

NORTHEASTERN PA CUMULATIVE RESULTS



CLIENT
GROWTH
CHART
page 4

Ben Franklin Technology Partners of Northeastern Pennsylvania surveys its client companies on the economic impacts that are accomplished as a direct result of its investments. These figures are used to evaluate Ben Franklin's effectiveness. BFTP/NEP has achieved the following results:



NEW JOBS
CREATED
16,214

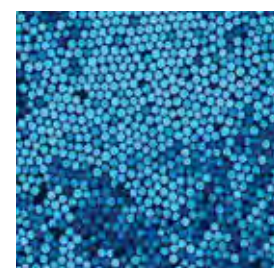


PEOPLE
ARE
TALKING
page 16



EXISTING
JOBS
RETAINED
22,155

NEW PRODUCTS
& PROCESSES
DEVELOPED
1,279



NEW
COMPANIES
STARTED
458



STATEWIDE RESULTS page 13
MORE NORTHEAST RESULTS page 26

COMPANIES
ASSISTED
1,885
(since 2007)

ANNUAL REPORT 2014

BEN FRANKLIN TECHNOLOGY PARTNERS OF NORTHEASTERN PENNSYLVANIA

LEVERAGING THE
BEN FRANKLIN
INVESTMENT



CONTENTS

CEO MESSAGE	1
PROGRAM OVERVIEW	3
INVESTMENTS	5
STATEWIDE RESULTS	13
TECHVENTURES	17
INCUBATOR NETWORK	19
GOVERNOR'S IMPACT AWARDS	19
IXCHANGE	21
VENTURE IDOL	25
NE PA RESULTS/FINANCIALS	26
BOARDS AND STAFF	27



The Pennsylvania Department of Community and Economic Development has earned international acclaim for the success of the Ben Franklin Technology Partners statewide program in creating and retaining technology-based jobs. With Ben Franklin's help, our clients have raised more than \$457 million of additional investment over the last five years.

LEVERAGING THE BEN FRANKLIN INVESTMENT

MESSAGE FROM THE CEO

Funding is what draws most companies to the Ben Franklin Technology Partners of Northeastern Pennsylvania. Early-stage firms are interested in seed capital and investments for product development. Cash investments in early-stage firms are critical; young firms are often said to be in a race against insolvency. Established manufacturers seek funding for technological innovation to improve production or reduce costs. The global marketplace changes rapidly, so manufacturers must innovate constantly to grow.

Ben Franklin does not have the financial resources to provide all of the funding that will typically bridge a young company to profitability, nor the in-house expertise across all technology sectors to keep manufacturers competitive. Our "secret sauce," which we have been building and developing purposefully for more than 31 years, is leverage.

We begin with a thorough and rigorous prospective client vetting process that is recognized and respected in the investment community. Once clients are selected, our broad support offerings, in addition to our financial investments, are crucial.

Many of Ben Franklin's early-stage client companies are in the process of creating their product or service offering. Founding team members often have a high degree of technical knowledge but may not have the expertise needed to develop effective marketing strategies or pro forma financial statements and projections. Our staff works directly

with entrepreneurial clients as well as introduces them to the Ben Franklin Solutions Network of consultants, follow-on investors, and other economic development colleagues to dramatically enhance their chances of success.

Ben Franklin challenges clients' assumptions and helps them to develop a compelling and comprehensive business plan. Our staff and Solutions Network help company principals to protect their intellectual property and analyze their financial model. We assist clients in defining their target markets and competitors, and focus their efforts on the best channel to the targeted customers.

Taken together, these efforts substantially strengthen early-stage companies and make Ben Franklin's clients even more attractive to follow-on investors. The Ben Franklin endorsement is a "Good Housekeeping Seal of Approval" in the investment and business community, and earns young companies enhanced interest. The Ben Franklin reputation allows us to leverage our limited funds manifold and multiplies the effectiveness of our investments.

Ben Franklin's established manufacturer clients also benefit from the Ben Franklin Solutions Network. We have built strong relationships over the years with proven experts who have helped manufacturers to grow and prosper. We link our clients with the specific resources they need – professionals, specialists, and the staff, students,

facilities, and equipment at Pennsylvania's colleges and universities. To excel, established manufacturers must move beyond best practices. We help companies get to the next level of competitiveness.

In the early 1980s, Pennsylvania's economy was in dire straits. Steel and other heavy industries that once supported the region were in dramatic decline. The Ben Franklin program emerged as a pivotal tool in reversing that downturn and developing high-value technology sectors to replace waning industries.

Over 31 years and through many adjustments, the Ben Franklin Technology Partners has emerged as the gold standard in technology-based economic development. This is largely due to the relationships that we have cultivated and the respect that we have earned. We successfully leverage the investment and resources of the Pennsylvania Department of Community and Economic Development as we continue to catalyze the growth of northeastern Pennsylvania's technology-based economy.

R. CHADWICK PAUL, JR.
President and CEO
Ben Franklin Technology Partners of Northeastern Pennsylvania



BEN FRANKLIN TECHNOLOGY PARTNERS
PROGRAM OVERVIEW

The Ben Franklin Technology Partners of Northeastern Pennsylvania (BFTP/NEP) is part of a four-center, state-funded economic development initiative that began operations in 1983. The Ben Franklin program was created by the Commonwealth to play a leadership role in strengthening regional economies, building Pennsylvania's technology economy, and creating and retaining high-wage, high-skilled jobs. The northeastern center is headquartered at Ben Franklin TechVentures®, a technology incubator/post-incubator facility on the Mountaintop Campus of Lehigh University in Bethlehem. Regional offices are located in Bloomsburg, Reading, and Scranton.

BFTP/NEP's mission is to promote, sustain, and invest in the development of our regional economy through innovation and partnering. Our strategy encompasses three key areas:

- LEARN MORE
- 
1. Developing early-stage, technology-based companies

2. Helping established manufacturers creatively apply new technology to achieve industry leadership and compete effectively in a global market

3. Promoting innovative community-wide initiatives that foster a supportive business environment for high-growth companies

Visit www.nep.benfranklin.org for additional information.

Ben Franklin works with the most promising ventures that offer significant potential for future growth through the development of an innovative technology or an innovative application of technology. To qualify as clients, companies must be located in, or relocate to, BFTP/NEP's 21-county northeastern Pennsylvania service area: Berks, Bradford, Carbon, Columbia, Lackawanna, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, and Wyoming. Companies in other Pennsylvania counties are referred to one of the three other Ben Franklin colleague organizations located throughout the state.

As hundreds of companies have experienced, Ben Franklin delivers hands-on support, connections to critical resources, and investment funds at companies' most vulnerable times.

Ben Franklin Technology Partners helps clients to achieve and sustain market success and competitive advantage. We are evaluated on the basis of the commercial accomplishments of our clients that are achieved as a result of our assistance.

CAPITAL – Ben Franklin makes investments that typically range from \$25,000 to \$150,000 per year for up to three years. We take calculated risks investing in young, unproven companies. We assist early-stage firms as they prepare to raise additional capital and provide them with an important and well-respected initial endorsement.

We also support established manufacturers by providing investments in innovation and access to our network of university and industry experts and facilities. Work is usually technology development or application-driven and is accomplished with a college or university partner.

BUSINESS AND TECHNICAL EXPERTISE – Each company in the Ben Franklin portfolio benefits from the collective experience of seasoned professionals who focus on turning high-potential ideas into high-growth businesses. In-house expertise is complemented by the Ben Franklin Solutions Network of advisors, service providers, and investors, creating a powerful and comprehensive support program for clients.

COLLEGE AND UNIVERSITY RESOURCES – We tap into the strength of Pennsylvania's colleges and universities, whose faculty and students work directly with many of our clients. Ben Franklin provides a crucial link between client companies and the wealth of knowledge, facilities, and human resources in the Commonwealth's higher education institutions.

INFRASTRUCTURE – BFTP staff applies years of business incubation expertise in support of the 10-member Ben Franklin Business Incubator Network. This collaboration is among the largest incubator networks in the nation.

FUNDING AND SERVICES THROUGHOUT OUR CLIENTS' DEVELOPMENT & GROWTH



INVESTMENTS

In order to build the regional technology economy, the Ben Franklin Technology Partners of Northeastern Pennsylvania allocates a portion of its resources to client investments and business and technical assistance through the Challenge Grant provided by Pennsylvania's Ben Franklin Technology Development Authority. This year, through its final allocation from the Pennsylvania-funded Alternative Energy Development Program, Ben Franklin also invested substantially in companies that are either developing new energy-related technologies or are seeking to employ energy conservation processes. Business and Technical Assistance investments provide funding for specific projects that are crucial to a company's development or operations.

All clients were competitively selected as having the greatest potential for creating or retaining highly paid, sustainable jobs, introducing novel products or processes, and filling a promising market niche. Ben Franklin works with the most promising ventures on an enterprise-wide basis to enhance their entire way of doing business.

CHALLENGE GRANT INVESTMENTS

AMETEK-READING ALLOYS, INC.

Robesonia, Berks County

University Partner: Lehigh University

Develop a strategy for shop floor control, establish system requirements, select a software vendor, and develop a project implementation plan that provides a foundation for batch record management. Reading Alloys' master alloys and advanced engineering materials are used for critical applications in aerospace, marine, petroleum, medical, and foundry industries.

BFTP Investment: \$16,000 / Total Project Budget: \$164,984

BISON ANALYTICS, LLC

Lewisburg, Union County

Continue developing and provide marketing support to Bison Analytics' planning and business intelligence software for small businesses that use QuickBooks™ or mid-market Enterprise Resource Planning (ERP) accounting software systems. The Bison Analytics suite of products allows clients to utilize QuickBooks or ERP data for comprehensive financial planning, analysis, and management. Bison Analytics will implement software enhancements, develop a sales strategy for the company's cloud-based product, and analyze follow-on funding tactics.

BFTP Investment: \$100,000 / Total Project Budget: \$418,800

COLUMBIA COUNTY BREAD & GRANOLA

Bloomsburg, Columbia County

Complete development of a strategic business plan that will help the company expand into new markets and raise capital as needed. The investment will also allow the company to optimize its production as it expands and to build an appropriate production and marketing infrastructure to support planned growth. Columbia County Bread

& Granola is an innovator of food products for health-conscious consumers and individuals who have a variety of dietary restrictions.

BFTP Investment: \$28,000 / Total Project Budget: \$82,000

COLYMER INDUSTRIES, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete a new financial model, strategic business plan, corporate operating agreement, and assignment of intellectual property for this manufacturer of proprietary non-asphalt roofing materials. Unlike asphalt, Colymer's innovative roofing products are not water soluble and are environmentally beneficial. The materials are expected to outlast traditional asphalt-based roofs by a factor of four.

BFTP Investment: \$35,000 / Total Project Budget: \$159,250

CRISPIN VALVE

Berwick, Columbia County

University Partner: Utah State University

Determine the flow characteristics of a new plug valve for the wastewater industry at this manufacturer of industrial and commercial valves. Building on its success in the butterfly valve market for the municipal water industry, Crispin Valve is expanding into this new product line.

BFTP Investment: \$8,740 /

Total Project Budget: \$21,880

EAST COAST EROSION CONTROL, LLC

Bernville, Berks County

University Partner: Lehigh University

Improve the Enterprise Resource Planning procurement, work order management, shop floor control systems, and inventory management at this manufacturer of erosion control products for the construction industry. This will allow the company to improve back-end process efficiency, enhance delivery performance, and reduce costs, thereby facilitating sales efforts and growth.

BFTP Investment: \$25,000 / Total Project Budget: \$130,637

ECOTECH MARINE LLC

Allentown, Lehigh County

University Partner: Lehigh University

Implement a new Enterprise Resource Planning system with features to accommodate facility expansion and maintain quality. EcoTech's patented VorTech™ propeller pump's motor is located outside of hobby reef aquariums, providing better heat control and flow. EcoTech has enjoyed outstanding sales with the pump. Its new Radion™ LED lighting unit improves aquarium growth, coverage, and energy efficiency, and provides a customizable spectral output.

BFTP Investment: \$25,000 / Total Project Budget: \$153,169

EGGZACK

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete software development for EggZack to integrate its platform easily with that of strategic partners and resellers. EggZack markets a proprietary software-as-a-service (SaaS) solution that requires only a single entry to update a client's website and other marketing functions, broadcasting the information immediately to 19 types of media, including social media such as Facebook, Twitter, and LinkedIn, as well as the company website and blog, email, local media, and publications. Such tools are needed by small- to medium-sized retailers, restaurants, and other companies to promote themselves more effectively and profitably.

BFTP Investment: \$92,500 / Total Project Budget: \$225,500

EVENDORCHECK

Hawley, Wayne County

Develop and implement enhanced sales strategies for the company's web-based customer feedback system for procurement professionals. eVendorCheck's clients reduce risks associated with vendor selection by using an online, patent-pending reference-checking tool rather than the conventional, less-effective telephone-based method of vendor investigation.

BFTP Investment: \$81,000 / Total Project Budget: \$648,000

GENPORE

Reading, Berks County

University Partner: Lehigh University

Complete work to expand and optimize operating space, including construction of new clean rooms and addition of new warehouse space, at this manufacturer of porous plastic filters. GenPore specializes in innovative and cost-effective solutions for a broad range of filtration, controlled flow, and separation applications for liquids and gases.

BFTP Investment: \$8,638 / Total Project Budget: \$84,331

GIVEGAB, INC.

Blakely, Lackawanna County

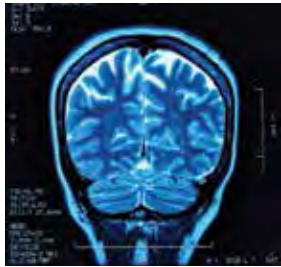
Populate GiveGab's proprietary web-based software platform with volunteer opportunities for users, making it the largest such platform in the world. This will be accomplished through onboarding and engaging with up to 600,000 targeted nonprofits. GiveGab is a social network and a software tool that helps volunteer managers at nonprofits, schools, and businesses create and manage volunteer events, promote their programs, recruit volunteers, track hours, and report on the work that they are doing in the community. GiveGab also helps volunteers find local opportunities for which they have a passion, log volunteer hours, reflect on experiences, connect and communicate with friends, and create a volunteer resume. The tool uses a single network solution rather than multiple, separate networks.

BFTP Investment: \$95,709 / Total Project Budget: \$274,883

"Thanks to Ben Franklin, we have implemented a comprehensive Enterprise Resource Planning system that will allow us to streamline internal information processes, upgrade financial tracking, and better manage production capacity."

— DARREN CRISPIN
President/CEO
Crispin Valve, Berwick





“Ben Franklin Technology Partners is pivotal to the long-term economic prosperity of our Commonwealth. A unique and powerful concept in funding and hands-on support, it fills a void by assisting the most promising early-stage firms and established manufacturers.”

— DALE F. FALCINELLI, Chairman, Baker Institute for Entrepreneurship, Creativity, and Innovation, Lehigh University

GOOD VITTLES

Hamburg, Berks County

Complete the development and implementation of Good Vittles’ exclusive technology to support its e-commerce marketplace for specialty foods. Specialty foods are certified or unique, ethnic or regional, produced in a specific way or with certain ingredients, and/or in limited supply. Good Vittles provides two e-commerce portals as direct distribution channels that connect food suppliers with professional chefs and individual consumers. Suppliers will use the company’s proprietary packing process to maintain food freshness using cost-effective shipping methods.

BFTP Investment: \$56,000 / Total Project Budget: \$156,000

KME KOVATCH

Nesquehoning, Carbon County

University Partner: Lehigh University

Develop new finishing processes associated with the pumper truck and tanker truck. KME Fire Apparatus is an industry leader in the design and manufacture of custom fire and fuel tanker vehicles and equipment, and the largest privately held manufacturer of fire trucks in the nation. Each new truck produced will create 1,200 hours of new work for U.S. employees.

BFTP Investment: \$25,000 / Total Project Budget: \$131,619

LIFEAIRE SYSTEMS, LLC

Allentown, Lehigh County

Conduct tests to validate the effectiveness of LifeAire Systems’ air purification technology in a hospital setting and expand marketing efforts to *In Vitro* Fertilization laboratories. LifeAire Systems has developed and patented a proprietary in-duct air purification system for environments in which air quality is critical. Research indicates that 1.7 million patients in the U.S. get a hospital-acquired infection each year, adding \$30 to \$45 billion in costs annually. These infections create avoidable complications and contribute to increased readmission rates, morbidity, and mortality. LifeAire’s technology has been installed in and is protecting the highly sensitive clinical setting of *In Vitro* Fertilization and has resulted in a significant improvement in clinical pregnancy rates. The company is planning to expand into infection control for critical hospital applications.

BFTP Investment: \$60,000 / Total Project Budget: \$183,600

MAP DECISIONS, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Provide sales, marketing, product development, and customer service support. Map Decisions produces infrastructure asset and work management software and provides field mapping and data management services. The company’s secure, cloud-based mobile platform is ideal for state and local governments, utilities, oil and gas, transportation, and construction industries. Map Decisions helps organizations increase operational efficiency, improve customer service, reduce compliance risks, and decrease operational costs.

BFTP Investment: \$100,000 / Total Project Budget: \$300,000

MCGREGOR INDUSTRIES INC.

Dunmore, Lackawanna County

University Partner: The Pennsylvania State University

Survey and test three new, more cost-competitive tread infills at this manufacturer of metal stairs, gratings, and floor plates. McGregor will also test the tread infills for material characterization and stair tread structural and slip performance.

BFTP Investment: \$15,154 / Total Project Budget: \$35,774

MYNETWORK, LLC

Bethlehem, Northampton County

Launch MyNetwork’s proprietary online tool at select colleges and universities and also to the general public. MyNetwork has developed a cloud-based contact relationship management application designed to help college students and professionals visualize, foster, and strengthen relationships with the connections in their various social and professional networks.

BFTP Investment: \$50,000 / Total Project Budget: \$171,400



ORBWEAVER SOURCING, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete development of a bill-of-material authoring tool as a module in a cloud-based software solution for electronic circuit board manufacturers. Current sourcing and procurement models in the electronics manufacturing industry are highly inefficient. Orbweaver’s software platform will allow for more well-negotiated terms with suppliers, thereby reducing costs and increasing productivity for clients.

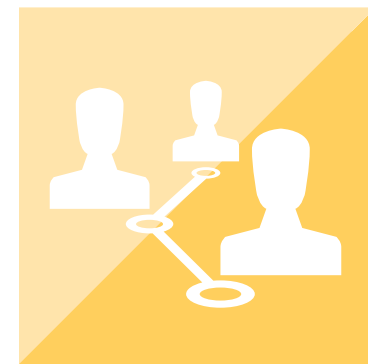
BFTP Investment: \$75,000 / Total Project Budget: \$424,674

PIVITEC, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Continue commercialization and enhancement of hardware and software products for this developer of audio streaming and distribution products. Live performances in theaters and houses of worship require a variety of approaches to provide performers the ability to hear their own performances as well as cues. Wired systems currently in use require extensive cabling, limiting performers’ movements, and have limited audio source reception. Pivitec uses wireless mobile devices as interactive controllers for its network devices to address these problems.

BFTP Investment: \$96,100 / Total Project Budget: \$226,100



PMF INDUSTRIES, INC.

Williamsport, Lycoming County

University Partner: Pennsylvania College of Technology

Optimize the electrical consumption of the largest motors within the PMF facility. Electrical consumption represents a significant cost of manufacturing. PMF provides contract manufacturing services with an emphasis on flowforming, which is producing metal parts that are cylindrical, conical, or contoured with precise control of wall thicknesses. Customers include the aerospace and energy sectors as well as users of precision pressure vessels.

BFTP Investment: \$23,000 / Total Project Budget: \$56,553

PROVA SYSTEMS & TECHNOLOGIES, INC.

Carbondale, Lackawanna County

Support the commercialization of PROVA™ Systems’ Fleet Genius® PRO, a fleet management software system for small- and medium-sized enterprises. The software integrates PROVA’s plug-and-play fleet management monitor that links with its cloud-based SaaS application to collect, monitor, and analyze the performance of vehicles and drivers. PROVA’s system enables proactive management of vehicles using data derived from their usage patterns and collected from on-board computers. Fleet Genius PRO can reduce fleet operations costs by more than 60% versus current technology and, in many instances, pays for itself in less than a year.

BFTP Investment: \$100,000 / Total Project Budget: \$260,000

SKAFFL, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete development of Skaffl, a new mobile application through which teachers and students can exchange class materials, assignments, completed homework, assessments, and grades. This digital application addresses the growing use of tablets in K-12 classrooms and the needs of teachers as they develop tools and curricula to enhance real-time educational interaction. There are no other applications that address these needs comprehensively while also being simple to use for students, teachers, and administrators.

BFTP Investment: \$75,000 / Total Project Budget: \$150,000



SUBURBAN TESTING LABORATORIES, INC.

Reading, Berks County

University Partner: Lehigh University

Define current and future facility requirements for a new, centralized walk-in incubator room to service departments within Suburban Testing's facility. Suburban provides environmental, product, and water testing and analyses for industry and municipalities.

BFTP Investment: \$11,336 / Total Project Budget: \$62,875

SUSQUEHANNA MINING SOLUTIONS, INC.

Shavertown, Luzerne County

Design, construct, and begin operation of a four-million-gallon-per-day pilot facility for the recovery of minerals and cleanup of water from acid mine drainage. The company's process produces clean water and harvests iron oxide, while utilizing accessible geothermal energy as the power source for material processing operations. Once completed, the patented technology will be commercialized for large-scale use.

BFTP Investment: \$150,000 / Total Project Budget: \$560,000

TSG SOFTWARE

Ben Franklin TechVentures, Bethlehem, Northampton County

Support a focused sales and marketing effort in commercializing software for business cleaning services, property and facility managers, and building management contractors. TSG's Accelerator CC® brings traditionally manual processes into cloud software with mobile solutions to automate mission-critical processes. This eliminates workflow disruption. Its innovative approach provides compelling value to a large market.

BFTP Investment: \$100,000 / Total Project Budget: \$235,500

U.S. SPECIALTY FORMULATIONS, LLC

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete the set-up, staffing, and cGMP-approval process for the required facility and procedures to produce sterile injectable pharmaceuticals used in the medical community. Millions of Americans require specialized and custom-compounded drugs, and the current infrastructure is insufficient to support their therapies. As an FDA-registered outsourced manufacturer, USSF will employ advanced quality and manufacturing controls to comply with new, more stringent federal quality standards.

BFTP Investment: \$50,000 / Total Project Budget: \$229,000

XIGO NANOTOOLS

Ben Franklin TechVentures, Bethlehem, Northampton County

Complete software enhancements to allow expanded sales at this manufacturer of patented products that rapidly measure the wetted surface area of nanoparticles and droplets using magnetic resonance technology. Nanoparticles are minute; they typically have diameters that are 1/1,000th the diameter of a human hair. Nanoparticle properties are key predictors of material performance in many industrial applications, including energy, electronics, ceramics, and pharmaceuticals, and currently there are no other efficient measurement methods. XiGo's new Acorn Drop is a product extension of the company's initial product, the Acorn Area™, and measures the drop size of emulsions.

BFTP Investment: \$50,000 / Total Project Budget: \$134,000

ZERO RAIN, LLC

Mildred, Sullivan County

Begin operations to apply a new, proprietary chemical to natural fabrics and finished apparel that makes them water-repellant and resistant to stains and odors. The treatment, PerfectDry, works on all natural fabrics, including cotton, silk, wool, and cashmere. Treated fabric retains its natural feel, remains breathable, and is indistinguishable from its untreated state. PerfectDry will allow, for example, a delicate fabric like silk to be machine washed or used to construct a rain coat. Initial target markets include the military, outdoor clothing, and women's apparel.

BFTP Investment: \$50,000 / Total Project Budget: \$172,434

ALTERNATIVE ENERGY DEVELOPMENT PROGRAM INVESTMENTS

ALPHA PACKAGING

Bethlehem, Northampton County

University Partner: Lehigh University

Implement practices and install equipment to reduce energy consumption by 20% at this manufacturer of plastic bottles and jars primarily for the nutritional, pharmaceutical, personal care, housewares, consumer chemical, and food and beverage markets. The plastic container industry is highly competitive both domestically and internationally, and controlling energy costs is essential to maintaining competitive advantage. The first year of this project yielded an 8% reduction in electrical energy costs and a 25% reduction in scrap loss. Additional opportunities for savings will be developed.

BFTP Investment: \$48,000 / Total Project Budget: \$278,023

APPLIED SEPARATIONS, INC.

Allentown, Lehigh County

College Partner: Lafayette College

Develop and implement a new process and deploy equipment for the waterless dyeing of textiles for sales to clothing manufacturers and textile companies. Current practices utilize large amounts of energy and water. With the developing worldwide water shortage, the industry is actively seeking means to reduce its water usage significantly. Applied Separations and its technical partner, The Halide Group of Allentown, are employing its supercritical fluids expertise in this effort, which has the potential of returning textile manufacturing jobs to the U.S.

BFTP Investment: \$50,000 / Total Project Budget: \$224,430

B. BRAUN MEDICAL, INC.

Allentown, Lehigh County

University Partner: Lehigh University

Conduct a baseline energy assessment and a carbon footprint analysis at this manufacturer and distributor of disposable medical devices that distributes worldwide. This aligns with the company's commitment to sustainable manufacturing processes while also reducing costs and increasing market competitiveness. The overall goal is reducing energy use by at least 10%.

BFTP Investment: \$50,000 / Total Project Budget: \$287,773

BENTON FOUNDRY INC.

Benton, Columbia County

College Partner: Northampton Community College

Assess manufacturing processes at this producer of gray and ductile iron castings to identify ways to lower energy consumption. Conduct an investment-grade energy-efficiency assessment of the plant, as well

as an analysis of compressed air usage and system efficiencies to save energy, enhance product quality, and reduce costs.

BFTP Investment: \$28,470 / Total Project Budget: \$96,940

BIO-ENERGY HOLDINGS, INC.

Greentown, Pike County

Continue commercializing the patented A-Ceptor™, an oil/water/solids separator, interceptor, and clarifier for use in renewable energy recycling and water treatment equipment servicing for the bio-diesel, food service, and oil and gas industries. The A-Ceptor has a unique clarification technology that provides cost-effective water treatment and recycle/reuse. It allows clients to harvest high-quality feedstock for biodiesel and other renewable fuels from waste streams while keeping them in compliance with local municipal discharge requirements. Biodiesel producers are able to get more grease and better grease feed stocks to enhance their profits.

BFTP Investment: \$25,000 / Total Project Budget: \$99,397

CAMBRIDGE-LEE INDUSTRIES, LLC

Reading, Berks County

College Partner: Northampton Community College

Conduct controlled testing to optimize Cambridge-Lee's manufacturing process for copper tubing to help the company enter new markets and capitalize on market growth through return on investments in its manufacturing processes. Copper tubing is used in plumbing, refrigeration, and other commercial applications. The process improvement will increase throughput and reduce energy costs.

BFTP Investment: \$22,350 / Total Project Budget: \$212,000

CEWA TECHNOLOGIES

Wyomissing, Berks County

Complete design, construct, and test prototypes of a new kind of point-concentrated solar power dish that will deliver power for industrial and institutional applications at a lower cost due to its innovative shape and construction. The dish is capable of providing thermal power for HVAC, power generation, desalination, and process heat applications at a cost comparable to fossil fuel-based sources of energy without government subsidy. Such cost competitiveness is novel in solar power dishes and critical to the growth of this alternative energy source.

BFTP Investment: \$75,000 / Total Project Budget: \$477,000



CUSTOM PROCESSING SERVICES, INC.

Reading, Berks County

College Partner: Northampton Community College

Investigate how the waste energy from a proposed thermochemical process can be used in the company's manufacturing processes and as a potential fuel source for production of steam and/or a combined heat and power system. Also determine the economics, technical, and environmental issues involved with the process. Custom Processing Services provides sophisticated air-jet milling, micronizing, blending, and testing of powdered materials on a contract basis. The company's production process is energy intensive; reduced costs in this area significantly enhance competitiveness.

BFTP Investment: \$50,000 / Total Project Budget: \$150,000

EAST PENN MANUFACTURING COMPANY

Lyon Station, Berks County

College Partner: Northampton Community College

Develop a complete analysis of front-end considerations in support of the company's new advanced battery products. Address packaging, transport, storage, safety, and precautions in materials handling. East Penn Manufacturing, the largest manufacturing employer in Berks County, produces thousands of different sizes and types of batteries, battery accessories, and wire and cable products for a variety of applications.

BFTP Investment: \$48,000 / Total Project Budget: \$144,000

ETHOSGEN LLC

Wilkes-Barre, Luzerne County

Continue commercialization efforts for EthosGen's proprietary on-site alternative-energy, waste-heat-to-electrical-power generator that produces electricity from sustainable and renewable sources. Build a sales force, secure necessary engineering talent, and begin installations from initial contracts. EthosGen's generator produces energy from waste heat from industrial, solar, and biomass sources. The power produced provides on-site, consistent, secure electricity in a highly sustainable and environmentally conscious manner by capturing current, emission-free waste heat streams.

BFTP Investment: \$115,000 / Total Project Budget: \$503,000

GEORG FISCHER HARVEL, LLC

Easton, Northampton County

University Partner: Lehigh University

Complete a sustainability analysis to reduce energy consumption by 20% or more. GFH is an international leader in thermoplastic extrusion, primarily manufacturing PVC and CPVC piping for a diverse set of customers. Energy costs are a top manufacturing expense, so a cost savings in this area will yield a significant competitive advantage.

BFTP Investment: \$60,000 / Total Project Budget: \$328,730

VITRIUS TECHNOLOGIES, LLC

Wilkes-Barre, Luzerne County

Develop the marketing team, secure engineering support for bidding and design processes, and establish strategic dealer networks and distribution channels for this manufacturer of innovative windows for the commercial, institutional, and residential window markets. Vitrius' metal-clad composite windows combine three proprietary innovations, producing both heat and power as well as greatly increasing energy efficiency. The windows have superior longevity and renewable energy profiles when compared with competitors.

BFTP Investment: \$200,000 / Total Project Budget: \$665,000

ZZYX POLYMERS, LLC

Allentown, Lehigh County

Transition Zzyx Polymers' manufacturing process from lab-scale to commercial-scale to produce specialty plastics and new types of recycled plastics. Zzyx uses a patented process that was developed over a decade of university research. This process allows Zzyx to recycle plastics that would otherwise be sent to landfills and to produce high-value plastic compounds that have increased impact resistance, conductivity, and other important characteristics.

BFTP Investment: \$150,000 / Total Project Budget: \$440,000

BUSINESS AND TECHNICAL ASSISTANCE INVESTMENTS

APPEELING FRUIT, INC.

Dauberville, Berks County

Conduct a Tiger Session – an intensive enterprise-wide analysis by a team of business experts – for this producer of packaged fruit products for food service and retail customers.

CERORA, INC.

Ben Franklin TechVentures, Bethlehem,

Northampton County

Provide QuickBooks™ support to this producer of a portable brain wave biosensor that makes neurodiagnostic information on concussions and other injuries available in real time to nonspecialists in the field.

CEWA TECHNOLOGIES

Wyomissing, Berks County

Conduct a Tiger Session and provide website and media relations support to this producer of a new kind of point-concentrated solar power dish that will deliver power at a cost comparable to fossil fuel-based sources of energy without government subsidy.

FORGE3, LTD.

Ben Franklin TechVentures, Bethlehem,

Northampton County

Conduct a Tiger Session for this developer of proprietary mobile business-to-consumer applications.

HB CUSTOM MEDIA, INC.

Ben Franklin TechVentures, Bethlehem,

Northampton County

Provide trade show support for this producer of custom tissue culture media, reagents, cell culture supplements, and mouse embryo culture media for life sciences companies.

HEUDIA HEALTH

East Stroudsburg, Monroe County

Review and improve the business model and funding pitch for this provider of a cloud-based solution to improve health outcomes for vulnerable individuals.

LMC SOFTWARE SOLUTIONS

Morgantown, Berks County

Conduct a Tiger Session for this provider of a software platform that supports information technology staff, improving productivity and service availability at a reduced cost.

MAP DECISIONS, LLC

Ben Franklin TechVentures, Bethlehem,

Northampton County

Provide Quick Books support for this producer of a software platform that gives local government and field-oriented industries an improved approach to collecting, visualizing, and utilizing field data to improve business processes and decision-making.

PIVITEC, LLC

Ben Franklin TechVentures, Bethlehem,

Northampton County

Provide Quick Books support and website optimization to this producer of network devices to address problems in live professional audio productions.

PROVA SYSTEMS & TECHNOLOGIES, INC.

Carbondale, Lackawanna County

Conduct a Tiger Session for this provider of a fleet management monitor that links with a cloud-based application to collect, monitor, and analyze the performance of vehicles and drivers.

RANTNETWORK, INC.

Bloomsburg, Columbia County

Provide Quick Books support to this provider of translation applications such as image translation, text translation, and Text2Voice for the mobile industry.

RECOGNITIONPRO

Allentown, Lehigh County

Support a digital advertising campaign for this provider of a web-based application that helps managers more systematically and cost effectively reward employees in ways that are most meaningful and motivating to them.

SEKUR TECHNOLOGY, INC.

Allentown, Lehigh County

Conduct an Intellectual Property assessment for this producer of an application that secures digital media of all types. The media owner can control who and how long users have access to media and how they utilize it.

SKAFFL, LLC

Ben Franklin TechVentures, Bethlehem,

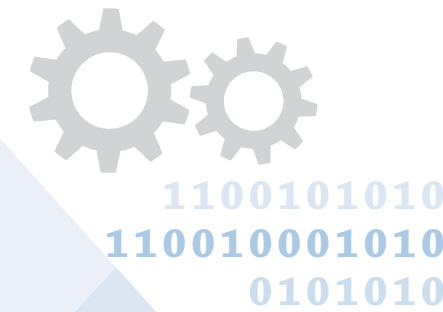
Northampton County

Provide Quick Books and financial model support to this developer of a mobile application through which teachers and students can exchange class materials, assignments, completed homework, assessments, and grades in real time.

SOLARPA

New Tripoli, Lehigh County

Provide patent guidance to this developer of a process for applying a new, proprietary coating that enhances photovoltaic effects and improves the efficiency of solar cells.



STATEWIDE RESULTS

The Ben Franklin Technology Partners commissioned an independent, third-party evaluation of its impact on the state's economy. Conducted by the Pennsylvania Economy League and KLIOS Consulting, the report covers the five-year timeframe from 2007 through 2011. The report focused on Ben Franklin's role in providing financial and related services to early-stage technology firms and established manufacturers in Pennsylvania. It determined that, in 2007 through 2011:

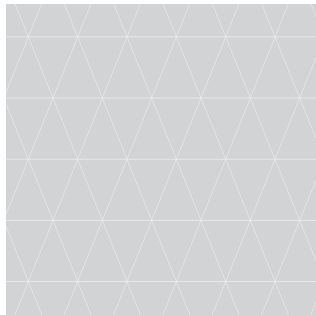
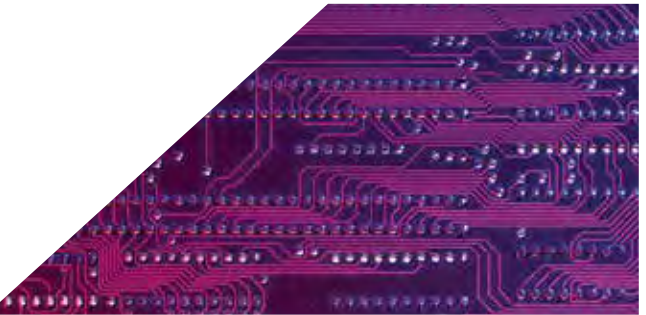
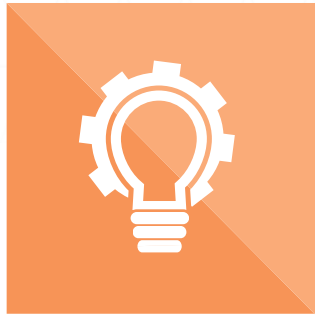
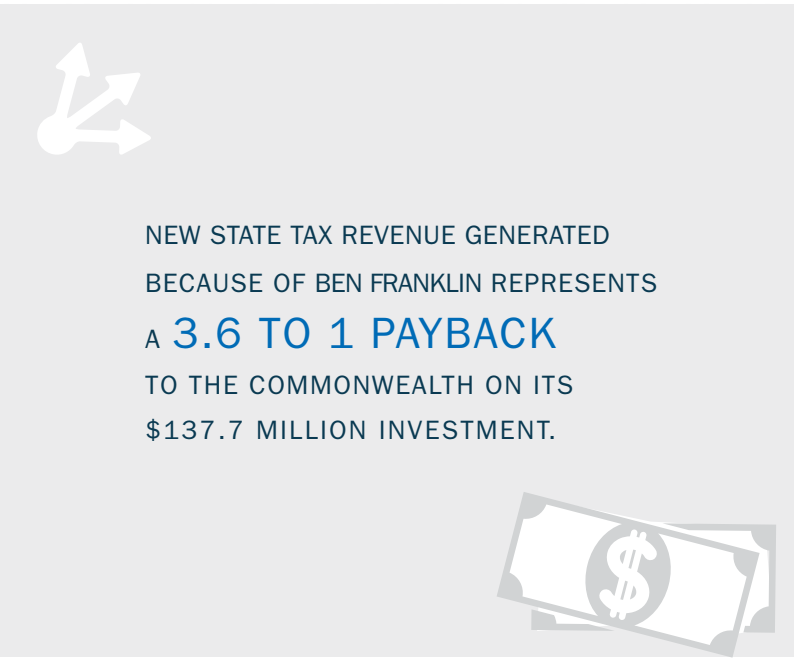
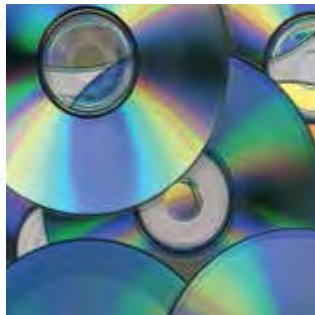
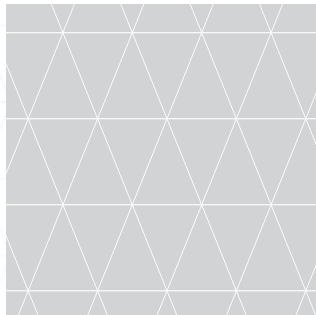
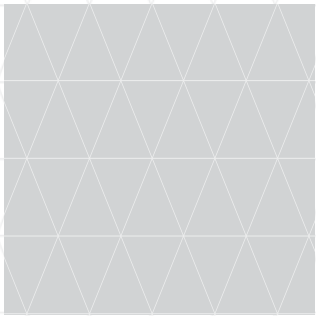
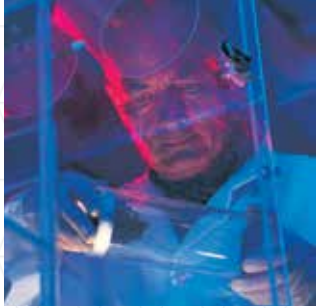
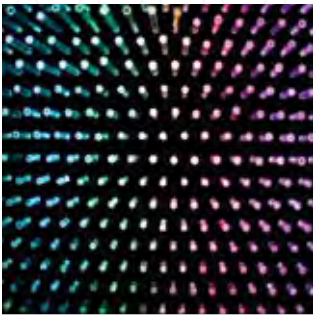
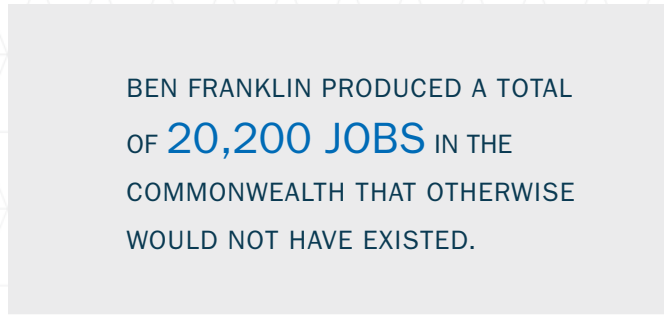
BEN FRANKLIN PRODUCED A TOTAL OF **20,200 JOBS** IN THE COMMONWEALTH THAT OTHERWISE WOULD NOT HAVE EXISTED.

NEW STATE TAX REVENUE GENERATED BECAUSE OF BEN FRANKLIN REPRESENTS A **3.6 TO 1 PAYBACK** TO THE COMMONWEALTH ON ITS \$137.7 MILLION INVESTMENT.

THE COMMONWEALTH RECEIVED A TOTAL OF **\$502 MILLION** IN ADDITIONAL STATE TAX RECEIPTS DUE TO BEN FRANKLIN.

BEN FRANKLIN BOOSTED THE PENNSYLVANIA ECONOMY'S GROSS STATE PRODUCT BY **\$6.6 BILLION**.

MORE RESULTS



STATEWIDE CUMULATIVE RESULTS

THE REPORT ALSO DETERMINED THAT, SINCE 1989:

BEN FRANKLIN HAS GENERATED **51,000** ADDITIONAL JOBS IN CLIENT FIRMS.

BEN FRANKLIN GENERATED **89,000** ADDITIONAL JOBS AS A RESULT OF INCREASED PURCHASING AND INVESTMENT BY CLIENT FIRMS, YIELDING A TOTAL OF **140,000** NEW JOBS ATTRIBUTABLE TO BEN FRANKLIN'S WORK.

BEN FRANKLIN HAS BOOSTED THE STATE'S ECONOMY BY MORE THAN **\$23.5 BILLION**.



PEOPLE ARE TALKING

"With Ben Franklin support, Cerora has been able to accelerate its product market entry by 12 to 18 months. Cerora makes real-time neurodiagnostic information available to nonspecialists in the field, providing rapid diagnosis of concussions and brain disease that lead to early and more effective interventions. During the time of this project, our company filed seven patent applications."

— DR. ADAM SIMON, President and CEO, Cerora, Bethlehem

"Ben Franklin Technology Partners has been with us from the start. They know our business intimately and have helped us to overcome many challenges. Without them, we wouldn't be here today."

— GREGG SHEMANSKI, President, Custom Processing Services, Reading

"The Ben Franklin project between our firm and Lehigh University will result in the implementation of a new manufacturing process at our facility. As a small manufacturer, we do not have the resources to maintain an R&D staff to perform the types of research and testing that was required for this enhancement that dramatically improves our product and streamlines production."

— MICHAEL BUNNER, President, ElectroChemical Engineering and Manufacturing Co., Emmaus

"Ben Franklin funding has been instrumental in enabling TB Biosciences to translate university technology to commercial product. The result may be major improvements to world health in the form of better tuberculosis control in developing nations."

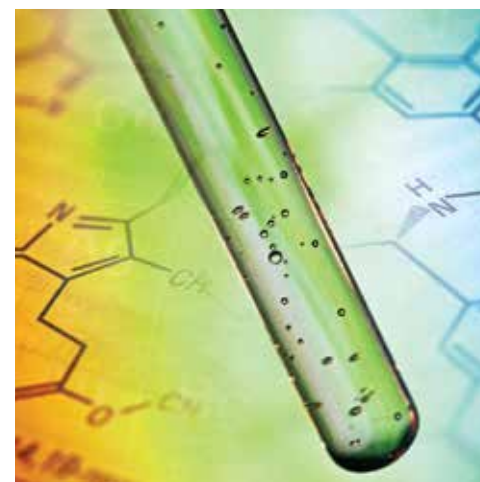
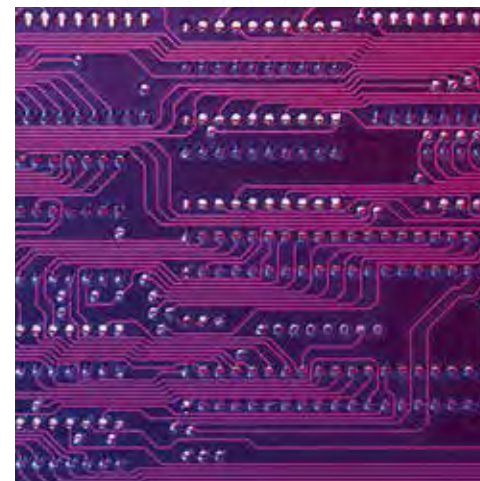
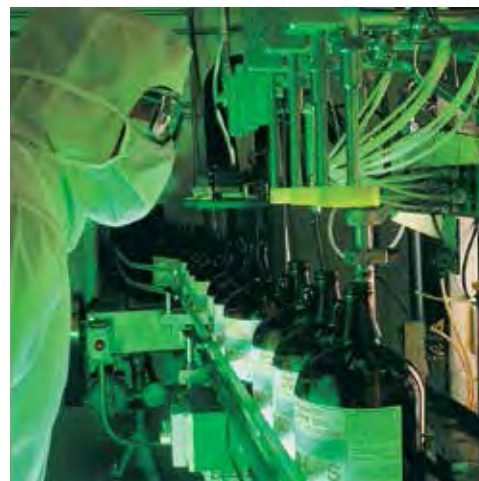
— DR. SAM NIEDBALA, CEO, TB Biosciences, Inc., Bethlehem

"Ben Franklin Technology Partners has continued to demonstrate itself as a strong supporter of businesses throughout Pennsylvania. Its early-stage funding and resources allowed TMG Health to grow to more than 1,300 employees across northeastern Pennsylvania, where I grew up."

— JACK TIGHE, Founder, President, and CEO, TMG Health, Inc., Jessup

"In 2012, Vigon worked with Ben Franklin and the Enterprise Systems Partners/Lehigh University to develop and implement an automated production management system. The process enhancements increase yield and profit in manufacturing our flavor, fragrance, and cosmetic ingredients. Vigon continues to grow and currently employs 66."

— STEVE SOMERS, President, Vigon International, East Stroudsburg





BEN FRANKLIN TECHVENTURES®

Ben Franklin launched one of the first business incubators in the nation in 1983 and developed its award-winning incubator to be among the best in the world. In 2007, BFTP/NEP relocated its original incubator across the street on Lehigh University's Mountaintop Campus to Ben Franklin TechVentures, a former Bethlehem Steel laboratory.

Ben Franklin TechVentures helped address the region's increasing incubator and wet lab space needs by more than doubling the available wet lab space and more than tripling the office and dry laboratory space available at the original facility. Wet lab business incubation space, in particular, is extremely scarce and necessary in several burgeoning technology sectors. Staff projected that the 35,000 square feet of rentable space would meet the region's requirements for about five years. Just 18 months after the grand opening, however, TechVentures was filled to near capacity.

Ben Franklin TechVentures², opened in October 2011, is a 47,000-square-foot addition to the original facility that increases the total facility size to 109,000 square feet. The architect was Spillman Farmer Architects, and the construction manager was Allied Building Corporation. The addition has a photovoltaic solar array on its rooftop and the latest energy-management and light-harvesting technologies from Coopersburg, Pa.-based Lutron Electronics integrated throughout the building. It was LEED Gold Certified in 2013.

The Ben Franklin TechVentures expansion allows Ben Franklin to accommodate start-up companies that create more highly paid, sustainable technology jobs in the region. Thirty firms, employing 144 people, are currently located in Ben Franklin TechVentures. Since 1983, the Ben Franklin Business Incubator and TechVentures have graduated 57 successful companies, together grossing more than \$1.2 billion in recurring annual revenue and creating more than 6,400 jobs.

BEN FRANKLIN TECHVENTURES AT THE CENTER OF REGIONAL ENTREPRENEURIAL ACTIVITY

Ben Franklin TechVentures and its staff bring together entrepreneurs, Lehigh University faculty and students, and other community partners to accelerate the growth of the region's technology economy. The facility's Innovation Institute, located on the fourth floor of the building expansion, has emerged as a hub of entrepreneurial activity in northeastern Pennsylvania. The meeting, learning, and conference facilities serve clients and local partners, and the Institute has hosted and supported:

- Lehigh Valley Start-Up Weekends and the first Lehigh Valley Hackathon
- Lehigh Valley Tech Meet-Ups
- Lehigh Valley Angel Investors Network
- Lehigh Valley Tech Radio Shows
- Lehigh University's Baker Institute for Entrepreneurship, Creativity, and Innovation
- Student-run technology-based companies
- Lehigh University's Venture Series
- Lehigh University's Technical Entrepreneurship Program
- Business Executives Networking Group
- World Trade Club of the Lehigh Valley

Ben Franklin TechVentures and its Innovation Institute provide a venue, setting, and culture that have become an integral component of the entrepreneurial and technology ecosystem in northeastern Pennsylvania. Together, these efforts fuel innovation, catalyze the regional technology economy, and create the jobs of the future.

"We attribute much of our rapid growth to Ben Franklin Technology Partners. It provided funding, business and technical expertise, networking opportunities, and our initial residence in Ben Franklin TechVentures, a state-of-the-art business incubator with wet labs. This support was critical to our successful start-up."

— MICHAEL WHITMAN, President & CEO, Micro Interventional Devices, Inc., Langhorne

BEN FRANKLIN TECHVENTURES HAS EARNED AN ABUNDANCE OF RECOGNITIONS:

- LEED Gold Certification
- National Business Incubation Association (NBIA) 2012 National Incubator of the Year, a remarkable repeat of Ben Franklin's 2001 honor
- State Science and Technology Institute Building Entrepreneurial Capacity 2012 national award
- Pennsylvania Economic Development Association Project of the Year Award in 2011
- First-place national honors in the U.S. Environmental Protection Agency's 2011 ENERGY STAR Challenge Contest
- American Institute of Architects Eastern Pennsylvania Award of Merit
- Two Mid Atlantic Real Estate Journal awards
- Delaware Valley Green Building Council Lehigh Valley Sustainability Award



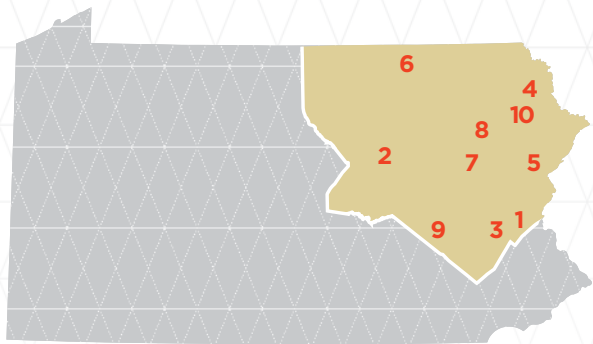
BEN FRANKLIN BUSINESS INCUBATOR NETWORK

The concept of business incubators in Pennsylvania originated with the Ben Franklin Business Incubator in Bethlehem, predecessor of Ben Franklin TechVentures. BFTP/NEP collaborated with other economic development organizations to establish and support a 10-member group of incubator facilities throughout northeastern Pennsylvania. This collaboration is among the largest incubator networks in the nation.

The reduced operating costs of starting a company in a business incubator are typically what initially draw early-stage companies to an incubator facility. But the business development assistance and sharing of best practices among tenants are also key benefits. With 31 years of business incubator experience, Ben Franklin staff meets with incubator network managers to exchange ideas and information, work collaboratively, and provide guidelines and training that are in accordance with National Business Incubation Association standards.

BFTP/NEP owns and manages both Ben Franklin TechVentures and the Bloomsburg Regional Technology Center (BRTC). The 2010 acquisition of BRTC allows companies in the Columbia County area to benefit even more directly from Ben Franklin support.

- 1 BEN FRANKLIN TECHVENTURES
- 2 BLOOMSBURG REGIONAL TECHNOLOGY CENTER
- 3 BRIDGEWORKS ENTERPRISE CENTER
- 4 CARBONDALE TECHNOLOGY TRANSFER CENTER
- 5 EAST STROUDSBURG UNIVERSITY INNOVATION CENTER
- 6 THE ENTERPRISE CENTER
- 7 THE GREATER HAZLETON BUSINESS INNOVATION CENTER
- 8 THE INNOVATION CENTER @ WILKES-BARRE
- 9 POTTSVILLE/SCHUYLKILL TECHNOLOGY INCUBATOR
- 10 THE SCRANTON ENTERPRISE CENTER



LEHIGH VALLEY BUSINESS INCUBATORS SHARE THEIR EXPERTISE ON AN INTERNATIONAL STAGE

Wayne Barz, manager of Ben Franklin TechVentures (pictured bottom, right), and Anthony Durante, manager of the Allentown Economic Development Corporation Bridgeworks Enterprise Center, co-presented at the National Business Incubation Association's 28th International Conference on Business Incubation held in May 2014. Their presentation, Innovative Ways to Involve Your Incubator in the Start-up Community, addressed ways in which a business incubator can foster and encourage growth in the start-up community by supporting the creation of a robust entrepreneurial ecosystem. Among the first business incubators nationwide, both TechVentures and Bridgeworks have been building this community in the Lehigh Valley for decades.

More than 600 business incubation professionals from more than 40 countries attended the conference. The session led by Barz and Durante was well attended and highly rated by attendees.



GOVERNOR'S IMPACT AWARDS

Twenty-four clients or alumni of the Ben Franklin Technology Partners of Northeastern Pennsylvania were recognized as Pennsylvania companies and entrepreneurs that are creating high-value, sustainable jobs and making positive contributions to the state's economy. More than 700 attended the May 30, 2014, Governor's Impact Awards luncheon at Hershey Lodge.

The Governor's Impact Awards recognize companies from throughout the state in five categories. Ben Franklin client and alumni finalists were:

COMMUNITY IMPACT AWARD FINALISTS

Brodart, *Williamsport*
B. Braun Medical, Inc., *Allentown*
C.F. Martin & Company, Inc., *Nazareth*
Ward Manufacturing, LLC, *Blossburg*

ENTREPRENEUR IMPACT AWARD FINALISTS

Columbia County Bread and Granola, *Bloomsburg*
Computer Aid, Inc., *Allentown*
CyOptics, Inc., now Avago Technologies, *Breinigsville*
Dynalene, Inc., *Whitehall*
NetDriven, *Scranton*

EXPORT IMPACT AWARD FINALISTS

Bio Med Sciences, Inc., *Allentown*
Bioscience, Inc., *Allentown*
Gentex Corporation, *Simpson*
Saladax Biomedical, Inc., *Bethlehem*
Vigon International, Inc., *East Stroudsburg*
Weiler Corporation, *Cresco*

JOBS FIRST AWARD FINALISTS

Bazzini, LLC, *Allentown*
Benton Foundry, Inc., *Benton*
East Penn Manufacturing, Inc., *Lyon Station*
Solar Innovations, Inc., *Pine Grove*

SMALL BUSINESS IMPACT AWARD FINALISTS

Altitude Marketing, *Emmaus*
Appeeling Fruit, Inc., *Dauberville*
Discovery Machine, Inc., *Williamsport*
EcoTech Marine, LLC, *Allentown*
MegaPhase, LLC, *Stroudsburg*

Four Ben Franklin companies were selected as winners:

COMMUNITY IMPACT WINNER, LEHIGH VALLEY REGION

B. Braun Medical, Inc., *Allentown*

ENTREPRENEUR IMPACT WINNER, LEHIGH VALLEY REGION

Computer Aid, Inc., *Allentown*

ENTREPRENEUR IMPACT WINNER, NORTHEAST REGION

NetDriven, *Scranton*

EXPORT IMPACT WINNER, NORTHEAST REGION

Vigon International, Inc., *East Stroudsburg*



IXCHANGE

On Tuesday, May 7, 2014, Ben Franklin hosted its annual iXchange at the Zoellner Arts Center on the campus of Lehigh University in Bethlehem. More than 550 technology entrepreneurs and other business people, venture capitalists, economic developers, political leaders, and regional influencers from Ben Franklin’s 21-county service area attended.

The iXchange began with the debut presentation of a video entitled “The Entrepreneur” that illustrated BFTP/NEP’s support of early-stage firms. The video is available online at nep.benfranklin.org.

Chad Paul, president and CEO of BFTP/NEP, opened the event by describing how the iXchange theme, “This Is Going to Be Big,” applied in many ways to the evening’s event. Keynote presenter Jeff Hoffman founded Priceline.com, whose celebrity spokesman, William Shatner, used that tagline. It also applied to the eight Innovation Award winners, each of whom has succeeded through his or her own drive, focus, and passion. “This Is Going to Be Big” also applied to the Ben Franklin Technology Partners.

“In 1983, then-Governor Dick Thornburgh saw the potential when he launched the Pennsylvania Ben Franklin Partnership. Governor Thornburgh was right,” said Paul. “Year after year, Ben Franklin continues to successfully leverage Pennsylvania’s investment, creating and retaining highly paid, sustainable jobs and delivering outstanding return on investment to the Commonwealth. Senator John Gordner and Senator John Blake have continued to support us through Innovate in PA, also with the inspiration, ‘This Is Going to Be Big!’”

The iXchange combined the presentation of Ben Franklin’s 20th annual Innovation Awards and executive networking sessions with a keynote address by Hoffman. A seasoned veteran of seven start-ups, including the highly successful Internet company Priceline.com, Hoffman spent years traveling the globe and identifying the best practices of top entrepreneurs and business leaders in every sector. In his dynamic presentation, Hoffman shared techniques that increase innovation and operational efficiency for both early-stage and established companies in today’s markets.

Using colorful anecdotes and lessons learned from some of the world’s most profitable companies, Hoffman presented new rules for success. He provided attendees with an actionable list of tasks and tools that they can use to dramatically improve their organizations and increase their odds of sustainable prosperity.

The 2014 Ben Franklin Technology Partners of Northeastern Pennsylvania Innovation Awards were presented:

ENTREPRENEURIAL ACHIEVEMENT

The company that best exemplifies the quintessential entrepreneurial spirit: a combination of ingenuity, hard work, and innovation that has resulted in the creation of a successful and growing business venture.

Saladax Biomedical, Inc., Bethlehem
Kevin Harter, President and CEO

Optimizing the levels of chemotherapy drugs is critical to effectively treat cancer while minimizing harmful side effects. Saladax Biomedical develops and commercializes MyCare™ diagnostic blood test kits that quickly, accurately, and inexpensively personalize drug levels for optimal results. The company is currently expanding MyCare distribution into China.

Saladax originally planned to launch in New Jersey but chose instead to start in Ben Franklin TechVentures. Ben Franklin invested a total of more than \$300,000 in initial seed funding in Saladax and also helped the company refine its investor presentation and advised company leaders on many start-up issues.



KEYNOTE ADDRESS BY
JEFF HOFFMAN,
 FOUNDER OF PRICELINE.COM

Saladax now holds 82 international patents with additional patent applications pending and has raised more than \$43 million in follow-on equity funding. The company is working with Bristol Myers Squibb to develop biomarkers for the early detection of Alzheimer's disease. Starting with two original founders, Saladax now employs a total of 21, who collectively contribute to the improvement of the human condition.

INCUBATOR GRADUATE

The company that has best demonstrated successful Ben Franklin business incubation. The business has been operated skillfully and confidently, meeting all challenges, from the development of the product concept, execution of the business and technical plan, successful start-up and operation, to graduation from the incubator.

Viddler, Inc., Bethlehem
Donna DeMarco, Co-Founder



Viddler delivers secure, interactive media solutions for thousands of business communication, learning, and publishing clients in more than 150 countries. The company backs its solutions with an exceptional client support reputation that assures complete video and media delivery, measurement, visibility, and play anywhere in the world from all leading devices.

Viddler graduated from Ben Franklin TechVentures in September 2011, after five years as a resident company. Ben Franklin invested a total of \$450,000 in the company over several years and helped Viddler form its initial business model and secure early angel investor funding. Viddler has since attracted \$3 million in outside investment. The company started with two founders and now employs 22, and is headquartered in the Southside Bethlehem PI facility.

PRODUCT INNOVATION

The company that best demonstrates the commercialization of a unique, innovative product that creatively and effectively meets a market need.

XiGo Nanotools, Bethlehem
Dr. David Fairhurst, Executive Vice President

XiGo Nanotools has commercialized three table-top devices for characterizing the nature of particles, or emulsion droplets, in liquids using patented magnetic resonance imaging technology. Nanoparticles are minute; they typically have diameters that are 1/1,000th the diameter of a human hair. The Acorn Area™ rapidly measures the wetted surface area of nanoparticles, a key predictor of material performance and quality control that has application in many indus-

tries, including energy, electronics, ceramics, and pharmaceuticals. Currently, there are no other efficient methods to measure this important metric in real time, non-invasively, and without dilution.

Ben Franklin invested a total of \$400,000 in XiGo, and the company is a resident in Ben Franklin TechVentures. When compared with the competition, the Acorn Area product line is 500 times faster in determining measurements, has a 25% lower price point, is 1/5 of the size, and is lighter in weight, while still maintaining high levels of sensitivity and precision.



INNOVATIVE APPLICATION OF TECHNOLOGY

The company that best demonstrates a “break-the-mold” approach to integrating new or existing technology into its business.

Vitrius Technologies, Wilkes-Barre
Patrick Son, CEO and Founder

Vitrius Technologies provides smart window systems for the residential, commercial, and architectural markets. Vitrius' smart window systems combine three proprietary innovations, creating windows that produce heat and power as well as greatly increasing overall energy efficiency of the building. The windows have longevity and renewable energy profiles that are superior to competitors.

Metalux architectural cladding is a metal-finishing technology that bonds metals to composite substrates, providing superior protection and durability while using 80% less metal than traditional processes. The windows integrate optically clear energy-producing glass, which can also be used in security glazing. Utilizing dynamic radiant glass technology, electrical resistance created in the window forms a thermal barrier between the inside and outside of the building, allowing for even more energy conservation. The technology may also be intelligently controlled to perform as a primary or auxiliary heat source, capable of heating entire buildings.

Ben Franklin invested a total of \$320,000 in Vitrius and provided financial support for sales efforts and industry-required testing. The company is now beginning to commercialize its innovative products.

MANUFACTURING ACHIEVEMENT

The company that best exemplifies achievement in the manufacturing arena, showing a proven track record of success and an unbending commitment to achieving and maintaining excellence in manufacturing.

Cambridge-Lee Industries LLC, Reading
Andrea Funk, CEO

Cambridge-Lee Industries is a manufacturer and distributor of copper tubing for water supply, air conditioning, refrigeration, and commercial applications, as well as a distributor of copper-focused industrial metals. The company is the second-largest plumbing tube manufacturer in the country, with one out of every four buildings having copper tubes manufactured in the U.S. by Cambridge-Lee. In addition, the company recently constructed a new 195,000-square-foot manufacturing facility to produce micro-fin thin-wall copper tubes that are used for the commercial HVAC market. These tubes are highly energy efficient and respond to new government requirements.

Cambridge-Lee opened a state-of-the-art distribution center adjacent to its main facility in 2006. With help from Ben Franklin, Lehigh University, and the Enterprise Systems Partners, this facility has less than half the footprint but equal capacity of the original warehouse. More recently, the company worked with Ben Franklin and Northampton Community College's Emerging Technology Applications Center to identify substantial energy-savings opportunities.

The new plant manufactures under stringent consistency requirements, permitting material efficiencies and labor savings that are necessary for successful competition. When the project is complete, Cambridge-Lee will have hired as many as 250 new workers in addition to the 300 employees already employed by the company at the time the project started, rendering it an even more significant employer in the Greater Reading area.

SPECIAL ACHIEVEMENT

Individuals whose strong vision, dedication, and commitment to the program have helped to bring about a better business environment for Ben Franklin clients.

Sen. John R. Gordner
Sen. John P. Blake

Senators John Gordner and John Blake have exhibited tremendous wisdom, persuasiveness, and tenacity in supporting the statewide Ben Franklin Technology Partners at a time of difficult state budget constraints. Their effective bi-partisan legislative efforts on behalf of the Ben Franklin Technology Partners will result in much-needed investment capital to significantly leverage private investment in promising companies for future job growth.

The Pennsylvania Economy League determined that the Ben Franklin Technology Partners has returned \$3.60 to the Pennsylvania treasury for every \$1 invested in the program. Senators Gordner and Blake recognize the importance of the Commonwealth's continued support for a program that delivers proven returns on investment in both human and financial terms. They worked tirelessly to pass the crucial Innovate in PA legislation that has been approved

to provide a three-year infusion of funds to allow Ben Franklin to make impactful investments in deserving Pennsylvania companies. The results of their determined and consistent efforts will be additional highly paid jobs and an improved state economy for decades to come.

PARTNERSHIP

An individual whose strong vision, dedication, and commitment have helped the Ben Franklin Technology Partners accomplish its goals. This support demonstrates a sincere desire to see the region thrive.

Gov. Dick Thornburgh

Thirty-one years ago, our state economy was in a precarious position. The Commonwealth was almost completely reliant on heavy industry, and those sectors were downsizing rapidly. Pennsylvania needed a visionary to help diversify and transition the economy if it hoped to survive and prosper in the coming years. Gov. Dick Thornburgh was that visionary.

Gov. Thornburgh recognized economic trends and invented and executed a new program that focused on technology to create and retain well-paid, sustainable jobs. The Ben Franklin Technology Partners would invest in and support early-stage technology companies, and help established manufacturers to apply technology, all to Pennsylvania's economic advantage.

Gov. Thornburgh was the leader who had the foresight to establish the Ben Franklin Partnership in 1982. His idea emerged as a resounding success and his work a lasting legacy. The Ben Franklin Technology Partners has dramatically strengthened the Pennsylvania economy and improved the lives of thousands of entrepreneurs, workers, and their families.



GOV. DICK THORNBURGH
PARTNERSHIP AWARD WINNER

VENTURE IDOL

Ben Franklin Venture Idol was like a cross between Shark Tank® and American Idol®, but with entrepreneurs and investors instead of vocalists and celebrities. EthosGen, LLC, Wilkes-Barre, won the 2014 Venture Idol, hosted by the Ben Franklin Technology Partners of Northeastern Pennsylvania on Nov. 20 at the Innovation Institute in Ben Franklin TechVentures.

Approximately 250 guests attended the sold-out event. Eight company candidates were identified as Ben Franklin Venture Idol competitors, including EthosGen, LLC, Wilkes-Barre; JUJAMA, Inc., Scranton; Map Decisions, LLC, Ben Franklin TechVentures, Bethlehem; Medtrics Lab, Lewisburg; MyNetwork, LLC, Bethlehem; Orbweaver Sourcing, LLC, Ben Franklin TechVentures, Bethlehem; Skaffl, LLC, Ben Franklin TechVentures, Bethlehem; and TSG Software, Ben Franklin TechVentures, Bethlehem. Three of the eight start-up technology companies, EthosGen, JUJAMA, and TSG Software, earned their way to finalist status in a round of judging presented that afternoon by the Lehigh University MBA program and the Baker Institute for Entrepreneurship.

Following a networking session beginning at 5:30 p.m., the evening event began with a keynote address by Stephen Tang, MBA, Ph.D., president and CEO of the University City Science Center, Philadelphia. The three company finalists then pitched their ventures to the audience and a panel of investors, composed of Kris Jones, managing partner, KBJ Capital; Stephanie Olexa, founder, Lead to the Future; Doug Petillo, general partner, Leading Edge Ventures; and Michele Zujkowski, venture consultant, who critiqued them.

With \$100 of “Ben Bucks,” each guest distributed his or her “investment dollars” in whole or part among the finalists. Ben Franklin awarded \$15,000 in real dollars to the companies based on the audience vote. In addition to a cash investment, the winning company received a start-up package from award sponsor Altitude Marketing, which includes a revamped web-site, and a branding and messaging upgrade.

EthosGen is revolutionizing the \$1 billion renewable-energy market through a patented Thermal Energy-to-Electric Power System that captures and converts waste heat into scalable on-site electrical power. EthosGen’s commercial, industrial, and defense end-users experience the highest energy costs and most critical energy resiliency challenges, including energy storage and demand response. Equipment and manufacturing processes create waste heat that is significantly under-utilized. EthosGen’s system leverages the waste heat produced by generators, industrial manufacturing equipment, geothermal systems, biomass, and solar thermal applications to create electricity. Ben Franklin Technology Partners invested a total of \$314,500 in EthosGen.

Ben Franklin Venture Idol illustrated a significant way in which early-stage entrepreneurs seek and obtain seed capital. Chad Paul, Ben Franklin Technology Partners president and CEO, hosted the event, and Fred Beste, CEO of the General Partners, Mid-Atlantic Venture Funds and Ben Franklin Technology Partners board chairman, was the emcee.



ETHOSGEN, LLC WON THE 2014 VENTURE IDOL

Chad Paul, president and CEO of
Ben Franklin Technology Partners,
and James Abrams, CEO of EthosGen

RESULTS/FINANCIALS

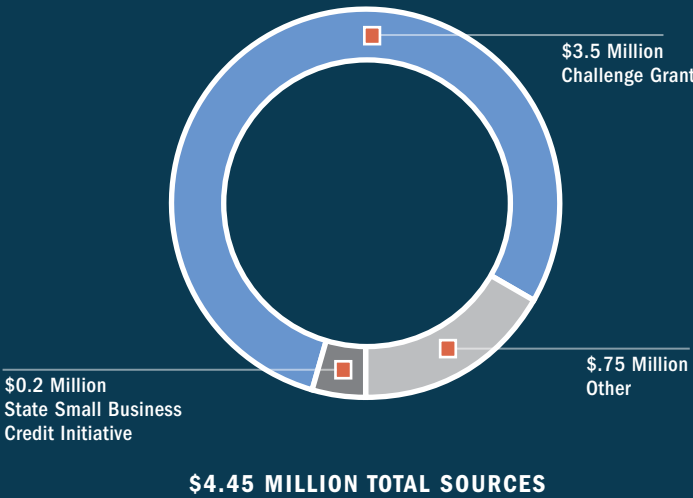
BEN FRANKLIN NORTHEASTERN PA ECONOMIC IMPACT

Ben Franklin Technology Partners of Northeastern Pennsylvania surveys its client companies on the economic impacts that are accomplished as a direct result of its investments. These figures are used to evaluate Ben Franklin’s effectiveness. BFTP/NEP has achieved the following results:

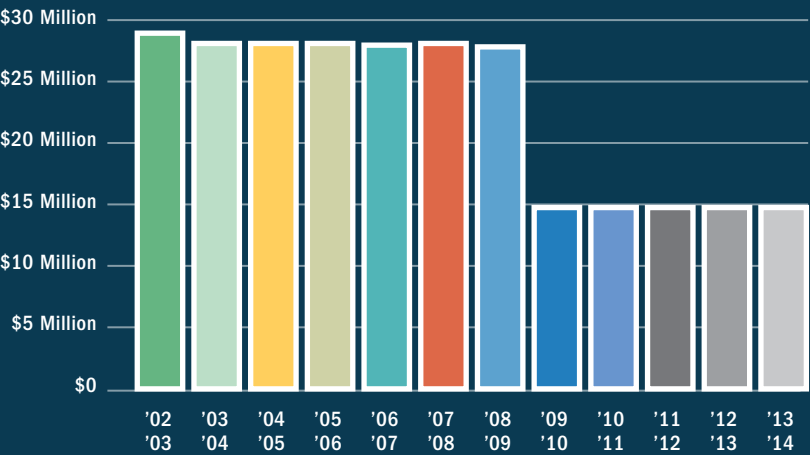
	2013	CUMULATIVE
NEW JOBS CREATED	394	16,214
EXISTING JOBS RETAINED	510	22,155
NEW COMPANIES STARTED	16	458
NEW PRODUCTS AND PROCESSES DEVELOPED	90	1,279
COMPANIES ASSISTED	307	1,885 <i>(since 2007)</i>

FINANCIAL INFORMATION

BEN FRANKLIN OF NE PA
FISCAL YEAR 2013-14 / REVENUE SOURCES



COMMONWEALTH APPROPRIATIONS
TO BEN FRANKLIN STATEWIDE





BOARD, ADVISORY BOARDS, AND STAFF

BOARD OF DIRECTORS

Frederick J. Beste III
Board Chairman
CEO of the General Partners
Mid-Atlantic Venture Funds

Ronald L. Bauer
Retired
Bosch Rexroth Corp.

Dean B. Girton
President
Girton Manufacturing Co., Inc.

Kenneth P Guito
General Manager, Sanofi-Topaz, Inc.
Senior Director,
Business Development
Sanofi Pasteur

Jan S. Heller
Retired
Wells Fargo

Patricia Johnson
Vice President for
Finance and Administration
Lehigh University

Barbara T. Lampe
Vice President
Weyerbacher Brewing
Company, Inc.

Peter Molinaro, Jr.
Chief Executive Officer
Adhezion Biomedical, LLC

R. Chadwick Paul, Jr.
President and Chief Executive Officer
Ben Franklin Technology Partners
of Northeastern Pennsylvania

James J. Peters
CEO, Geisinger Medical
Management Corp. & S.V.P.,
Strategic Industry
Partnerships & Negotiations
Geisinger Health System

Alan J. Snyder, Ph.D.
Vice President and Associate
Provost for Research and
Graduate Studies
Lehigh University

ADVISORY BOARDS
GREATER READING/BERKS
AND SCHUYLKILL REGION

The Honorable David Argall
State Senator

Anthony Baran
Chief Executive Officer
Extol International, Inc.

Nicholas K. Bentley
President
American Polarizers, Inc.

Robert S. Carl, Jr.
Executive Director
Schuylkill Chamber
of Commerce

Heather A. Chandler
President
Sealstrip Corporation

Andrea Chapdelaine
Provost and Vice President,
Academic Affairs
Albright College

Forest Crigler
Senior Vice President
Fulton Bank

Stephen Cygan
President
Appeeling Fruit

Michael Duddy
Project Manager
WORLD electronics

Daniel W. Fogerty
Chief Operating Officer
Berks County Workforce
Investment Board

Saskia Foley
Chief Executive Officer
Radius Toothbrush

Walter F. Fullam
Director of Continuing Education
The Pennsylvania State University,
Berks Campus

Andrea Funk
Chief Executive Officer
Cambridge-Lee Industries, LLC

Ellen T. Horan
President and CEO
Greater Reading Chamber of
Commerce & Industry

Steve R. Horvat, CPA
Partner
Baker Tilly

Richard A. Leiby, Jr.
Vice President, Metals Operations
East Penn Manufacturing Company

Edward J. McCann, Jr.
Retired Chief Operating Officer
Berks County Workforce
Investment Board

Thomas C. McKeon, AICP, CECd
Executive Director
Berks County Industrial
Development Authority

Peter Molinaro, Jr.
Regional Advisory Board Chairman
Chief Executive Officer
Adhezion Biomedical, LLC

Michael A. Mullen
President
SFS Intec, Inc.

Douglas R. Myers
Economic Development Analyst
First Energy

Brian Noecker
Learning and Development
Manager
East Penn Manufacturing Company

Thomas Palamar
Pottsville City Administrator
Bureau of Economic and
Community Development

Richard L. Patterson
Vice President, General
Manager-Operations
Alcon Surgical

Russell Relkin
Operations Manager
Ametek, Inc.

Timothy D. Romig
Executive Vice President
Chief Lending Officer, Berks and
Schuylkill Markets
Customer USA Bank

Donald F. Schalk
Director of Business and
Corporate Development
Alvernia University

The Honorable Judith L. Schwank
State Senator

Jon C. Scott
President
Berks Economic Partnership

Gregory J. Shemanski
President
Custom Processing Services, Inc.

Randy Simcox
President
RAS Packaging

Edward J. Swoyer, Jr.
President
Greater Berks Development Fund

Anna D. Weitz, D.Ed.
President
Reading Area Community College

Frank J. Zukas
President
Schuylkill Economic Development
Corporation



LEHIGH VALLEY REGION

John Barkanic
Director, Emerging Technology
Applications Center
Northampton Community College

Donald M. Bernhard
Manager of Economic
Development and
Community Affairs
PPL Corporation

Patrick Clasen
Principal
EcoTech Marine LLC

Ed J. Coringrato
Private Consultant

Thomas J. Garrity
President
Compass Point Consulting, LLC

Michael J. Gausling
Managing Partner
Originate Ventures

Ned D. Heindel, Ph.D.
Professor of Chemistry
Lehigh University

Bernard M. Lesavoy
Partner
Lesavoy Butz & Seitz LLC

Victor Mazziotti
Commissioner
Lehigh County

Stefan Rochus
Vice President, Business
Development
Avago Technologies

Matthew A. Tuerk
VP of Administration and
Investor Relations
Lehigh Valley Economic
Development Corporation

Kerry A. Wrobel
Executive Vice President
Lehigh Valley Industrial Park, Inc.

POCONO/NORTHEAST REGION

John L. Augustine
Community Outreach Manager
Marcellus Shale Coalition

Kristine L. Augustine
Vice President
Scranton Chamber of Commerce

The Honorable Elisabeth J. Baker
State Senator

The Honorable John P. Blake
State Senator

Jeffrey K. Box
President/CEO
Northeastern Pennsylvania Alliance

Austin J. Burke
The Scranton Plan

The Honorable Matthew A. Cartwright
U.S. Congressman

Michael Duffy
Founder
Keystone Automation

Eric J. Esoda
Executive Director
NEPIRC

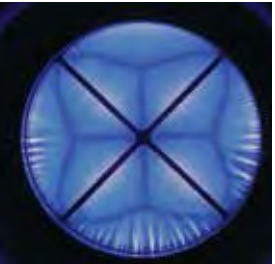
Wico van Genderen
Chief Executive Officer
Greater Wilkes-Barre Chamber of Commerce

Kenneth P. Guito
Senior Director,
Corporate Development
Sanofi Pasteur

Kristopher B. Jones
Founder & CEO
KBJ Capital Group

The Honorable Sid Michaels Kavulich
State Representative

Deborah A. Kolsovsky
Regional Manager,
Wealth Management
PNC Bank



Ron Maloney
President
Penn's Northeast

W. Kevin O'Donnell
President
CAN DO, Inc.

Raj Pawar
Consultant
Valmont Newmark

John Pullo
Vice President
Gentex Corporation

James J. Peters
Regional Advisory Board Chairman
CEO, Geisinger Medical Management
Corp. & S.V.P., Strategic Industry
Partnerships & Negotiations
Geisinger Health System

Mary Frances Postupack
Chief Operating Officer,
Center for Research and
Economic Development
East Stroudsburg University

Darlene J. Robbins
President
Northeast Pennsylvania Manufacturers
& Employers Association

Julie Schumacher Cohen
Director of Community Relations
University of Scranton

William W. Scranton III
Scranton Family Offices

Robert C. Sprung
Principal
Brook Venture Partners

Michael Sullivan
Executive Director
Pike County Economic
Development Authority

Donald A. Webster
President
Marathon Strategies, LLC

Mary Beth Wood
Executive Director
Wayne County Economic
Development

SCOTT DAWSON
President
Core Business Solutions, Inc.

Dean B. Girton
Regional Advisory
Board Chairman
President
Girton Manufacturing
Company, Inc.

The Honorable John R. Gordner
State Senator

Robert Hook
Regional Advisory Board
Vice Chairman

Robert A. Hormell
Consultant

Dr. Robert P. Marande
Dean, College of Science and
Technology
Bloomsburg University

Erica Mulberger
Executive Director
Workforce Development
Corporation of Central PA

Donna Palombo
Chief Financial Officer
Acurlite Structural Skylights, Inc.

Kristof A. Swartzentruber, PE
Mechanical Engineer
Metso Minerals Industries, Inc.

Anthony Ventello
Executive Director
Central Bradford
Progress Authority

The Honorable Gene Yaw
State Senator



STAFF

R. Chadwick Paul, Jr., *President and Chief Executive Officer*

Diane I. Albert
Database Coordinator

Matthew J. Aucker
*Facilities Assistant
Bloomsburg Regional
Technology Center*

Aaron B. Balch
Chief Information Officer

Wayne K. Barz
*Manager
Entrepreneurial Services*

Louise A. Brong
Client Services Specialist

Charles N. Diefenderfer
*Senior Project and
Facilities Manager*

Laura S. Eppler
Director of Marketing

Connie R. Faylor
*Regional Manager
Greater Reading/Berks
and Schuylkill*

Craig A. Hill
*Client Services
Specialist*

Candace B. Hoffman
Program Evaluator

Joseph M. Lane
*Vice President
Enterprise Development*

Laura L. Lawrence
Project Manager

Evelyn Leon
Administrative Assistant

Kerry M. McDonald
*Senior Maintenance
Coordinator for
Entrepreneurial
Services*

Ben Franklin
TechVentures

James Z. Mickey
Systems Administrator

Kathy Ann B. Minnich
Chief Financial Officer

Kenneth G. Okrepkie
*Regional Manager
Pocono Northeast*

Julianne Riedy
Administrative Assistant

Larry A. Seibert
*Regional Manager
Upper Susquehanna*

Janet L. Stainbrook
*Director
Government and
Community Relations*

Bonnie K. Stohl
Accounting Assistant

Robert S. Thomson
*Regional Manager
Lehigh Valley*



Fred Beste, BFTP/NEP board chairman; Pa. Sen. John Blake; Gov. Dick Thornburgh; Pa. Sen. John Gordner; and Chad Paul, BFTP/NEP president and CEO at the 2014 Ben Franklin iXchange

BEN FRANKLIN TECHNOLOGY PARTNERS OF NORTHEASTERN PENNSYLVANIA



HEADQUARTERS

Ben Franklin TechVentures
116 Research Drive, Bethlehem, PA 18015-4731
610.758.5200 info@nep.benfranklin.org

BEN FRANKLIN TECHVENTURES

Wayne Barz, Manager, Entrepreneurial Services
116 Research Drive, Bethlehem, PA 18015-4731
610.758.5421 wbarz@nep.benfranklin.org

REGIONAL OFFICES

GREATER READING/BERKS AND SCHUYLKILL
Connie Faylor, Regional Manager
Greater Reading Chamber of Commerce and Industry
201 Penn St., Suite 501, Reading, PA 19601-4038
610.390.7116 cfaylor@nep.benfranklin.org

LEHIGH VALLEY

Robert Thomson, Regional Manager
Ben Franklin TechVentures
116 Research Drive, Bethlehem, PA 18015-4731
610.758.5262 rthomson@nep.benfranklin.org

POCONO/NORTHEAST

Kenneth Okrepkie, Regional Manager
Scranton Enterprise Center
201 Lackawanna Ave., Suite 201, Scranton, PA 18503
570.709.4040 kokrepkie@nep.benfranklin.org

UPPER SUSQUEHANNA

Larry Seibert, Regional Manager
Bloomsburg Regional Technology Center
240 Market St., Bloomsburg, PA 17815-1727
610.849.9091 lseibert@nep.benfranklin.org

Visit us at www.nep.benfranklin.org.

- @benfranklinNEP
- Ben Franklin Technology Partners of Northeastern PA
- Ben Franklin Tech Partners NEPA

Published by the Ben Franklin Technology Partners of Northeastern Pennsylvania © 2015

Director of Marketing: Laura S. Eppler / Design: Gipson Studio LLC, Orefield, PA / Printer: Christmas City Printing, Bethlehem, PA /
CEO Photography: Ryan Hulvat / NBIA Photography: Rick Fatica Photography / Ben Franklin TechVentures Photography: © Halkin Photography LLC /
iXchange Photography: Hub Willson / Venture Idol Photography: Samantha Cuadro



The Ben Franklin Technology Partners is an initiative of the Pennsylvania Department of Community and Economic Development and is funded by the Ben Franklin Technology Development Authority.