



BEN FRANKLIN TECHNOLOGY PARTNERS *of* NORTHEASTERN PENNSYLVANIA

INNOVATION WINS!

ANNUAL REPORT
2022

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“Without continual growth and progress,
such words as improvement, achievement,
and success have no meaning.”

— BENJAMIN FRANKLIN

INNOVATION WINS!



As we continue to encounter enormous challenges in all aspects of the human condition – economics, health, safety, environment, and more – we increasingly rely on technology for solutions. We emerge from the pandemic and into the future, knowing innovation wins as a pivotal tool in our arsenal to help us recover and thrive. Innovation wins ... because it must for us to prosper.

Innovative technology companies create highly paid, sustainable jobs. These are good jobs that form the fabric of our community. That means that we need to continue to invest in, encourage, and support innovation. The Ben Franklin Technology Partners of Northeastern Pennsylvania (Ben Franklin Northeast) is a proven winner in business innovation and a recognized worldwide gold standard in technology-based economic development.

Ben Franklin Northeast's success in building our region's technology ecosystem is not by happenstance. To prosper, companies need a smart and flexible management team, a realistic assessment of market potential, a comprehensive and credible business plan, and access to funding. They require efficient and technologically superior manufacturing methods, input from expert consultants, and effective market channel strategies. Ben Franklin Northeast's 40 years of experience and deep expertise make us uniquely qualified to provide clients with assistance in precisely these areas.

We make deliberate, targeted investments in early-stage technology firms and established manufacturers to create and retain long-lasting, high-paying jobs in northeastern Pennsylvania. In addition, we work collaboratively with elected officials, economic development colleagues, educational institutions, and other community leaders to form networks and initiatives that accelerate the expansion of high-growth technology sectors.

For companies, successful commercialization is the goal. It's the steps between the great idea and its profitable execution that are elusive. Ben Franklin Northeast has helped thousands of early-stage firms and established manufacturers navigate the execution of these steps, positioning them for success, while refreshing, retaining, and reimagining jobs in the great state of Pennsylvania.

We were created and have been supported by bipartisan efforts over four decades. We are grateful to the governor, the General Assembly, and the Pennsylvania Department of Community and Economic Development for the increase in funding that was appropriated to the Ben Franklin Technology Partners for 2022-23. We hope that this is a first step in bringing us back to our previous funding level of 2007-08 and beyond. Our impacts and outcomes have proven that the trust state leaders put in us is well placed.

Create something new or innovate a completely different product or process. Forward-thinking companies are constantly innovating. Now more than ever, we need ingenuity and initiative for our state, nation, and world to continue to prosper.

ANGELO VALLETTA
President and Chief Executive Officer
Ben Franklin Technology Partners of Northeastern Pennsylvania



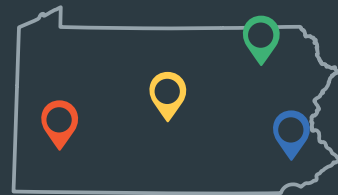
10 THINGS YOU NEED TO KNOW ABOUT THE BEN FRANKLIN TECHNOLOGY PARTNERS

1 Ben Franklin Northeast funding is often among the first capital invested in an early-stage firm. Last year, our clients raised more than **\$59 million** in follow-on funding, and since 2007, clients have generated more than **\$1.7 billion** in additional outside investments.



2

With a return to Pennsylvania's treasury of **\$3.90 for every dollar invested**, the Ben Franklin Technology Partners maximizes and leverages the state's investment in technology-based economic development.



3 An initiative of the Pennsylvania Department of Community and Economic Development, the statewide Ben Franklin Technology Partners network is composed of four centers, located in **Bethlehem, Philadelphia, Pittsburgh, and State College**. Collectively, Ben Franklin Northeast and our colleague centers comprehensively address technology economic development needs throughout the Commonwealth. We are evaluated on the basis of the commercial success achieved by our clients as a direct result of our assistance.

4 Neighboring states have noticed Ben Franklin Technology Partners' success and have introduced competing programs. We provide **capital** to clients as well as crucial links to **business and technical experts, college and university resources, professional associates and mentors**, and sources of **follow-on funding**. Other states try to replicate that time-earned "secret sauce" that amplifies Ben Franklin Technology Partners' financial investments.

5 Since beginning operations in 1983, Ben Franklin Northeast has typically been among the **top 5%** of the most active investors in the U.S. We have helped create **20,688** new jobs for Pennsylvania workers and retain **56,268** existing jobs, start **535** new companies, and develop **2,456** new products and processes.

6

Both early-stage technology companies and established manufacturing firms are eligible for Ben Franklin Northeast funding. Investments vary based on client needs and are typically in the range of **\$30,000 to \$100,000** per year for up to three years.

7 Established nearly 40 years ago, the Ben Franklin Technology Partners has earned **bipartisan support** among many different administrations and general assemblies. Everyone agrees that technology-based companies that create highly paid, sustainable jobs are a crucial Pennsylvania asset.



8

Ben Franklin Northeast works with clients on an enterprisewide basis to enhance their entire way of doing business. We collaborate with an array of regional partners to promote an innovative infrastructure through **research, development, and commercialization models; business incubators; and university-based centers of excellence**. Through these initiatives, we foster a favorable business environment for high-growth companies throughout northeastern Pennsylvania.

9

The Ben Franklin Technology Partners has been recognized repeatedly, nationally and internationally, as a **model program** in state-funded technology-based economic development.



10 Jobs created by clients of the Ben Franklin Technology Partners are in industries that pay an average of **\$79,364**, which is **52%** more than the state's average nonfarm wage. That increase at that income level creates a substantial incremental difference, allowing families to save and elevating them economically for generations to come.



LEARN MORE AT NEP.BENFRANKLIN.ORG.

PROGRAM OVERVIEW

The Ben Franklin Technology Partners of Northeastern Pennsylvania is part of a four-center, state-funded economic development initiative that began operations in 1983. The Commonwealth initiated the Ben Franklin Technology Partners to play a leadership role in strengthening regional economies, building Pennsylvania's technology-based economy, and creating and retaining highly paid, sustainable jobs. The northeastern center is headquartered at Ben Franklin TechVentures, an award-winning technology incubator/post-incubator facility on Lehigh University's Mountaintop Campus in Bethlehem. Regional offices are located in Bloomsburg, Reading, and Scranton.

Ben Franklin Northeast'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:

1. **developing and growing early-stage technology-oriented companies;**
2. **supporting established manufacturers as they creatively apply new technology to help them succeed globally by developing new products and processes, improving productivity, and expanding capacity; and**
3. **promoting an innovative communitywide infrastructure that supports Pennsylvania's business technology ecosystem.**

To qualify as clients, companies must be located in, or relocate to, Ben Franklin Northeast's 21-county service area: Berks, Bradford, Carbon, Columbia, Lackawanna, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, and Wyoming. We refer companies in other Pennsylvania counties to one of our three colleague Ben Franklin Technology Partners organizations headquartered in Philadelphia, Pittsburgh, and State College.

Ben Franklin Northeast works with the most promising ventures; selection for inclusion in our portfolio is a competitive process. As hundreds of companies have experienced, we deliver hands-on support, connections to critical resources, and investment funds at companies' most vulnerable times. Ben Franklin Northeast helps clients achieve and sustain market success and competitive advantage. We are evaluated on the basis of the job creation and retention and commercial accomplishments of our clients that are achieved as a result of our work.

SEED FUNDING TO YOUNG TECH-BASED COMPANIES

Ben Franklin Northeast invests in technology-based start-ups that are commercializing proprietary technology. Our work with early-stage firms begins with carefully choosing the management teams with the best opportunities, talent, and vision. We provide extensive strategic assistance to mold teams' ideas into effective, high-value market development strategies and implementation efforts.

For early-stage firms, investments are provided in the form of debt with detachable warrants. Investments typically range from \$30,000 to \$100,000 for each tranche, with a maximum total investment over several years reaching \$300,000 to \$400,000. We take calculated risks investing in young, unproven companies, helping them to raise additional capital, and providing them with an important and well-respected initial endorsement.

Recognizing our clients' needs for more risk capital, beyond what we are able to provide, we have developed relationships with additional funding sources, including venture funds and angel investor networks, and we provide introductions to entrepreneurs throughout the year and at our annual Ben Franklin Venture Idol event. Since 2007, with our support, clients have raised more than \$1.7 billion in funding beyond our investments.

INVESTMENTS IN MANUFACTURING INNOVATION

We invest in established manufacturers that are interested in employing sophisticated techniques and technology to become more competitive in the global marketplace.

We support manufacturers in several ways. First, we focus on long-term, enterprisewide solutions to sustain growth. The work is usually technology development or application driven, with the goal of making each client's product or manufacturing process better, faster, and/or at a lower cost. This helps the company to compete internationally through technology and efficiency.

Second, we link our clients to cutting-edge, college- and/or university-based resources and apply their expertise in innovative ways. Ben Franklin Northeast encourages the formation of lasting relationships between manufacturers and higher education partners, thereby facilitating long-term results. Finally, we offer 1:1 matching investments of \$25,000 to \$50,000 over one to three years, depending on the size of the company.



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BUSINESS AND TECHNICAL EXPERTISE

Each company in the Ben Franklin Northeast 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 advisers, professional service providers, investors, and college and university experts.

INFRASTRUCTURE

Our staff partner with other economic development organizations to create and develop a comprehensive support system for early-stage technology-based companies and established manufacturers throughout northeastern Pennsylvania. For example, we apply 39 years of business incubation expertise in leading the 14-member Ben Franklin Business Incubator Network. Business incubation provides significant support to young firms as they launch.

Technology-based firms have many common needs that differ from those of traditional industrial companies, and the success of these firms is greatly influenced by the infrastructure in the region. We initiate, facilitate, and participate in targeted activities that build and enhance the infrastructure to support high-growth companies. A strong technology infrastructure includes the availability of early-stage and follow-on funding; the accessibility of colleges, universities, and other research resources; the availability of facilities and networking opportunities for young- and intermediate-stage companies; and the presence of a skilled workforce.

An effective technology infrastructure encourages employees with needed skill sets to reside here, incents technology-based companies to locate here, accelerates the learning curve for new companies, and creates a synergy among companies that helps the entire region thrive. We lead in the development and support of the technology infrastructure in northeastern Pennsylvania's economy.

COLLEGE AND UNIVERSITY RESOURCES

Some of Pennsylvania's greatest assets are the many world-class colleges and universities that are located here. We tap into the strength of Pennsylvania's higher education institutions, whose faculty and students work directly with many of our clients. Most of our clients would not be able to access these resources without an introduction. Ben Franklin Northeast provides an essential link between client companies and the wealth of knowledge, equipment, facilities, and human resources in the Commonwealth's colleges and universities.

STATE FUNDING

Ben Franklin Northeast received a funding increase of \$606,250 for 2022-23. The budget for the Ben Franklin Technology Development Authority (BFTDA), which is included within the budget for the Pennsylvania Department of Community and Economic Development (DCED), rose from \$14.5 million to \$17 million in 2022-23. BFTDA funds the Ben Franklin Technology Partners statewide network, which is comprised of four centers statewide.

The Ben Franklin Technology Partners of Northeastern Pennsylvania is thankful for its strong working relationship with DCED and Pennsylvania's elected officials. Ben Franklin Northeast and its clients are deeply grateful for their ongoing support.

"Competition among states for investments in innovation is fierce, and the governor and DCED laid out a vision to reinforce and expand Pennsylvania's leadership as the premier location for technology-based businesses and entrepreneurs," said Ryan E. Glenn, Director of Statewide Initiatives, Ben Franklin Technology Partners.

"We thank the legislature and administration for working together to secure increased funding for Ben Franklin in this budget, so we can continue our groundbreaking work to sustain and grow the entrepreneurial ecosystem that we have been building in Pennsylvania for 40 years," Glenn added.

For more information about Ben Franklin's annual statewide impact, visit [BenFranklinImpact.com](https://benfranklinimpact.com). For additional information about the statewide Ben Franklin Technology Partners network, visit benfranklin4pa.com.

"Even in the most difficult economic times, Ben Franklin continues to deliver impressive results with its investments. We appreciate our state's elected officials' recognition of the importance of technology entrepreneurs and innovative manufacturers to Pennsylvania's economy. We look forward to Pennsylvania's continued budgetary support in the years to come."

— ANGELO VALLETTA
President and Chief Executive Officer
Ben Franklin Technology Partners of Northeastern Pennsylvania

BEN FRANKLIN SOLUTIONS NETWORK

BEN FRANKLIN NORTHEAST'S "SECRET SAUCE" TO SUPPORTING CLIENTS

Funding is what draws most companies to the Ben Franklin Technology Partners of Northeastern Pennsylvania. But in retrospect, alumni clients often cite the work of the Ben Franklin Solutions Network as even more pivotal to their success. Partnering brilliant entrepreneurs and innovative manufacturers with expert advisers who match their commitment and focus increases the company's probability of success. The Ben Franklin Solutions Network is composed of individuals and organizations that have long understood that innovation wins.

The Ben Franklin Solutions Network is a group of consultants and other professionals led, screened, and coordinated by Ben Franklin Northeast staff. Members of the Solutions Network number more than 700, many of whom are called upon multiple times a year, creating a proven, powerful, and comprehensive support program for clients.

The Solutions Network assists clients in all stages of growth, from pre-revenue through fully commercialized products. For very early-stage clients, Ben Franklin Northeast evaluates the company's status and seeks to provide it with a solid foundation in establishing its business. For firms that are ready to commercialize products, the issues and solutions are centered on strategy, sales process, and capitalization.

Most of our entrepreneurs have solid technical backgrounds and an understanding of their technology and how it may answer a customer need. But, for many, this is their first venture in building a company. They are confronted with barriers and obstacles at every turn: defining their value proposition; protecting intellectual property; identifying potential customers and how to reach them; creating and implementing a viable distribution strategy; projecting capital requirements and successfully obtaining ongoing sources of capital; growing the management team; and scaling the business. The Ben Franklin Solutions Network helps clients address these issues through a team of well-vetted experts, who together vastly increase clients' chances for success.



MANAGEMENT

The Solutions Network can provide a variety of ways to fill holes in the management teams that often characterize start-up businesses. Most young companies welcome the addition of talented leadership. Ben Franklin Northeast can complement a client's team with experts from the network.

MARKETING AND SALES

When the founding team has little experience with lead generation, marketing, or selling a product, the Ben Franklin Solutions Network can provide a range of services, from coaching on the sales process to strategic marketing planning and website/social media enhancement. Sometimes, what is perceived by the entrepreneur to be a logical and elegant solution to an obvious problem is not perceived that way by potential customers. By partnering with one of our experts, founders can address this disconnect and avoid spending money and time developing the wrong product or promoting it to the wrong audience.

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FINANCES

While Ben Franklin Northeast client founders are knowledgeable in their product or service, they may not be as well-versed in finance and accounting. Cash flow is key for all companies, and young firms are often engaged in a race against insolvency. We provide finance and accounting support to clients as needed. This expertise is crucial for the company to make sound financial decisions and to provide the required financial statements to Ben Franklin Northeast that allow us to help clients address opportunities and problems rapidly and effectively.

LEGAL

The Ben Franklin Solutions Network includes a stable of experienced law firms, from large full-service national firms to single-attorney practices, ranging in focus from intellectual property protection to a variety of corporate law needs. Commonly, client companies have proprietary technology that requires the protection of a patent, copyright, or trade secret strategy.

Additional legal services include assistance with licensing, sales and partnership agreements, and other corporate work.

PRODUCT DEVELOPMENT

Many of our early-stage clients need specific expertise or access to specialized and expensive equipment to complete the development or testing of a new product. Ben Franklin Northeast staff have well-developed relationships with faculty and personnel based in the 29 colleges and universities throughout our region and many others statewide.

FOLLOW-ON FUNDING

Our investment is one step toward helping bridge a young firm to profitability. As a Ben Franklin Northeast client, founders have earned an endorsement that is highly valued among venture capitalists, angel investors, and other institutional investors. Follow-on funders respect the rigorous vetting process and support provided by the Ben Franklin Technology Partners of Northeastern Pennsylvania. With 40 years of investment experience, we have relationships with hundreds of follow-on investors throughout the surrounding area and are familiar with others outside of the region as well.





CHALLENGE GRANT INVESTMENTS

To build the regional technology economy, the Ben Franklin Technology Partners of Northeastern Pennsylvania invests in early-stage technology firms, established manufacturers, and infrastructure initiatives through Challenge Grant funding provided by the Pennsylvania Department of Community and Economic Development. Companies and projects are diverse and in multiple sectors, allowing Ben Franklin Northeast to reduce its risk while broadening the benefits to the regional economy.

Our portfolio team thoroughly vets prospective clients and then recommends the strongest opportunities to the Ben Franklin Northeast Board of Directors for investment. These projects are competitively selected as having the greatest potential for creating or retaining quality jobs, building an industrial sector, introducing novel products or processes, and/or filling a promising marketing niche.

EARLY-STAGE FIRMS

APPLIED CADENCE, LLC

Scranton Enterprise Center, Scranton UnisonWorkforce.com

Develop, test, and commercialize “CareWide,” a simple and easy-to-use mobile application with an administrative web-based dashboard that allows individual homecare workers an affordable way to manage their own services, verify their time, and get paid seamlessly. The patented Software-as-a-Service (SaaS) platform maximizes the productivity of homecare staff and provides information and security to patients, family members, and caregivers. The company’s mission is to bridge the gap between independent workers and clients who are in need of home services, enabling aging adults to remain in their homes longer.

BFTP Investment: \$100,000 Total Project Budget: \$448,000

BETTORFANTASY

Ben Franklin TechVentures, Bethlehem bettorfantasy.com

Scale BettorFantasy, an online wagering platform for betting on fantasy sports, engaging sports fans worldwide with unique experiences. BettorFantasy will implement real-money betting on the platform and increase its user base to 10,000.

BFTP Investment: \$60,000 Total Project Budget: \$201,000

BREW PUB JERKY, LLC

Waymart brewpubjerky.com

Design and implement a high-speed manufacturing line at this producer of beef-based snack food products. Brewpub’s high-protein jerky is crafted to pair well with beer. Its high-throughput facility will help the company scale to meet growing demand and target high-volume customers on a national level.

BFTP Investment: \$60,000 Total Project Budget: \$310,000

CLICK-VIDEO, LLC

Scranton Enterprise Center, Scranton click-video.com

Develop product messaging and establish/test a strategic marketing plan for this provider of digital media communication tools. Click-Video’s REACHUM product is a proprietary communication platform that allows for instantaneous product purchases from within a video, advertising, or a virtual presentation platform, providing a more interactive and engaging user experience than other tools.

BFTP Investment: \$15,000 Total Project Budget: \$25,000

CLIQUEIFY INC.

Ben Franklin TechVentures, Bethlehem cliquify.me

Advance product development, marketing, and sales at this Artificial Intelligence-assisted, Software-as-a-Service employer branding platform that helps companies scale organic social recruitment through recruiters, hiring managers, and employees. Cliquify allows enterprises to connect with passive and active talent in creative ways where they engage – across social media channels. The results are increasing engagement by 6x and reducing time and cost to recruit by 79%. Data shows that the platform also helps to address diversity and equity gaps in recruitment.

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

COEXIST BUILD LLC

Blandon coexist.build

Support the launch of Coexist Build’s Traveler kit, a hemp-based structure in which people live, work, and play. Coexist Build uses regenerative materials and innovative architectural design to produce healthy living spaces that have a positive impact on people and the natural environment.

BFTP Investment: \$20,000 Total Project Budget: \$243,500

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LEARNICS, LLC

Easton learnics.com

Continue to develop and add functions to a web-browser plug-in that allows K-12 students to submit their browsing histories and time spent on assignments and teachers to analyze the data to support them and improve teaching. The tool will integrate into current learning platforms and will provide teachers with an individual and classwide analytics dashboard. Launch and commercialize the software to initial school users and begin to scale to additional customers.

BFTP Investment: \$60,000 Total Project Budget: \$544,000

LOW & GO, LLC

Honesdale Lowandgo.org

Support marketing, and durability and safety testing, to commercialize a powered wheelchair with a lower center of gravity, providing “no-tip” versatility for use indoors or outdoors. The chair extends 22 inches as it lowers itself into a go-cart configuration, allowing greater versatility. The Low & Go wheelchair can travel in places that would be unattainable for other wheelchairs, including trails and woodlands, and allows users to pick items up from the ground and speak to their children and grandchildren at a kid’s eye level.

BFTP Investment: \$100,000 Total Project Budget: \$270,250

MDS LINK, INC.

Ben Franklin TechVentures, Bethlehem www.mdslink.com

Support manufacturing, and sales and marketing efforts for this producer of an inexpensive and patented hardware/software solution that enables gigabit data transmission across existing coax cable. There is a growing market need to increase bandwidth rates in buildings like hotels and

apartments that have pre-existing coax infrastructure. MDS Link’s module can be installed into modern networking equipment configurations to deliver massive increases in bandwidth at a substantially lower cost than the installation of new fiber lines through buildings.

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

MUSSEL POLYMERS, INC.

Ben Franklin TechVentures, Bethlehem musselpolymers.com

Streamline production processes utilizing Poly catecholstyrene (PCS) to develop new adhesives and adhesive primers that have superior performance when used underwater or on wet surfaces. PCS-based adhesives and primers have applications in the medical, dental, electronics, roofing, automotive, defense, and marine sectors. The project also includes scaling up manufacturing to create an efficient and commercially viable pathway to meet existing and future demand for Mussel Polymers’ products.

BFTP Investment: \$100,000 Total Project Budget: \$318,000

RAVEN BIOMATERIALS, LLC

Ben Franklin TechVentures, Bethlehem rbi-beads.com

Further develop, test, and prepare to manufacture fundamentally new magnetic beads that are used to separate biological components out of blood. Raven Biomaterials’ first application targets improving cell therapeutic manufacturing for cancer treatment, increasing the yield of targeted cell material at a significantly lower cost than current methods. Other applications of Raven’s beads include patient monitoring, gene therapy, antibody production, blood banking, vaccine manufacturing, and scientific research.

BFTP Investment: \$63,200 Total Project Budget: \$367,950

S. HUNTLEY & COMPANY

Ben Franklin TechVentures, Bethlehem shuntley.co

Secure a license for S. Huntley & Company in Pennsylvania and New Jersey as a nonbank motor vehicle financier. Also, secure dealership partners, begin building the website, and launch the monthly subscription service in support of the financing tools. The firm’s product, Toppcar.com, is an online retail and financing platform that allows the growing modern classic car enthusiast segment of consumers and dealers to buy and finance cars completely online.

BFTP Investment: \$80,000 Total Project Budget: \$208,400

SHOWCASE VENTURES, INC.

Scranton Enterprise Center, Scranton showcasedaily.com

Support the product rollout of this new digital music discovery platform and streaming service. Designed by music industry professionals, Showcase Daily intersects human curation and editorial viewpoints to spotlight high-quality new music from emerging artists. Every day, it will showcase musicians across a variety of genres through its well-designed application. Showcase Daily is the first dedicated service to offer music fans early access to talented up-and-coming artists.

BFTP Investment: \$35,000 Total Project Budget: \$133,500

SLICK LEAGUES

Scranton Enterprise Center, Scranton slickleagues.com

Support marketing efforts to showcase Slick League’s impact on the youth sports management industry while building a holistic overall strategy, including building brand awareness. Slick League’s Software-as-a-Service (SaaS) sports management platform streamlines clients’ marketing, registration, payment collection, rostering, player safety, scheduling, and concession operations,

so league administrators, coaches, and volunteers can focus on growing their organizations and developing their athletes. The platform is a comprehensive solution for automating and analyzing sports functions within facilities and athletic leagues.

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

UNITYLAB

Dushore unitylabinfo.com

Update the e-commerce platform with sales and support features and incorporate newly acquired product lines at this manufacturer of commercial-grade equipment that serves small businesses and nonprofit clients. These improvements will help UnityLab upgrade services to existing customers and acquire new ones.

BFTP Investment: \$50,000 Total Project Budget: \$125,155



ESTABLISHED MANUFACTURERS

AMERICAN PAPER BAG, LLC

Sugar Notch americanpaperbag.com

University Partner: Allan P. Kirby Center at Wilkes University

Review facility options and recommendations for continued growth at this manufacturer of innovative paper bags. American Paper Bag is a leading U.S.-based producer of customizable and environmentally friendly paper bags and sells to some of the largest retail and e-commerce companies.

BFTP Investment: \$10,000 Total Project Budget: \$70,000

AMERICAN POLARIZERS, INC.

Reading apioptics.com

University Partner: Northampton Community College's Emerging Technology Applications Center

Further develop a processing method for a new circular polarizer lens and expand the company's product line to include small lenses and small-batch custom laminations using various substrates. American Polarizers manufactures polarized and nonpolarized optical products that are used for scientific and medical instrumentation. The company also produces for the aerospace, electronics, photographic, and animated display industries.

BFTP Investment: \$25,000 Total Project Budget: \$75,000

BIG BARKER, LLC

Reading bigbarker.com

University Partner: Alvernia University's O'Pake Institute

Conduct facility planning and inventory gap analysis to address sales, production, and distribution needs to accommodate growth, resulting in lower costs and increased productivity. Big Barker manufactures high-quality foam beds for large dog breeds that are engineered to provide big dogs with better rest and more mobility. The beds are health and wellness products that have been validated by a clinical study performed by the University of Pennsylvania.

BFTP Investment: \$9,800 Total Project Budget: \$59,100

BOSCH REXROTH CORPORATION

Bethlehem boschrexroth-us.com

University Partner: Lehigh University's Enterprise Systems Center

Develop and implement a simulation-based scheduling software for the company's CNC machine scheduling system to improve throughput and reduce lead time, providing greater capacity. Bosch Rexroth manufactures motion control equipment, including hydraulic and pneumatic components.

BFTP Investment: \$25,000 Total Project Budget: \$95,119

BRD NOISE AND VIBRATION CONTROL, INC.

Wind Gap Hushcore.net

University Partner: Lehigh University's Center for Supply Chain Research

Incorporate new scanning and modeling techniques into the engineering process and streamline standard product management to make the process for assessing new noise and vibration control projects more efficient. BRD Noise and Vibration Control specializes in HVAC acoustic design and manufacturing to help architects, acoustical consultants, and design/build contractors in the specification of cost-effective approaches to keep mechanical equipment quiet. The firm also troubleshoots and implements remediation treatments for sound problems in existing construction.

BFTP Investment: \$25,000 Total Project Budget: \$269,263

D. GILLETTE INDUSTRIAL SERVICES, INC.

Easton dginindustrialservices.com

University Partner: Lehigh University's Enterprise Systems Center

Complete facility layout plans of the company's new campus to facilitate growth and prepare for ISO Quality System Certification. D. Gillette Industrial Services designs, fabricates, and repairs maintenance equipment for the U.S. military and industrial clients.

BFTP Investment: \$25,000 Total Project Budget: \$113,461

DYNALENE, INC.

Whitehall dynalene.com

University Partner: Lehigh University's Center for Supply Chain Research

Conduct product validation and testing for large customer specifications for manufacturing deionizing filter cartridges

that are used in the coolant loops of fuel cells, electric vehicle (EV) charging stations, and heat-producing electronics and computers. Dynalene develops, manufactures, and distributes innovative industrial heat transfer fluids and related accessories. This work will allow Dynalene to improve manufacturing efficiencies and increase production yield to continue to grow in the fuel cell/automotive and electronics industries.

BFTP Investment: \$25,000 Total Project Budget: \$189,263

ETI, INC.

Morgantown go2eti.com

University Partner: Alvernia University's O'Pake Institute

Increase capacity to meet growing customer demand by focusing on operational process excellence to improve throughput. Eastern Technologies manufactures chemical formulations for industrial water treatment.

BFTP Investment: \$25,000 Total Project Budget: \$150,000

GENTEX CORPORATION

Simpson gentexcorp.com

University Partner: Lehigh University's Enterprise Systems Center

Optimize the Manufacturing Resource Planning tool and inventory management system to increase production efficiencies at this manufacturer of personal protection and situational awareness products for military, emergency response, and industrial personnel. The company's products include helmets, respiratory protection, communication equipment, and advanced optics.

BFTP Investment: \$25,000 Total Project Budget: \$149,044

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JOE JURGIELEWICZ & SON, LTD

Hamburg tastyduck.com

University Partner: *Alvernia University's O'Pake Institute*

Develop a plant layout for a new facility and an overall manufacturing site master plan to increase capacity and optimize production. Joe Jurgielewicz & Son is a duck production operation that supplies restaurants, food services, and institutions in the U.S. The firm is vertically integrated from breeding to delivery and employs environmentally friendly, sustainable farming practices.

BFTP Investment: \$15,000 Total Project Budget: \$261,512

LIFEAIRE SYSTEMS, LLC

Allentown lifeaire.com

University Partner: *Lehigh University*

Develop additional applications for LifeAire Systems' technology. LifeAire discovers, develops, manufactures, and commercializes revolutionary air purification systems for the healthcare industry. The systems are clinically proven and proprietary and effectively eliminate viable and chemical pathogens on a single pass, with no harmful byproducts or ozone produced.

BFTP Investment: \$25,000 Total Project Budget: \$223,131

MARTZ TECHNOLOGIES, INC.

Berwick mtz-tech.com

University Partner: *Lehigh University's Enterprise Systems Center*

Optimize energy usage and labor, and extend equipment life for municipal water and wastewater entities using Artificial Intelligence models and advanced data analytics. The VZRscada solution (vzrscada.com) integrates hardware, software, and communications technologies to control, monitor, and optimize critical community infrastructure.

BFTP Investment: \$40,000 Total Project Budget: \$148,953



MYERS EMERGENCY POWER SYSTEMS, LLC

Bethlehem myerseps.com

University Partner: *Lehigh University's Enterprise Systems Center*

Implement lean manufacturing processes and develop configure-to-order capabilities at this manufacturer of highly engineered emergency power backup equipment, such as emergency lighting, traffic, rail, and broadband, as well as components. Myers provides integrated technology solutions mandated by safety codes in industries including data centers, government buildings, and healthcare centers. The work will help Myers enhance manufacturing efficiencies and lead times, allowing the company to increase sales.

BFTP Investment: \$7,500 Total Project Budget: \$53,983

NOBLE BIOMATERIALS, INC.

Scranton noblebiomaterials.com

University Partner: *Allan P. Kirby Center at Wilkes University*

Automate a proprietary manufacturing process to increase capacity and throughput to accommodate significant growth. Noble Biomaterials, Inc. is a global leader in antimicrobial and conductivity solutions for soft-surface applications. The company produces advanced material technologies designed for mission-critical applications in the performance apparel, healthcare, industrial, military, and emerging wearable-technology markets. Its flagship brands, X-STATIC®, Ionic+™, and CIRCUITEX®, are used by hundreds of world-class licensees to provide odor elimination, infection prevention/management, biometric monitoring, and conductive protection benefits.

BFTP Investment: \$25,000 Total Project Budget: \$275,000

POLYTEK DEVELOPMENT CORP.

Easton polytek.com

University Partner: *Lehigh University's Enterprise Systems Center*

Determine requirements for a new Enterprise Resource Planning (ERP) system and identify a vendor and software package that most appropriately meets company needs to maximize its manufacturing footprint and output, and optimize production. Polytek produces liquid rubbers and plastic coating resins based on polyurethane, silicone, and epoxy chemistries for B-to-B markets.

BFTP Investment: \$25,000 Total Project Budget: \$108,919



POWERAIL HOLDINGS, INC.

Duryea epowerrail.com

University Partner: *Allan P. Kirby Center at Wilkes University*

Support efficiencies associated with module implementation in PowerRail Holdings' Enterprise Resource Planning software to maximize productivity and material flow for this manufacturer, re-manufacturer, and global distribution center of locomotive parts.

BFTP Investment: \$12,500 Total Project Budget: \$205,000

PRECISION MEDICAL

Northampton precisionmedical.com

University Partner: *Lehigh University's Center for Supply Chain Research*

Implement an Enterprise Resource Planning system to improve the operational effectiveness at this manufacturer of proprietary medical respiratory equipment used in both hospital and homecare environments. The enhancements will allow the company to manufacture and fulfill orders more efficiently for sustainable growth.

BFTP Investment: \$15,000 Total Project Budget: \$240,910

PRODUCTION SYSTEMS AUTOMATION, LLC

Duryea psasystems.com

University Partner: *Allan P. Kirby Center at Wilkes University*

Provide facility planning and layout optimization for a plant expansion at this producer of turnkey automation solutions for the manufacturing and military sectors. The company is a systems integrator with full engineering and manufacturing capabilities focused on packaging and materials handling solutions.

BFTP Investment: \$25,000 Total Project Budget: \$855,000

Continued

Continued from previous page

S&W METAL PRODUCTS, LLC

Gilbertsville swmetalproducts.com

University Partner: Alvernia University's O'Pake Institute

Model the existing production facility to optimize process flows and accommodate the acquisition of new equipment. Develop a strategic facility master plan in support of the company's long-term growth objectives. S&W Metal Products is a full-service sheet metal fabrication shop, manufacturing a wide range of recurring and custom precision-engineered products.

BFTP Investment: \$25,000 Total Project Budget: \$255,000

SCHOTT ADVANCED OPTICS

Duryea schott.com

University Partner: Lehigh University's Enterprise Systems Center

Identify process improvements associated with automating the manufacturing transition from molten glass to molds to increase yield while maintaining or improving product quality. With a portfolio of more than 120 glasses, Schott Advanced Optics produces specialty glass and ceramics for optics, astronomy, opto-electronics, augmented reality, life sciences, research, and other industrial and consumer applications.

BFTP Investment: \$25,000 Total Project Budget: \$98,229



INFRASTRUCTURE

BEN FRANKLIN BUSINESS INCUBATOR NETWORK

Throughout northeastern Pennsylvania

Ben Franklin Technology Partners of Northeastern Pennsylvania owns both Ben Franklin TechVentures and the Bloomsburg Regional Technology Center. In 2022, the other 12 Ben Franklin Business Incubator Network members received our investments to help support operations:

- Bridgeworks Enterprise Center, Allentown
- CAN BE Innovation Center, West Hazleton
- Carbondale Technology Transfer Center
- East Stroudsburg University Innovation Center
- Innovation Center @ Wilkes-Barre
- Allan P. Kirby Enterprise Center at Wilkes University, Wilkes-Barre
- O'Pake Institute for Economic Development and Entrepreneurship at Alvernia University, Reading
- Scranton Enterprise Center
- Startup Danville
- Startup Lewisburg
- Stourbridge Project, Honesdale
- TekRidge Center, Jessup

**BFTP Investment: \$60,000
Twelve incubators at \$5,000 each**

BUSINESS AND TECHNICAL ASSISTANCE

Business and Technical Assistance grants provide small grant investments for specific projects that are crucial to the development or operation of a young company.

→ APPLIED CADENCE, LLC

Scranton
UnisonWorkforce.com

Strategic Business Plan Development

→ BUILD MY TEAM, LLC

Honesdale
buildmyteam.com

Sales Coaching and Consulting

→ CLIQUIFY INC.

Ben Franklin TechVentures, Bethlehem
cliquify.me

Lead Generation and Proforma Statement Assistance

→ COEXIST BUILD LLC

Blandon
coexist.build

Business Strategy and Financial Modeling

→ ENIGMA NETWORKZ

Reading
enigmanetworkz.com

Go-To Market Strategy Development

→ LEARNICS, LLC

Easton
learnics.com

Strategic Business Plan Development

→ LORD & LILY

Bethlehem
lordnlily.com

Marketing Strategy Planning

→ PRECISION POS, LLC

Jessup
precisionPOS.com

Strategic Planning; Hiring a VP of Sales

→ PUBTRAWLR LLC

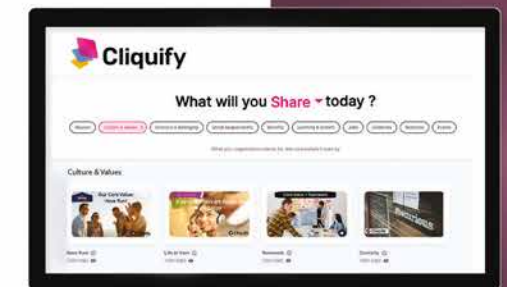
Reading
pubtrawlr.com

Corporate and Product Positioning

→ SHOWCASE VENTURES, INC.

Falls
showcasedaily.com

Website and Mobile App Development



ASPIRING INNOVATORS INITIATIVE

There are many challenges facing potential entrepreneurs and startups across the state of Pennsylvania, including a lack of knowledge about entrepreneurship; limited availability of capital; a lack of access to specialized resources, networks and support systems; and limited opportunities for engagement from experienced advisers and businesspeople.

For people of color and women entrepreneurs, these barriers are often higher, with a disproportionate lack of capital and more limited networks, connections, and access to resources in the startup and funding communities. Research continues to reinforce that these barriers hold back founders.

In the summer of 2022, we launched the Aspiring Innovators Initiative (formerly known as the New Generation Tech Internship Program) to connect startups with students of color and female students, creating technology career pathways for underrepresented groups.

Client companies submitted internship and project descriptions for consideration and were vetted by Ben Franklin Northeast staff. Information and resumes from interns were then passed along to the four selected companies, which conducted interviews with potential interns. Each client company received a \$5,000 grant in order to pay the intern.

The four students were placed at client companies: Cliquify (Bethlehem), Terra Health Coaching (Bethlehem), StudioBE (Scranton), and webCemeteries (Kutztown).

To support the Aspiring Innovators Initiative, please contact Angelo Valletta, President and CEO, at avalletta@nep.benfranklin.org or call 610.758.5211.



Bri Burkholder, webCemeteries intern; Kimberly Valuntas, Regional Manager, Greater Reading/Berks of Ben Franklin Northeast; and Nick Timpe, President and CEO of webCemeteries

“The internship program was a big help! Bri was a great addition to our team for the summer, and she was able to help us with marketing research that we’ve wanted to do but hadn’t been able to prioritize. This will help us as we move forward with our next marketing campaigns.”

— NICK TIMPE, *President and CEO, webCemeteries*

INNOVATION WINS! STREAMING SERIES

Ben Franklin Northeast has continued filming the Innovation Wins! series, which gives viewers a sneak peek at some of the most exciting technological innovations being developed right now, right here in northeastern Pennsylvania. Innovation Wins viewers meet brilliant, creative entrepreneurs and advanced manufacturers, all of whom share a drive to succeed in highly competitive markets and a passion to improve the world with their products.

The series features clients and partners from throughout our 21-county service area. Innovation Wins! airs on Roku, AppleTV, and RVN Television on Tuesdays at noon and Saturdays and Sundays at 3 p.m. Episodes are also posted online.

INN  **VATION**
WINS
with Angelo Valletta



MISSION

Enhance the diversity of our region’s entrepreneurial ecosystem by creating technology career pathways for underrepresented groups



STRATEGY

OUTREACH: develop and strengthen collaborations with organizations and institutions to promote entrepreneurship and technology careers for people of color and women throughout our region.

INTERNSHIPS: facilitate a full-time, 12-week paid internship program that connects college students from underrepresented groups with our Ben Franklin Northeast tech startups. The startup receives \$5,000 to fund the internship.



VISION

Foster a more inclusive and equitable startup workforce and inspire a new wave of women founders and founders of color by supporting them with the experience and resources needed to succeed

BUSINESS INCUBATORS

Ben Franklin Technology Partners of Northeastern Pennsylvania's support of business incubators and centers of excellence are key components of the entrepreneurial and technology ecosystem in northeastern Pennsylvania. They are part of the infrastructure that is crucial to support high-growth companies in the region.

Establishing one of the first business incubators in the U.S. in 1983, Ben Franklin Northeast was a pioneer of business incubation in the nation. Ben Franklin TechVentures, owned and managed by the Ben Franklin Technology Partners of Northeastern Pennsylvania, has earned two international Incubator of the Year awards. We have deep experience and are national leaders in business incubation.

The reduced operating costs of starting a company in a business incubator are typically what draw early-stage companies to us. But the business development assistance and sharing of best practices among tenants are often even more important. Business incubators provide vital support to entrepreneurs and early-stage firms at their most vulnerable times and are often pivotal to their survival and prosperity.

In the early 1990s, Ben Franklin Northeast developed the Ben Franklin Business Incubator Network. The network brings together incubator managers in northeastern Pennsylvania to exchange ideas and information, work collaboratively, and share best practices. Through this network, we leverage our incubator experience throughout northeastern Pennsylvania.



The Ben Franklin Business Incubator Network is 14 members strong and one of the largest of its kind in the nation. Members of the Incubator Network fuel innovation, accelerate the regional technology economy, and create the high-value jobs of the future.

BEN FRANKLIN BUSINESS INCUBATOR NETWORK MEMBERS

BEN FRANKLIN TECHVENTURES, *Bethlehem*
nep.benfranklin.org/techventures

BLOOMSBURG REGIONAL TECHNOLOGY CENTER, *Bloomsburg*
nep.benfranklin.org/bloomsburg

BRIDGEWORKS ENTERPRISE CENTER – ALLENTOWN ECONOMIC DEVELOPMENT CORPORATION, *Allentown*
allentownedc.com/bridgeworks

CAN BE INNOVATION CENTER, *West Hazleton*
canbe.biz

CARBONDALE TECHNOLOGY TRANSFER CENTER, *Carbondale*
4cttc.org

EAST STROUDSBURG UNIVERSITY INNOVATION CENTER, *East Stroudsburg*
esu.edu/busaccelerator

INNOVATION CENTER @ WILKES-BARRE, *Wilkes-Barre*
wilkesbarreconnect.org

ALLAN P. KIRBY ENTERPRISE CENTER AT WILKES UNIVERSITY, *Wilkes-Barre*
wilkes.edu/kirby

O’PAKE INSTITUTE FOR ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP AT ALVERNIA UNIVERSITY, *Reading*
alvernia.edu/community-engagement/opake-institute

SCRANTON ENTERPRISE CENTER, *Scranton*
scrantonenterprisecenter.com

STARTUP DANVILLE – BUCKNELL UNIVERSITY ENTREPRENEUR’S INCUBATOR, *Danville*
driveindustry.com/startup-danville

STARTUP LEWISBURG – BUCKNELL UNIVERSITY ENTREPRENEUR’S INCUBATOR, *Lewisburg*
bucknell.edu/startuplewisburg

STOURBRIDGE PROJECT, *Honesdale*
stourbridgeproject.com

TEKRIDGE CENTER, *Jessup*
scrantonplan.com/real-estate/the-tekridge-center

CENTERS OF EXCELLENCE

College- and university-based Centers of Excellence allow the Ben Franklin Technology Partners of Northeastern Pennsylvania to leverage the capabilities of these schools to support our early-stage and established manufacturer clients. These centers inspire and nurture technologies that have commercial potential and allow manufacturers to succeed internationally by applying technology to competitive advantage.

- **Center for Photonics and Nanoelectronics**
Lehigh University, Bethlehem
- **Center for Supply Chain Research**
Lehigh University, Bethlehem
- **Emerging Technology Applications Center**
Northampton Community College, Bethlehem
- **Energy Research Center**
Lehigh University, Bethlehem
- **Enterprise Systems Center**
Lehigh University, Bethlehem
- **Allan P. Kirby Center for Free Enterprise and Entrepreneurship**
Wilkes University, Wilkes-Barre
- **O’Pake Institute for Economic Development and Entrepreneurship**
Alvernia University, Reading
- **Plastics Innovation and Resource Center**
Pennsylvania College of Technology, Williamsport

Ben Franklin Northeast frequently works with regional college and university Centers of Excellence to support clients and has invested in several of these centers when they were initially being developed.

iXCHANGE

The Ben Franklin Technology Partners of Northeastern Pennsylvania typically hosts more than 400 guests for our annual in-person iXchange, a premier business/technology event in northeastern Pennsylvania. The 2022 event was held on May 18, 2022, virtually due to the pandemic.

The 2022 iXchange theme was Innovators: Past, Present, and Future. It included the presentation of six innovation awards to early-stage technology companies, established manufacturers, and individuals who have helped Ben Franklin Northeast advance the technology economy of northeastern Pennsylvania.



Continued from previous page

THE MANUFACTURING ACHIEVEMENT AWARD

United Gilsonite Laboratories, Dunmore ugl.com

David Jolie, *Vice President of Manufacturing*

United Gilsonite Laboratories (UGL) combines the efficient manufacturing of high-quality, innovative products with attention to sustainability and worker safety as a leading manufacturer in the masonry care and repair and wood finishing products industry for commercial and residential applications. All products meet or go beyond green standards by exceeding VOC requirements, featuring low-odor and water-based cleanup formulas, and reducing/recycling waste, among others. The UGL product development team weighs human health and environmental impact heavily in new formulations.

UGL's brand of products includes DRYLOK®, America's No. 1- selling masonry paint, and ZAR® stains and finishes for interior and exterior wood care. All are high performing and popular among both professionals and do-it-yourselfers.

During the pandemic, the dramatic increase in home improvement projects substantially increased demand at UGL, while COVID concurrently created worker shortages. With the support of two BFTP Investments in partnership with Wilkes University, and astute execution by UGL leadership, the 140-employee firm successfully managed the challenge.

View the
2022 iXCHANGE VIDEO
by scanning the QR code
or by visiting our website.



THE ENTREPRENEURIAL ACHIEVEMENT AWARD

MXTR Automation, Williamsport mxtrautomation.com

Mickey Locey, *Co-founder, President*

Joe Mauro, *Co-founder, Director of Product Development*

MXTR Automation provides marketing automation and lead-management software solutions to multilocation organizations worldwide. Specializing in the manufacturing and franchise spaces, MXTR focuses on helping customers turn more leads into sales while maximizing the consumer experience. The company's cloud-based marketing platform enables users to develop lead-routing and lead-nurturing strategies that bring consistency to the consumer experience. The platform streamlines cumbersome, time-consuming processes with custom pre-programmed, automated lead-nurturing solutions, enabling enterprises to "syndicate" lead nurturing and customer engagement across their entire dealer or franchise network. The MXTR platform also tightens lead attribution down to the local market and provides roll-up reporting and first-party consumer data throughout the organization.

Ben Franklin Northeast invested \$100,000 in MXTR in 2018. Leveraging that investment, the firm raised \$1 million in venture capital follow-on funding. The company has increased its revenue year over year and engaged new trusted channel partners. The firm regularly hires graduates from nearby Pennsylvania College of Technology and Lycoming College. Even during the pandemic, MXTR grew revenue and increased staff last year. Starting with three workers, MXTR now employs 18 and is growing.

THE FREDERICK J. BESTE III PARTNERSHIP AWARD

Pete Molinaro, CEO and Chairman,
Adhezion Biomedical, LLC, Wyomissing

In every aspect of his 18-year relationship with Ben Franklin Northeast, Pete Molinaro has been a productive, ardent, and generous resource. He served on the Ben Franklin Northeast board since 2003 and helped form, hosted, and presented to Ben Franklin Northeast's Greater Reading Medical Device Group, which seeks to build a synergy in Berks County to grow this lucrative sector.

With both entrepreneurial and corporate experience, Molinaro brings deep experience in medical devices and biotechnology, having led Surgical Specialties Corporation and Adhezion Biomedical, both of Reading. He selflessly volunteers his time, energy, and expertise to advise and guide Ben Franklin Northeast clients and other entrepreneurs and supports Ben Franklin Northeast's due diligence with prospective clients.

He has served as the Ben Franklin Northeast representative on the Greater Reading Economic Partnership Steering Committee, on the boards of Tower Health and Greater Reading Chamber Alliance, and on a variety of boards and committees with Alvernia and Penn State universities and Albright College. A selfless leader in the Berks County innovation ecosystem, Molinaro demonstrates a sincere desire to see the region thrive and continuously embodies the spirit of partnership.

THE INNOVATIVE APPLICATION OF TECHNOLOGY AWARD

Tower Products, Inc., Easton towerproducts.com

Rick Principato, *CEO*

Tower Products distinguishes itself by manufacturing offset and flexographic pressroom chemistry products that are both environmentally sensitive and cost competitive. The company is the recognized industry leader in supplying printers with pressroom chemistry aimed at increasing worker safety, improving the printing process, and being environmentally compliant. From low emissions washes to world-class fountain solution technology, Tower Products manufactures a complete line to meet multiple printing requirements.

Ben Franklin Northeast invested four times in the firm to select and implement an Enterprise Resource Planning (ERP) system in partnership with Lehigh University's Enterprise Systems Center and Center for Supply Chain Research.

The ERP system allowed Tower Products

to improve its manufacturing processes and the data and information flow, reduce manufacturing costs, and enhance customer services/sales processes to better serve existing clients and attract new ones worldwide. Further, ERP improvements helped the company add new offerings to its product line and facilitate growth.

**IN 2023,
BEN FRANKLIN
NORTHEAST WILL
REIMAGINE OUR
SPECIAL EVENTS.**

We'll combine elements of iXchange and Venture Idol into one signature event and introduce exciting new regional events as well.

DETAILS TO COME!

Continued

Continued from previous page

THE R. CHADWICK PAUL, JR. INCUBATOR GRADUATE AWARD

US Specialty Formulations, LLC, Bethlehem USSFGMP.com

Dr. Kyle Flanigan, *Founder and CEO*

Millions of Americans require specialized and custom-manufactured drugs, and the current infrastructure is insufficient to support their therapies. US Specialty Formulations (USSF) manufactures sterile injectable pharmaceuticals used by healthcare providers. These specially prepared drugs are U.S. Food & Drug Administration (FDA)-approved medications combined with other approved substances in order to avoid allergenic issues for patients, adjust dosages, and/or change the form of medication for optimum effect.

USSF, in conjunction with Ben Franklin Northeast client Vaxform, LLC, is developing an oral COVID-19 vaccine that will allow greater worldwide vaccine access and possibly protect patients better than injections. USSF currently employs 21 and plans more hiring. The company launched and located its first clean room in Ben Franklin TechVentures in 2014, received two BFTP Investments totaling \$150,000, and then graduated from the incubator and purchased a 41,000-square-foot building in Allentown to scale manufacturing.

THE PRODUCT INNOVATION AWARD

American Paper Bag, Sugar Notch americanpaperbag.com

Ian Robson, *Founder*

Retail paper bags have not been updated in more than 100 years. American Paper Bag (APB) is revolutionizing how paper shopping bags and mailers are manufactured, while providing unmatched customization options. The company's new bags offer greater strength, reduce storage space by more than 50%, are far more efficient and produce less carbon emissions to manufacture, and use less raw materials – and the raw materials are ethically sourced.

In 2016, Ben Franklin Northeast teamed with the Greater Wyoming Valley Chamber and the Governor's Action Team to attract APB's founder to start his company in northeastern Pennsylvania. They were successful. Ben Franklin Northeast provided seed funding, which the company leveraged to raise more than \$7 million in follow-on funding. Today, American Paper Bag occupies 100,000 square feet, with plans to double capacity over the next two years. The firm employs 45+ Pennsylvanians and has a customer roster including Walmart, Amazon, GoPuff, and Eatly.

After the award presentations, concurrent live chat rooms provided guests with an opportunity to talk with innovators past, present, and future. Three Ben Franklin Northeast clients, including two former innovation award winners, hosted each separate chat room:

Jeff Teschke, *Founder and CEO, Forge3, Ltd., Bethlehem*

George Boyajian, *CEO*, and **David Schmidt**, *CFO, Mussel Polymers, Inc., Ben Franklin TechVentures, Bethlehem*

Chris Ciesielka, *CEO*, and **Tony Powell**, *CTO, Orbweaver Sourcing, LLC, Bethlehem*

RETURN ON INVESTMENT

Ben Franklin Northeast is part of a four-center statewide network that serves all of Pennsylvania. The Pennsylvania Department of Community and Economic Development, which funds and oversees Ben Franklin Technology Partners statewide, has earned international acclaim for the success of the Ben Franklin Technology Partners program in creating and retaining highly paid, sustainable technology-based jobs throughout the Commonwealth.

For more than 4 decades,
**BEN FRANKLIN
NORTHEAST**
has delivered outstanding
results, earning recognition
as the international gold
standard in technology-based
economic development.

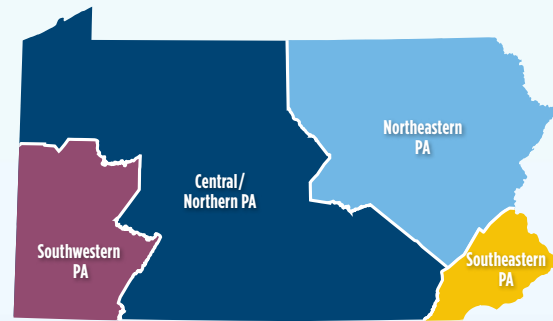
STATEWIDE IMPACTS

Ben Franklin Northeast's investments paid huge dividends to the Commonwealth as the state continued to rebound from the pandemic, according to the Ben Franklin Technology Partners network's 2021 Annual Statewide Impact Report, with clients statewide generating more than \$2 billion in revenue and securing \$917 million in post-Ben Franklin financing.

The statewide Ben Franklin network also supported 1,647 companies and helped clients create nearly 2,438 jobs while retaining 12,923 more positions, the report found. Ben Franklin Northeast clients continued to drive Pennsylvania's economy with innovation and entrepreneurial efforts, developing 158 software copyrights and patents and launching 380 new products and processes.

This latest report reinforces our leadership position as one of the most widely known and emulated state technology-based economic development programs in the nation.

The full report is available online at BenFranklinImpact.com.



NORTHEASTERN PENNSYLVANIA IMPACTS & FINANCIALS

The Ben Franklin Technology Partners of Northeastern Pennsylvania surveys its client companies on the economic impacts that they accomplish as a direct result of our investments. Ben Franklin Northeast reports these figures to the Pennsylvania Department of Community and Economic Development.

| | 2021 | CUMULATIVE (since 1983) |
|--------------------------------------|----------------|----------------------------|
| NEW JOBS CREATED | 952 | 20,688 |
| EXISTING JOBS RETAINED | 6,404 | 56,268 |
| NEW COMPANIES STARTED | 4 | 535 |
| NEW PRODUCTS AND PROCESSES DEVELOPED | 160 | 2,456 (since 2007) |
| COMPANIES ASSISTED | 387 | 4,500 |
| FOLLOW-ON FUNDING | \$59.2 million | \$1.715 billion |

Since beginning operations in 1983, the Ben Franklin Technology Partners of Northeastern Pennsylvania has typically been among the top 5% of the most active investors in the U.S.

FISCAL YEAR 2021-22 REVENUE SOURCE

\$3.5 million

Pennsylvania Department of Community and Economic Development Challenge Grant



BOARDS AND COUNCILS

BOARD OF DIRECTORS

Jan S. Heller *◆■

Board Chair
President, Golf Championships, LLC

Ronald L. Bauer *

Retired
Bosch Rexroth Corp.

Glen R. Bressner \$

Managing Partner
Activate Venture Partners

Phillip P. Crowley, Esq. \$

Founder and Managing Partner
Crowley Law, LLC

Patrick W. Gaynor, PE

Senior Structural Engineer
Tunstall Engineering Group, LLC

Kenneth P. Guito *\$

Chief Operating Officer
Biologics Consulting, Inc.

Jacqueline A. Hollenbach

Vice President, Research and
Development – Vascular Access
Teleflex, Inc.

Patricia A. Johnson *◆\$

Board Finance Committee Chair
Vice President for Finance
and Administration
Lehigh University

Barbara T. Lampe *◆■

Board Vice Chair
Retired

Peter Molinaro, Jr.

Chairman and Chief Executive Officer
Adhezion Biomedical, LLC

Jill A. Murray, Ph.D. \$

President
Lackawanna College

Robert A. Oster, CPA ◆

Retired CEO
Concannon, Miller & Co., PC

R. Chadwick Paul, Jr. *■\$

Special Advisor to the CEO
Ben Franklin Technology Partners
of Northeastern PA

Alan J. Snyder, Ph.D. *

VP and Associate Provost for Research
and Graduate Studies
Lehigh University

Nathan Urban, Ph.D.*

Senior Vice President for
Academic Affairs and Provost
Lehigh University

Angelo Valletta *◆■\$

President and Chief Executive Officer
Ben Franklin Technology Partners
of Northeastern Pennsylvania

REGIONAL INNOVATION LEADERSHIP COUNCILS

LEHIGH VALLEY INNOVATION LEADERSHIP COUNCIL

Phillips Armstrong

Lehigh County Executive

Therese Beck

Director
Employee Experience
Olympus Corporation of the Americas

Raja Bhattacharya

Director
Center for Innovation and
Entrepreneurship
Northampton Community College

Michelle Bisbing

Director of Marketing
Pocono Mountain Economic
Development Corporation

The Honorable Lisa Boscola

State Senator

Patrick Clasen

President
EcoTech Marine, Inc.

Joe Correia

Project Executive
JG Petrucci Company, Inc.

Don Cunningham

President & CEO
Lehigh Valley Economic
Development Corporation

Arthur Dorn

Lehigh Valley Market President
Truist

Dr. Kyle Flanigan

Co-founder and CEO
US Specialty Formulations, LLC

The Honorable Robert L. Freeman

State Representative

Dee Gillette-Spencer

President and CEO
D. Gillette Industrial Services, Inc.

Laurie G. Hackett

Philanthropy and Community Relations
Air Products

Tina I. Hamilton

CEO
myHR Partner, Inc.

Tony Iannelli

CEO and President
Greater Lehigh Valley Chamber
of Commerce

The Honorable Sharon S. Laverdure

Chairman of the Board of
Commissioners – Monroe County

The Honorable Ryan Mackenzie

State Representative

The Honorable Zach Mako

State Representative

The Honorable Lamont G. McClure

Northampton County Executive

The Honorable Salvatore J. Panto, Jr.

Mayor of Easton

J.B. Reilly

President
City Center Investment Corporation

The Honorable J. William Reynolds

Mayor of Bethlehem

Thomas J. Rushton

Executive Director
Lehigh Career and
Technical Institute

Joseph Tracy

Vice President
Lehigh Valley Health Network

The Honorable Matthew A. Tuerk

Mayor of Allentown

Jeff Tyber

CEO, President, Board Member
Tyber Medical, LLC

Nathan Urban, Ph.D.

Provost
Lehigh University

Alice Wanamaker

Senior Vice President
Carbon Chamber & Economic
Development Corporation

Robert Wax, Esq.

General Counsel, Senior Vice President
Legal Services
St. Luke's University Health Network

Kerry Wrobel

President
Lehigh Valley Industrial Park

Susan Yee

Founder
Active Data, Inc.

POCONO/NORTHEAST INNOVATION LEADERSHIP COUNCIL

John L. Augustine

President
Penn's Northeast

Kristine L. Augustine

Vice President
Scranton Chamber of Commerce

The Honorable Elisabeth J. Baker

State Senator

Jeffrey K. Box

President/CEO
Northeastern Pennsylvania Alliance

Austin J. Burke

AustinBurkeArt

The Honorable Matthew A. Cartwright

U.S. Congressman

Eric J. Esoda

Executive Director
NEPIRC

Andy Goldberg

Co-founder
Signallamp Health

Lindsay Griffin-Boylan

CEO
Greater Wilkes-Barre Chamber
of Commerce

Kristopher B. Jones

Founder & CEO
KBJ Capital Group

Deborah A. Kolsovsky

Regional Manager, Wealth
Management
PNC Bank

Joseph Lettiere

President
CAN DO, Inc.

Michael McHale

President and CEO
Production Systems Automation

The Honorable Kyle Mullins

State Representative

Jill Murray, Ph.D.

Regional Advisory Board Chair
President
Lackawanna College

John Pullo

President
Keystone College

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

Continued

* Executive Committee ◆ Finance Committee ■ Nominating Committee \$ Investment Advisory Group

Continued from previous page

Michael Sullivan
Executive Director
Pike County Economic Development
Authority

Donald A. Webster
President
TecBridge

Mary Beth Wood
Executive Director
Wayne County Economic Development

READING AND GREATER BERKS INNOVATION LEADERSHIP COUNCIL

Karen A. Campbell, Ph.D.
Acting Provost and VP
of Academic Affairs
Albright College

Anne Carroll, Ph.D.
Dean, College of Business
Kutztown University of
Pennsylvania

Heather A. Chandler
President
Sealstrip Corporation

Michael Duddy
Project Manager
WORLD electronics

Daniel W. Fogarty
Chief Operating Officer
Berks County Workforce
Development Board

Saskia Foley
CEO and President
RADIUS Corporation

Ben Gable
President
Misco Products Corporation

Jacqueline A. Hollenbach
Vice President, Research and
Development – Vascular Access
Teleflex, Inc.

Naoise Irwin
CEO
Solarflux Energy Technologies, Inc.

Chad M. Johnson
Senior VP, Commercial Banking
Customers Bank

Erica L. Kunkel
Interim Director – Continuing
Education

The Pennsylvania State University,
Berks Campus

Susan D. Looney, D.Ed.
President
Reading Area Community College

Joe Malda
Consultant, Economic Development
First Energy

Jennifer Mikovich
VP of Operations, Americas
Silberline Manufacturing Co., Inc.

Debra L. Millman, Esq.
President
Greater Berks Development Fund
Greater Reading Chamber Alliance

Peter Molinaro, Jr.
Regional Advisory Board Chairman
Chairman and Chief Executive
Officer

Adhezion Biomedical, LLC

Brian Noecker
Learning and Development Manager
East Penn Manufacturing Company

John Perate
VP, Corporate Banking Team Leader
M&T Bank

Bud Reitnouer
Owner/CEO
Reitnouer Industries

Rodney S. Ridley, Sr., Ph.D.
Vice President, Associate Provost,
and Chief Operating Officer
O'Pake Institute for Economic
Development & Entrepreneurship
Alvernia University

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Among the greatest assets of the Ben Franklin Technology Partners of Northeastern Pennsylvania is its network of skilled, dedicated, and generous individuals who have contributed their time and talents toward helping us achieve our economic development mission. Although space prevents us from listing all of these people, we are deeply grateful for their work. We thank technical and business reviewers, college and university staff, consultants, service providers, community and state leaders, many entrepreneurs and company leaders from throughout northeastern Pennsylvania, and our other partners. With their support and guidance, the results of our investments and efforts have been numerous.



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