

UB Center for Industrial Effectiveness
University at Buffalo *The State University of New York*



Annual Report 2012-13

Supporting the Entrepreneurial Community

To our many stakeholders and partners,

As an elite university extension program for more than 25 years, the UB Center for Industrial Effectiveness (TCIE) contributes to the University at Buffalo's goal of increasing its footprint and impact on the economy by leveraging UB capabilities to assist businesses. This year, we have refined our efforts to support the Western New York (WNY) community and create a stronger, more cohesive entrepreneurial ecosystem that accelerates the commercialization pipeline, connects entrepreneurs to university and community resources, and cultivates a highly skilled talent pool through education.

UB TCIE and a consortium of UB entities were awarded a two-year, \$349,565 grant from the Economic Development Administration (EDA) in August 2012 to foster innovation, job creation and private capital investment. The federal funds are helping to advance new and innovative technologies in WNY.



The grant secured initial-stage funding for the UB Office of Science, Technology Transfer and Economic Outreach (STOR) Entrepreneurship-In-Residence program (EIR), which provides entrepreneurs with new business formation and commercialization assistance. The EIR received further funding with a State University of New York (SUNY) Research Foundation award, expanding the placement of private-sector entrepreneurs on Buffalo State, Geneseo, Fredonia and Brockport SUNY campuses to stimulate startup creation from research.

Other activities of the grant include: widening the depth and reach of the life sciences program iSciWNY (led by the New York State Center of Excellence in Bioinformatics & Life Sciences); developing leadership of early-stage technology companies (UB School of Management); providing education in the new product development process (New York State Center for Engineering Design and Industrial Innovation); and addressing technical challenges of small and mid-size businesses (UB TCIE). With an overarching goal of elevating Western New York's innovation infrastructure, UB TCIE is collaborating with Launch NY to establish regional innovation subcommittees that will connect entrepreneurial ecosystem members. Committees will synergize activities, maximize assets and identify innovation infrastructure gaps to ultimately quicken start-up company creation.

We thank our stakeholders, the business community, university leaders, and all economic development allies who share our mission of building the economy. We look forward to continuing our service to the region.

Sincerely,

Timothy Leyh
UB TCIE Executive Director

Fiscal Year 2012-13 Summary

SERVICE RESULTS

Number of Businesses Served	169
Professional Development – Number of People Trained/Certified	1,078
Business Process Reengineering Projects	181
Undergraduate/Graduate Students Placed	27
Number of Markets Served	20
Total Revenue	\$1,741,075

STRATEGIC PARTNERSHIP FOR INDUSTRIAL RESURGENCE IMPACT (SPIR)

Number of SPIR Projects	14
Client Jobs Created	79
Client Jobs Retained	1,682
Value of SPIR Pipeline	\$360,000
Client Increase in Revenue	\$18,300,000



UB TCIE annually supports hundreds of public and private organizations, connecting them to the expert resources of UB's School of Engineering and Applied Sciences. Our core focus on engineering solutions and operational excellence services drives continual improvements, strengthens enterprise performance, and ignites innovation and technological advantage. Additionally, our professional development offerings – from leadership and change management to business improvement methodologies – prepare individuals to better support and sustain their company's operations and strategies.

The center was founded in 1987, with its first home being a storage room in Bell Hall on the North Campus. Today, offices are located in Baird Research Park at 1576 Sweet Home Road, UB's Technology Incubator.

UB TCIE is the regional administrator for the State University of New York's Strategic Partnership for Industrial Resurgence (SPIR) grant, providing companies with greater access to the resources of UB's School of Engineering and Applied Sciences. Aside from UB, SPIR offices are currently based at the engineering colleges and programs of SUNY Binghamton and Stony Brook.

While UB TCIE primarily serves New York State (NYS), offerings are provided to businesses across North America and the world. In 2012-2013, UB TCIE's programs increased net sales in excess of \$18 million and created or retained close to 1,800 jobs. Additionally, UB TCIE's team trained more than 1,000 professionals, strengthening businesses and the community through excellence in service. Our business development and resource teams include highly knowledgeable and engaging individuals who utilize their industry experience to achieve excellent results.

The center has been honored six times by the National Association of Management and Technical Assistance Centers (NAMTAC) and its descendent, the University Economic Development Association (UEDA), for projects resulting in significant gains. UB TCIE received recognition for work completed at Erie County, Saint Vincent Health Center in Erie, Pa., Delphi Thermal's Lockport facility, Quebecor, Bethlehem Steel and OhmCraft.

Our Mission and Values

The mission of UB TCIE is to be a leader in building the economy, by strengthening businesses and communities through excellence in service.

Our approach is to be a leading university extension service organization recognized for collaborating with diverse partners and providing a broad array of services to our stakeholders.

Integrity

Building our reputation by being ...

- **Accountable**
- **Credible**
- **Ethical**
- **Respectful**

Excellence

Exceeding stakeholder expectations by ...

- **Achieving results**
- **Demonstrating leadership**
- **Leveraging our resources and expertise**

Service

Delivering results and fostering diversity by being ...

- **Responsive**
- **Adding value**
- **Providing solutions**
- **Collaborating**

Innovation

Fostering a culture of creativity by embracing ...

- **Change**
- **Lifelong learning**
- **Risk-taking**

Strategic Partnership for Industrial Resurgence



Subsidizes technically advanced multi-disciplinary projects for small to mid-size businesses

New York State companies with fewer than 500 employees can benefit from the Strategic Partnership for Industrial Resurgence (SPIR) grant, administered by the State University of New York. Whether an entrepreneur seeking a way to bring innovations to the next level, a small firm looking to upgrade or introduce new technologies, or a high-technology firm addressing the challenges of product development and testing, SPIR can help pay for these and many other initiatives to make a business more competitive. Companies apply by contacting UB TCIE with their technical assistance needs. Grant funds subsidize faculty and/or student hours; capital equipment expenses are not covered. UB TCIE works with 20 to 30 companies each year to secure SPIR monies.

Specifically, SPIR projects include:

- Engineering R&D projects
- Re-engineering business processes
- Facility layout and workflow analysis
- Accessing shared instrumentation laboratories
- Employing graduate student interns

Client projects contracted during the 2012-13 fiscal year receiving SPIR awards resulted in an estimated:

- 79 jobs created
- 1,682 jobs retained
- \$18,300,000 revenue increase



Sectors Served & Client List

UB TCIE's client engagements include Engineering Solutions research projects that call on the expertise of UB faculty researchers, Operational Excellence consultation, and Professional Development and mentoring in the areas of Lean, Six Sigma, ISO, and Soft Skills. The client base covers the following sectors: **Advanced Manufacturing, Life Sciences, Healthcare and Social Services, Food Processing and Food Services, Government and Education, Finance and Insurance, Specialty Metals, Recycling, Printing, Metal Forming, Automotive, Packaging, Agricultural, Distribution and Warehousing, Service, Aerospace and Defense, Electronics, Chemical, and Media/Advertising.**

The featured sectors include a partial list of clients.

Advanced Manufacturing:



Manufacturing:



Food Processing and Food Services:



Finance and Insurance:



Government and Education:



Healthcare and Social Services:



Entrepreneurial Ecosystem Partners



School of Engineering

UB is a premier research-intensive public university and a flagship institution in the 64-campus State University of New York (SUNY) system. UB's School of Engineering and Applied Sciences (SEAS) is the largest and most comprehensive public school of engineering in New York. Annual research expenditures

are around \$50 million and the school's per faculty research expenditure places it in the top 10 percent of U.S. engineering schools. The engineering departments are: Biomedical; Chemical and Biological; Civil, Structural and Environmental; Computer Science; Electrical; Industrial and Systems; and Mechanical and Aerospace.

At the helm of SEAS is Liesl Folks, PhD, who began her tenure as dean in January 2013. An internationally recognized expert in nanotechnology and magnetism, she most recently led the development and delivery of new media advanced technologies at HGST, a hard disk drive company in San Jose, Calif. The author of more than 50 peer-reviewed papers holds 14 U.S. patents and has collaborated with Cornell University's Center for Nanoscale Systems, Oxford University, UC Santa Barbara, Ohio State, University of Colorado and the Rochester Institute of Technology, among other universities.

Folks was nationally recognized in May 2013 with the AVS Excellence in Leadership award for her mentorship of science and engineering students. Her passion for mentoring and experiences in industry are driving a three-year, department-wide initiative to substantially boost the number of undergraduate students who leave UB with experiential learning opportunities – whether shadowing a company for one day or completing a months-long internship.



LaunchNY

Launch NY identifies, supports and invests in high-growth, high-impact companies and catalyzes the entrepreneurial culture of Upstate New York through regional collaboration with ecosystem partners.



The Western New York Venture Association (WNYVA) provides a business opportunity and investment forum to the Niagara region through networking meetings that facilitate information exchange between investors and entrepreneurs.



The New York State Center of Excellence in Bioinformatics & Life Sciences (CoE) is dedicated to creating and commercializing new technology innovations, and to serving as a hub of life sciences expertise and innovation in upstate New York.



The New York State Center for Engineering Design and Industrial Innovation (NYSCEDI) develops next-generation design, manufacturing, product and process development tools.



Empire State Development (ESD) is the chief economic development agency driving job growth, strategic investment and prosperity in New York State.

1987

The Strategic Partnership for Industrial Resurgence (SPIR) grant is created to subsidize university-led engineering projects at New York companies.



The first project of The Center for Industrial Effectiveness (TCIE) is undertaken at MRC Bearings of Chautauqua County, N.Y.

1999

The arrival of ISO implementation and 2nd party audit services helps companies boost performance of their business management systems.



1994



The Lean Enterprise Program debuts, featuring services that maximize customer value while minimizing waste.



2001

Entrepreneurial Ecosystem Partners



The UB Office of the Vice President for Research & Economic Development and its constituent units have overall responsibility for UB's research enterprise, creating an atmosphere of creativity, collaboration and community.



UB OFFICE OF
SCIENCE,
TECHNOLOGY
TRANSFER AND
ECONOMIC
OUTREACH

The UB Office of Science, Technology Transfer, and Economic Outreach (STOR) is UB's interface between the inventive work of faculty and students and the applied commercial development that benefits society.



The UB School of Management's Center for Entrepreneurial Leadership (CEL) promotes business growth in Western New York through leadership development and experiential learning.



The Buffalo Niagara Partnership (the Partnership) advocates for policies and resources to increase private-sector investment and jobs, and offers services aimed at business success.



The Buffalo Niagara Enterprise (BNE) provides comprehensive economic development assistance to companies looking to expand to the Western New York region.



Goals of Greater Rochester Enterprise (GRE), an economic development organization, are to retain and expand businesses and market the Rochester/Finger Lakes region as a place for business location and growth.



The mission of the Erie County Industrial Development Agency (ECIDA) is to provide the resources that encourage investment, innovation, growth and global competitiveness in Erie County.



The Niagara County Center for Economic Development facilitates economic growth and expansion and provides information support for businesses and the public.



The University Economic Development Association (UEDA) is aimed at enhancing economic development nationwide through innovation and entrepreneurship.

2004



Blended Learning Training for Six Sigma combines instructor-led, classroom-based education with self-paced e-learning.



The Six Sigma Program is rolled out to the corporate world and UB students, providing access to the problem-solving methodology.

2010



UB TCIE and a consortium of UB partners are awarded an Economic Development Administration grant to advance innovation and job creation.



Construction of UB Engineering's newest building – Davis Hall – includes shared instrumentation laboratories (clean room) available to the business community.



2012

2008

For more information, please contact:

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