, 144

Workforce development

Specific strategies and projects are identified in each initiative to fill vacant or newly created positions, attract talent and enhance the qualifications of our workforce.

Sections	Pages
Section V. Strategies to Increase Regional Wealth	63-64, 67-68, 81-84, 92-94, 96, 99, 100, 103, 110-111, 117-119, 122, 149

Hard-to-place workers

A key element of workforce development is our plan's approach to hard-to-place workers, with a particular focus on veterans and low-income residents of the distressed communities of Binghamton, Johnson City, Endicott, Elmira, Corning, Norwich and Hornell.

Sections	Pages
Section 1. Introduction and Executive Summary	5
Section II. Situation Analysis	22
Section III. Vision and Initiatives	32-34
Section IV. Process and Guiding Principles	39
Section V. Strategies to Increase Regional Wealth	51-52, 63-64, 81-83, 92-94, 99-100, 111

Community reinvestment

Community rebuilding efforts are necessary in the Southern Tier, particularly in the highly distressed communities of Binghamton, Johnson City, Endicott and Elmira. In addition, community rebuilding is critically important to the manufacturing sector, college and university communities in their ability to attract and retain the best talent and success of tourism destinations, particularly those attracting international visitors.

Sections	Pages
Section I. Introduction and Executive Summary	7, 8-11, 14-15
Section II. Situation Analysis	28
Section V. Vision and Initiatives	31, 37, 39
Section V. Strategies to Increase Regional Wealth	41-65, 67-69, 80-84, 96-97, 130-146

Global economy

The Southern Tier has a focus on the global economy in each of its four initiatives.

Sections	Pages
Section I. Introduction and Executive Summary	5
Section V. Strategies to Increase Regional Wealth	46, 61-62, 67-69, 75, 78-90, 94, 96, 119, 130-133

Collaboration

The Southern Tier engaged all levels of government, the private sector, universities and colleges, the not-for-profit sector and the general public in preparing the plan and gaining consensus around strategic initiatives. The strategies for the four initiatives are built on extensive collaboration at all levels. Such collaboration is described in detail in each initiative, and identified in the organizational chart included at the end of each initiative. In addition, we have identified several opportunities to engage in inter-regional collaboration.

Sections	Pages
Section VI. Strategies to Increase Regional Wealth	Entire section
Proposed inter-regional collaboration	56, 95, 119, 121, 144

Readiness

The Southern Tier has created an organizational structure for each initiative and a structure with roles and responsibilities for overall implementation. In addition, a list of projects that are ready for immediate implementation is included in the game-changing section of each initiative, and a consolidated list is included in Section VI. Implementation.

Implementation and reporting

Section VI. Implementation includes an overall organizational structure for carrying out the plan, a description of how the plan will roll out in terms of tasks, major milestones, anticipated outcomes and proposed budget. In addition, an organizational structure diagram and measures to monitor and assess performance are included at the end of each initiative.

Appendix 3

Projects ready to go in Year 1

Build the Greater Binghamton Innovation Ecosystem

CFA #:	57776	Project Name:	The Transform Greater Binghamton Fund	Project Location:	Binghamton	Project County:	Broome												
Project Applicant:	Broome County Industrial Development Agency			Project Location:		Broome													
Project Description:	Transform Greater Binghamton Fund is proposed by The Agency (Broome County IDA/LDC) for streetscape improvements, housing rehabilitation, commercial facade improvements, select demolitions and other community development efforts to support the ST REDC's Greater Binghamton Innovation Ecosystem Initiative (Districts).																		
Advancing NY State Initiatives:	Opportunity Agenda, NY Rising, Start-Up NY, Hot Spots, Brownfield Redevelopment, Community Reinvestment																		
PROJECTED JOBS:	Create:	150	Retain:	0	Indirect:	0	Construction:	0											
Recommended URI Grant:	\$5,000,000																		
	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>URI - Economic Growth Initiative</td> <td>\$5,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$5,000,000</td> </tr> </tbody> </table>			Sources of Funds		URI - Economic Growth Initiative	\$5,000,000	Total Sources of Funds:	\$5,000,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Transform Fund</td> <td>\$5,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$5,000,000</td> </tr> </tbody> </table>				Uses of funds		Transform Fund	\$5,000,000	Total Project Cost:	\$5,000,000
Sources of Funds																			
URI - Economic Growth Initiative	\$5,000,000																		
Total Sources of Funds:	\$5,000,000																		
Uses of funds																			
Transform Fund	\$5,000,000																		
Total Project Cost:	\$5,000,000																		
Prior CFA Awards For This Project:	None																		

CFA #:	54435	Project Name:	SUNY Broome Specialized Technician Training Program	Project Location:	Town of Dickinson	Project County:	Broome														
Project Applicant:	Broome Community College			Project Location:		Broome															
Project Description:	New stand-alone credential/certification-bearing training programs to include NIMS (National Institute for Metalworking Skills) credentialing and certifications in IPC (Association Connecting Electronics Industries) Standards and Manufacturing.																				
Advancing NY State Initiatives:	Veteran's Initiative, Opportunity Agenda, Hard-to-Place Workers																				
PROJECTED JOBS:	Create:	210	Retain:	0	Indirect:	2	Construction:	10													
Recommended URI Grant:	\$500,000																				
	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>URI - Economic Growth Initiative</td> <td>\$500,000</td> </tr> <tr> <td>Other Local Funding</td> <td>\$520,850</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$1,020,850</td> </tr> </tbody> </table>			Sources of Funds		URI - Economic Growth Initiative	\$500,000	Other Local Funding	\$520,850	Total Sources of Funds:	\$1,020,850	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Certification Program</td> <td>\$1,020,850</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$1,020,850</td> </tr> </tbody> </table>				Uses of funds		Certification Program	\$1,020,850	Total Project Cost:	\$1,020,850
Sources of Funds																					
URI - Economic Growth Initiative	\$500,000																				
Other Local Funding	\$520,850																				
Total Sources of Funds:	\$1,020,850																				
Uses of funds																					
Certification Program	\$1,020,850																				
Total Project Cost:	\$1,020,850																				
Prior CFA Awards For This Project:	None																				

CFA #:	55298	Project Name:	Lackawanna Train Station	Project Location:	Binghamton	Project County:	Broome																
Project Applicant:	Loco Development LLC			Project Location:		Broome																	
Project Description:	Expanded renovation of the historical Lackawanna Train Station, retrofitting this landmark to create opportunities for business development in a blighted area targeted for revitalization in the Greater Binghamton Innovation Ecosystem.																						
Advancing NY State Initiatives:	Opportunity Agenda, NY Rising, Community Reinvestment																						
PROJECTED JOBS:	Create:	0	Retain:	0	Indirect:	5	Construction:	12															
Recommended URI Grant:	\$75,000																						
	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Business Investment</td> <td>\$75,000</td> </tr> <tr> <td>Cash Equity</td> <td>\$425,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$500,000</td> </tr> </tbody> </table>			Sources of Funds		ESD - Business Investment	\$75,000	Cash Equity	\$425,000	Total Sources of Funds:	\$500,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Building Renovations</td> <td>\$345,000</td> </tr> <tr> <td>Soft Costs</td> <td>\$155,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$500,000</td> </tr> </tbody> </table>				Uses of funds		Building Renovations	\$345,000	Soft Costs	\$155,000	Total Project Cost:	\$500,000
Sources of Funds																							
ESD - Business Investment	\$75,000																						
Cash Equity	\$425,000																						
Total Sources of Funds:	\$500,000																						
Uses of funds																							
Building Renovations	\$345,000																						
Soft Costs	\$155,000																						
Total Project Cost:	\$500,000																						
Prior CFA Awards For This Project:	None																						

CFA #:	55259	Project Name:	Bates Troy Expansion Capital	Project Location:	Binghamton	Project County:	Broome																						
Project Applicant:	Bates Troy Incorporated			Project Location:		Broome																							
Project Description:	12,000 sq. ft. expansion of production plant in downtown Binghamton. New employees will be Veterans.																												
Advancing NY State Initiatives:	Opportunity Agenda, Veterans Initiative, NY Rising																												
PROJECTED JOBS:	Create:	11	Retain:	104	Indirect:	0	Construction:	25																					
Recommended URI Grant:	\$675,000																												
	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Business Investment</td> <td>\$675,000</td> </tr> <tr> <td>Cash Equity</td> <td>\$349,500</td> </tr> <tr> <td>Lending Institution</td> <td>\$2,470,500</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$3,495,000</td> </tr> </tbody> </table>			Sources of Funds		ESD - Business Investment	\$675,000	Cash Equity	\$349,500	Lending Institution	\$2,470,500	Total Sources of Funds:	\$3,495,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Building Renovations</td> <td>\$300,000</td> </tr> <tr> <td>New Construction</td> <td>\$1,200,000</td> </tr> <tr> <td>M&E</td> <td>\$1,500,000</td> </tr> <tr> <td>Soft Cost</td> <td>\$495,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$3,495,000</td> </tr> </tbody> </table>				Uses of funds		Building Renovations	\$300,000	New Construction	\$1,200,000	M&E	\$1,500,000	Soft Cost	\$495,000	Total Project Cost:	\$3,495,000
Sources of Funds																													
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M&E	\$1,500,000																												
Soft Cost	\$495,000																												
Total Project Cost:	\$3,495,000																												
Prior CFA Awards For This Project:	Economic Development Fund - RC 2																												

CFA #	55779	Project Name:	7 Hawley Street Mixed Use Development																	
Project Applicant:	Binghamton Urban Renewal Agency	Project Location:	Binghamton	Project County: Broome																
Project Description:	Development of 7 Hawley Street (7 Hawley) - a mixed-use parking, residential, and retail/commercial facility in the core of the Binghamton District, a key leg of the Greater Binghamton Innovation Ecosystem.																			
Advancing Regional Strategies:		Opportunity Agenda, NY Rising, Community Reinvestment																		
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/>	Construction: <input type="text" value="50"/>																
Recommended URI Grant: \$3,450,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Economic Growth Initiative</td> <td style="text-align: right;">\$3,450,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$16,593,540</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$202,460</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$20,246,000</td> </tr> </table>		Sources of Funds		ESD - Economic Growth Initiative	\$3,450,000	Lending Institution	\$16,593,540	Cash Equity	\$202,460	Total Sources of Funds:	\$20,246,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$20,246,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$20,246,000</td> </tr> </table>		Uses of funds		New Construction	\$20,246,000	Total Project Cost:	\$20,246,000
Sources of Funds																				
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Total Sources of Funds:	\$20,246,000																			
Uses of funds																				
New Construction	\$20,246,000																			
Total Project Cost:	\$20,246,000																			
Prior CFA Awards For This Project:		None																		

CFA #	50449	Project Name:	Route 434 Greenway Project (Cleaner Greener)																					
Project Applicant:	City of Binghamton	Project Location:	Binghamton	Project County: Broome																				
Project Description:	Rt. 434 Greenway Construction project to build a separate pedestrian and bicycle facility between Downtown Binghamton and Binghamton University, a signature project in the Greater Binghamton Innovation Ecosystem.																							
Advancing Regional Strategies:		Cleaner Greener, NY Rising, Opportunity Agenda																						
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/>	Construction: <input type="text" value="40"/>																				
Recommended URI Grant: \$3,000,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$3,000,000</td> </tr> <tr> <td>Other State Funding</td> <td style="text-align: right;">\$2,854,100</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$750,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$6,604,100</td> </tr> </table>		Sources of Funds		URI - Infrastructure Investment	\$3,000,000	Other State Funding	\$2,854,100	Cash Equity	\$750,000	Total Sources of Funds:	\$6,604,100	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$5,979,100</td> </tr> <tr> <td>Land Acquisition</td> <td style="text-align: right;">\$225,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$400,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$6,604,100</td> </tr> </table>		Uses of funds		New Construction	\$5,979,100	Land Acquisition	\$225,000	Soft Costs	\$400,000	Total Project Cost:	\$6,604,100
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Total Project Cost:	\$6,604,100																							
Prior CFA Awards For This Project:		None																						

CFA #	54569	Project Name:	Salvation Army Job Training Center																					
Project Applicant:	The Salvation Army	Project Location:	Binghamton	Project County: Broome																				
Project Description:	The Salvation Army will relocate its Community Center from 127 Washington Street to 530-32 State Street, and provide skills development and training programs in Binghamton's inner city area, empowering individuals to become part of a strong local workforce.																							
Advancing NY State Initiatives:		Opportunity Agenda, Veterans Initiative, NY Rising																						
PROJECTED JOBS:	Create: <input type="text" value="30"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="20"/>	Construction: <input type="text" value="25"/>																				
Recommended URI Grant: \$1,125,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$1,125,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$6,484,500</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$846,500</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$8,456,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$1,125,000	Lending Institution	\$6,484,500	Cash Equity	\$846,500	Total Sources of Funds:	\$8,456,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$2,840,000</td> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$5,512,500</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$112,500</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$8,465,000</td> </tr> </table>		Uses of funds		Building Renovation	\$2,840,000	New Construction	\$5,512,500	Soft Costs	\$112,500	Total Project Cost:	\$8,465,000
Sources of Funds																								
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Total Project Cost:	\$8,465,000																							
Prior CFA Awards For This Project:		None																						

CFA #	50973	Project Name:	City Center Lofts (NYSERDA Green Innovation Program)																	
Project Applicant:	City Center Lofts	Project Location:	Binghamton	Project County: Broome																
Project Description:	Rehabilitation of a vacant downtown Binghamton building at 73 Court Street, transforming it into a market rate apartment complex with smart technology, energy efficiency and eco friendly design practices, including a green roof. The project is part of the Greater Binghamton Innovation Ecosystem.																			
Advancing NY State Initiatives:		Cleaner Greener, Opportunity Agenda, NY Rising																		
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/>	Construction: <input type="text" value="15"/>																
Recommended URI Grant: \$400,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Business Investment</td> <td style="text-align: right;">\$400,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$72,032</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$472,032</td> </tr> </table>		Sources of Funds		URI - Business Investment	\$400,000	Cash Equity	\$72,032	Total Sources of Funds:	\$472,032	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$324,297</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$147,735</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$472,032</td> </tr> </table>		Uses of funds		Building Renovation	\$324,297	Soft Costs	\$147,735	Total Project Cost:	\$472,032
Sources of Funds																				
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Total Sources of Funds:	\$472,032																			
Uses of funds																				
Building Renovation	\$324,297																			
Soft Costs	\$147,735																			
Total Project Cost:	\$472,032																			
Prior CFA Awards For This Project:		None																		

CFA #	52439	Project Name:	City of Binghamton Waterfront Development Project Planning																	
Project Applicant:	City of Binghamton	Project Location:	Binghamton	Project County:	Broome															
Project Description:	The City of Binghamton will update its 2005 LWRP to reflect flood destruction and new development that has occurred since 2005, creating a plan to move forward. The plan will identify waterfront issues and utilized local approaches to address them, as well as identify projects to revitalize the downtown waterfronts.																			
Advancing NY State Initiatives:																				
NY Community Rising, Opportunity Agenda																				
PROJECTED JOBS:	Create:	0	Retain:	0	Indirect:	0	Construction:	0												
Recommended URI Grant: \$50,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Other State Funding</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Cash Equity</td> <td></td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$100,000</td> </tr> </table>		Sources of Funds		URI - Infrastructure Investment	\$50,000	Other State Funding	\$50,000	Cash Equity		Total Sources of Funds:	\$100,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Contractual Services</td> <td style="text-align: right;">\$100,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$100,000</td> </tr> </table>		Uses of funds		Contractual Services	\$100,000	Total Project Cost:	\$100,000
Sources of Funds																				
URI - Infrastructure Investment	\$50,000																			
Other State Funding	\$50,000																			
Cash Equity																				
Total Sources of Funds:	\$100,000																			
Uses of funds																				
Contractual Services	\$100,000																			
Total Project Cost:	\$100,000																			
Prior CFA Awards For This Project: None																				

CFA #	58058	Project Name:	Redevelopment of 48 Corliss Avenue; BU Health & Science Innovation Park Phase 1																									
Project Applicant:	Binghamton University - SUNY Research Foundation	Project Location:	Johnson City	Project County:	Broome																							
Project Description:	Binghamton University, and its public and private partners, will establish a new Health Sciences and Technology Innovation Park ("The Park") in Johnson City, NY. The first phase includes the renovation of 48 Corliss Ave to house the university's Decker School of Nursing that will be located adjacent to the new Pharmacy School set for construction in 2016.																											
Advancing NY State Initiatives:																												
Opportunity Agenda, Cleaner Greener, NY Community Rising, SUNY 2020																												
PROJECTED JOBS:	Create:	150	Retain:	51	Indirect:	200	Construction:	300																				
Recommended URI Grant: \$21,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>ESD - Economic Growth Initiative</td> <td style="text-align: right;">\$21,000,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$29,000,000</td> </tr> <tr> <td>Other State Funding</td> <td style="text-align: right;">\$75,000,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$14,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$139,000,000</td> </tr> </table>		Sources of Funds		ESD - Economic Growth Initiative	\$21,000,000	Lending Institution	\$29,000,000	Other State Funding	\$75,000,000	Cash Equity	\$14,000,000	Total Sources of Funds:	\$139,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Building Acquisition</td> <td style="text-align: right;">\$200,000</td> </tr> <tr> <td>Building Renovations</td> <td style="text-align: right;">\$28,525,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$500,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$109,775,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$139,000,000</td> </tr> </table>		Uses of funds		Building Acquisition	\$200,000	Building Renovations	\$28,525,000	FF&E	\$500,000	Soft Costs	\$109,775,000	Total Project Cost:	\$139,000,000
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FF&E	\$500,000																											
Soft Costs	\$109,775,000																											
Total Project Cost:	\$139,000,000																											
Prior CFA Awards For This Project: None																												

CFA #	53650	Project Name:	The Century Sunrise Redevelopment																							
Project Applicant:	Regan Development Corporation	Project Location:	Ardsley	Project County:	Broome																					
Project Description:	Acquisition and rehabilitation of 2 vacant multi-story industrial buildings located on 2.38-acres at 135-139 Baldwin St. in Johnson City, formerly part of the Endicott-Johnson industrial complex. The project is directly across from the new BU Pharmacy School and one block from UHS Hospital. 104 rental units and a 3500 square foot multi-level restaurant/café.																									
Advancing NY State Initiatives:																										
Opportunity Agenda, NY Community Rising, Brownfield Redevelopment, Cleaner Greener																										
PROJECTED JOBS:	Create:	3	Retain:	0	Indirect:	15	Construction:	140																		
Recommended URI Grant: \$1,350,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$1,350,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$25,060,190</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$2,934,466</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$29,344,656</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$1,350,000	Lending Institution	\$25,060,190	Cash Equity	\$2,934,466	Total Sources of Funds:	\$29,344,656	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Building Acquisition</td> <td style="text-align: right;">\$350,000</td> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$19,480,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$25,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$9,489,656</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$29,344,656</td> </tr> </table>		Uses of funds		Building Acquisition	\$350,000	Building Renovation	\$19,480,000	FF&E	\$25,000	Soft Costs	\$9,489,656	Total Project Cost:	\$29,344,656
Sources of Funds																										
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FF&E	\$25,000																									
Soft Costs	\$9,489,656																									
Total Project Cost:	\$29,344,656																									
Prior CFA Awards For This Project: None																										

CFA #	54128	Project Name:	Goodwill Theatre Phase 2																							
Project Applicant:	Goodwill Theatre Inc.	Project Location:	Johnson City	Project County:	Broome																					
Project Description:	Phase 2 of a major revitalization effort involving an entire city block and resulting in preservation of a cultural legacy, removal of blight, & new cultural vibrancy in an impoverished neighborhood located in the new Health & Cultural District in Johnson City. This revitalization project includes 2 historic anchors: 1920 Vaudeville Goodwill Theatre building and 1899 Municipal Fire Station.																									
Advancing NY State Initiatives:																										
Opportunity Agenda, NY Rising, Brownfield Revitalization, Cleaner Greener																										
PROJECTED JOBS:	Create:	1	Retain:	0	Indirect:	0	Construction:	400																		
Recommended URI Grant: \$3,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$3,000,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$6,013,936</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$1,001,548</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$10,015,484</td> </tr> </table>		Sources of Funds		URI - Infrastructure Investment	\$3,000,000	Other Local Funding	\$6,013,936	Cash Equity	\$1,001,548	Total Sources of Funds:	\$10,015,484	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Building Acquisition</td> <td style="text-align: right;">\$600,000</td> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$1,190,000</td> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$7,315,184</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$910,300</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$10,015,484</td> </tr> </table>		Uses of funds		Building Acquisition	\$600,000	Building Renovation	\$1,190,000	New Construction	\$7,315,184	Soft Costs	\$910,300	Total Project Cost:	\$10,015,484
Sources of Funds																										
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New Construction	\$7,315,184																									
Soft Costs	\$910,300																									
Total Project Cost:	\$10,015,484																									
Prior CFA Awards For This Project: None																										

CFA #: 55028	Project Name: JC Health & Technology Park (Redevelopment of 59 Lester Ave 10-acre site)														
Project Applicant: Broome County Industrial Development Agency	Project Location: Johns on City	Project County: Broome													
Project Description: Assessment and demolition of 59 Lester Ave in Johnson City, a vacant, underutilized property in a state-recognized Brownfield Opportunity Area (BOA). Removal of this building will create a shovel ready site within an urban core, and make way for future growth of R&D connected to BU's Health & Technology Innovation Park.															
Advancing NY State Initiatives: Opportunity Agenda, Start-UP NY, Brownfield Redevelopment, NY Rising															
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="125"/>												
Recommended URI Grant: \$3,000,000	Sources of Funds		Uses of funds												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$3,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$3,000,000</td> </tr> </table>		URI - Infrastructure Investment	\$3,000,000	Total Sources of Funds:	\$3,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Building Acquisition</td> <td style="text-align: right;">\$250,000</td> </tr> <tr> <td>Demolition & Remediation</td> <td style="text-align: right;">\$2,500,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$250,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$3,000,000</td> </tr> </table>	Building Acquisition	\$250,000	Demolition & Remediation	\$2,500,000	Soft Costs	\$250,000	Total Project Cost:	\$3,000,000
	URI - Infrastructure Investment	\$3,000,000													
Total Sources of Funds:	\$3,000,000														
Building Acquisition	\$250,000														
Demolition & Remediation	\$2,500,000														
Soft Costs	\$250,000														
Total Project Cost:	\$3,000,000														
Prior CFA Awards For This Project: None															

CFA #: 55707	Project Name: National Pipe and Plastics Corporate Headquarters Relocation																				
Project Applicant: National Pipe and Plastics, Inc.	Project Location: Endicott	Project County: Broome																			
Project Description: National Pipe & Plastics, Inc. (NPP) will relocate its company headquarters from Vestal to 1 North Page Avenue in Endicott, adjacent to the company's new manufacturing and shipping facility, constructing a brand new 19,800 s.f. office building, employee and visitor parking lots, and park/green space.																					
Advancing NY State Initiatives: Opportunity Agenda, Global NY, Veteran's Initiative																					
PROJECTED JOBS:	Create: <input type="text" value="5"/>	Retain: <input type="text" value="194"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="25"/>																		
Recommended URI Grant: \$700,000	Sources of Funds		Uses of funds																		
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$700,000</td> </tr> <tr> <td>Other Public Funding</td> <td style="text-align: right;">\$300,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$3,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$4,000,000</td> </tr> </table>		ESD - Business Investment	\$700,000	Other Public Funding	\$300,000	Cash Equity	\$3,000,000	Total Sources of Funds:	\$4,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>New Construction</td> <td style="text-align: right;">\$2,800,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$100,000</td> </tr> <tr> <td>Land Acquisition</td> <td style="text-align: right;">\$100,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$4,000,000</td> </tr> </table>	New Construction	\$2,800,000	FF&E	\$100,000	Land Acquisition	\$100,000	Soft Costs	\$1,000,000	Total Project Cost:	\$4,000,000
	ESD - Business Investment	\$700,000																			
Other Public Funding	\$300,000																				
Cash Equity	\$3,000,000																				
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FF&E	\$100,000																				
Land Acquisition	\$100,000																				
Soft Costs	\$1,000,000																				
Total Project Cost:	\$4,000,000																				
Prior CFA Awards For This Project: Econ Development Purpose Fund 2012-2013																					

CFA #: 55139	Project Name: Downtown Endicott Revitalization Plan														
Project Applicant: Broome County	Project Location: Endicott	Project County: Broome													
Project Description: Broome County and the Town of Union will undertake the development of a plan for revitalization of the commercial and residential neighborhoods in Endicott's urban core, with a particular focus on that area surrounding the Huron Campus.															
Advancing NY State Initiatives: Opportunity Agenda, NY Community Rising, Engage Local Governments															
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/>												
Recommended URI Grant: \$50,000	Sources of Funds		Uses of funds												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$70,000</td> </tr> </table>		URI - Infrastructure Investment	\$50,000	Other Local Funding	\$20,000	Total Sources of Funds:	\$70,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Contractual Services</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$70,000</td> </tr> </table>	Contractual Services	\$50,000	Soft Cost	\$20,000	Total Project Cost:	\$70,000
	URI - Infrastructure Investment	\$50,000													
Other Local Funding	\$20,000														
Total Sources of Funds:	\$70,000														
Contractual Services	\$50,000														
Soft Cost	\$20,000														
Total Project Cost:	\$70,000														
Prior CFA Awards For This Project: None															

CFA #: 66550	Project Name: Industrial 3D Printing Center														
Project Applicant: The Research Foundation SUNY	Project Location: Vestal	Project County: Broome													
Project Description: Renovation of space to accommodate the expansion of Binghamton University's Center for Advanced Manufacturing (CAMM) as the foundation for a Flexible Printed Electronics Technology Center, an Industrial 3D (I-3D) Printing Center, lab and office space.															
Advancing NY State Initiatives: Opportunity Agenda, NY Rising, Hot Spots, Manufacturing Industry Cluster															
PROJECTED JOBS:	Create: <input type="text" value="50"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="10"/> Construction: <input type="text" value="5"/>												
Recommended URI Grant: \$4,000,000	Sources of Funds		Uses of funds												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$4,000,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$21,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$25,000,000</td> </tr> </table>		URI - Economic Growth Initiative	\$4,000,000	Other Local Funding	\$21,000,000	Total Sources of Funds:	\$25,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$15,000,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$10,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$25,000,000</td> </tr> </table>	Building Renovation	\$15,000,000	M&E	\$10,000,000	Total Project Cost:	\$25,000,000
	URI - Economic Growth Initiative	\$4,000,000													
Other Local Funding	\$21,000,000														
Total Sources of Funds:	\$25,000,000														
Building Renovation	\$15,000,000														
M&E	\$10,000,000														
Total Project Cost:	\$25,000,000														
Prior CFA Awards For This Project: None															

Invest in the Advanced Manufacturing Industry

CFA #:	54724	Project Name:	Transit Air Capital		Project Location:	Hornell	Project County:	Steuben																						
Project Applicant:	Transit Air Inc.		Project Location:		Hornell		Project County:																							
Project Description:	Expansion of an existing facility in Hornell to accommodate a wheel press shop, including purchase of wheel press & tooling, axle lathe & tooling, wheel lathe & tooling, axle straightener, new sandblast booth, 15 ton crane, training & engineering, miscellaneous tooling to go along with the wheel press shop.																													
Advancing NY State Initiatives:	Opportunity Agenda, Veteran's Initiative, Manufacturing Industry Cluster Program, Global NY																													
PROJECTED JOBS:	Create:	10	Retain:	63	Indirect:	0	Construction:	0																						
Recommended URI Grant: \$300,000	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Business Investment</td> <td>\$300,000</td> </tr> <tr> <td>Lending Institution</td> <td>\$921,000</td> </tr> <tr> <td>Cash Equity</td> <td>\$400,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$1,621,000</td> </tr> </tbody> </table>				Sources of Funds		ESD - Business Investment	\$300,000	Lending Institution	\$921,000	Cash Equity	\$400,000	Total Sources of Funds:	\$1,621,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Building Renovations</td> <td>\$300,000</td> </tr> <tr> <td>M&E</td> <td>\$1,271,000</td> </tr> <tr> <td>Soft Cost</td> <td>\$10,000</td> </tr> <tr> <td>Other</td> <td>\$40,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$1,621,000</td> </tr> </tbody> </table>				Uses of funds		Building Renovations	\$300,000	M&E	\$1,271,000	Soft Cost	\$10,000	Other	\$40,000	Total Project Cost:	\$1,621,000
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M&E	\$1,271,000																													
Soft Cost	\$10,000																													
Other	\$40,000																													
Total Project Cost:	\$1,621,000																													
Prior CFA Awards For This Project:	None																													

CFA #:	52429	Project Name:	Anchor Glass: Elmira Furnace 2 Upgrades		Project Location:	Elmira Heights	Project County:	Chemung																				
Project Applicant:	Anchor Glass Container Corporation		Project Location:		Elmira Heights		Project County:																					
Project Description:	Upgrades to Anchor Glass' Elmira manufacturing plant, including re-bricking of Elmira Furnace 2 and modernization of forming and inspection equipment in order to maintain competitiveness and retain employment in NYS.																											
Advancing NY State Initiatives:	Opportunity Agenda, Veterans Initiative, Global NY, Manufacturing Industry Cluster Plan																											
PROJECTED JOBS:	Create:	36	Retain:	299	Indirect:	0	Construction:	90																				
Recommended URI Grant: \$1,200,000	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Business Investment</td> <td>\$1,200,000</td> </tr> <tr> <td>Cash Equity</td> <td>\$18,233,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$19,433,000</td> </tr> </tbody> </table>				Sources of Funds		ESD - Business Investment	\$1,200,000	Cash Equity	\$18,233,000	Total Sources of Funds:	\$19,433,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>Building Renovations</td> <td>\$14,000,000</td> </tr> <tr> <td>M&E</td> <td>\$4,800,000</td> </tr> <tr> <td>Demolition & Remediation</td> <td>\$333,000</td> </tr> <tr> <td>Soft Cost</td> <td>\$300,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$19,433,000</td> </tr> </tbody> </table>				Uses of funds		Building Renovations	\$14,000,000	M&E	\$4,800,000	Demolition & Remediation	\$333,000	Soft Cost	\$300,000	Total Project Cost:	\$19,433,000
Sources of Funds																												
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Cash Equity	\$18,233,000																											
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Demolition & Remediation	\$333,000																											
Soft Cost	\$300,000																											
Total Project Cost:	\$19,433,000																											
Prior CFA Awards For This Project:	None																											

CFA #:	54614	Project Name:	Ice Bear Capital		Project Location:	Bath	Project County:	Steuben																		
Project Applicant:	Ice Energy Holdings Inc.		Project Location:		Bath		Project County:																			
Project Description:	Purchase of automation equipment and investment in NY vendor product to retain company manufacturing operations in NYS.																									
Advancing NY State Initiatives:	Cleaner Greener, Global NY, Veteran's Initiative																									
PROJECTED JOBS:	Create:	14	Retain:	3	Indirect:	0	Construction:	0																		
Recommended URI Grant: \$496,200	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Business Investment</td> <td>\$496,200</td> </tr> <tr> <td>Lending Institution</td> <td>\$14,938,800</td> </tr> <tr> <td>Cash Equity</td> <td>\$1,715,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$17,150,000</td> </tr> </tbody> </table>				Sources of Funds		ESD - Business Investment	\$496,200	Lending Institution	\$14,938,800	Cash Equity	\$1,715,000	Total Sources of Funds:	\$17,150,000	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>M&E</td> <td>\$750,000</td> </tr> <tr> <td>Soft Costs</td> <td>\$16,400,000</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$17,150,000</td> </tr> </tbody> </table>				Uses of funds		M&E	\$750,000	Soft Costs	\$16,400,000	Total Project Cost:	\$17,150,000
Sources of Funds																										
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Uses of funds																										
M&E	\$750,000																									
Soft Costs	\$16,400,000																									
Total Project Cost:	\$17,150,000																									
Prior CFA Awards For This Project:	None																									

CFA #:	53297	Project Name:	NECCES Battery Dry Room		Project Location:	Vestal	Project County:	Broome																		
Project Applicant:	Binghamton University - SUNY Research Foundation		Project Location:		Vestal		Project County:																			
Project Description:	Purchase of a dry room to allow academia to create new materials and devices relating to energy storage, and for industry to get their products to market quicker and cheaper, than having to travel long distances to the next closest dry rooms.																									
Advancing NY State Initiatives:	Cleaner Greener, Global NY, Manufacturing Industry Cluster, NY Community Rising																									
PROJECTED JOBS:	Create:	3	Retain:	5	Indirect:	0	Construction:	0																		
Recommended URI Grant: \$620,000	<table border="1"> <thead> <tr> <th colspan="2">Sources of Funds</th> </tr> </thead> <tbody> <tr> <td>ESD - Economic Growth Initiative</td> <td>\$620,000</td> </tr> <tr> <td>Other State Funding</td> <td>\$2,214,445</td> </tr> <tr> <td>Cash Equity</td> <td>\$314,938</td> </tr> <tr> <td>Total Sources of Funds:</td> <td>\$3,149,383</td> </tr> </tbody> </table>				Sources of Funds		ESD - Economic Growth Initiative	\$620,000	Other State Funding	\$2,214,445	Cash Equity	\$314,938	Total Sources of Funds:	\$3,149,383	<table border="1"> <thead> <tr> <th colspan="2">Uses of funds</th> </tr> </thead> <tbody> <tr> <td>M&E</td> <td>\$2,362,038</td> </tr> <tr> <td>Soft Costs</td> <td>\$787,345</td> </tr> <tr> <td>Total Project Cost:</td> <td>\$3,149,383</td> </tr> </tbody> </table>				Uses of funds		M&E	\$2,362,038	Soft Costs	\$787,345	Total Project Cost:	\$3,149,383
Sources of Funds																										
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Uses of funds																										
M&E	\$2,362,038																									
Soft Costs	\$787,345																									
Total Project Cost:	\$3,149,383																									
Prior CFA Awards For This Project:	None																									

CFA #	56729	Project Name:	Weitsman Shredding Media Plant		Project Location:	Owego	Project County:	Tioga	
Project Applicant:	Weitsman Shredding								
Project Description:	Upstate Shredding/Weitsman Recycling will construct a new 30,000 sq. ft. facility located in the Tioga Industrial Park in Owego, NY. The \$5.4 million project will bring 25 new jobs to the area.								
Advancing Regional Strategies: NY Community Rising, Veteran's Initiative									
PROJECTED JOBS:		Create:	25	Retain:	319	Indirect:	0	Construction:	40
Recommended URI Grant: \$1,000,000	Sources of Funds								
	ESD - Business Investment				\$1,000,000				
	Lending Institution				\$1,320,000				
	Cash Equity				\$3,080,000				
	Total Sources of Funds:				\$5,400,000				
		Uses of funds							
New Construction				\$3,000,000					
M&E				\$2,400,000					
Total Project Cost:				\$5,400,000					
Prior CFA Awards For This Project: None									

CFA #	50680	Project Name:	Corning Community Health and Education Complex		Project Location:	Corning	Project County:	Steuben	
Project Applicant:	Corning Community College Development Foundation, Inc.								
Project Description:	Redevelopment of the former Corning Hospital site to create a center for healthy living and health-based education in the City of Corning's urban core. The complex will include an 85-unit market rate residential development, 21,000 sq. ft. workforce development complex operated by Corning Community College, providing state-of-the-art nursing and health care occupation.								
Advancing NY State Initiatives: Supports Manufacturing Industry Cluster Program									
PROJECTED JOBS:		Create:	14	Retain:	418	Indirect:	100	Construction:	160
Recommended URI Grant: \$6,000,000	Sources of Funds								
	ESD - Business Investment				\$6,000,000				
	Lending Institution				\$7,300,000				
	Cash Equity				\$2,450,000				
	Other Private Funding				\$2,500,000				
Total Sources of Funds:				\$18,250,000					
		Uses of funds							
New Construction				\$15,575,000					
FF&E				\$975,000					
Soft Costs				\$1,700,000					
Total Project Cost:				\$18,250,000					
Prior CFA Awards For This Project: None									

CFA #	52533	Project Name:	Werdenberg Building		Project Location:	Elmira	Project County:	Chemung	
Project Applicant:	Envision Elmira, LLC								
Project Description:	Redevelopment of the Werdenberg Building, located at 200 West Water Street in Elmira, including design and construction of four (4) market rate second-floor apartments, and two first floor storefronts. Project in Elmira's downtown revitalization plan.								
Advancing NY State Initiatives: Opportunity Agenda, Supports Manufacturing Industry Cluster Plan									
PROJECTED JOBS:		Create:	0	Retain:	0	Indirect:	36	Construction:	10
Recommended URI Grant: \$120,000	Sources of Funds								
	ESD - Business Investment				\$120,000				
	Other State Funding				\$516,750				
	Cash Equity				\$70,750				
	Total Sources of Funds:				\$707,500				
		Uses of funds							
Building Acquisition				\$85,000					
Building Renovations				\$500,000					
Soft Costs				\$122,500					
Total Project Cost:				\$707,500					
Prior CFA Awards For This Project: None									

CFA #	55934	Project Name:	Elmira College Driving Elmira Refresh		Project Location:	Elmira	Project County:	Chemung	
Project Applicant:	Elmira College								
Project Description:	Improvements to Elmira College to accommodate LECOM opening a medical school on the EC campus in 2018, and being an anchor in driving the revitalization of downtown Elmira.								
Advancing NY State Initiatives: Opportunity Agenda									
PROJECTED JOBS:		Create:	150	Retain:	360	Indirect:	18	Construction:	30
Recommended URI Grant: \$1,700,000	Sources of Funds								
	ESD - Economic Growth Initiative				\$1,700,000				
	Lending Institution				\$6,318,261				
	Cash Equity				\$890,918				
	Total Sources of Funds:				\$8,909,179				
		Uses of funds							
Building Renovations				\$7,658,063					
M&E				\$570,000					
FF&E				\$570,000					
Soft Costs				\$111,116					
Total Project Cost:				\$8,909,179					
Prior CFA Awards For This Project: None									

CFA #	51917												
Project Applicant:	Buckingham Manufacturing Company, Inc.												
Project Description:	Purchase of new equipment and renovation of existing manufacturing space, including lease or purchase of additional manufacturing space to expand manufacturing capability, resulting in increased sales, new hires and employee retention.												
Project Name:	Buckingham Manufacturing Modernization Project												
Project Location:	Binghamton		Project County: Broome										
Advancing NY State Initiatives: Opportunity Agenda, Global NY, NY Rising													
PROJECTED JOBS:	Create: 16	Retain: 293	Indirect: 0 Construction: 0										
Recommended URI Grant: \$45,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$45,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$155,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$200,000</td> </tr> </table>			Sources of Funds		ESD - Business Investment	\$45,000	Cash Equity	\$155,000	Total Sources of Funds:	\$200,000		
Sources of Funds													
ESD - Business Investment	\$45,000												
Cash Equity	\$155,000												
Total Sources of Funds:	\$200,000												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$40,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$10,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$200,000</td> </tr> </table>			Uses of funds		Building Renovation	\$40,000	M&E	\$150,000	Soft Cost	\$10,000	Total Project Cost:	\$200,000
Uses of funds													
Building Renovation	\$40,000												
M&E	\$150,000												
Soft Cost	\$10,000												
Total Project Cost:	\$200,000												
Prior CFA Awards For This Project: Economic Development Fund – RC 2													

CFA #	53015												
Project Applicant:	Leatherstocking Gas Co., LLC												
Project Description:	Construction of an 18-mile long natural gas distribution line from the Constitution Pipeline in the Town of Bainbridge to the Raymond Corporation plant in the Village of Greene, creating long-term economic benefits for the community and its residents by decreasing energy costs and increasing tax revenue.												
Project Name:	Leatherstocking Gas Company Capital												
Project Location:	Bainbridge		Project County: Chenango										
Advancing NY State Initiatives: Opportunity Agenda, Veterans Initiatives, Global NY, Manufacturing Industry Cluster Program, Cleaner Greener													
PROJECTED JOBS:	Create: 0	Retain: 15	Indirect: 0 Construction: 0										
Recommended URI Grant: \$1,500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Infrastructure Investment</td> <td style="text-align: right;">\$1,500,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$14,726,098</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$163,900</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$16,389,998</td> </tr> </table>			Sources of Funds		ESD - Infrastructure Investment	\$1,500,000	Lending Institution	\$14,726,098	Cash Equity	\$163,900	Total Sources of Funds:	\$16,389,998
Sources of Funds													
ESD - Infrastructure Investment	\$1,500,000												
Lending Institution	\$14,726,098												
Cash Equity	\$163,900												
Total Sources of Funds:	\$16,389,998												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$16,239,998</td> </tr> <tr> <td>Land Acquisition</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$16,389,998</td> </tr> </table>			Uses of funds		New Construction	\$16,239,998	Land Acquisition	\$150,000	Total Project Cost:	\$16,389,998		
Uses of funds													
New Construction	\$16,239,998												
Land Acquisition	\$150,000												
Total Project Cost:	\$16,389,998												
Prior CFA Awards For This Project: None													

CFA #	55881												
Project Applicant:	Incodema 3D Metrology												
Project Description:	Incodema3D LLC will develop a component of the company that will expand their 3D metal printing to meet demand in the aerospace industry and others, taking product from prototype through to certification for full-scale production.												
Project Name:	Incodema 3D Metrology												
Project Location:	Freeville		Project County: Tompkins										
Advancing NY State Initiatives: Hot Spot, Manufacturing Industry Cluster Program													
PROJECTED JOBS:	Create: 3	Retain: 11	Indirect: 0 Construction: 0										
Recommended URI Grant: \$375,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$375,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$1,434,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$201,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$2,010,000</td> </tr> </table>			Sources of Funds		ESD - Business Investment	\$375,000	Lending Institution	\$1,434,000	Cash Equity	\$201,000	Total Sources of Funds:	\$2,010,000
Sources of Funds													
ESD - Business Investment	\$375,000												
Lending Institution	\$1,434,000												
Cash Equity	\$201,000												
Total Sources of Funds:	\$2,010,000												
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$2,010,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$2,010,000</td> </tr> </table>			Uses of funds		M&E	\$2,010,000	Total Project Cost:	\$2,010,000				
Uses of funds													
M&E	\$2,010,000												
Total Project Cost:	\$2,010,000												
Prior CFA Awards For This Project:													

CFA #	55817														
Project Applicant:	Cameron Manufacturing & Design, Inc.														
Project Description:	Cameron will purchase an additional facility of 250,000 to 300,000 sf, preferably near Horseheads, to consolidate two offsite locations (currently leased), and provide additional room for expected growth over the next 5 years and create production efficiencies by co-locating large project-build areas.														
Project Name:	CMD Consolidation Expansion														
Project Location:	Horseheads		Project County: Chemung												
Advancing NY State Initiatives: Manufacturing Industry Cluster Plan, Opportunity Agenda, Veteran's Initiative, Global NY															
PROJECTED JOBS:	Create: 39	Retain: 234	Indirect: 0 Construction: 0												
Recommended URI Grant: \$800,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$800,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$4,645,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$605,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$6,050,000</td> </tr> </table>			Sources of Funds		ESD - Business Investment	\$800,000	Lending Institution	\$4,645,000	Cash Equity	\$605,000	Total Sources of Funds:	\$6,050,000		
Sources of Funds															
ESD - Business Investment	\$800,000														
Lending Institution	\$4,645,000														
Cash Equity	\$605,000														
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	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Acquisition</td> <td style="text-align: right;">\$4,000,000</td> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$1,500,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$420,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$130,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$6,050,000</td> </tr> </table>			Uses of funds		Building Acquisition	\$4,000,000	Building Renovation	\$1,500,000	M&E	\$420,000	Soft Costs	\$130,000	Total Project Cost:	\$6,050,000
Uses of funds															
Building Acquisition	\$4,000,000														
Building Renovation	\$1,500,000														
M&E	\$420,000														
Soft Costs	\$130,000														
Total Project Cost:	\$6,050,000														
Prior CFA Awards For This Project: None															

CFA #	53761	Project Name:	Block Bindings Greene NY Plant Expansion																							
Project Applicant:	Block Bindings Interlinings Ltd.	Project Location:	Greene	Project County: Chenango																						
Project Description:	Block Bindings & Interlinings (formerly known as Fabric Bindings), one of the largest suppliers of trimmings across Canada, proposes to purchase the L.A. Najarian facility and business operations, and upgrade equipment to retain employees resulting in foreign investment and potential use of the Chenango County Foreign Trade Zone.																									
Advancing NY State Initiatives:	Global NY, Veteran's Initiative																									
PROJECTED JOBS:	Create: 7	Retain: 7	Indirect: 0	Construction: 0																						
Recommended URI Grant: \$200,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr><td>ESD - Business Investment</td><td>\$200,000</td></tr> <tr><td>Lending Institution</td><td>\$1,010,000</td></tr> <tr><td>Cash Equity</td><td>\$90,000</td></tr> <tr><td>Total Sources of Funds:</td><td>\$1,300,000</td></tr> </table>		Sources of Funds		ESD - Business Investment	\$200,000	Lending Institution	\$1,010,000	Cash Equity	\$90,000	Total Sources of Funds:	\$1,300,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds:</th></tr> <tr><td>Building Acquisition</td><td>\$500,000</td></tr> <tr><td>Building Renovation</td><td>\$200,000</td></tr> <tr><td>M&E</td><td>\$150,000</td></tr> <tr><td>FF&E</td><td>\$450,000</td></tr> <tr><td>Total Project Cost:</td><td>\$1,300,000</td></tr> </table>		Uses of funds:		Building Acquisition	\$500,000	Building Renovation	\$200,000	M&E	\$150,000	FF&E	\$450,000	Total Project Cost:	\$1,300,000
Sources of Funds																										
ESD - Business Investment	\$200,000																									
Lending Institution	\$1,010,000																									
Cash Equity	\$90,000																									
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Uses of funds:																										
Building Acquisition	\$500,000																									
Building Renovation	\$200,000																									
M&E	\$150,000																									
FF&E	\$450,000																									
Total Project Cost:	\$1,300,000																									
Prior CFA Awards For This Project:	None																									

CFA #	57280	Project Name:	Building Innovative Economic Opportunities Through Reuse																			
Project Applicant:	Finger Lakes ReUse Inc.	Project Location:	Ithaca	Project County: Tompkins																		
Project Description:	Construction of two new buildings at 214 Elmira Road in the City of Ithaca, creating additional retail, programmatic, office, and material processing space for Finger Lakes ReUse.																					
Advancing NY State Initiatives:	Cleaner Greener, Veterans Initiative																					
PROJECTED JOBS:	Create: 17	Retain: 16	Indirect: 0	Construction: 20																		
Recommended URI Grant: \$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr><td>ESD -Business Investment</td><td>\$500,000</td></tr> <tr><td>Other State Funding</td><td>\$1,717,872</td></tr> <tr><td>Lending Institution</td><td>\$199,990</td></tr> <tr><td>Cash Equity</td><td>\$268,651</td></tr> <tr><td>Total Sources of Funds:</td><td>\$2,686,513</td></tr> </table>		Sources of Funds		ESD -Business Investment	\$500,000	Other State Funding	\$1,717,872	Lending Institution	\$199,990	Cash Equity	\$268,651	Total Sources of Funds:	\$2,686,513	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr><td>New Construction</td><td>\$2,686,513</td></tr> <tr><td>Total Project Cost:</td><td>\$2,686,513</td></tr> </table>		Uses of funds		New Construction	\$2,686,513	Total Project Cost:	\$2,686,513
Sources of Funds																						
ESD -Business Investment	\$500,000																					
Other State Funding	\$1,717,872																					
Lending Institution	\$199,990																					
Cash Equity	\$268,651																					
Total Sources of Funds:	\$2,686,513																					
Uses of funds																						
New Construction	\$2,686,513																					
Total Project Cost:	\$2,686,513																					
Prior CFA Awards For This Project:	Econ Dev Purp Fund 2012-2013 RC3 Opp Ag																					

CFA #	50694	Project Name:	Tioga County Industrial Park Manufacturer Attraction Project																	
Project Applicant:	Tioga County Industrial Development Agency	Project Location:	Owego	Project County: Tioga																
Project Description:	Water system for IDA owned 36 acre site for industrial development to support new businesses seeking to locate in Tioga County.																			
Advancing NY State Initiatives:	NY Community Rising																			
PROJECTED JOBS:	Create: 0	Retain: 0	Indirect: 200	Construction: 20																
Recommended URI Grant: \$350,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr><td>URI - Infrastructure Investment</td><td>\$350,000</td></tr> <tr><td>Other Local Funding</td><td>\$650,000</td></tr> <tr><td>Cash Equity</td><td>\$248,000</td></tr> <tr><td>Total Sources of Funds:</td><td>\$1,248,000</td></tr> </table>		Sources of Funds		URI - Infrastructure Investment	\$350,000	Other Local Funding	\$650,000	Cash Equity	\$248,000	Total Sources of Funds:	\$1,248,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds:</th></tr> <tr><td>New Construction</td><td>\$1,248,000</td></tr> <tr><td>Total Project Cost:</td><td>\$1,248,000</td></tr> </table>		Uses of funds:		New Construction	\$1,248,000	Total Project Cost:	\$1,248,000
Sources of Funds																				
URI - Infrastructure Investment	\$350,000																			
Other Local Funding	\$650,000																			
Cash Equity	\$248,000																			
Total Sources of Funds:	\$1,248,000																			
Uses of funds:																				
New Construction	\$1,248,000																			
Total Project Cost:	\$1,248,000																			
Prior CFA Awards For This Project:	None																			

CFA #	55784	Project Name:	Southern Tier Small Manufacturing Competitiveness Fund													
Project Applicant:	Southern Tier Region Economic Development Corp	Project Location:	Corning	Project County: Steuben												
Project Description:	The Southern Tier Region Economic Development Corporation is proposing to establish a new loan which will provide funding to small manufacturers (less than 20 employees) to allow them to innovate, adapt, increase productivity and efficiency to remain competitive in the global marketplace.															
Advancing NY State Initiatives:	Manufacturing Industry Cluster Program															
PROJECTED JOBS:	Create: 0	Retain: 0	Indirect: 50	Construction: 0												
Recommended URI Grant: \$1,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr><td>URI - Business Investment</td><td>\$1,000,000</td></tr> <tr><td>Total Sources of Funds:</td><td>\$1,000,000</td></tr> </table>		Sources of Funds		URI - Business Investment	\$1,000,000	Total Sources of Funds:	\$1,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds:</th></tr> <tr><td>Manufacturing Loan Program</td><td>\$1,000,000</td></tr> <tr><td>Total Project Cost:</td><td>\$1,000,000</td></tr> </table>		Uses of funds:		Manufacturing Loan Program	\$1,000,000	Total Project Cost:	\$1,000,000
Sources of Funds																
URI - Business Investment	\$1,000,000															
Total Sources of Funds:	\$1,000,000															
Uses of funds:																
Manufacturing Loan Program	\$1,000,000															
Total Project Cost:	\$1,000,000															
Prior CFA Awards For This Project:	None															

CFA #	55901	Project Name:	Raymond Manufacturing Center of Excellence					
Project Applicant:	The Raymond Corporation	Project Location:	Greene	Project County:	Chenango			
Project Description:	Renovation at the company's Village of Greene facility and Town of Greene facilities and purchase of production machinery and equipment to develop the Raymond Center of Manufacturing Excellence with associated Employee Development and Wellness Center.							
Advancing NY State Initiatives:	Manufacturing Industry Cluste Program, Veterans Initiative, Opportunity Agenda							
PROJECTED JOBS:	Create:	250	Retain:	225	Indirect:	0	Construction:	125
Recommended URI Grant: \$7,000,000	Sources of Funds		Uses of funds					
	URI - Business Investment		\$7,000,000					
	Cash Equity		\$32,900,001					
	Total Sources of Funds:		\$39,900,001					
			Building Renovation					
			\$2,000,000					
			New Construction					
			\$4,150,000					
			M&E					
			\$12,000,000					
			Other:					
			\$21,750,001					
			Total Project Cost:					
			\$39,900,001					
Prior CFA Awards For This Project:	None							

CFA #	57411	Project Name:	Downtown Hornell Revitalization (HCR)					
Project Applicant:	City of Hornell	Project Location:	Hornell	Project County:	Steuben			
Project Description:	Rehab 6 commercial and 2 residential units in the City of Hornell's downtown location on Center Street and the River/Loder areas.							
Advancing NY State Initiatives:	Opportunity Agenda, Supports Manufacturing Industry Cluster Program							
PROJECTED JOBS:	Create:	10	Retain:	0	Indirect:	5	Construction:	20
Recommended URI Grant: \$250,000	Sources of Funds		Uses of funds					
	URI		\$250,000					
	Lending Institution:		\$124,938					
	Total Sources of Funds:		\$374,938					
			Building Renovation					
			\$356,188					
			Soft Costs:					
			\$18,750					
			Total Project Cost:					
			\$374,938					
Prior CFA Awards For This Project:	None							

CFA #	56572	Project Name:	SUNY Broome CC Manufacturing Basics Certificate Program					
Project Applicant:	Broome Community College	Project Location:	Binghamton	Project County:	Broome			
Project Description:	Training project is for unemployed workers in and around Broome and Tioga counties: Basic Computer Applications, Excel Level 1, Technical Report Writing, Interpersonal Communication Skills, Hand Tool Usage, Shop Floor Mathematics, Quality Overview, Reading Measuring Devices, and Assembly Drawing Interpretation.							
Advancing NY State Initiatives:	Opportunity Agenda, Veterans Initiative, Manufacturing Industry Cluster Program							
PROJECTED JOBS:	Create:	2	Retain:	0	Indirect:	40	Construction:	0
Recommended URI Grant: \$77,000	Sources of Funds		Uses of funds					
	URI -- Economic Growth Initiative		\$77,000					
	Total Sources of Funds:		\$77,000					
			Certification Program					
			\$77,000					
			Total Project Cost:					
			\$77,000					
Prior CFA Awards For This Project:	None							

CFA #	57411	Project Name:	Advanced Rail Technology Center in Hornell					
Project Applicant:	Hornell IDA	Project Location:	Hornell	Project County:	Steuben			
Project Description:	Infrastructure for development of the Advanced Rail Technology Center in Hornell, including workforce development and technology design center, sidewalks, and rail.							
Advancing NY State Initiatives:	Opportunity Agenda, Supports Manufacturing Industry Cluster Program							
PROJECTED JOBS:	Create:	100	Retain:	0	Indirect:	5	Construction:	20
Recommended URI Year 1 Grant: \$5,000,000	Sources of Funds		Uses of funds					
	URI		\$30,000,000					
	Private Investment		\$55,000,000					
	Total Sources of Funds:		\$85,000,000					
			Renovations and establishment of design and workforce development center					
			\$85,000,000					
			Total Project Cost:					
			\$85,000,000					
Prior CFA Awards For This Project:	None							

CFA #	59383	Project Name:	Secure Electronics and Advanced Manufacturing Project															
Project Applicant:	Lockheed-Martin	Project Location:	Owego	Project County:	Tioga													
Project Description:	Project will advance the Southern Tier's manufacturing leadership for electronics hardware capable of providing secure processing solutions to address security concerns requiring cybersecurity and trusted systems, anti-tamper, anti-counterfeit, and trusted manufacturing capabilities.																	
Advancing NY State Initiatives:	Supports Manufacturing Industry Cluster Program																	
PROJECTED JOBS:	Create: 38	Retain: 0	Indirect: 200	Construction: 0														
Recommended URI Year 1 Grant: \$5,600,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>URI</td> <td style="text-align: right;">\$5,600,000</td> </tr> <tr> <td>Private Investment</td> <td style="text-align: right;">\$0,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$5,600,000</td> </tr> </table>		Sources of Funds		URI	\$5,600,000	Private Investment	\$0,000,000	Total Sources of Funds:	\$5,600,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Research equipment</td> <td style="text-align: right;">\$5,600,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$5,600,000</td> </tr> </table>		Uses of funds		Research equipment	\$5,600,000	Total Project Cost:	\$5,600,000
Sources of Funds																		
URI	\$5,600,000																	
Private Investment	\$0,000,000																	
Total Sources of Funds:	\$5,600,000																	
Uses of funds																		
Research equipment	\$5,600,000																	
Total Project Cost:	\$5,600,000																	
Prior CFA Awards For This Project:	None																	

CFA #	52319	Project Name:	Walton WWTP Biogas Project (supports Kraft Foods)																	
Project Applicant:	Village of Walton	Project Location:	Walton	Project County:	Delaware															
Project Description:	Installation of pipeline to support construction of an anaerobic digester at the existing Village of Walton WWTP. It will convert bio-solids to methane gas that can be utilized as a fuel source in electrical generators and heating boilers. Majority of bio-solids fueling the digester will be sourced from nearby dairy manufacturing facilities, notably Kraft Foods, reducing company operating costs.																			
Advancing NY State Initiatives:	Cleaner Greener																			
PROJECTED JOBS:	Create: 0	Retained: 16	Indirect: 0	Construction: 0																
Recommended ESD Grant: \$1,480,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>ESD - Economic Growth Initiative</td> <td style="text-align: right;">\$1,480,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$7,420,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$8,900,000</td> </tr> </table>		Sources of Funds		ESD - Economic Growth Initiative	\$1,480,000	Cash Equity	\$7,420,000	Total Sources of Funds:	\$8,900,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$7,038,800</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$1,861,200</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$8,900,000</td> </tr> </table>		Uses of funds		New Construction	\$7,038,800	Soft Cost	\$1,861,200	Total Project Cost:	\$8,900,000
Sources of Funds																				
ESD - Economic Growth Initiative	\$1,480,000																			
Cash Equity	\$7,420,000																			
Total Sources of Funds:	\$8,900,000																			
Uses of funds																				
New Construction	\$7,038,800																			
Soft Cost	\$1,861,200																			
Total Project Cost:	\$8,900,000																			
Prior CFA Awards For This Project:	None																			

CFA #	52628	Project Name:	Waverly WWTP Upgrades (supports Leprino)																							
Project Applicant:	Village of Waverly	Project Location:	Waverly	Project County:	Tioga																					
Project Description:	Design and construction of an expansion/upgrade to the physical infrastructure of the Village of Waverly wastewater treatment plant located within the village limits on Cayuta Avenue, to support continuing operations of Leprino.																									
Advancing NY State Initiatives:	Cleaner Greener																									
PROJECTED JOBS:	Create: 0	Retain: 24	Indirect: 0	Construction: 20																						
Recommended ESD Grant: \$2,000,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>ESD- Infrastructure Investment</td> <td style="text-align: right;">\$2,000,000</td> </tr> <tr> <td>Other State Grants</td> <td style="text-align: right;">\$12,813,140</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$3,491,346</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$18,304,486</td> </tr> </table>		Sources of Funds		ESD- Infrastructure Investment	\$2,000,000	Other State Grants	\$12,813,140	Cash Equity	\$3,491,346	Total Sources of Funds:	\$18,304,486	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$3,232,024</td> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$5,851,074</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$6,309,613</td> </tr> <tr> <td>F&E</td> <td style="text-align: right;">\$2,911,775</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$18,304,486</td> </tr> </table>		Uses of funds		Building Renovation	\$3,232,024	New Construction	\$5,851,074	M&E	\$6,309,613	F&E	\$2,911,775	Total Project Cost:	\$18,304,486
Sources of Funds																										
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F&E	\$2,911,775																									
Total Project Cost:	\$18,304,486																									
Prior CFA Awards For This Project:	None																									

CFA #	52779	Project Name:	DeMet's Candy Expansion NY vs PA																					
Project Applicant:	Southern Tier Economic Growth Inc.	Project Location:	Elmira	Project County:	Chemung																			
Project Description:	DeMet's Candy will add approximately 20,000 sq ft to an approximate 100,000 sq ft manufacturing plant currently under construction in Big Flats, retaining 114 workers, plus an additional 100+ seasonal contract workers, and adding 70 new jobs.																							
Advancing NY State Initiatives:	Global NY, Veteran's Initiative																							
PROJECTED JOBS:	Create: 70	Retain: 241	Indirect: 0	Construction: 40																				
Recommended URI Grant: \$2,000,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$2,000,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$14,974,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$1,886,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$18,860,000</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$2,000,000	Lending Institution	\$14,974,000	Cash Equity	\$1,886,000	Total Sources of Funds:	\$18,860,000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$7,200,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$11,500,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$160,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$18,860,000</td> </tr> </table>		Uses of funds		New Construction	\$7,200,000	M&E	\$11,500,000	Soft Costs	\$160,000	Total Project Cost:	\$18,860,000
Sources of Funds																								
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M&E	\$11,500,000																							
Soft Costs	\$160,000																							
Total Project Cost:	\$18,860,000																							
Prior CFA Awards For This Project:	Regional Council Capital Fund - RC4																							

CFA #	52170	Project Name:	Hopshire Brewery Expansion Capital																					
Project Applicant:	Hopshire Brewery LLC	Project Location:	Freeville	Project County:	Tompkins																			
Project Description:	Hopshire Brewery will expand its facility at 1771 Dryden Road, Freeville by 2500 sf, and purchase additional brewing equipment.																							
Advancing NY State Initiatives:																								
PROJECTED JOBS:		Create:	2	Retain:	0																			
		Indirect:	0	Construction:	4																			
Recommended URI Grant: \$60,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$60,000</td> </tr> <tr> <td>Other State Funding</td> <td style="text-align: right;">\$180,000</td> </tr> <tr> <td>Equity</td> <td style="text-align: right;">\$60,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$300,000</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$60,000	Other State Funding	\$180,000	Equity	\$60,000	Total Sources of Funds:	\$300,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$190,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$85,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$25,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$300,000</td> </tr> </table>		Uses of funds		Building Renovation	\$190,000	M&E	\$85,000	Soft Costs	\$25,000	Total Project Cost:	\$300,000
Sources of Funds																								
ESD - Business Investment	\$60,000																							
Other State Funding	\$180,000																							
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Building Renovation	\$190,000																							
M&E	\$85,000																							
Soft Costs	\$25,000																							
Total Project Cost:	\$300,000																							
Prior CFA Awards For This Project:		None																						

CFA #	53534	Project Name:	Ithaca Beer Expansion Capital																	
Project Applicant:	The Ithaca Beer Company, Inc.	Project Location:	Ithaca	Project County:	Tompkins															
Project Description:	Installation of a new canning line to create a more efficient process to support the company's growth.																			
Advancing NY State Initiatives:																				
PROJECTED JOBS:		Create:	6	Retain:	54															
		Indirect:	0	Construction:	0															
Recommended URI Grant: \$175,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$175,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$625,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$200,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$1,000,000</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$175,000	Lending Institution	\$625,000	Cash Equity	\$200,000	Total Sources of Funds:	\$1,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$1,000,000</td> </tr> </table>		Uses of funds		M&E	\$1,000,000	Total Project Cost:	\$1,000,000
Sources of Funds																				
ESD - Business Investment	\$175,000																			
Lending Institution	\$625,000																			
Cash Equity	\$200,000																			
Total Sources of Funds:	\$1,000,000																			
Uses of funds																				
M&E	\$1,000,000																			
Total Project Cost:	\$1,000,000																			
Prior CFA Awards For This Project:		None																		

CFA #	50517	Project Name:	Chicone Cabinetmakers																							
Project Applicant:	Chicone Cabinetmakers, LLC	Project Location:	Montour Falls	Project County:	Schuyler																					
Project Description:	Chicone Cabinetmakers will construct a 6,800 sf expansion at their existing facility in the Village of Montour Falls and purchase cutting-edge M&E to expand their advanced manufacturing capacity and competitiveness.																									
Advancing NY State Initiatives:																										
PROJECTED JOBS:		Create:	6	Retain:	3																					
		Indirect:	0	Construction:	29																					
Recommended URI Grant: \$164,800	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>ESD - Economic Transformation</td> <td style="text-align: right;">\$164,800</td> </tr> <tr> <td>Other Funding</td> <td style="text-align: right;">\$586,800</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$72,400</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$824,000</td> </tr> </table>		Sources of Funds		ESD - Economic Transformation	\$164,800	Other Funding	\$586,800	Cash Equity	\$72,400	Total Sources of Funds:	\$824,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$484,000</td> </tr> <tr> <td>Production M&E</td> <td style="text-align: right;">\$279,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$10,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$51,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$824,000</td> </tr> </table>		Uses of funds		New Construction	\$484,000	Production M&E	\$279,000	FF&E	\$10,000	Soft Costs	\$51,000	Total Project Cost:	\$824,000
Sources of Funds																										
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Production M&E	\$279,000																									
FF&E	\$10,000																									
Soft Costs	\$51,000																									
Total Project Cost:	\$824,000																									
Prior CFA Awards For This Project:		None																								

CFA #	52954	Project Name:	Kirkside Community Kitchen (DOS)																			
Project Applicant:	The MARK Project	Project Location:	Roxbury	Project County:	Delaware																	
Project Description:	Development of a community kitchen space to be located in the north barn of Kirkside Park, at the East Branch of the Delaware River in the Town of Roxbury. The community kitchen will enable area farms, local bakers, and artisanal food producers to prepare and package their goods for resale in a certified kitchen space.																					
Advancing NY State Initiatives:																						
PROJECTED JOBS:		Create:	5	Retain:	0																	
		Indirect:	0	Construction:	5																	
Recommended URI Grant: \$135,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$135,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$160,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$295,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$135,000	Other Local Funding	\$160,000	Total Sources of Funds:	\$295,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$160,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$70,000</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$65,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$295,000</td> </tr> </table>		Uses of funds		Building Renovation	\$160,000	M&E	\$70,000	Soft Costs	\$65,000	Total Project Cost:	\$295,000
Sources of Funds																						
URI - Economic Growth Initiative	\$135,000																					
Other Local Funding	\$160,000																					
Total Sources of Funds:	\$295,000																					
Uses of funds																						
Building Renovation	\$160,000																					
M&E	\$70,000																					
Soft Costs	\$65,000																					
Total Project Cost:	\$295,000																					
Prior CFA Awards For This Project:		None																				

CFA #	52704	Project Name:	Ag Micro Project in Delaware County (HCR)																	
Project Applicant:	Delaware County	Project Location:	Delhi	Project County: Delaware																
Project Description:	Continuance of a successful agricultural microenterprise program designed to aid in growth and sustainability of agriculturally-focused small business in Delaware County through provision of general business education and small business grants to offset expenses relating to Start-Up and/or expansion efforts.																			
Advancing NY State Initiatives:																				
PROJECTED JOBS:	Create: 0	Retain: 0	Indirect: 31	Construction: 0																
Recommended URI Grant: \$200,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$200,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$375,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$575,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$200,000	Other Local Funding	\$375,000	Total Sources of Funds:	\$575,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$314,500</td> </tr> <tr> <td>Soft Costs</td> <td style="text-align: right;">\$260,500</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$575,000</td> </tr> </table>		Uses of funds		M&E	\$314,500	Soft Costs	\$260,500	Total Project Cost:	\$575,000
Sources of Funds																				
URI - Economic Growth Initiative	\$200,000																			
Other Local Funding	\$375,000																			
Total Sources of Funds:	\$575,000																			
Uses of funds																				
M&E	\$314,500																			
Soft Costs	\$260,500																			
Total Project Cost:	\$575,000																			
Prior CFA Awards For This Project:																				

CFA #	28349	Project Name:	Groundswell Farmer Incubator Project															
Project Applicant:	Center for Transformative Action	Project Location:	Ithaca	Project County: Tompkins														
Project Description:	Establish a Training Farm program at the Farm Business Incubator site in Town of Ithaca. The training program will provide intensive experiential and classroom training in organic production & marketing.																	
Advancing NY State Initiatives:																		
PROJECTED JOBS:	Create: 24	Retain: 18	Indirect: 4	Construction: 0														
Recommended URI Grant: \$110,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$110,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$520,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$630,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$110,000	Other Local Funding	\$520,000	Total Sources of Funds:	\$630,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>Training Farm Program</td> <td style="text-align: right;">\$630,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$630,000</td> </tr> </table>		Uses of funds		Training Farm Program	\$630,000	Total Project Cost:	\$630,000
Sources of Funds																		
URI - Economic Growth Initiative	\$110,000																	
Other Local Funding	\$520,000																	
Total Sources of Funds:	\$630,000																	
Uses of funds																		
Training Farm Program	\$630,000																	
Total Project Cost:	\$630,000																	
Prior CFA Awards For This Project: None																		

CFA #	55767	Project Name:	Ultra Premium Beverage Center in Schuylers Business Park															
Project Applicant:	Schuylers County Partnership for Economic Development, Inc.	Project Location:	Watkins Glen	Project County: Schuylers														
Project Description:	This project will create an ultra-premium wine production, warehousing and distribution facility that will focus on exports across the United States and internationally																	
Advancing NY State Initiatives:																		
PROJECTED JOBS:	Create: 60	Retain: 0	Indirect: 45	Construction: 250														
Recommended URI Grant: \$1,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Business Investment</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$1,400,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$2,400,000</td> </tr> </table>		Sources of Funds		URI - Business Investment	\$1,000,000	Other Local Funding	\$1,400,000	Total Sources of Funds:	\$2,400,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$2,400,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$2,400,000</td> </tr> </table>		Uses of funds		New Construction	\$2,400,000	Total Project Cost:	\$2,400,000
Sources of Funds																		
URI - Business Investment	\$1,000,000																	
Other Local Funding	\$1,400,000																	
Total Sources of Funds:	\$2,400,000																	
Uses of funds																		
New Construction	\$2,400,000																	
Total Project Cost:	\$2,400,000																	
Prior CFA Awards For This Project: None																		

CFA #	57245	Project Name:	Vineyard Reclamation and Replacement Program															
Project Applicant:	Schuylers County Partnership for Economic Development, Inc.	Project Location:	Watkins Glen	Project County: Schuylers														
Project Description:	Establish a Vineyard Reclamation and Replacement Program (VRRP) that will allow for an increase in ultra-premium wine production and net new exportation opportunities in the Southern Tier.																	
Advancing NY State Initiatives:																		
PROJECTED JOBS:	Create: 60	Retain: 0	Indirect: 0	Construction: 0														
Recommended URI Year 1 Grant: \$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sources of Funds</th> </tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$500,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$11,500,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$12,000,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$500,000	Other Local Funding	\$11,500,000	Total Sources of Funds:	\$12,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Uses of funds</th> </tr> <tr> <td>VRRP Program</td> <td style="text-align: right;">\$12,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$12,000,000</td> </tr> </table>		Uses of funds		VRRP Program	\$12,000,000	Total Project Cost:	\$12,000,000
Sources of Funds																		
URI - Economic Growth Initiative	\$500,000																	
Other Local Funding	\$11,500,000																	
Total Sources of Funds:	\$12,000,000																	
Uses of funds																		
VRRP Program	\$12,000,000																	
Total Project Cost:	\$12,000,000																	
Prior CFA Awards For This Project: None																		

CFA #	Pending	Project Name: Southern Tier Agriculture and Food Development Cooperative	Project Location: Southern Tier	Project County: Tompkins
Project Applicant:	Cornell Cooperative Extension			
Project Description:	Establishment of an administrative hub for the Food & Agriculture Initiative that will target four key areas: technology implementation and advancement; distribution; market/business development; and workforce development.			
Advancing NY State Initiatives:				
<div style="display: flex; justify-content: space-between;"> <div> PROJECTED JOBS: Create: <input type="text" value="3"/> Retain: <input type="text" value="0"/> </div> <div> Indirect: <input type="text" value="250"/> Construction: <input type="text" value="0"/> </div> </div>				
Recommended URI Year 1 Grant: \$250,000	Sources of Funds		Uses of funds	
	URI - Economic Growth Initiative	\$4,500,000	ST Ag & Food Cooperative operations	\$15,000,000
	Regional Product Sold	\$8,000,000		
	Cornell Coop. Extension Inkind	\$2,500,000		
	Total Sources of Funds:		Total Project Cost:	
	\$15,000,000		\$15,000,000	
Prior CFA Awards For This Project: None				

CFA #	Pending	Project Name: Southern Tier Agriculture Education Fund	Project Location: Southern Tier	Project County: Tompkins
Project Applicant:	Cornell Cooperative Extension			
Project Description:	This project will create a funding in order to sponsor training programs for farmers and support innovative and high-growth food and agriculture industries such as beef feeder cattle, wine-making, controlled environment agriculture, renewable energy, and agri-tourism.			
Advancing NY State Initiatives: Opportunity Agenda, Veteran's Initiative, Cleaner Greener				
<div style="display: flex; justify-content: space-between;"> <div> PROJECTED JOBS: Create: <input type="text" value="0"/> Retain: <input type="text" value="0"/> </div> <div> Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/> </div> </div>				
Recommended URI Year 1 Grant: \$500,000	Sources of Funds		Uses of funds	
	URI - Economic Growth Initiative	\$2,500,000	Education Fund	\$2,500,000
	Total Sources of Funds:		Total Project Cost:	
	\$2,500,000		\$2,500,000	
Prior CFA Awards For This Project: None				

CFA #	Pending	Project Name: Southern Tier Agriculture Development Fund	Project Location: Southern Tier	Project County: Tompkins
Project Applicant:	Cornell Cooperative Extension			
Project Description:	Establish a loan fund for farmers across the region who invest in CEA technology.			
Advancing NY State Initiatives: Cleaner Greener				
<div style="display: flex; justify-content: space-between;"> <div> PROJECTED JOBS: Create: <input type="text" value="20"/> Retain: <input type="text" value="0"/> </div> <div> Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/> </div> </div>				
Recommended URI Year 1 Grant: \$500,000	Sources of Funds		Uses of funds	
	URI - Economic Growth Initiative	\$5,000,000	Loan Fund	\$5,000,000
	Total Sources of Funds:		Total Project Cost:	
	\$5,000,000		\$5,000,000	
Prior CFA Awards For This Project: None				

CFA #	59172	Project Name: USDA Slaughterhouse in Chenango County	Project Location: Norwich	Project County: Chenango
Project Applicant:	All Meats			
Project Description:	Phase 1 construction of a USDA Certified Slaughterhouse to provide meat processing and packaging, as well as a cook-chill food hub to serve multiple counties in both the Southern Tier (Chenango, Delaware and Broome counties) and the Central NY region.			
Advancing NY State Initiatives:				
<div style="display: flex; justify-content: space-between;"> <div> PROJECTED JOBS: Create: <input type="text" value="90"/> Retain: <input type="text" value="0"/> </div> <div> Indirect: <input type="text" value="0"/> Construction: <input type="text" value="15"/> </div> </div>				
Recommended URI Grant: \$1,007,800	Sources of Funds		Uses of funds	
	URI - Business Investment	\$1,007,800	Property acquisition and bldg construction	\$12,008,200
	Other Local Funding	\$1,000,400		
	Private Equity	\$10,000,000		
	Total Sources of Funds:		Total Project Cost:	
	\$12,008,200		\$12,008,200	
Prior CFA Awards For This Project: None				

CFA #:	Project Name: Phase 1. Design of the Cornell University Plant Innovation Research Center														
Project Applicant:	Cornell University	Project Location: Ithaca	Project County: Tompkins												
Project Description:	The Plant Science Innovation and Business Development Center will rapidly advance new agricultural production technologies, demonstrate these technologies at a commercial level. Phase 1 is the design of the facility.														
Advancing NY State Initiatives:	Cleaner Greener														
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/>												
Recommended URI Grant: \$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$500,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$500,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$500,000	Total Sources of Funds:	\$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Design</td> <td style="text-align: right;">\$500,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$500,000</td> </tr> </table>	Uses of funds		Design	\$500,000	Total Project Cost:	\$500,000
Sources of Funds															
URI - Economic Growth Initiative	\$500,000														
Total Sources of Funds:	\$500,000														
Uses of funds															
Design	\$500,000														
Total Project Cost:	\$500,000														
Prior CFA Awards For This Project:	None														

CFA #:	Project Name: City of Ithaca Collegetown Redevelopment																				
Project Applicant:	City of Ithaca	Project Location: Ithaca	Project County: Tompkins																		
Project Description:	Relocation of Fire Station No. 9 from 309 College Avenue in the City of Ithaca to 120 Maple Avenue's parking lot. The University has agreed to allow the City to use this space under the condition that it relocate the university-owned buildings.																				
Advancing NY State Initiatives:	Hot Spots																				
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/>																		
Recommended URI Grant: \$1,200,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>ESD - Infrastructure Investment</td> <td style="text-align: right;">\$1,200,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$1,200,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$3,800,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$6,200,000</td> </tr> </table>		Sources of Funds		ESD - Infrastructure Investment	\$1,200,000	Other Local Funding	\$1,200,000	Cash Equity	\$3,800,000	Total Sources of Funds:	\$6,200,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$5,000,000</td> </tr> <tr> <td>Land Acquisition</td> <td style="text-align: right;">\$1,200,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$6,200,000</td> </tr> </table>	Uses of funds		New Construction	\$5,000,000	Land Acquisition	\$1,200,000	Total Project Cost:	\$6,200,000
Sources of Funds																					
ESD - Infrastructure Investment	\$1,200,000																				
Other Local Funding	\$1,200,000																				
Cash Equity	\$3,800,000																				
Total Sources of Funds:	\$6,200,000																				
Uses of funds																					
New Construction	\$5,000,000																				
Land Acquisition	\$1,200,000																				
Total Project Cost:	\$6,200,000																				
Prior CFA Awards For This Project:	None																				

CFA #:	Project Name: Finger Lakes Boating Museum																		
Project Applicant:	Finger Lakes Boating Museum	Project Location: Hammondsport	Project County: Steuben																
Project Description:	Facilities improvement project consisting of three renovation tasks: severance of an electrical service loop connecting our Museum buildings with those of nearby Mercury Corporation; installation of a new heating system for our main Museum building; and replacement of the leaking roof on the boat storage building.																		
Advancing NY State Initiatives:	Global NY																		
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="1"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="8"/>																
Recommended URI Grant: \$50,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$250,600</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$300,600</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$50,000	Cash Equity	\$250,600	Total Sources of Funds:	\$300,600	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Construction</td> <td style="text-align: right;">\$250,600</td> </tr> <tr> <td>Renovation</td> <td style="text-align: right;">\$50,100</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$300,600</td> </tr> </table>	Uses of funds		Construction	\$250,600	Renovation	\$50,100	Total Project Cost:	\$300,600
Sources of Funds																			
ESD - Business Investment	\$50,000																		
Cash Equity	\$250,600																		
Total Sources of Funds:	\$300,600																		
Uses of funds																			
Construction	\$250,600																		
Renovation	\$50,100																		
Total Project Cost:	\$300,600																		
Prior CFA Awards For This Project:	None																		

CFA #:	Project Name: CPSI Advanced Cell Processing																										
Project Applicant:	Cell Preservation Services, Inc.	Project Location: Owego	Project County: Tioga																								
Project Description:	Working capital request related to establishment of an Advanced Cell Processing Device Development and Manufacturing program/facility (ACDDM) at CPSI in Owego to support expanded R&D, product design and commercial launch of a new scientific and clinical use device (SmartThaw) designed for the rapid, controlled, documented thawing of frozen cell, tissue and blood.																										
Advancing NY State Initiatives:	NY Rising																										
PROJECTED JOBS:	Create: <input type="text" value="10"/>	Retain: <input type="text" value="11"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/>																								
Recommended URI Grant: \$175,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>ESD - Business Investment</td> <td style="text-align: right;">\$175,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$106,000</td> </tr> <tr> <td>Federal Funding</td> <td style="text-align: right;">\$610,000</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$99,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$990,000</td> </tr> </table>		Sources of Funds		ESD - Business Investment	\$175,000	Lending Institution	\$106,000	Federal Funding	\$610,000	Cash Equity	\$99,000	Total Sources of Funds:	\$990,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Building Renovation</td> <td style="text-align: right;">\$80,000</td> </tr> <tr> <td>M&E</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$20,000</td> </tr> <tr> <td>Other</td> <td style="text-align: right;">\$870,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$990,000</td> </tr> </table>	Uses of funds		Building Renovation	\$80,000	M&E	\$20,000	FF&E	\$20,000	Other	\$870,000	Total Project Cost:	\$990,000
Sources of Funds																											
ESD - Business Investment	\$175,000																										
Lending Institution	\$106,000																										
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Cash Equity	\$99,000																										
Total Sources of Funds:	\$990,000																										
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M&E	\$20,000																										
FF&E	\$20,000																										
Other	\$870,000																										
Total Project Cost:	\$990,000																										
Prior CFA Awards For This Project:	None																										

CFA #: 52915	Project Name: Southern Tier Community Revitalization Program										
Project Applicant: STREDC	Project Location: Southern Tier	Project County: All									
Project Description: The Southern Tier Region Community Revitalization Program will provide low interest "gap financing" for redevelopment of key commercial buildings, infill of new buildings and development of the Southern Tier Region's downtowns, rural population centers and neighborhood commercial centers.											
Advancing NY State Initiatives: Opportunity Agenda											
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="0"/>								
Recommended URI Grant: \$1,000,000	Sources of Funds		Uses of funds								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">URI - Economic Growth Initiative</td> <td style="width:40%; text-align: right;">\$1,000,000</td> </tr> <tr> <td colspan="2">Total Sources of Funds: \$1,000,000</td> </tr> </table>		URI - Economic Growth Initiative	\$1,000,000	Total Sources of Funds: \$1,000,000		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Loan Program</td> <td style="width:40%; text-align: right;">\$1,000,000</td> </tr> <tr> <td colspan="2">Total Project Cost: \$1,000,000</td> </tr> </table>	Loan Program	\$1,000,000	Total Project Cost: \$1,000,000	
	URI - Economic Growth Initiative	\$1,000,000									
Total Sources of Funds: \$1,000,000											
Loan Program	\$1,000,000										
Total Project Cost: \$1,000,000											
Prior CFA Awards For This Project: RCOF RC1-RC3											

CFA #: 51612	Project Name: Norwich Best Western																		
Project Applicant: JEGG Realty Norwich LLC	Project Location: Norwich	Project County: Chenango																	
Project Description: Critical renovations as required to transform the existing Howard Johnson's Hotel, the only nearby lodging facility, into a business-friendly Best Western Hotel in downtown Norwich.																			
Advancing NY State Initiatives: Opportunity Agenda																			
PROJECTED JOBS:	Create: <input type="text" value="11"/>	Retain: <input type="text" value="17"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="16"/>																
Recommended URI Grant: \$250,000	Sources of Funds		Uses of funds																
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">ESD - Business Investment</td> <td style="width:40%; text-align: right;">\$250,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$1,954,280</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$244,920</td> </tr> <tr> <td colspan="2">Total Sources of Funds: \$2,449,200</td> </tr> </table>		ESD - Business Investment	\$250,000	Lending Institution	\$1,954,280	Cash Equity	\$244,920	Total Sources of Funds: \$2,449,200		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Building Renovations</td> <td style="width:40%; text-align: right;">\$1,438,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$888,550</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$152,650</td> </tr> <tr> <td colspan="2">Total Project Cost: \$2,449,200</td> </tr> </table>	Building Renovations	\$1,438,000	FF&E	\$888,550	Soft Cost	\$152,650	Total Project Cost: \$2,449,200	
	ESD - Business Investment	\$250,000																	
Lending Institution	\$1,954,280																		
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Building Renovations	\$1,438,000																		
FF&E	\$888,550																		
Soft Cost	\$152,650																		
Total Project Cost: \$2,449,200																			
Prior CFA Awards For This Project: None																			

CFA #: 51449	Project Name: Roxbury Stratton Falls																				
Project Applicant: Masseron Properties, Inc.	Project Location: Roxbury	Project County: Delaware																			
Project Description: New development by the owners of the internationally recognized Roxbury Hotel themed lodging, to include renovation of a 5700 sf 1850's federal mansion into 7 themed guestrooms; construction of 8 stand-alone themed "tower cottages;" and related site improvements, including walkways and trails surrounding the property.																					
Advancing NY State Initiatives: NY Rising, Global NY																					
PROJECTED JOBS:	Create: <input type="text" value="6"/>	Retain: <input type="text" value="8"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="50"/>																		
Recommended URI Grant: \$1,375,000	Sources of Funds		Uses of funds																		
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">ESD - Business Investment</td> <td style="width:40%; text-align: right;">\$1,375,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$4,944,610</td> </tr> <tr> <td>Equity</td> <td style="text-align: right;">\$700,000</td> </tr> <tr> <td colspan="2">Total Sources of Funds: \$7,019,610</td> </tr> </table>		ESD - Business Investment	\$1,375,000	Lending Institution	\$4,944,610	Equity	\$700,000	Total Sources of Funds: \$7,019,610		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Building Renovations</td> <td style="width:40%; text-align: right;">\$1,070,000</td> </tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$3,429,500</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$988,169</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$1,531,941</td> </tr> <tr> <td colspan="2">Total Project Cost: \$7,019,610</td> </tr> </table>	Building Renovations	\$1,070,000	New Construction	\$3,429,500	FF&E	\$988,169	Soft Cost	\$1,531,941	Total Project Cost: \$7,019,610	
	ESD - Business Investment	\$1,375,000																			
Lending Institution	\$4,944,610																				
Equity	\$700,000																				
Total Sources of Funds: \$7,019,610																					
Building Renovations	\$1,070,000																				
New Construction	\$3,429,500																				
FF&E	\$988,169																				
Soft Cost	\$1,531,941																				
Total Project Cost: \$7,019,610																					
Prior CFA Awards For This Project: None																					

CFA #: 53039	Project Name: Urbana Hammondsport Waterfront Development																
Project Applicant: Town of Urbana	Project Location: Hammondsport	Project County: Steuben															
Project Description: Tourism infrastructure improvements at Champlin Beach on the southern end of Keuka Lake in order to attract a private tour boat operator, including new construction to replace Champlin Pier and improvements to the parking area at Champlin Beach.																	
Advancing NY State Initiatives: Global NY																	
PROJECTED JOBS:	Create: <input type="text" value="35"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/> Construction: <input type="text" value="25"/>														
Recommended URI Grant: \$410,000	Sources of Funds		Uses of funds														
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">ESD - Infrastructure Investment</td> <td style="width:40%; text-align: right;">\$410,000</td> </tr> <tr> <td>Lending Institution</td> <td style="text-align: right;">\$1,446,250</td> </tr> <tr> <td>Cash Equity</td> <td style="text-align: right;">\$206,250</td> </tr> <tr> <td colspan="2">Total Sources of Funds: \$2,062,500</td> </tr> </table>		ESD - Infrastructure Investment	\$410,000	Lending Institution	\$1,446,250	Cash Equity	\$206,250	Total Sources of Funds: \$2,062,500		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">New Construction</td> <td style="width:40%; text-align: right;">\$1,280,000</td> </tr> <tr> <td>FF&E</td> <td style="text-align: right;">\$782,500</td> </tr> <tr> <td colspan="2">Total Project Cost: \$2,062,500</td> </tr> </table>	New Construction	\$1,280,000	FF&E	\$782,500	Total Project Cost: \$2,062,500	
	ESD - Infrastructure Investment	\$410,000															
Lending Institution	\$1,446,250																
Cash Equity	\$206,250																
Total Sources of Funds: \$2,062,500																	
New Construction	\$1,280,000																
FF&E	\$782,500																
Total Project Cost: \$2,062,500																	
Prior CFA Awards For This Project: None																	

CFA #: 56253	Project Name: Sciencecenter Reimagined (Market NY)																
Project Applicant:	Project Location: Ithaca Project County: Tompkins																
Project Description:	WHAT The Sciencenter, one of the Southern Tier's major cultural destinations, proposes "Science Re-Imagined" an initiative that will refresh or expand nearly all of the museum's facilities and exhibitions - indoors & outdoors - replacing older displays with interactive, cutting-edge exhibits.																
Advancing NY State Initiatives: Global NY																	
PROJECTED JOBS:	Create: <input type="text"/>	Retain: <input type="text"/>	Indirect: <input type="text"/> Construction: <input type="text"/>														
Recommended URI Grant: \$300,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$300,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$1,200,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$1,500,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$300,000	Other Local Funding	\$1,200,000	Total Sources of Funds:	\$1,500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Building Renovations</td> <td style="text-align: right;">\$1,500,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$1,500,000</td> </tr> </table>	Uses of funds		Building Renovations	\$1,500,000	Total Project Cost:	\$1,500,000
Sources of Funds																	
URI - Economic Growth Initiative	\$300,000																
Other Local Funding	\$1,200,000																
Total Sources of Funds:	\$1,500,000																
Uses of funds																	
Building Renovations	\$1,500,000																
Total Project Cost:	\$1,500,000																
Prior CFA Awards For This Project: None																	

CFA #: 56704	Project Name: Southern Tier Startup Alliance Capital Seed Fund																
Project Applicant:	Project Location: Ithaca Project County:																
Project Description:	The Southern Tier Startup Alliance (STSA) proposes an innovative partnership to deliver critically needed "first money in seed capital" to startup companies in the STSA as the region's Innovation Hot Spot and in the support, mentoring, and commitment of the STSA's five member business incubators.																
Advancing NY State Initiatives: Global NY																	
PROJECTED JOBS:	Create: <input type="text"/>	Retain: <input type="text"/>	Indirect: <input type="text"/> Construction: <input type="text"/>														
Recommended URI Grant: \$1,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$1,000,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$4,000,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$5,000,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$1,000,000	Other Local Funding	\$4,000,000	Total Sources of Funds:	\$5,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Capital Fund</td> <td style="text-align: right;">\$5,000,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$5,000,000</td> </tr> </table>	Uses of funds		Capital Fund	\$5,000,000	Total Project Cost:	\$5,000,000
Sources of Funds																	
URI - Economic Growth Initiative	\$1,000,000																
Other Local Funding	\$4,000,000																
Total Sources of Funds:	\$5,000,000																
Uses of funds																	
Capital Fund	\$5,000,000																
Total Project Cost:	\$5,000,000																
Prior CFA Awards For This Project:																	

CFA #: 56948	Project Name: Removal of Watkins Glen WWTP from Seneca Lake waterfront (DEC)																		
Project Applicant:	Project Location: Watkins Glen Project County: Schuyler																		
Project Description:	Village of Watkins Glen Project Seneca Regional WWTP - removal of the Watkins Glen WWTP from the lake front and re-locate it along the Seneca Barge Canal roughly 4,200 ft. south of the lake as the final step to open up Seneca Lake waterfront for revitalization.																		
Advancing NY State Initiatives: Cleaner Greener																			
PROJECTED JOBS:	Create: <input type="text"/>	Retain: <input type="text"/>	Indirect: <input type="text"/> Construction: <input type="text"/>																
Recommended ESD Grant: \$600,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>URI - Infrastructure Investment</td> <td style="text-align: right;">\$600,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$750,000</td> </tr> </table>		Sources of Funds		URI - Infrastructure Investment	\$600,000	Other Local Funding	\$150,000	Total Sources of Funds:	\$750,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>New Construction</td> <td style="text-align: right;">\$600,000</td> </tr> <tr> <td>Demolition & Remediation</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$750,000</td> </tr> </table>	Uses of funds		New Construction	\$600,000	Demolition & Remediation	\$150,000	Total Project Cost:	\$750,000
Sources of Funds																			
URI - Infrastructure Investment	\$600,000																		
Other Local Funding	\$150,000																		
Total Sources of Funds:	\$750,000																		
Uses of funds																			
New Construction	\$600,000																		
Demolition & Remediation	\$150,000																		
Total Project Cost:	\$750,000																		
Prior CFA Awards For This Project: None																			

CFA #: 56253	Project Name: eatBING Alliance																		
Project Applicant:	Project Location: Binghamton Project County: Broome																		
Project Description:	eatBING Inc. A Culinary Tourism Alliance strategic marketing campaign to showcase the diverse attractions in the Binghamton area, including a public facing website that will be all-inclusive of restaurants, breweries, wineries, farms, galleries, recreational activities and retailers; a video highlighting the vibrancy and creativity of the area; and a Best of Binghamton book.																		
Advancing NY State Initiatives: Opportunity Agenda, NY Rising																			
PROJECTED JOBS:	Create: <input type="text"/>	Retain: <input type="text"/>	Indirect: <input type="text"/> Construction: <input type="text"/>																
Recommended URI Grant: \$50,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Sources of Funds</th></tr> <tr> <td>URI - Economic Growth Initiative</td> <td style="text-align: right;">\$50,000</td> </tr> <tr> <td>Other Local Funding</td> <td style="text-align: right;">\$29,000</td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$79,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$50,000	Other Local Funding	\$29,000	Total Sources of Funds:	\$79,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="2">Uses of funds</th></tr> <tr> <td>Contractual Services</td> <td style="text-align: right;">\$60,500</td> </tr> <tr> <td>Soft Cost</td> <td style="text-align: right;">\$18,500</td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$79,000</td> </tr> </table>	Uses of funds		Contractual Services	\$60,500	Soft Cost	\$18,500	Total Project Cost:	\$79,000
Sources of Funds																			
URI - Economic Growth Initiative	\$50,000																		
Other Local Funding	\$29,000																		
Total Sources of Funds:	\$79,000																		
Uses of funds																			
Contractual Services	\$60,500																		
Soft Cost	\$18,500																		
Total Project Cost:	\$79,000																		
Prior CFA Awards For This Project: None																			

CFA # 57412	Project Name: Authentic American Experience in Our Downtowns		Project Location: Arkville	Project County: Delaware																
Project Applicant: The MARK Project																				
Project Description:	This project focuses on the development of a A Master/Entrepreneur Main Street and Neighborhood Campus Program in the communities of Roxbury, Margaretville, Fleischmanns and Andes, and also serve as a model for duplication throughout other small communities in providing resources to entrepreneurs be in the Southern Tier.																			
Advancing NY State Initiatives: NY Rising																				
PROJECTED JOBS:	Create: <input type="text" value="200"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="100"/>	Construction: <input type="text" value="100"/>																
Recommended URI Grant: \$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Sources of Funds</th> </tr> <tr> <td style="width:60%;">URI - Economic Growth Initiative</td> <td style="width:40%; text-align: right;">\$500,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$500,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$500,000			Total Sources of Funds:	\$500,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Uses of funds</th> </tr> <tr> <td style="width:60%;">Campus Program</td> <td style="width:40%; text-align: right;">\$500,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$500,000</td> </tr> </table>		Uses of funds		Campus Program	\$500,000			Total Project Cost:	\$500,000
Sources of Funds																				
URI - Economic Growth Initiative	\$500,000																			
Total Sources of Funds:	\$500,000																			
Uses of funds																				
Campus Program	\$500,000																			
Total Project Cost:	\$500,000																			
Prior CFA Awards For This Project: None																				

CFA # 59382	Project Name: Southern Tier Branding Program		Project Location: Southern Tier	Project County: All																		
Project Applicant: Finger Lakes Wine Country																						
Project Description:	Develop and implement a regional branding and promotion program that will serve as a unifying theme to promote the region's quality of life and capacity for innovation, and ignite a fierce community pride that compels residents to be regional ambassadors.																					
Advancing NY State Initiatives: Global NY, Hot Spots																						
PROJECTED JOBS:	Create: <input type="text" value="0"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/>	Construction: <input type="text" value="0"/>																		
Recommended URI Year 1 Grant: \$750,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Sources of Funds</th> </tr> <tr> <td style="width:60%;">URI - Economic Growth Initiative</td> <td style="width:40%; text-align: right;">\$60,000,000</td> </tr> <tr> <td>Advertising and promotion \$\$ invested</td> <td style="text-align: right;">\$150,000,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$210,000,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$60,000,000	Advertising and promotion \$\$ invested	\$150,000,000			Total Sources of Funds:	\$210,000,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Uses of funds</th> </tr> <tr> <td style="width:60%;">Branding Program</td> <td style="width:40%; text-align: right;">\$60,000,000</td> </tr> <tr> <td>Promotion and Advertising</td> <td> </td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$60,000,000</td> </tr> </table>		Uses of funds		Branding Program	\$60,000,000	Promotion and Advertising		Total Project Cost:	\$60,000,000
Sources of Funds																						
URI - Economic Growth Initiative	\$60,000,000																					
Advertising and promotion \$\$ invested	\$150,000,000																					
Total Sources of Funds:	\$210,000,000																					
Uses of funds																						
Branding Program	\$60,000,000																					
Promotion and Advertising																						
Total Project Cost:	\$60,000,000																					
Prior CFA Awards For This Project:																						

CFA # 59371	Project Name: Administrative Costs for Southern Tier URI Plan Implementation		Project Location: Southern Tier	Project County: All																
Project Applicant: Coming Enterprises																				
Project Description:	Administrative costs, including staff and consultants, to administer and guide implementation of the Southern Tier URI Plan.																			
PROJECTED JOBS:	Create: <input type="text" value="2"/>	Retain: <input type="text" value="0"/>	Indirect: <input type="text" value="0"/>	Construction: <input type="text" value="0"/>																
Recommended URI Year 1 Grant: \$250,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Sources of Funds</th> </tr> <tr> <td style="width:60%;">URI - Economic Growth Initiative</td> <td style="width:40%; text-align: right;">\$1,250,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Total Sources of Funds:</td> <td style="text-align: right;">\$1,250,000</td> </tr> </table>		Sources of Funds		URI - Economic Growth Initiative	\$1,250,000			Total Sources of Funds:	\$1,250,000	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #d3d3d3;">Uses of funds</th> </tr> <tr> <td style="width:60%;">Administrative Costs</td> <td style="width:40%; text-align: right;">\$1,250,000</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$1,250,000</td> </tr> </table>		Uses of funds		Administrative Costs	\$1,250,000			Total Project Cost:	\$1,250,000
Sources of Funds																				
URI - Economic Growth Initiative	\$1,250,000																			
Total Sources of Funds:	\$1,250,000																			
Uses of funds																				
Administrative Costs	\$1,250,000																			
Total Project Cost:	\$1,250,000																			
Prior CFA Awards For This Project:																				



**Southern Tier
Regional Economic
Development Council**