



PennState



CICEP

INNOVATION AND ECONOMIC PROSPERITY UNIVERSITIES  
AWARDS PROGRAM

CASE  
STUDY  
2015

IEP CATEGORY • INNOVATION

***TechCelerator***

The *TechCelerator* is a pre-accelerator designed to allow technologists and researchers to explore entrepreneurship and commercialization pathways for technologies before they identified themselves as future business owners.

## INNOVATION

The *TechCelerator* has defined four steps in the commercialization process that are the sequential objectives of this project:

- 1) build outreach and awareness,
- 2) streamline and support technology transfer activities,
- 3) provide critical business support to innovative tech entrepreneurs, and
- 4) provide critical incubation and transformation services to the company to ensure that they are well established and become globally competitive.



*TechCelerator Class 2013 (Fall)*

The project enhances the entrepreneurial ecosystem by focusing or establishing services and programs to support *TechCelerator* efforts. The *TechCelerator* helps develop a strong entrepreneurial culture that will create a large, sustainable pipeline of startup activity in Centre County and the surrounding counties.

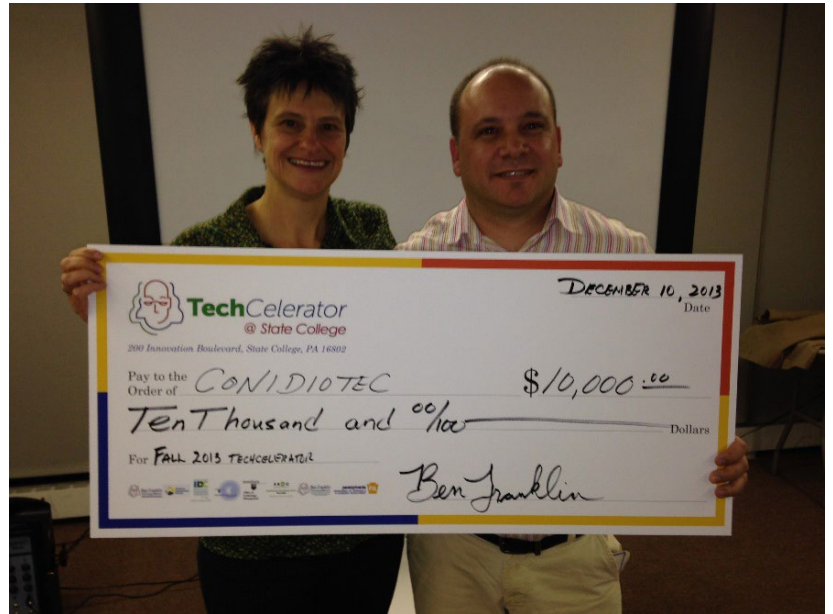
## IMPACT

The *TechCelerator* program produced concrete success stories in the very first year including the development of diagnostic tools, bio-pesticides, gene therapy, and innovative farming equipment. As a result of the company's participation in *The Ten-Week TechCelerator for Budding Entrepreneurs*, [Ascent Bio-Nano Technologies LLC](#) received a National Science Foundation STTR Phase One Grant for \$225,000 in 2014. They signed contracts with two industry partners for the development of a chip that produces three-dimensional focusing of a stream of cells, making it possible for inexpensive portable devices to rapidly screen cells for diseases such as leukemia or HIV. The company was featured in peer-reviewed publications including *Science Daily* and the *Journal of Physical Chemistry*.

A focused alignment of facilities, training, funding, and startup services resulted in the creation of greater startup opportunities, more jobs, increased research commercialization, tech-transfer, deal flow, and wealth generation for the community—all of which are concrete, measurable outcomes.

## TechCelerator Results to Date (3 years/7 classes/42 teams)

- Formed/forming 39 companies
- \$5.3 M start-up funding
- \$4.1 M revenue
- Eight incubator tenants, one affiliate member
- 99 full/PT employees
- 25 of 42 based on Penn State technology
- Ben Franklin has invested \$800K in 9 start-ups
- \$100k Vodafone contest winner
- Nokia Sensing X-Challenge finalist



## COULD IT EXIST WITHOUT THE UNIVERSITY?

The TechCelerator is a joint federal-state-university-regional-private project with many organizations providing services, support, and/or resources to the overall success, with the key project roles for managing this project being Penn State and Ben Franklin Technology Partners.

Penn State is the lead on the project, ensuring services and programs are delivered in a coordinated and timely fashion. Penn State SBDC staff supporting this project are Heather Fennessey, Director; Maria Spencer, SBDC Entrepreneurship Team Lead; and Laurie Linton, Educational Programming Coordinator. Key roles include co-managing the TechCelerator through the Penn State SBDC and providing IP support services through the Office of Technology Management. The University provides critical support, only available at large universities.

## BARRIERS

The picture of the counties that surround Centre County, Pennsylvania, the location of the TechCelerator, looks like any part of any state that is largely rural, but whose economy is closely linked to a more prosperous, urban area. Centre County hosts 53,407 jobs, with two-thirds of those jobs—35,570 jobs—filled by commuters from outside of the county. They are part of an ecosystem that is home to one of the largest research engines in the U.S., The Pennsylvania State University (Penn State).

Despite the advantage of the proximity to Penn State, tech startup activity and the creation of new high-paying jobs has been slow in central Pennsylvania. Relatively low unemployment figures do

not reflect all of those who were forced to take several part-time jobs or those who have exhausted their benefits. Median incomes for Centre County and all contiguous counties are below the national median income of \$53,046, ranging from \$38,671 in Mifflin County to \$49,706 in Centre County. Approximately 16,500 people remain unemployed, and 26% of those who are working make an annual salary of less than \$25,000.

As is true in many parts of the state, there has been an exodus of large, private-sector employers from the area. Of the top ten industry employers in 1999, only six are still in business. More than 400 jobs simply went away. Fifteen years ago, private industry represented 28% of the region's economy while as of 2012, it represented merely 7%. Aside from open positions at Penn State and Geisinger Health, the two current top online job postings by occupation are for truck drivers and retail sales.

### **WHY SHOULD PEOPLE CARE?**

The program conducted over the past three years has demonstrated that individuals and teams of individuals can be inspired and motivated to form companies around technologies. Those new companies can leverage the dollars necessary to answer market-defined questions. Technologists can speak with potential customers through the organized discovery process of the *TechCelerator* and development pathways can be established based on the interaction.

The surge in new companies formed out of the *TechCelerator* training events has illustrated several gaps in the service and resource continuum. With an organized intake and education system, a pipeline of entrepreneurs can emerge where few existed previously. The ecosystem must address the continuation of hands-on management assistance and mentoring with additional market analysis tools for very early technologies, and the communities' persistent lack of equity funding opportunities. The *TechCelerator* can help manage this.