

# The Ingenious Power of Partnership



invent  
PENN STATE

A Discussion with the Board of Trustees

November 12, 2021



PennState

# 2015: Identified Missed Opportunities and a Powerful Need

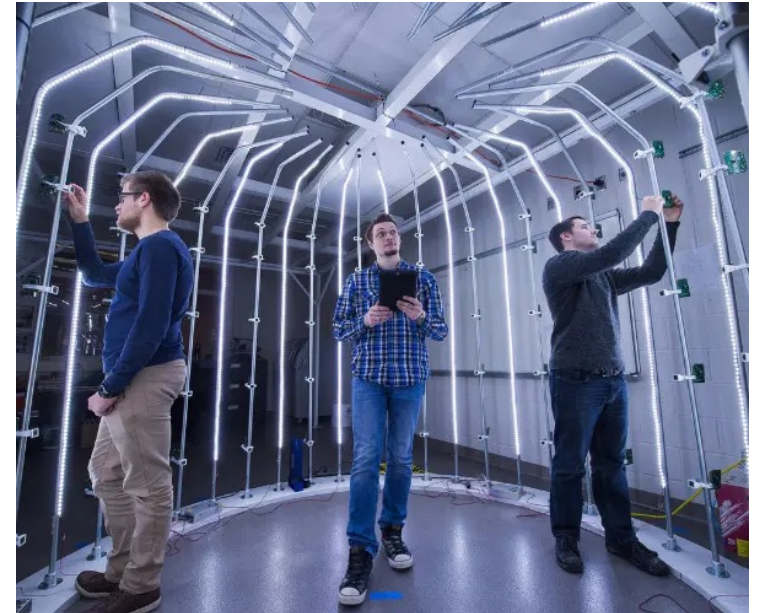
1. Based on Penn State's dominant research profile, we were underperforming in getting IP to the marketplace.
2. Penn State lacked the programming to support entrepreneurial students and alumni; they had to figure it out on their own.
3. Need to advance land-grant service to society mission by promoting economic development.



# In Response, We Founded Invent Penn State

- Created to “de-risk” business, help entrepreneurs hit the ground running, and increase their chances of success.
- Designed to do this from end-to-end by:
  1. Expanding educational opportunities;
  2. Creating a path to get ideas into the market through programs, including competitions;
  3. Recognizing faculty for entrepreneurial research;
  4. Giving community members access to assistance and support;
  5. Creating visibility for IP in locations outside of typical tech hubs;
  6. Developing the partnerships to make investment possible.

# Expanding Educational Opportunities





# Entrepreneurship Education Is Available Across Majors and Campuses

- Penn State has the most accessible entrepreneurship program in the world, with minors, bachelor's degree options, World Campus courses, and Commonwealth Campus Fellows programs.
- Over the last decade, 19,000 students from 169 majors have enrolled in at least one course offered in the Intercollege Minor in Entrepreneurship and Innovation.



# Corporate Innovation and Entrepreneurship (CIENT) Alumni Are the 2<sup>nd</sup> Highest Paid Graduates of Smeal

- CIENT was launched in 2015; Has grown 120% since 2018.
- Average full-time salary was ahead of all business majors except Actuarial Science.
- Program graduates are getting noticed by employers for their problem-solving skills, adaptability, and business acumen.

**\$69,750**  
Average  
Full-Time Salary\*

**\$6,300**  
Average  
Signing Bonus\*  
**56%**  
Received a Bonus



Johnson & Johnson

ORACLE



TOYOTA

Top Hiring Companies: Internships and Full-Time

# Example: Girls Code the World

- Girls Code the World is a nonprofit that provides resources, role models, and opportunities for girls ages 8 to 12 by offering STEM educational programming sessions and mentorship.
- Founder Sydney Gibbard is a third-year student majoring in biomedical engineering and pre-medicine.



*Please welcome Sydney Gibbard.*

gctw 



# About Me

**Name:** Sydney Gibbard

**Year:** Junior

**Major:** Biomedical Engineering



# *Girls Code the World*

is a nonprofit organization that provides opportunities, resources, and role models for young girls aged 8-12 primarily from **socio-economically disadvantaged or minority communities** in STEM-related fields through **educational programs and extended mentorships.**



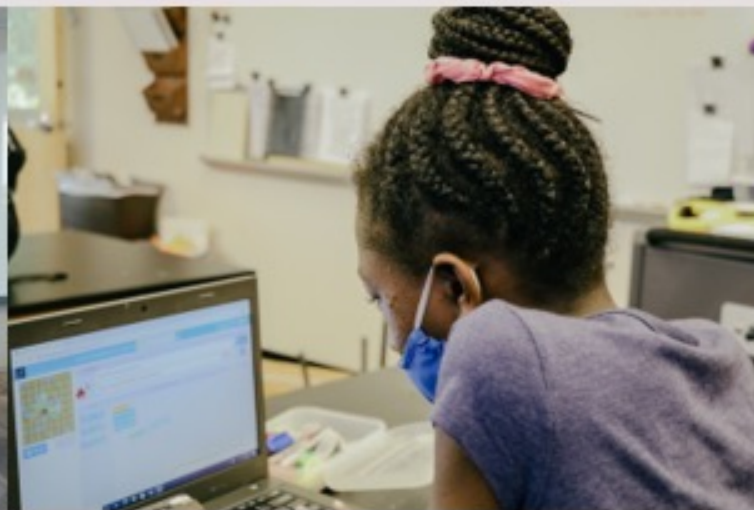
# Timeline

Started running programs in 2018 funded by outside donors.

Moved to college and struggled to find time and donors.

Participated in HVLB's Summer Founders Program.

Won Invent Penn State's Inc. U Competition.



# BY THE NUMBERS

- ▣ More than **\$40,000 raised** from donors including Johnson & Johnson, Drexel University, Invent Penn State, National Science Foundation, and more
- ▣ **100+ girls served** through educational programs or mentorships
- ▣ **10 high school student interns** who have worked for us
- ▣ Over **25 different lesson plans** spanning coding, biology, chemistry, engineering, technology, and more



# *Support from Invent Penn State*



# Example: Happy Valley VC

- Leo Girlando is president of Happy Valley VC and the Global China Connection Penn State Chapter, among other activities.
- One of the founding members of the inaugural blueStart Festival hosted in October 2021.
- Leo hails from Italy, Venezuela, and most recently, Panama; he will graduate in 2022 with majors in finance and Chinese.

*Please welcome Leo Girlando.*





# Creating a Path to Get Ideas Into the Market through Competitions



# University-wide Event Held Every Spring

- Began in 2012 as a College of IST event.
- In 2021, Startup Week was fully virtual due to the pandemic and included 85 online events with 8 colleges and campuses hosting events.
- It featured 122 entrepreneurs, speakers, moderators and judges, and 8 pitch competitions.
- It will return to an in-person event April 4-8, 2022.



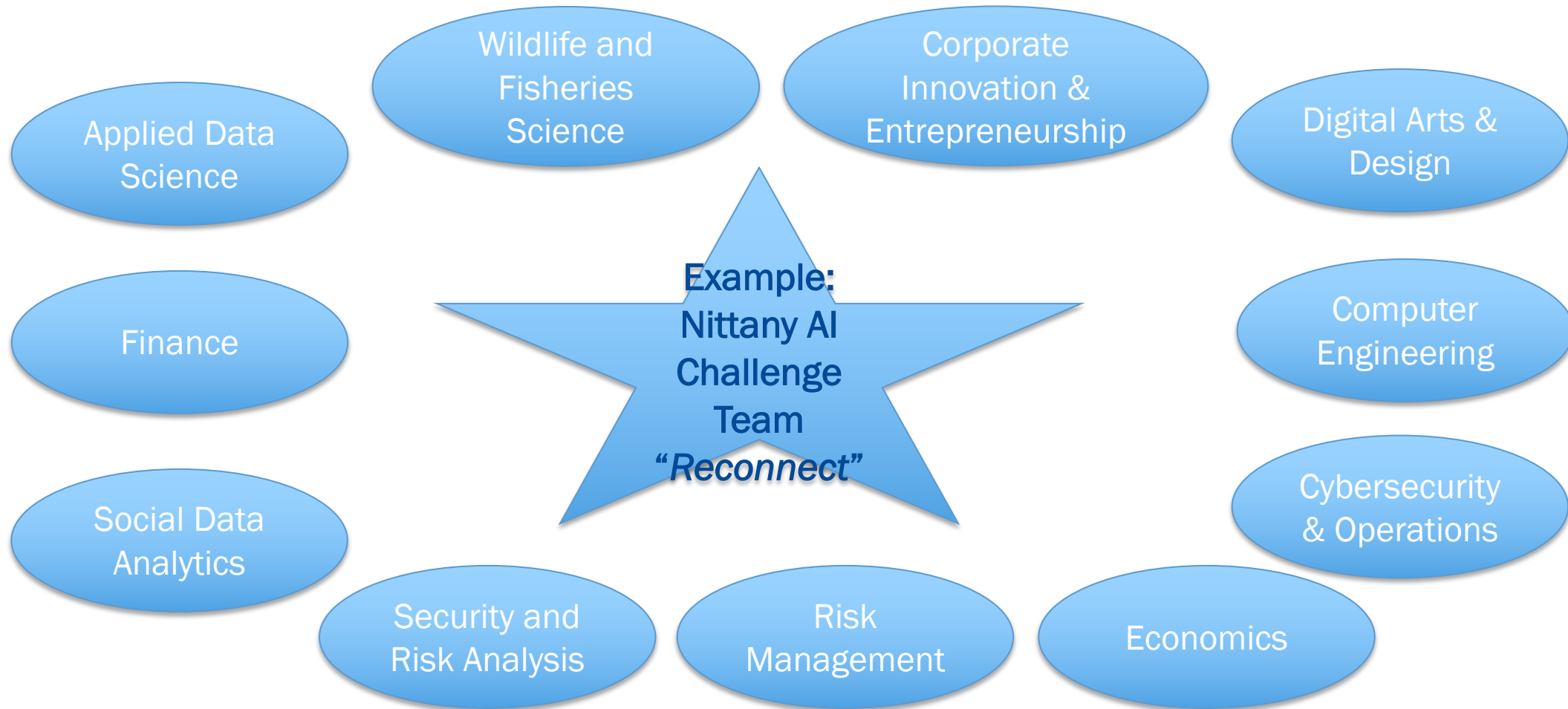


# Selected Annual Student Competitions

| Competition                         | Prizes   |
|-------------------------------------|--|
| Ag Springboard Competition          | \$10,000   |
| Arts Business Idea Competition      | \$10,000   |
| HackPSU                             | Swag and Prizes  |
| Happy Valley Pitch Competition      | \$9,000  |
| IdeaMakers Challenge                | Fully paid trip to attend a conference or startup company mentoring session. |
| Inc.U Competition                   | \$30K in prizes and appear on “The Investment”                               |
| Mont Alto Lion Tank                 | \$2,500  |
| Nittany AI Challenge                | \$50,000   |
| Start.Me.Up. Mini-Challenge         | \$900  |
| The Creating Shared Value Challenge | Prizes   |
| “What’s Your Big Idea?” Challenge   | \$500  |



# Interdisciplinary Student Teams Cross Colleges and Campuses



*Reconnect is an app that leverages AI and screen data to help users foster a healthy life-tech balance.*

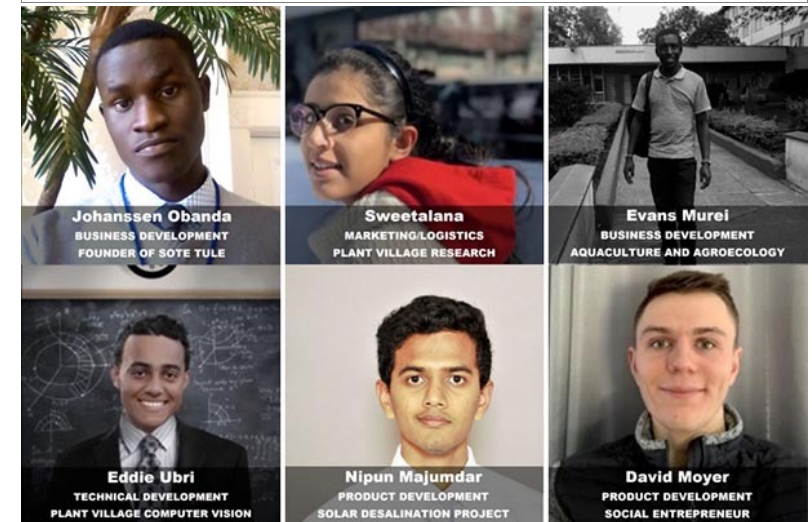
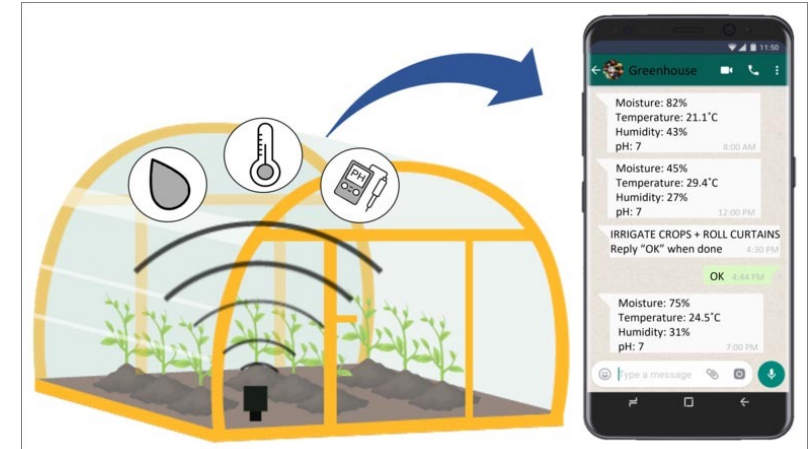
# Penn State Is the Top Global Entrepreneurship Network University Partner

- Global Entrepreneurship Week was first held at University Park in 2009, and today involves 35 university partners—colleges, campuses, and units (including 14 LaunchBoxes).
- Involves 18 community and economic development partners.
- Held this past week, and included 56 live, hybrid and virtual sessions.



# Penn State Earns 2nd Place in International Entrepreneurship Competition

- The PSU-led team claimed second out of 348 teams from 9 countries in the Creating Shared Value Challenge.
- The team pitched an idea for a sensor that would help small-scale greenhouse farmers in developing countries.
- Idea originated in Penn State Humanitarian Engineering and Social Entrepreneurship program with support from ENTI minor, Happy Valley LaunchBox, Happy Valley VC, and Penn State Small Business Development Center.





# The Center for Penn State Student Entrepreneurship Earned 1<sup>st</sup> Place Among 250 International Programs

- Honored by the Global Consortium of Entrepreneurship Centers for “Exceptional Activities in Entrepreneurship Across Disciplines.”
- Multidisciplinary faculty team provides easier access to entrepreneurship learning.



# Recognizing Faculty for Entrepreneurial Research



# Invent Penn State Navigators Help Penn State Innovators

- Supports faculty with online navigators that connect startups, researchers, and industry partners to resources, IP, and each other.
  - Resource Navigator: searchable inventory of entrepreneurship resources across Pennsylvania, grouped by region.
  - IP Navigator: searchable database of top emerging Penn State IP available for licensing.
  - Startup Navigator: searchable database of Penn State legacy and new startups.





# Invent Penn State “Inventor of the Year”

- Jim Adair, professor of materials science and engineering , biomedical engineering and pharmacology was named Inventor of the Year and previously received the Faculty Scholar Medal for Entrepreneurship and Innovation.
- His research has led to \$5.1M in grants for cancer research, 23 invention disclosures, and 17 U.S. patents.



# Invent Penn State Faculty Scholar Medal

- A new scholarly category for entrepreneurship, tech transfer, and economic development was added to the Faculty Scholar Medal awards, which were established by the Board of Trustees in 1980.
- In 2021, John Mauro, professor of materials science and engineering, was recognized in the entrepreneurship category.



# Giving Community Members Access to Assistance and Support





# Today, 96% of Pennsylvanians have a LaunchBox or Innovation Hub Within 30 Miles of Home or Work

- 4,976 entrepreneurs assisted
- 13,151 faculty, staff, students engaged
- 218 new PA companies
- 464 new startup program graduates
- 486 internships and 302 jobs created
- Over \$2M estimated in-kind support
- Close to \$24M in external funds leveraged



# New Innovation Hub Is the First Penn State Construction Project in Downtown State College

- New home of the Happy Valley LaunchBox powered by PNC Bank.
- As part of State College's innovation district, it has symbolic and practical value.
- Makes interdisciplinary entrepreneurship and innovation more accessible to the community.
- Penn State alumni Jack and Dossy White have pledged a gift of \$1M to name the Jack White Family Directorship for the Happy Valley LaunchBox.



# Commonwealth Campus LaunchBoxes Meet Local Needs

- Example: Hazleton LaunchBox Supported by Pasco L. Schiavo, Esq., is located in a predominantly Latinx community, and offers bilingual programming that includes accelerator programs, idea design and test labs, and business skills improvement.
- Has assisted more than 500 local entrepreneurs and hosted 48 community events.





# Penn State Law's Entrepreneur Assistance Clinic Helps Small Businesses

- 2,005 pro bono legal clients engaged
- 900 new company formations
- 25,904 hours of legal service provided
- 542 community office hour sessions delivered
- Legal services support underserved small Pennsylvania businesses



# Startup Leadership Network Is Driving Economic Impact

- Executive matching program for Penn State-affiliated startups has coordinated over 300 mentoring sessions since fall 2018 for a total of 26 ventures.
- These ventures have created or maintained 127 jobs.
- Guided by a 12-member council of Penn State alumni.



Matt Rhodes, Founding and Managing Director, 1855 Capital and Dr. Linda W. Schaffer, Director, Foresite Capital Management, judging the 2019 Tech Tournament at the 2019 Invent Penn State Venture & IP Conference





# Creating Visibility for IP in Locations Outside of Typical Tech Hubs



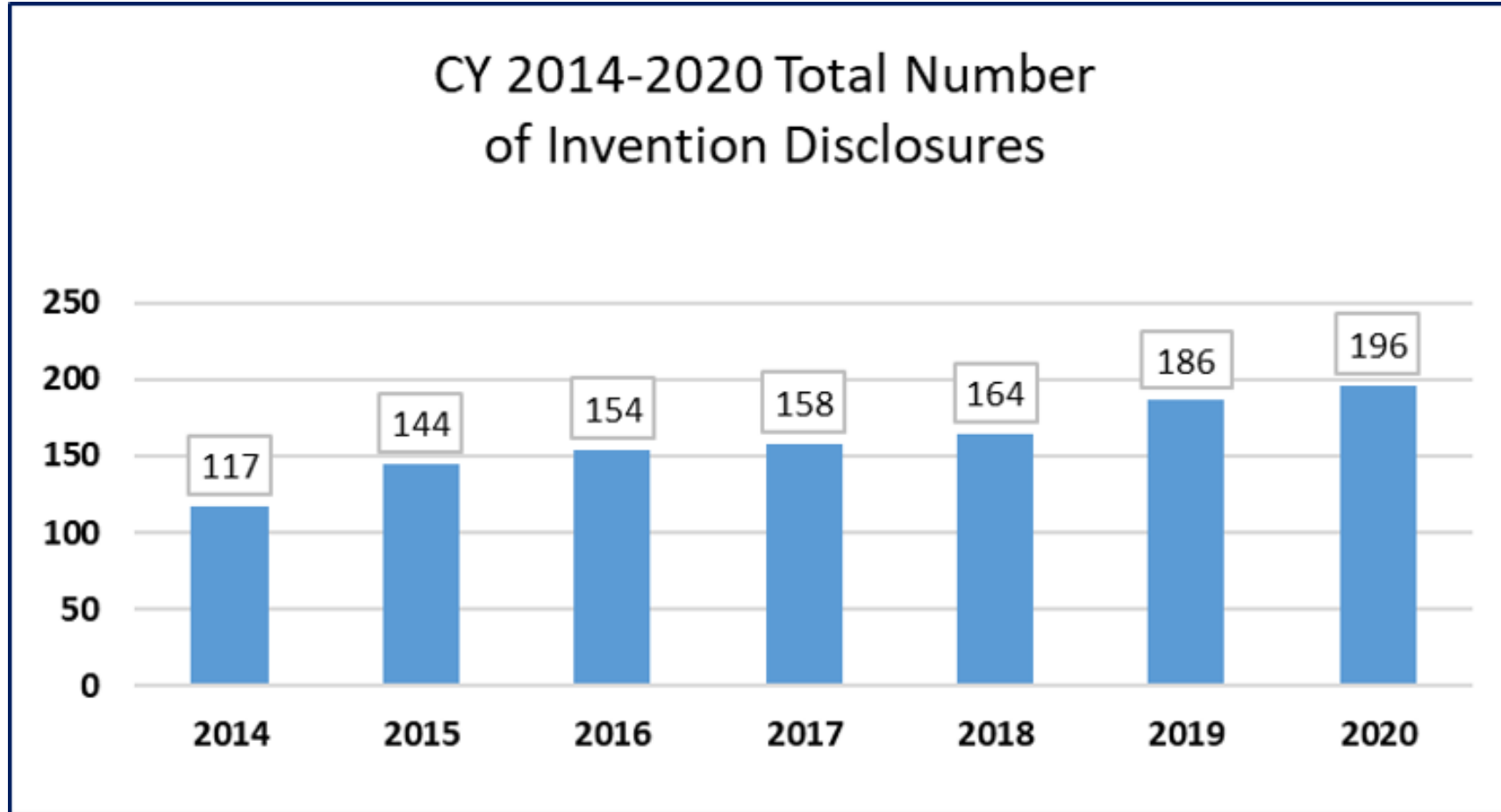


# **Invent Penn State Venture & IP Conference Is Among the Largest Tech Startup Conferences in the Mid-Atlantic**

- Fifth conference will be held April 28-29, 2022.
- Attracts over 800 attendees including 70+ startup ventures and 40+ investment firms from across the country.
- Conference highlights innovations from high-growth and emerging markets including IT, Energy, Advanced Manufacturing, Biotechnology, Healthcare, among others.



# Penn State Invention Disclosures Are Trending Toward an All-time High



# Invent Penn State Program Graduates Have Raised Over \$27M in Venture Capital

Many success stories—

- Early ideas are supported through entrepreneurial education;
- Competitions help students get their ideas out;
- Ideas take the next step with assistance: LaunchBoxes, boot camps, Summer Founders Program that includes scholarships, legal assistance, and mentoring;
- Events create visibility for IP;
- Ben Franklin Tech Partners, 1855 Capital, and others provide the funding to take products to the marketplace.

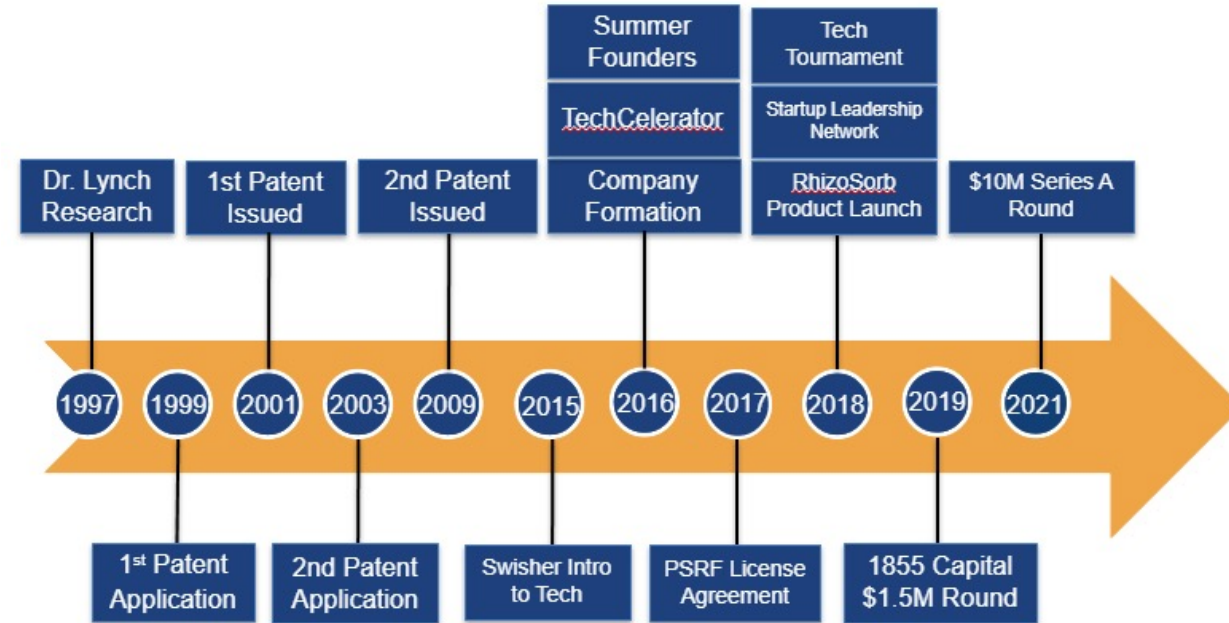




# Example: Phospholutions

- Five years ago, Hunter Swisher discussed his new startup at a Board of Trustees meeting.
- The core technology for his business was licensed from Penn State's patent office while he was an undergraduate.
- Company has grown to 20 employees, and recently raised \$10.3M in venture capital funding to support the development of RhizoSorb® soil-enhancing technology.

## A Penn State Startup Success Timeline



Ben Franklin Tech Partners and 1855 Capital were both early investors.

*Please welcome Hunter Swisher.*



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# Example: Vitable Health

- Recently received \$7.1M in funding from First Round Capital, angel investors, and others.
- Previously received \$1.6M from SoftBank's SB Opportunity Fund.
- Vitable Health provides urgent care, acute care and preventative health care in patients' homes.
- Since March, the in-person and virtual visits have increased threefold.
- The company has 20 full-time employees and works with a network of about 100 nurses and advanced nurse practitioners.



*Please welcome the founder Joe Kitonga, who is joining us from Philadelphia.*



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# ConidioTec Supports 73 Jobs and Generates Nearly \$2M in Economic Impact

- Five years ago, Nina Jenkins attended the Board meeting to discuss her startup company.
- Today, their product is available in all 50 states and Canada and has completed more than 100,000 bed bug treatments.
- Efforts have been supported by Ben Franklin Tech Partners, 1855 Capital, the Small Business Development Center, Happy Valley LaunchBox powered by PNC Bank, and CBICC.





# Developing the Partnerships to Make Investment Possible

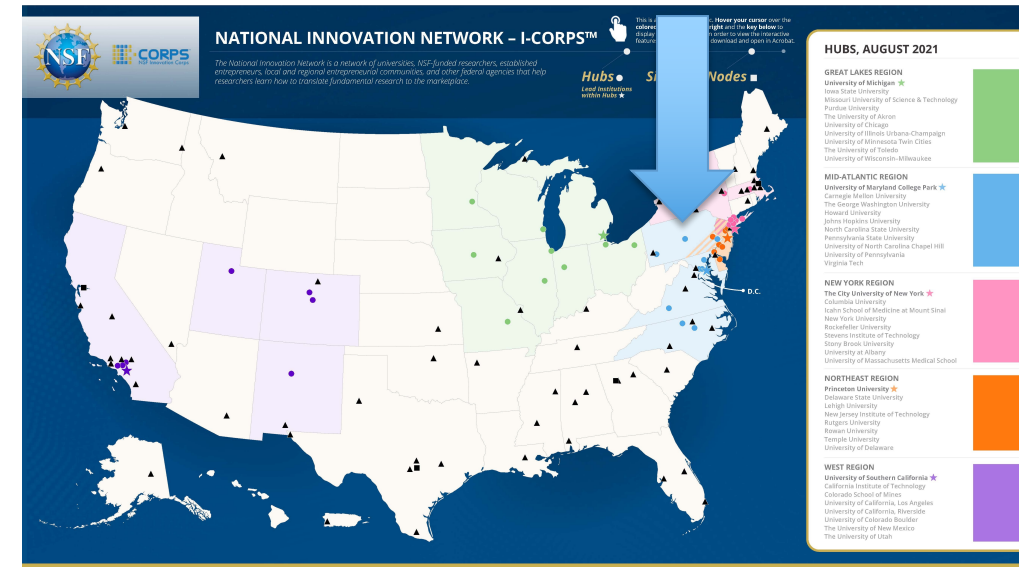


*Investing in Pennsylvania's Future*



# Penn State Was Selected to Advance Research Commercialization Across the Region

- Penn State was awarded \$1.5M as one of eight universities in the Mid-Atlantic NSF I-Corps Hub, led by University of Maryland.
- The funding will expand entrepreneurial training for faculty and students to generate economic value.
- Penn State faculty member Jess Menold will lead the research focused on hundreds of companies.



# A Greater Penn State Priority

- Economic Prosperity, which includes Invent Penn State, is a sub-theme of the Impact the World campaign priority.
- To date, it has raised \$116.6M of the \$129M goal.

A **GREATER**  
**PENN STATE**  
FOR 21<sup>ST</sup>  
CENTURY  
EXCELLENCE





# Summary

As Invent Penn State celebrates its fifth anniversary, Penn State has:

1. A strong record of getting IP to the marketplace.
2. Developed end-to-end programming to support entrepreneurial students, faculty, alumni, and community members.
3. Advanced our land-grant service to society mission by promoting economic development.

