

Ohio Third Frontier Commission Meeting

December 8, 2020



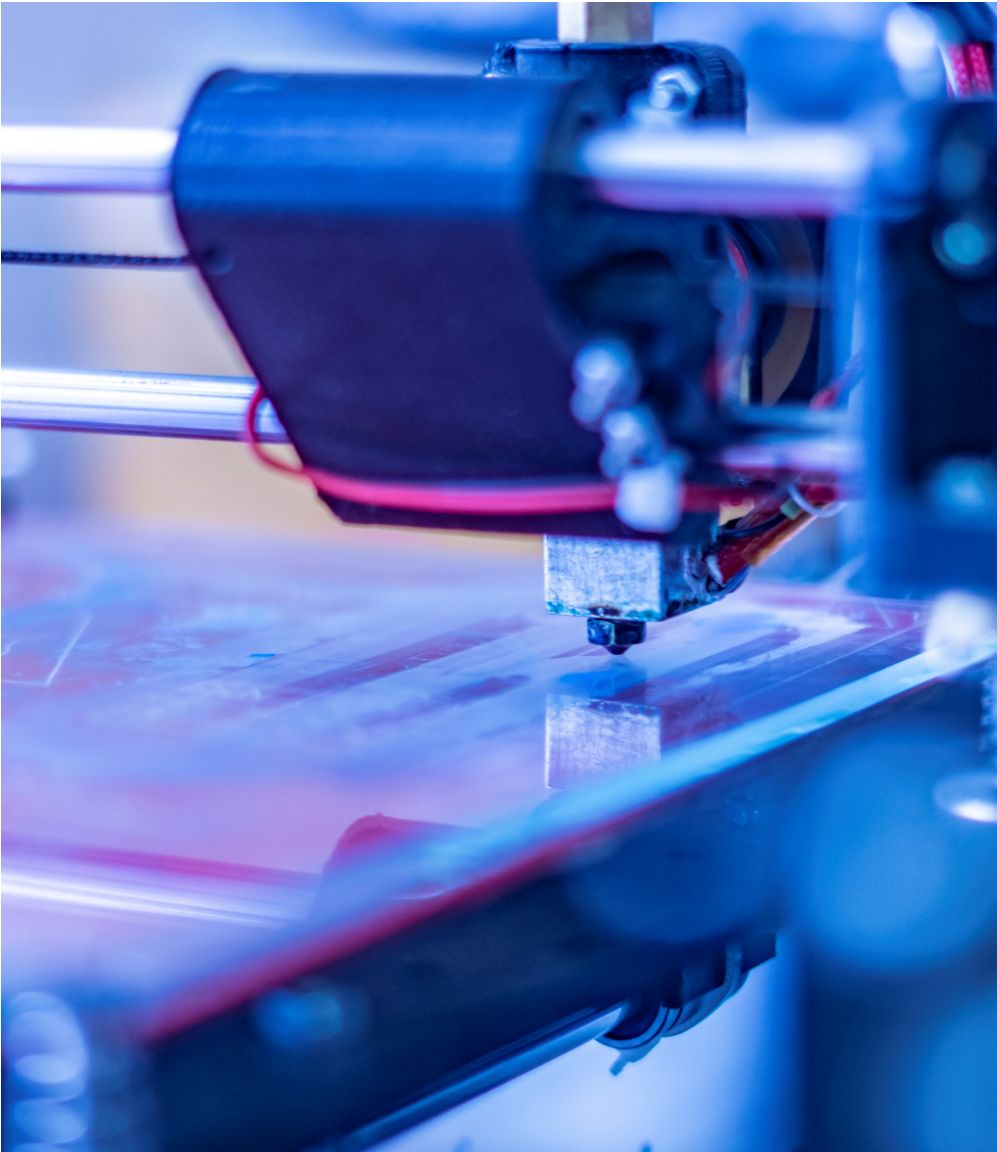
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Call to Order and Approval of the 6/24/2020 Meeting Minutes

Introductions & Agency Updates



Agency Updates

- Ohio PPE Retooling and Reshoring Grant Program
- Small Business Relief Grant Program
- Ohio Minority Micro-Enterprise Grant Program
- Economic & Community Development Institute Loan Program
- Appalachian Region Loan Program



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Ohio Company in the Fight against COVID-19

Stirling Ultracold

<https://youtu.be/UWQ7rv7X-es>

New Business & Program Updates

Scott Ryan, Executive Director

Technology Validation and Start-Up Fund (TVSF) Update



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Program Purpose

Help transition technology from Ohio research institutions into the marketplace through Ohio start-up companies

Two ways to engage the program

- Phase 1: Validation Projects (Institutional Funds)
- Phase 2: Start-up Funds (New Companies)



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Phase 1: Validation Projects

- Institutions may apply to create a pool of funds to select and advance its technologies towards commercialization
- Lead applicant must be the institution that owns the IP
- Awards are \$200,000 – \$500,000
- Awards must be matched 1:1 by cash cost share from the institution
- Goal: License to startups



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Phase 2: Start-up Funds

- Eligible Project: Ohio start-ups and young companies licensing and commercializing technologies from Ohio Institutions.
- Awards up to \$100,000 (or \$150,000 for Biomedical related projects)
- No cost share requirements
- Goal: Raise Capital/Market Entry/other meaningful step



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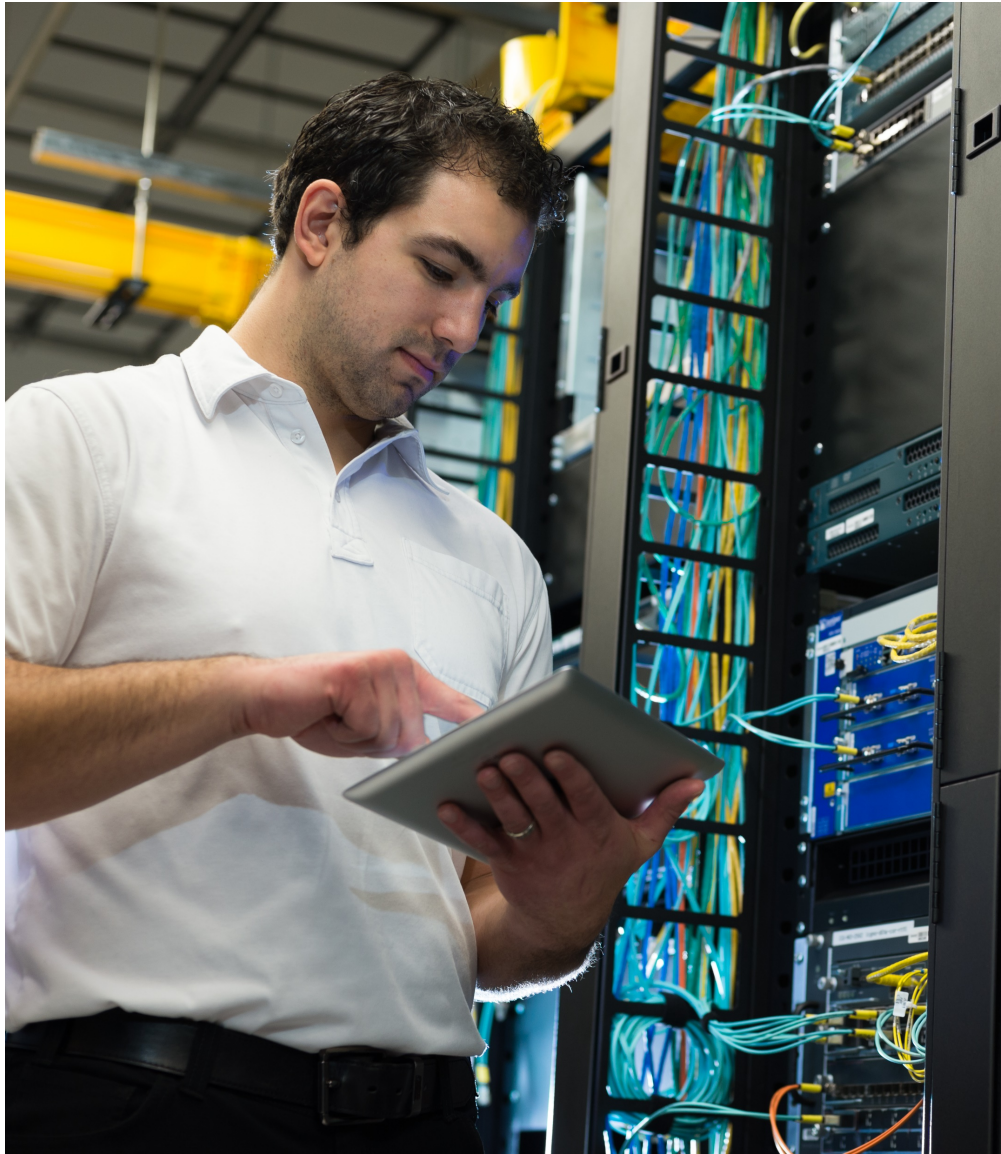
Metrics

- 23 rounds
- \$33,352,851 Awarded to Date
- 25 Counties Represented
- 17 Licensing Institutions

Industry Sectors: Biomedical/Life Sciences, Software/Information Technology, Advanced Materials, Sensors, Energy, Advanced Manufacturing



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Future Rounds

Round 24

- Written Questions: January 4, 2021
- Submittals: January 11, 2021
- Awards: May 2021



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Technology Validation and Start-Up Fund (TVSF)

Round 23 Recommendations



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Redwood
Innovation
Partners



TVSF Round 23 Evaluation

Jim Sonnett PhD, Susan Stanton PhD
December 8, 2020

Outline

- Round 23 overview
- Funding Recommendations
- Applicant Snapshot
- Analysis and Recommendations



Round 23 Overview

- 8 Applications Totaling \$1,450,000
- 4 Awards Recommended Totaling \$900,000
 - Smallest total funding recommended since September 2017
- One Phase 1 application for \$500,000
 - Funding of this application is recommended
- Seven Phase 2 applications totaling \$950,000
 - Funding of three Phase 2 applications totaling \$400,000 is recommended
 - One applicant withdrew and is not included in statistics / analysis



Round 23 Overview (Continued):

- Round 23 approval rate is 50%, which is modestly higher than the historical overall rate of 42%
- Historical range of individual rounds is 27 to 57%

| Round | \$ Recommended | Approval Rate |
|---------------|----------------|---------------|
| 1 (APR 2012) | \$950,000 | 35% |
| 2 (AUG 2012) | \$900,000 | 52% |
| 3 (DEC 2012) | \$610,000 | 44% |
| 4 (JUN 2013) | \$864,000 | 30% |
| 5 (FEB 2014) | \$1,462,000 | 46% |
| 6 (JUN 2014) | \$998,000 | 39% |
| 7 (OCT 2014) | \$1,100,000 | 57% |
| 8 (FEB 2015) | \$710,000 | 37% |
| 9 (JUN 2015) | \$550,000 | 31% |
| 10 (DEC 2015) | \$925,000 | 38% |
| 11 (APR 2016) | \$1,239,000 | 46% |
| 12 (OCT 2016) | \$3,537,269 | 46% |
| 13 (MAR2017) | \$1,567,500 | 38% |
| 14 (SEP 2017) | \$498,832 | 27% |
| 15 (DEC 2017) | \$2,250,000 | 38% |
| 16 (MAR 2018) | \$2,098,600 | 52% |
| 17 (SEP 2018) | \$2,100,000 | 42% |
| 18 (DEC 2018) | \$1,150,000 | 35% |
| 19 (APR 2019) | \$2,250,000 | 43% |
| 20 (NOV 2019) | \$1,350,000 | 43% |
| 21 (FEB 2020) | \$3,944,000 | 56% |
| 22 (MAY 2020) | \$1,398,630 | 53% |
| 23 (OCT 2020) | \$900,000 | 50% |
| Overall | \$33,352,831 | |
| Average | \$1,450,123 | 43% |



Phase 1 Recommended Funding



| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding |
|----------|-----------------------|-------------------------------|---------------------|
| 21-0481 | Ohio State University | Accelerator Awards | \$500,000 |

Comments:

- Second consecutive application – to achieve a consistent program cadence and address substantial deal flow.
- Strong Selection Committee with diverse expertise and experience.
- Aggressive, justified, outcome goals.
- Impressive project management model with Industry Experts and OSU team.



Phase 2 Recommended Funding

| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding | Licensing Institution |
|----------|------------------------|---------------------------------|---------------------|--------------------------------|
| 21-0484 | Enlighten Mobility LLC | General Movement Assessment Mat | \$150,000 | Nationwide Children's Hospital |

| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding | Licensing Institution |
|----------|-----------------------|-------------------------------------|---------------------|-----------------------|
| 21-0488 | Advance Vascular, LLC | Oxymend Dressing for Chronic Wounds | \$150,000 | University of Toledo |



Snapshot of Phase 2 Funding Recommendation – ResCon Technologies



| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding | Licensing Institution |
|----------|--------------------------|--------------------------------------|---------------------|-----------------------|
| 21-0482 | ResCon Technologies, LLC | Small Unmanned Aerial Systems (sUAS) | \$100,000 | Ohio State University |

- ResCon will sell hardware, firmware and software solutions to the rapidly growing advanced sUAS (drones ...) market.
- ResCon is a reapplicant from Round 22, they have responded well to the evaluator's recommendations.
- One issued and one provisional OSU patent will provide a strong competitive advantage.
- Leadership team provides substantial market insight and technical capability.
- TVSF funding will be used to develop a simulator and two field demo prototypes.
- There is significant engagement with and interest from prospective customers.
 - Anticipate enough near term business that dilutive investment will not be required.



Round 23 Analysis & Recommendations



Reapplications and Phase 1 Carry Through

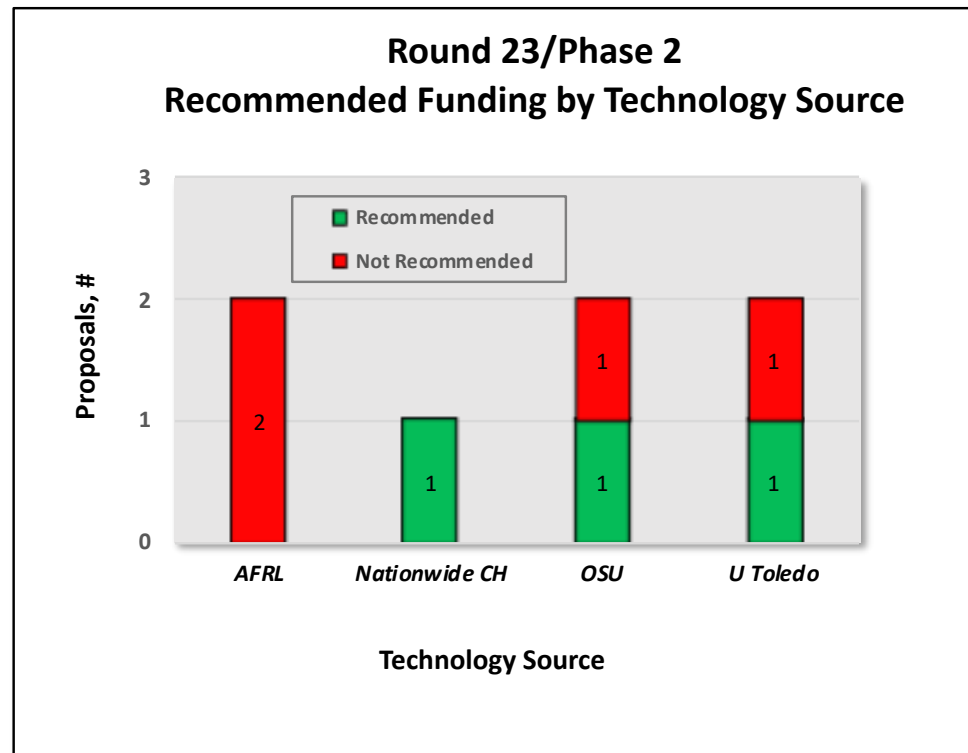
- Phase 1 Applications:
 - There was one reapplication in Round 23, which is recommended for funding.

- Phase 1 Carry Through:
 - There was one Phase 2 applicant that previously received Phase 1 funding.
 - This application is recommended for funding.

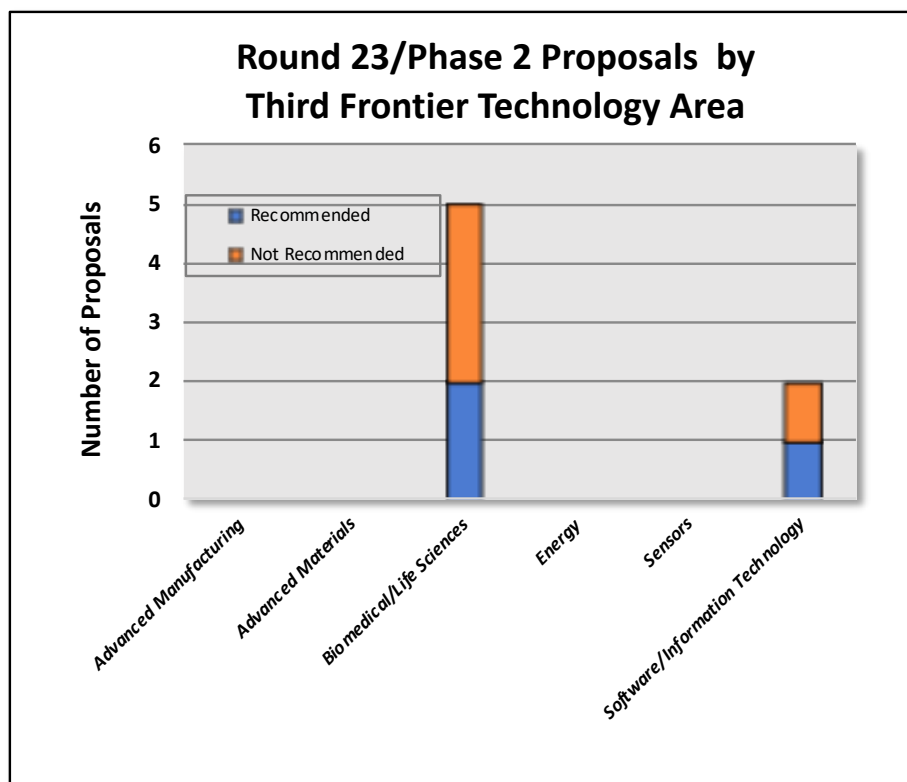
- Phase 2 Reapplications:
 - There were three Phase 2 reapplications, two were second time applicants and one applied for the third time.
 - Both second time applicants are recommended for funding.



AFRL, Ohio State and University of Toledo were the most active applicants.



Biomedical / Life Sciences Continue to Dominate the Phase 2 Applications



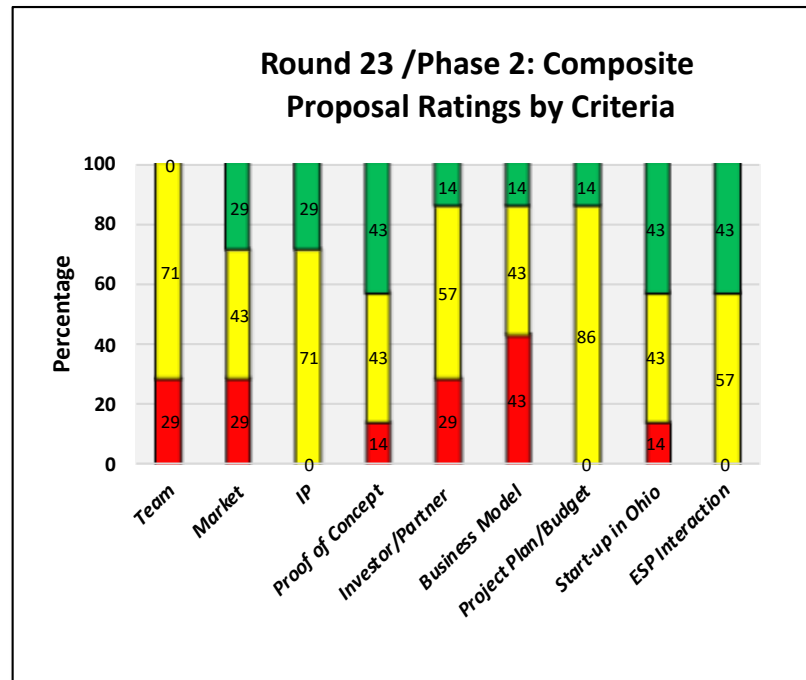
Recommendation ⇒ Develop strategies to encourage proposals in non-biomedical Third Frontier focus areas including Advanced Manufacturing, Materials and Energy

Columbus . Boston . Carlsbad redwdinnov.com



Phase 2 Composite Rankings show:

- IP and Project Plan / Budget were the Highest Rated Criteria
- Business Model, Team, Market and Investor were the Lowest Rated Criteria



Recommendation:

=> RFP has been revised, monitor to see if business model improves over the next few rounds



Technology Validation and Start-Up Fund (TVSF)

Vote Summary - Round 23

Phase 1

| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding |
|----------|-----------------------|-------------------------------|---------------------|
| 21-0481 | Ohio State University | Accelerator Awards | \$500,000 |

Phase 2

| Proposal | Lead Applicant | Project Title / Product Focus | Recommended Funding | Licensing Institution |
|----------|--------------------------|--------------------------------------|---------------------|--------------------------------|
| 21-0484 | Enlighten Mobility LLC | General Movement Assessment Mat | \$150,000 | Nationwide Children's Hospital |
| 21-0488 | Advance Vascular, LLC | Oxymend Dressing for Chronic Wounds | \$150,000 | University of Toledo |
| 21-0482 | ResCon Technologies, LLC | Small Unmanned Aerial Systems (sUAS) | \$100,000 | Ohio State University |

Diversity & Inclusion Technology Internship Program

Diversity & Inclusion Technology Internship

Company Quotes

“Michael was an important part of our team, particularly during the COVID crisis as we pivoted to a new product market, making PPE. He was flexible, willing to do any task necessary to support the company. He contributed good ideas.” –**Vista AST LLC**

“Jason's contribution to our testing and data collection were immense given that we are still a very small company. His work has had a direct and immediate impact on our testing protocols as we move forward with new prototypes.” –**Octet Scientific, Inc.**

“Intern established our social media presence and made big improvements to our website.”
–**PROJiTECH Inc.**

“Before Hannah joined, we had never really used HubSpot to engage prospects and had very little of the process outlined. We decided to commit to its use when we brought her on and have made major strides.” –**Fontus Blue**

“With Katie's help we have been able to tackle a new project and she has managed to produce a critical PoC.” –**Juvatech, LLC**



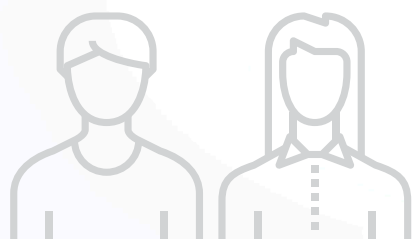
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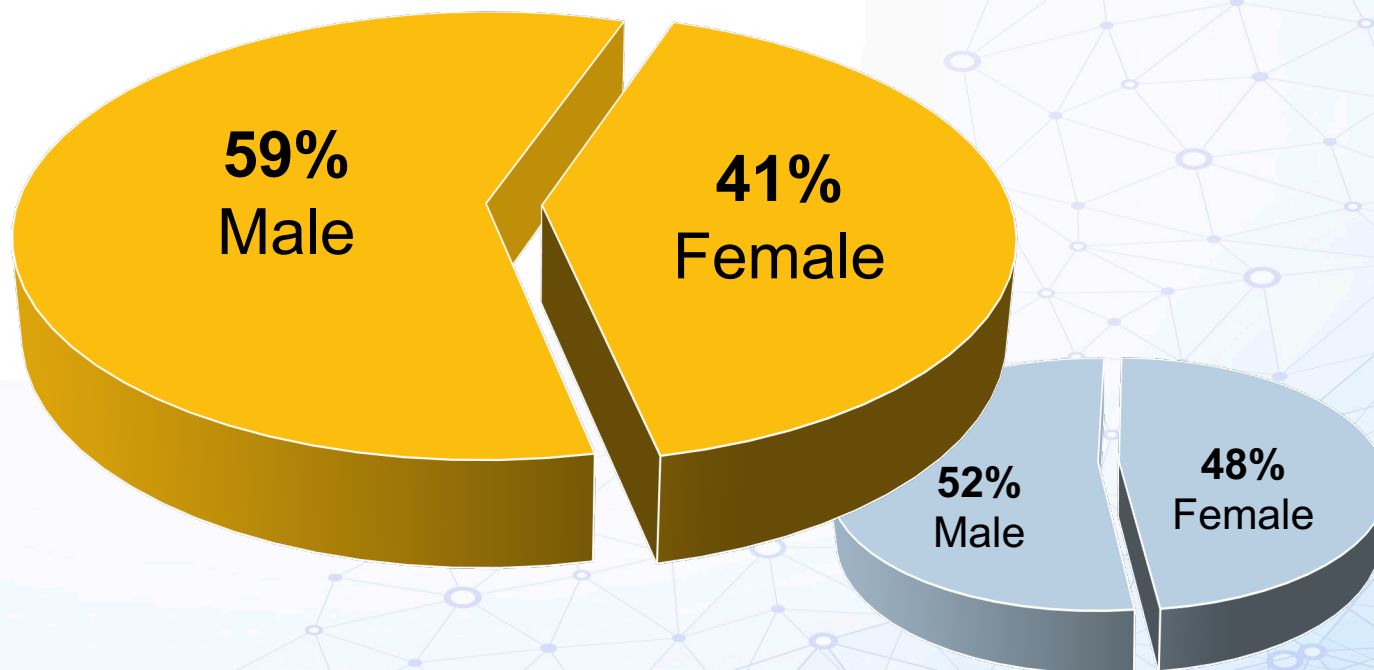
Diversity & Inclusion Technology Internship

Intern Demographics: Gender



Last 2 Rounds
162 Interns Placed

Previous Rounds 1-5
222 Interns Placed



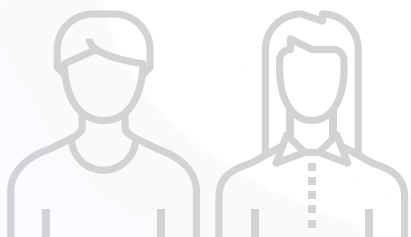
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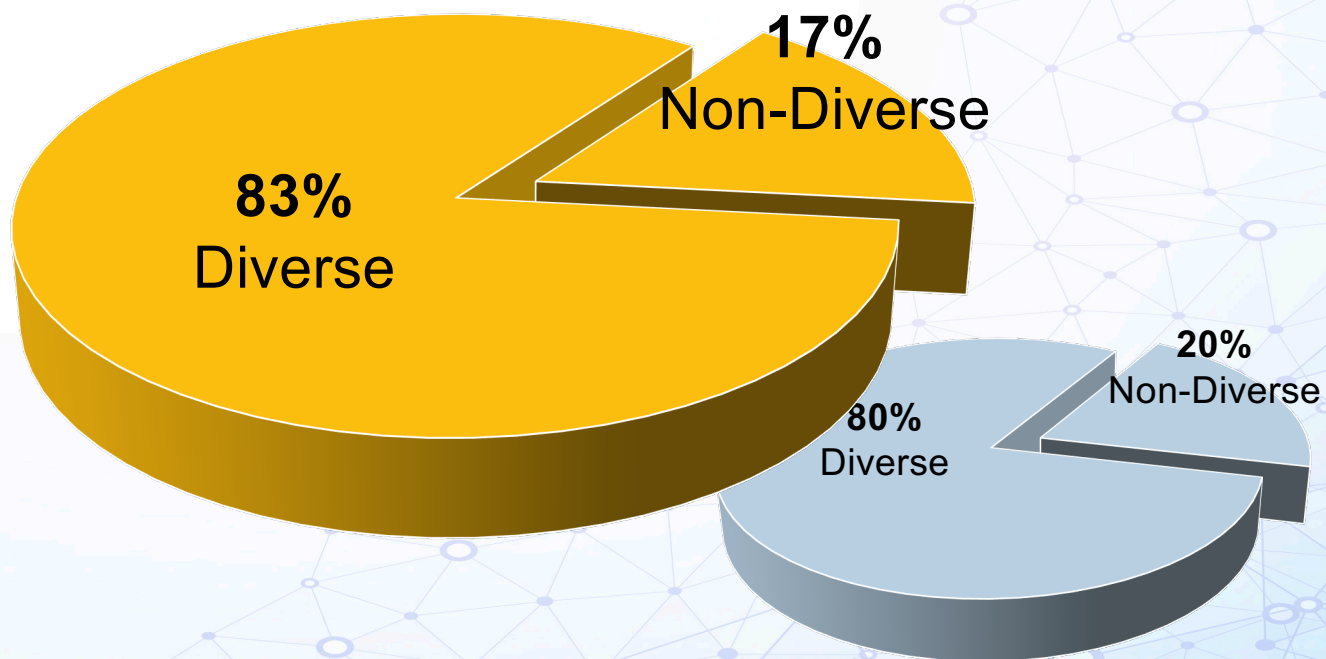
Diversity & Inclusion Technology Internship

Intern Demographics: Diversity



Last 2 Rounds
162 Interns Placed

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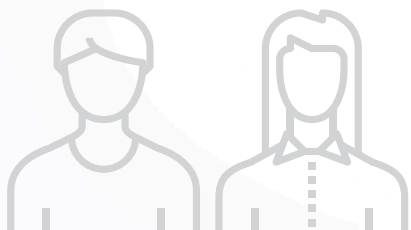
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Diversity & Inclusion Technology Internship

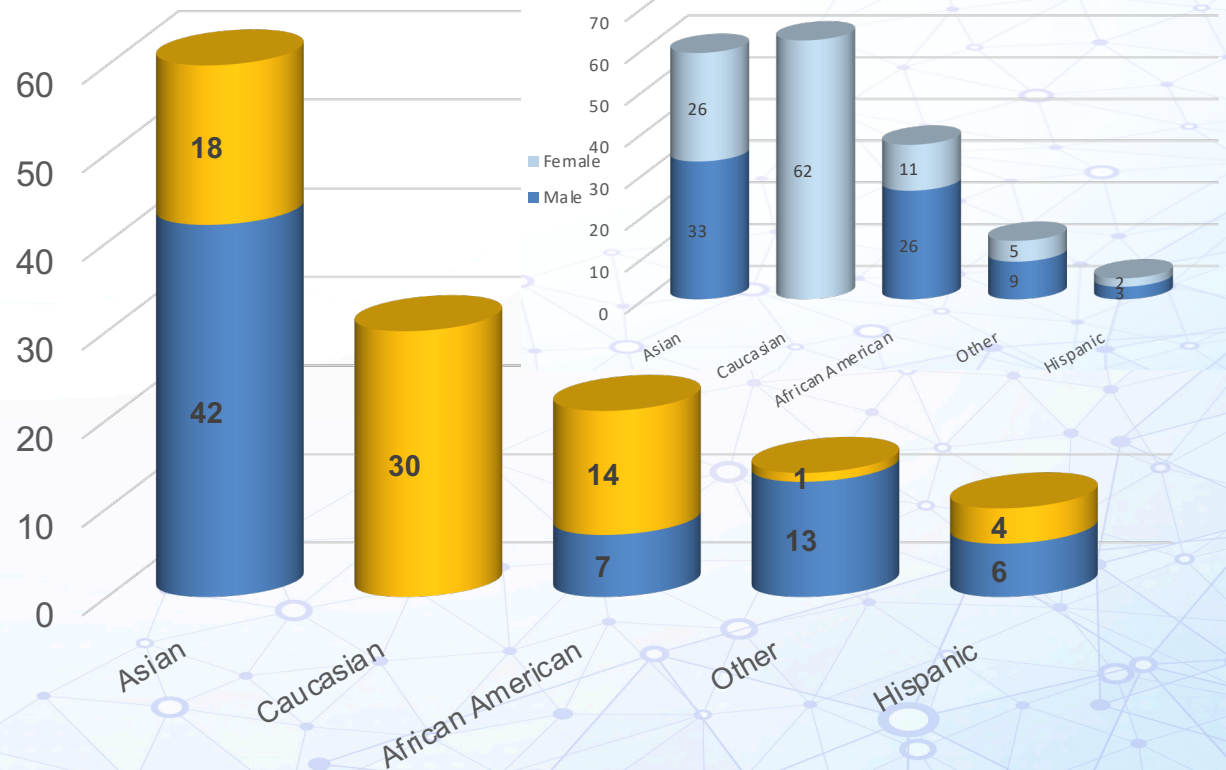
Intern Demographics: Diversity



Last 2 Rounds
135 Diverse Interns

Previous Rounds 1-5
177 Diverse Interns

■ Female
■ Male



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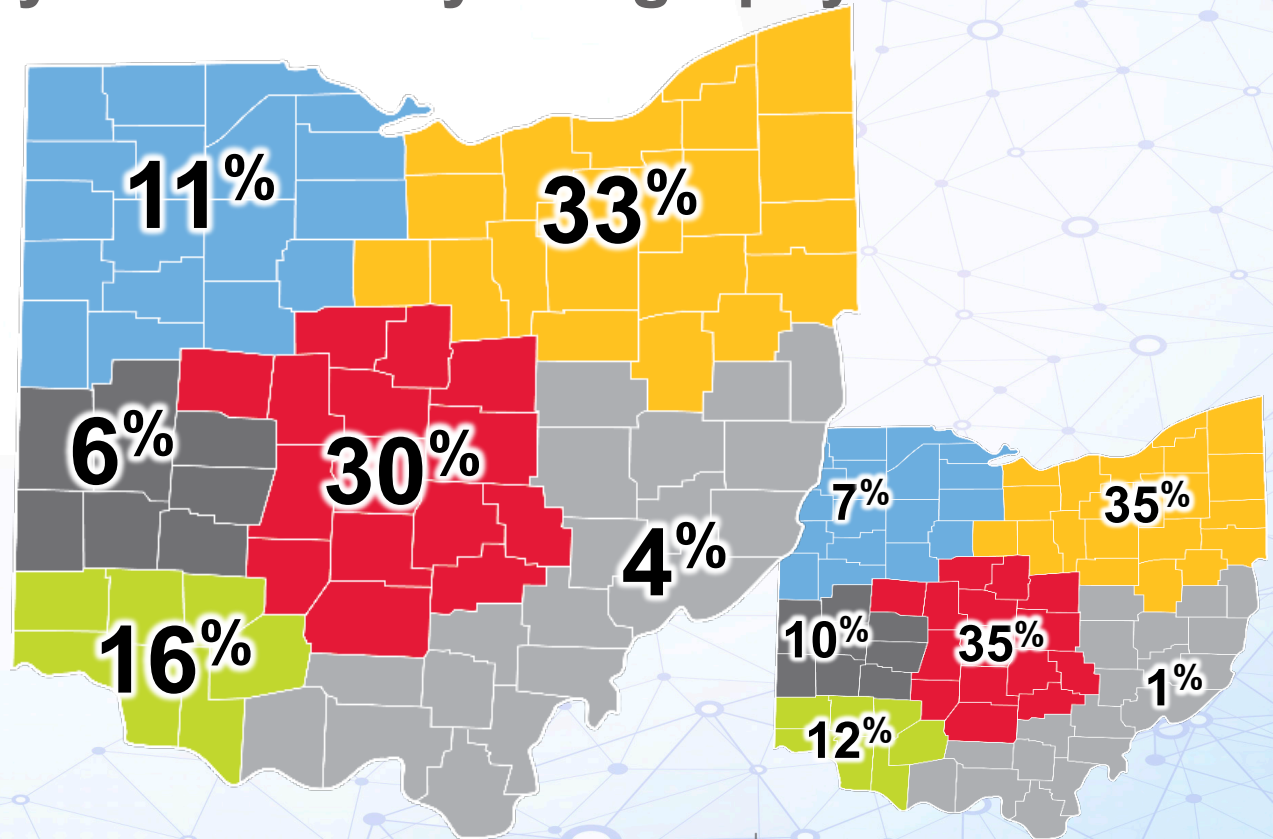
Diversity & Inclusion Technology Internship

Company Positions by Geography



Last 2 Rounds
162 Company Internships

Previous Rounds 1-5
222 Company Positions



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Pre-Seed/Seed Plus Fund Capitalization Program



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Pre-Seed/Seed Plus Fund Capitalization Program

Goals and Objectives

- Increase the number of professionally managed Pre-Seed Funds investing throughout Ohio
- Increase the amount of early-stage capital being invested in Ohio technology-based companies in the Imagining, Incubating, or Demonstrating phases of commercialization
- Create a risk capital climate that supports the development, retention, and attraction of investable technology companies in Ohio
- Accelerate the growth of high-potential technology companies in Ohio and create high-paying jobs in Ohio
- Build a pipeline of technology company deal flow that increasingly attracts the resources of venture capital firms both within and outside of Ohio

Pre-Seed/Seed Plus Fund Capitalization Program

Current Portfolio Status

34 total Funds awarded from 2013, 2014, and 2015 rounds

28 executed loan agreements totaling \$112M:

- 15 fully invested
- 13 have funds remaining:
 - 7 close within 6 months
 - 6 close within 12 months

| \$ Millions | OTF + Match | OTF Only |
|---------------------------|-------------|----------|
| Total Budget: Investments | \$227.0 | \$95.5 |
| Invested to-Date | \$192.0 | \$81.6 |
| Total Dry Powder | \$30.0 | \$11.0 |
| Pre-Seed Dry Powder | \$15.3 | \$7.4 |
| Seed-Plus Dry Powder | \$14.7 | \$3.6 |

Pre-Seed/Seed Plus Fund Capitalization Program

RFP Eligibility and Funding

RFP released October 9, 2020

Lead Applicants:

- New and/or existing OTF Pre-Seed Fund organizations
- Must be based in Ohio or with a Principal Place of Business in Ohio
- Have relevant investment and financial experience with tech commercialization & start-ups

Funding:

- Anticipate awarding up to \$60 million
- Funding will be in the form of loans

Pre-Seed Funds:

- Proposals for state funding in the range of \$1 million – \$5 million
- \$1 of cost share required for every \$1 of OTF funds
- Total Fund size of \$2 million to \$10 million

Seed Plus Funds:

- Proposals for state funding in the range of \$2.5 million – \$5 million
- \$3 of cost share required for every \$1 of OTF funds
- Total Fund size of \$10 million to \$20 million

Pre-Seed/Seed Plus Fund Capitalization Program

RFP Progress Update

21 proposals received

- 10 from existing OTF Fund organizations
- 11 from new Fund organizations
- 16 Pre-Seed only, requesting \$57.2M
- 2 Seed Plus only, requesting \$10.0M
- 3 Combined funds, requesting \$24.5M
 - \$12,000,000 Pre-Seed
 - \$12,500,000 Seed Plus

**Total state funds
requested
\$91.7M**

**Total cost share
\$136.8M**

**Total funds
\$228.5M**

External Evaluator: Invantage Group



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Ethics Training

Other Business / Adjournment