



UNY I-Corps Node
2017-2018 in Review

THE UNY I-CORPS NODE

The National Science Foundation's I-Corps initiatives empower researchers and aspiring startups to combine their technical and scientific knowledge with an entrepreneurial mindset to develop new technologies that meet a market need and benefit society.

Launched in 2017, the **Upstate New York (UNY) I-Corps Node** combines the expertise of experienced mentors with researchers and faculty from top institutions including Cornell University, the University of Rochester, and Rochester Institute of Technology.

The UNY Node acts as a hub for commercialization training in the Northeast and works cooperatively with other I-Corps Nodes and Sites in the I-Corps National Innovation Network to:

- Identify, develop, and support promising ideas that can generate value
- Create and implement tools and resources that enhance our nation's innovation capacity
- Share and leverage effective innovation practices on a national scale to improve the quality of life for the American public



In I-Corps, Ph.D. students and post-docs learn what it takes to move technologies from the bench to the real world, and that knowledge not only produces successful entrepreneurs, it creates better scientists and engineers



PROFESSOR LANCE COLLINS
Joseph Silbert Dean of Engineering,
Cornell University

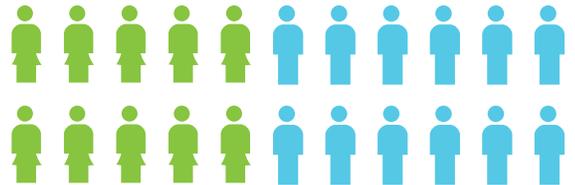


ATTENDED BY OUR TEAMS

45%

WOMEN-LED TEAMS

(UP FROM 33% IN 2017)



7

UNIVERSITIES REPRESENTED



Cornell University



I-CORPS TEAMS™ NATIONAL PROGRAM

Top researchers from across the US apply to I-Corps Teams, an intensive seven-week innovation and entrepreneurship training course with mentoring and up to \$50,000 in NSF funding. Selected teams complete over 100 customer discovery interviews to collect first-hand evidence for or against product-market fit.

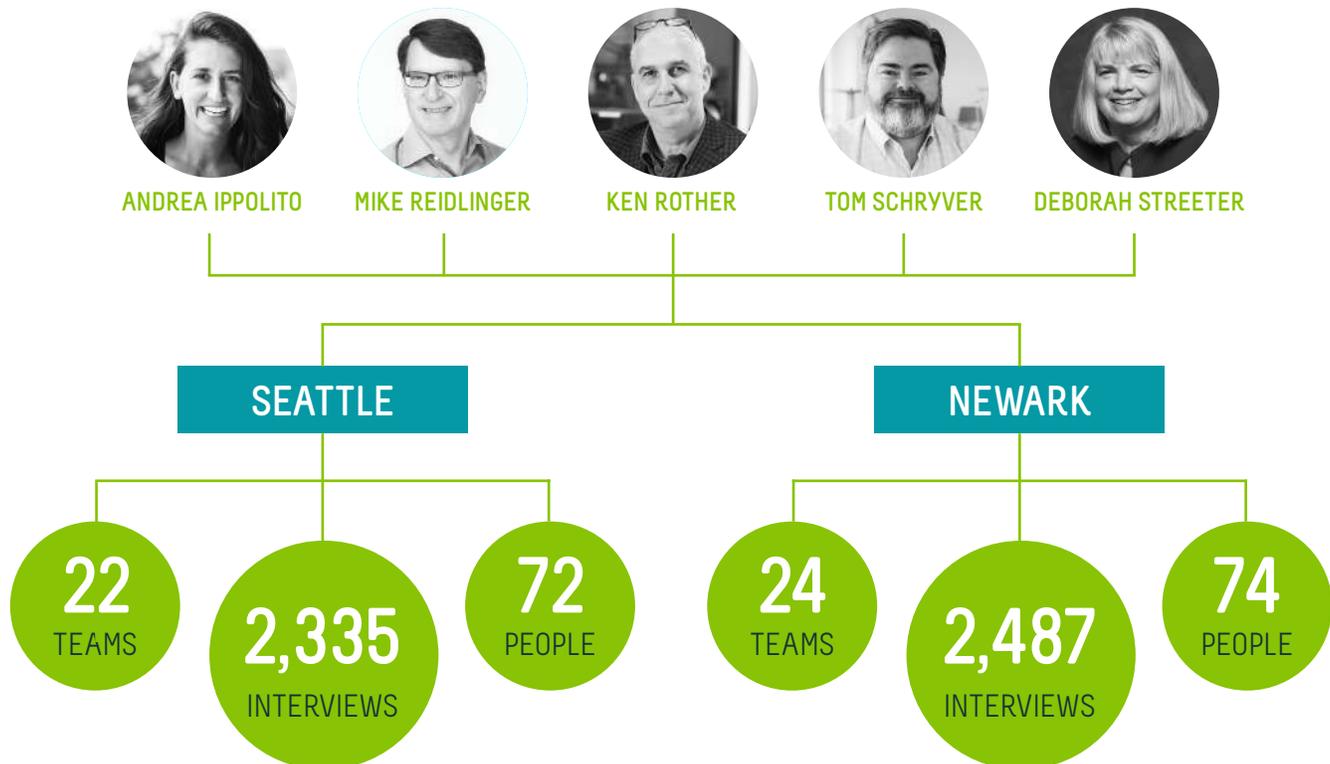


THE UNY I-CORPS NODE SENT
3X MORE TEAMS
TO THE NATIONAL PROGRAM
IN YEAR 2



NATIONAL FACULTY

The UNY I-Corps Node has five nationally-trained instructors who taught two I-Corps Team cohorts in 2018.



MENTORS

Each I-Corps Team includes a mentor – an experienced entrepreneur – who can guide them as they refine their business models, gain insights from their customer market, and pivot down alternate paths.

The UNY I-Corps Node recruited and matched
10 MENTORS
for Teams it sent through the national program.



MICHELLE KORTENAAR
Senior Director of Engagement and Learning at the Sciencenter

“My teams became better at recognizing their assumptions and finding evidence to support or reject them. The result was more evidence-based decision-making. They learned how to approach the creation of a business with rigor and data.”

DIDI DISCAR
Principal, Galileo Bio Strategies, Inc.

I-Corps is excellent at instilling disciplined thinking into the business planning process. In real life, many entrepreneurs will “lose the forest for the trees,” and this program forced constant strategic oversight so participants never forgot the overall vision of their business.



NSF funds innovators from all STEM fields.
Here is a sampling of innovative solutions from our 2018 teams.



CLEAN ENERGY
Wind Turbine Blades is developing new technology for improved wind turbine blade design and performance.



CANCER TREATMENT
Harminogenic has created an advanced form of cancer testing that can more accurately predict cancer metastasis or recurrence.



BEEHIVE HEALTH
Complex provides real-time data analysis of commercial honey bee colonies and alerts beekeepers when colonies need intervention.



SELF-FLYING ROBOTS
Neuromorphic Autonomy for MAVs (Micro Aerial Vehicles) is creating algorithms to enable autonomous flight for robots the size of small insects.

JUAN GUZMAN, CAPRO-X **FUNDED**

Capro-X upcycles dairy waste into valuable platform chemicals using a patented fermentation process to generate bio-oils that can be refined into commodities like biofuels and bioplastics.

The company recently moved into their own lab space, and were chosen as a top-20 finalist for NYSERDA’s 76West Clean Energy Competition that recruits competitors from across the globe.

Capro-X is currently completing their NEXUS-NY clean energy accelerator program and were selected for a Phase 2 SBIR grant. They hired their first employee and look forward to further building their team over the next year.

WHERE ARE TEAMS NOW?

“ THE I-CORPS PROGRAM WAS TRANSFORMATIVE FOR ME AND MY COMPANY. I DIRECTLY APPLIED WHAT I LEARNED AND EARNED A SBIR GRANT.

CAPRO-X

Researchers take what they learn in I-Corps and apply it to technology, innovation, and commercialization projects for the rest of their careers.

ROSS FINMAN, ESCHER REALITY

ACQUIRED

Escher Reality has developed a cross-platform toolkit and custom backend for mobile Augmented Reality developers.

The team completed the Y-Combinator summer cohort in the Bay Area and was recognized by TechCrunch as a top team. They raised \$3M of investment in 10 days.

In the beginning of 2018, Escher Reality was bought by Niantic, the creators of PokemonGo. The team is helping to integrate their work on mapping and computer vision technology into Niantic’s content and AR platform.

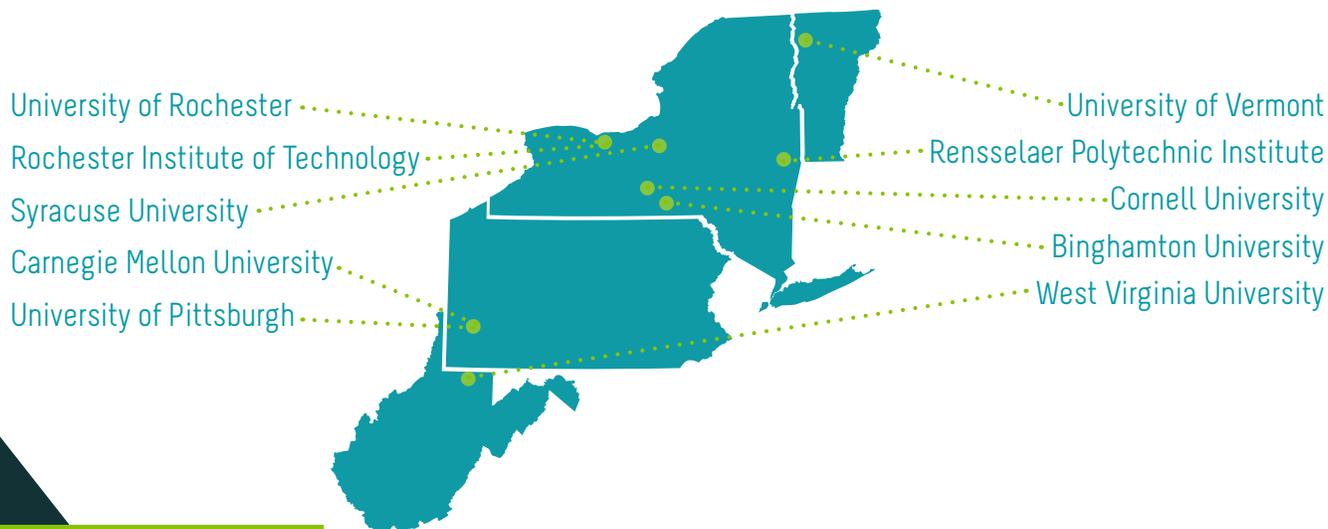
“ I-CORPS HELPS COMPANIES CHECK THEIR TECHNICAL EGO AT THE DOOR AND TRULY UNDERSTAND WHAT THEIR CUSTOMERS WANT (OR DON’T WANT).



REGIONAL TRAINING: SHORT COURSES

I-Corps Short Courses are a micro version of the national I-Corps Teams program. Over two weeks, researchers “get out of the lab” and talk with 30 potential customers. Taught and mentored by successful entrepreneurs, their mission is to determine if they are solving a real-world problem that also has customer demand. Teams who excel in the Short Course can become eligible to apply for I-Corps Teams.

The UNY Node led **19** I-Corps Short Courses at **10** universities



MENTOR PILOT

Finding an I-Corps Industry Mentor who can volunteer 100 hours or more over seven weeks is a huge challenge for Teams. NSF created the Mentor Pilot to test whether mentor matches can be provided by national instruction teams.

The UNY Node placed **five** upstate NY teams in the Mentor Pilot, and led a national cohort that supported **four** more Mentor Pilot teams.

130

teams participated

17

instructors trained
(8 trained in Y2)

570

hours of hands-on
instruction from
experienced mentors

The UNY I-Corps Node led three themed Short Courses in which instructors presented additional, specialized content and observed strong collaboration among the cohort participants.



CLEAN ENERGY



BIOTECH



ACCESS TECH

DIVERSITY & INCLUSION INITIATIVES

The UNY I-Corps Node strives to foster inclusive and welcoming programming and is focused on recruiting a diverse range of participants and instructors, particularly underrepresented minorities, women, and the disabled.

Led by RIT, the Node partnered with the [National Technical Institute for the Deaf](#) – the nation’s largest engineering program for the deaf and hard of hearing – to create a national entrepreneurship competition. The top 10 teams attended an I-Corps short course customized for deaf participants and received \$3,000 for Customer Discovery research.

The Node is supporting Cornell University to launch [W.E. Cornell](#), an entrepreneurship program for women in STEM fields and will be offering a customized short course for program participants in Q1 2019.



PHASE 0 PILOT

The UNY I-Corps Node recruited **eight** early-stage startup companies with deep-tech innovations to participate in the SBIR Phase 0 pilot program.

Phase 0 companies go through the I-Corps Teams program to test and hone their product-market fit, then attend workshops to launch their businesses and receive support in applying for SBIR Phase 1 grants.

\$200K
NSF
FUNDING

8

EARLY-STAGE
STARTUPS

A person's hand is shown working on a robotic assembly. The assembly consists of a wooden frame with a laptop screen mounted on top. Below the screen, there are various electronic components, including a motor and a circuit board. The person is wearing a green and blue beaded bracelet. The background is a blurred laboratory or workshop setting.

“

The first time I went through the I-Corps program, we discovered a new market segment and my team pivoted to focus on those customers. A student of mine is currently in I-Corps pursuing that new commercialization opportunity. Ironically, the original market we identified has caught up and my first I-Corps team is forming a company and receiving attention from investors.

PROFESSOR ROB SHEPHERD
Organic Robotics Lab, Mechanical and
Aerospace Engineering, Cornell University

UNY I-CORPS NODE

Executive Director: Tom Schryver
info@unycorps.org
www.unycorps.org

UNY I-CORPS PARTNERS



Cornell University

R·I·T



UNIVERSITY of
ROCHESTER



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