

A MESSAGE FROM THE PRESIDENT AND CEO



For nearly 15 years, I've had the privilege of leading the largest early-stage investor group in the region, Ben Franklin Technology PArtners of Central & Northern PA. During my tenure, I've had the opportunity to meet first-hand hundreds of tech entrepreneurs who not only call our region home, but also have chosen to start their businesses right here. We all know that our 32-county region in PA has a much lower cost of living compared to the cities on either coast, commute times that can be measured in

minutes and not hours, weather patterns that rarely rise to the level of an emergency, and a workforce that has been educated and trained at some of the best colleges and universities in the country.

But, we have something else. Regardless of the region you visit in our footprint, you will likely find co-working spaces, small business development centers, accelerator programs, incubators, investors, lenders, business mentors, and cutting edge university research and entrepreneurial programs. It's no wonder that this past year, nine innovative startup companies, including five members of Ben Franklin's portfolio, had the opportunity to showcase their company's technology during Revolution Venture's RISE OF THE REST® Pitch Competition with AOL founder Steve Case and a panel of all-star judges. The winner, Madris Tomes with Device Events in York County, has been part of the Ben Franklin family since last July.

The Rise of the Rest competition was a great opportunity for not only the entrepreneurs who participated, but also for others in the region who now understand what we have right here in Pennsylvania. The old adage, "We are better together", has never been more true. The individual parts of our central and northern PA ecosystems that support entrepreneurs across our footprint are turning into a cohesive economic engine – the sound of which can be heard all the way to either coast.



Snapshot of the Center's Impact:

- 360 Jobs Created
- 1,117 Jobs Retained
- 463 Companies Assisted
- 32 Companies Funded
- \$441,058,807 in Revenue Generated
- 63 New Products Developed
- 22 New Processes Created
- 30 Patents Awarded
- \$122,428,833 in Follow-on Funding Generated

Ben Franklin Made Investments in the Following Companies in 2018:

Company	County
Atoptix, Inc.	Centre
Benefix	Lancaster
Chartlytics, LLC	Centre
ConidioTec LLC	Centre
CRIMEWATCH Technologies, Inc.	Cumberland
Data Inventions, Inc.	Erie
eLoop LLC	Centre
Erie Artificial Intelligence	Erie
Global Software Applications, LLC	Centre
Helpified LLC	McKean
InnoH2O Solutions, LLC	Somerset
Institute on HealthCare Directives/	
Video Directives	Erie
Lojic LLC	Crawford
MakerPlace Inc.	Erie
Mangrove Jack Marine USA, Inc.	Mercer
MBT Consulting d/b/a Device Events	York
Ocunova	Dauphin
Olympus Advanced Technology, LLC	Erie
Olympus Advanced Technology, LLC Persea Naturals LLC	Erie Centre
Persea Naturals LLC	Centre
Persea Naturals LLC Phospholutions, LLC	Centre Centre
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC	Centre Centre Cumberland
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies	Centre Centre Cumberland Lancaster
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc.	Centre Centre Cumberland Lancaster Cumberland
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc.	Centre Centre Cumberland Lancaster Cumberland Adams
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc. Site Twenty Ten, LLC	Centre Centre Cumberland Lancaster Cumberland Adams Centre
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc. Site Twenty Ten, LLC SoftGenetics, LLC	Centre Centre Cumberland Lancaster Cumberland Adams Centre Centre
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc. Site Twenty Ten, LLC SoftGenetics, LLC Sustainable Composites, LLC	Centre Centre Cumberland Lancaster Cumberland Adams Centre Centre Lancaster
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc. Site Twenty Ten, LLC SoftGenetics, LLC Sustainable Composites, LLC TEAMology LLC	Centre Centre Cumberland Lancaster Cumberland Adams Centre Centre Lancaster Franklin
Persea Naturals LLC Phospholutions, LLC PledgePlatform LLC Reflexion Interactive Technologies Return Logic Inc. SAY Plastics, Inc. Site Twenty Ten, LLC SoftGenetics, LLC Sustainable Composites, LLC TEAMology LLC TZero Research & Development, LLC	Centre Centre Cumberland Lancaster Cumberland Adams Centre Centre Lancaster Franklin Blair



COMPANY SPOTLIGHT

The largest early-stage funding program in our region, Ben Franklin Technology PArtners is likely to be the first institutional investor that most tech entrepreneurs and small manufacturers meet when they begin to look for outside investment. Our program, which is a long-standing partnership between the Commonwealth, Penn State University, and the private sector, has been providing capital and business support services for more than 35 years.

Ben Franklin's investment portfolio is as diverse as the demographic make-up of the 32 counties we support. Comprised of emerging tech companies that represent a wide range of markets and sectors, we help those who are developing a new product, process, or software application get from StartUP to UP and running. Below is a snapshot of just a few companies that received funding in 2018.



Located in Lancaster, BeneFix has been in business since 2016 and currently has 11 employees. Ben Franklin's recent investment in the company will help them market a platform

that automates and simplifies the complex process used by brokers to sell and enroll benefit products on line. Much of the health insurance industry remains largely paper-driven. By offering a digital portal to manage small group benefits, agents can run quotes in a matter of minutes instead of days. BeneFix guarantees 100% accuracy, efficiency, and increased ROI. BeneFix is a one-stop-shop that empowers the broker with information,



simplifies a complex process, and offers a modern marketplace to sell products. By automating an old paper process, brokers now have a way to manage, enroll, and bill small groups from any device. Visit www.benefix.us



Institute on Health Care Directives/ Video Directives, located in Erie,

developed the MIDEO™ card which contains an embedded video recording of a patient's medical history and final wishes. This allows an attending physician or the emergency personnel,

who don't know the patient, to immediately understand what needs to be done without the guesswork associated with paper documents. Patient-safety expert, Dr. Ferdinando Mirarchi developed MIDEO (My Informed Decisions on Video) in response to the often



unrecognized risk faced by those who have been advised to create a living will document. Often, living wills are misinterpreted as Do Not Resuscitate orders resulting in tragic errors that impact thousands of lives every year. Visit www.mideocard.com



Phospholutions LLC, located in State College was founded in April 2016 and is a recent winner of the BF BIG IDEA contest.

The company has commercialized two

patents researched for more than 15 years by the Plant Sciences Department at Penn State University which are effectively disrupting the \$32 billion fertilizer industry. The technology is a granular soil amendment used to soak up and control the release of



fertilizer over time. Current methods of fertilization tend to be expensive, inefficient, and can pollute surrounding waterways. The product only releases nutrients based on plant demands, meaning up to 98% of the fertilizer applied will remain in the soil until plant uptake occurs. Visit www.phospholutions.com



COMPANY SPOTLIGHT



SAY Plastics, located in Adams

County, is an ISO-certified producer of thermoformed plastic components and assemblies. The company's SAYtooling System effectively re-engineers metal and fiber reinforced plastic parts (FRP), providing a thermoformed, recyclable



plastic design that delivers cost savings, sustainability, and quality products. SAY Plastics' thermoformed protective coverings provide a solution needed for parts and

assemblies during the manufacturing process. In addition, these protective coverings reduce damages caused during the material handling and delivery process. Their solution avoids rework and high replacement costs associated with the manufacturing process. SAY Plastics serves the automotive, rail, bus, and medical equipment industries and currently has 22 employees. Visit www.sayplastics.com



Located in State College, SoftGenetics, LLC is a long-time Ben Franklin alum-company. Currently employing

18 highly skilled workers, the company recently re-applied to Ben Franklin for funding that would allow them to offer a new process referred to as Mitochondrial DNA analysis for forensics and research. Using DNA specimens, particularly from hair and bone samples, this new analysis service allows the company to help identify crime perpetrators, missing persons, and mass disaster victims even from cold cases, as only an extremely small evidence sample is needed. While many forensic DNA Labs



are equipped for the analysis of genomic DNA fragments, most laboratories do not have the resources to perform the specialized methods required to obtain routine mtDNA data or mtDNA from degraded or minute (millimeter sample size) hair/bone samples. Visit www.softgenetics.com



Wrivo, located in Cambria, developed Wristocat, a "Hand's Best Friend". This modern computer support product with patented magnetic technology supports every movement, while it reduces friction and resistance, thus making it easier, more natural, and less taxing to move your hand.



Wrist pain developing from chronic use of computers has become a global epidemic. Professional users and gamers operate for long durations which leads to fatigue,

discomfort, repetitive stress and suboptimal performance. Emerging technologies in VR and gaming have increased the emphasis on gesture input which is often hampered by existing products. The company has already made thousands of shipments and has roughly 10,000 units in circulation in part through a highly successful crowdfunding effort. QVC has committed to scheduling a 2,500 unit test appearance of the product. Visit www.wristocat.com



INNOVATION SPOTLIGHT

Ben Franklin's portfolio companies represent a wide array of tech sectors and are in varying stages of business development. While many have grown to be recognized leaders in their industry, some, with the help and support of Ben Franklin, disrupted current technologies right out of the gate:



Sphere Brakes, LLC created and patented two new brake technologies, the air sphere service brake and the sphere brake driveline

retarder. These systems directly compete with air disc brakes, air drum brakes and electromechanical brake retarders in size, weight and performance. The company is focused on optimizing this sphere brake technology by aligning with strategic partners in the commercial vehicle and Department of Defense industries. This year, two other important partners included the BF Transformation Business Services Network and the Innovation Partnership. The Transformation's Team provided a variety of valuable resources to Sphere Brakes in 2017 including



business planning, negotiating due diligence, HR & financial management, strategic planning, and leadership coaching. The Innovation Partnership (www.innovationpartnership.net), which is housed in Ben Franklin's South Central office location, was instrumental in helping review the company's SBIR application draft and also put the company in touch with a highly successful reviewer. Because of these combined efforts, the company was awarded a Phase 1 SBIR contract. Ben Franklin was also able to help the company perform critical track testing at Larson Transportation Institute in Bellefonte, PA. The results of the demos to commercial, industrial, and government entities will lead to potential commercial relationships in the coming year. Visit www.spherebrakes.com



Nearly 20 years ago, Ben Franklin made its first investment in **Salimetrics**. Located in State College, the company, which develops and markets saliva

testing products and services, is widely regarded as a global leader in salivary bioscience and assay technology. Saliva testing, which has gained visibility over the past ten years, is preferable to other types of biomarker testing like blood and urine because it's easier for researchers to use while being minimally invasive and pain-free for research subjects. Salimetrics' collection methods and ELISA kits measure stress biomarkers such as cortisol, protein, melatonin, etc. while providing researchers with reliable, consistent results. Considered to be the pioneer in



the development of salivary assays and innovative salivary assay tools, testing services and analysis, the company collaborates with researchers and diagnostic laboratories studying genetic and hormone markers affecting health, behavior and development. Their customers include anthropologists, sociologists, developmental psychologists, behavioral scientists, developmental psychopathologists, oral biologists and veterinarians - all from universities, government organizations and private sector analytical laboratories in 40 countries, including the United States, Canada, UK, Europe, Australia, New Zealand and Japan. Salimetrics invests rigorously in research and development and as of 2017 had 29 employees. Visit www.salimetrics.com







ENTREPRENEURIAL SUPPORT PROGRAMS

Ben Franklin makes investments, not only in the technologies developed by our portfolio clients, but also in innovative entrepreneurial development programs that help mentor and support our funded companies. Programs such as our Transformation Business Services Network, TechCelerator Startup Accelerators, Venture Investment Forum, BIG IDEA Contests, and the eMarketing Learning Center all provide important training and resources that allow an early stage company to grow to the next level.

Transformation Business Services Network

Ben Franklin's team of ten seasoned business professionals offers no-cost, hands-on assistance to companies in our portfolio. Many of the startups we work with discover that the support of these subject matter experts is just as valuable, if not more so, than the actual funding they have received. On an annual basis, the team spends more than 10,000 hours providing one-on-one support on topics related to marketing research, strategic planning, sales strategies, financial management and accounting practices, human resource planning, office set up, and advertising. In addition, the members of the Transformation's team are the primary source of support to those emerging entrepreneurs who are chosen to participate in the BF TechCelerator Program.



Tech entrepreneurs who participate in the Business Startup Accelerators, offered by the BF Tech*Celerators*, are more likely to make an educated

decision on how to move forward with their business concept. Successful participants can receive stipends to assist with initial legal and accounting expenses and have the opportunity at "graduation" to pitch their business concepts to a panel of local professionals with the possibility of winning prizes totaling \$10,000. With initial locations in State College and Carlisle/Harrisburg, since the program's inception, the results have been exciting:

- More than 100 startups
- 220 jobs created
- \$2.5 million invested

Twenty of the new companies, many of which were formed based on technology developed at Penn State University, received a Ben Franklin investment. Recently the program in Harrisburg was recognized by the United States Small Business Administration as a winner of the SBA's Growth Accelerator Fund Competition.



This year, as part of the Startup Alleghenies initiative, a location in Altoona, PA, was added with an eight-week session held at Catalyst Space. Six entrepreneurs from the region made their "graduation pitches" and completed the program on March 13, 2018. Tony Biddle with Site Rite and Ben Hutchinson with Your Reptile Company shared the \$10,000 cash prize awarded by the judges.



Tony Biddle with Site Rite



Ben Hutchinson with Your Reptile Company

On March 29, 2018, with funding support from the BB&T Economic Growth Fund at the Lancaster County Community Foundation, Ben Franklin and the Candy Factory coworking community announced a new partnership.



The BF TechCelerator@TheCandyFactory will provide a one-stop-shop for emerging tech-entrepreneurs that offers business mentoring, tech-startup training, professional services, and funding opportunities - all housed at one convenient location on North Queen Street in Lancaster.

ENTREPRENEURIAL SUPPORT PROGRAMS

Venture Investment Forum (VIF)

The BF Venture Investment
Forum is the training arm of the
Ben Franklin Program providing
the opportunity for high-growth
portfolio companies to learn
how to identify potential
investors and make successful
pitches for follow on funding.



Courses offered by VIF include: Presentation Style; How to Make a Successful Pitch; Sustaining Company Growth; Marketing Your Crowdfunding Campaign; and Cash Management to name just a few.



In addition, VIF is home to the training programs developed by the eMarketing Learning Center which provides webinars and live seminars on all aspects of digital sales, marketing, and e-commerce

techniques. Recent events included topics such as: Search Engine Optimization (SEO); How to Create a Successful e-Commerce Site; Understanding Google Analytics; Social Media Advertising; Introduction to Blogging; and Creating Website Content. Visit www.emarketinglearningcenter.org



Also included under the umbrella of VIF is the annual BIG IDEA Contest. This year, to help kick off the Startup Alleghenies initiative, the BIG IDEA contest targeted the counties located in the

Southern Alleghenies and Central counties of our footprint. More than 2,000 people visited the landing page to check out the four prize packages. At an event at the Bottle Works in Johnstown in early November, ten finalists made their business pitches to a team of local judges.

- First Place (\$25,000) was awarded to Hunter Swisher and his company, Phospholutions. For more information, visit www.phospholutions.com
- Second Place (\$15,000) was awarded to Heather Moyer and her company, Crossroads Consulting. For more information, visit www.crossroadsconsulting.com
- Third Place (\$7,500) and also the "People's Choice Award" (\$2,500) went to Mark Kasterko with MT Arms.
 Visit www.MTArmsllc.com



RISE OF THE REST® Pitch Competition

Nine of the most innovative startup companies in Central Pennsylvania, including five members of Ben Franklin's portfolio, had the opportunity to showcase their company's technology during Revolution Venture's RISE OF THE REST® Pitch Competition with AOL founder Steve Case and a panel of all-star judges. Revolution recognizes that high-growth potential companies that are attractive to venture capitalists are often found outside of traditional coastal cities. This stop on their tour targeted the Central Pennsylvania cities of Harrisburg, Lancaster, and York. Madris Tomes, Founder and CEO of Device Events, a Ben Franklin portfolio company, won and received a personal investment from Mr. Case for \$100,000! The company offers a web-based software platform that presents publicly available FDA data on medical device performance in a user-friendly tool. Visit www.riseoftherest.org



The 1855 Capital Fund, which was created with the support of Ben Franklin, is a capital fund that invests in companies with an affinity to Penn State University, including University Park, Hershey Medical Center, all the Commonwealth campuses, and Penn State alumni throughout the United States. 1855 Capital looks for potential growth companies – many of whom may have already received an investment from Ben Franklin, in the Information Technology, Advance Materials, Fintech, Edtech, and Healthcare/Medical Devices sectors. This initiative is intended to spur economic growth, job creation, and student success, but also provides Ben Franklin alumni companies with another source of investment capital. Visit www.1855.capital.com

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