



**Department of
Development**

OHIO THIRD FRONTIER COMMISSION MEETING

July 23, 2024



AGENDA

- I. Call to Order
- II. Approval of April 23, 2024 Meeting Minutes
- III. Technology Validation and Start-up Fund
- IV. High School Tech Internship
- V. Other Business
- VI. Adjourn

**CALL TO ORDER +
ROLL CALL +
APPROVAL OF THE
MINUTES**

**LYDIA
MIHALIK**

Director, Ohio Department of Development



TECHNOLOGY VALIDATION AND STARTUP FUND ROUND 37 EVALUATOR RECOMMENDATIONS

REDWOOD INNOVATION
PARTNERS



Redwood
Innovation
Partners



TVSF Round 37 Evaluation

Herb Bresler PhD, Jim Sonnett PhD

July 23, 2024

Outline

- Round 37 overview
- Funding Recommendation
- Analysis and Recommendations

Round 37 Overview

- There were 11 Total Phase 2 Applications totaling \$2,198,000
- Funding of 9 Applications totaling \$1,798,000 is recommended

Round 37 Overview (Continued):

- Round 37 recommendation rate is 82%: 9 of 11 applications.
 - Historical range of prior rounds is 27 to 100%, average of 51%

TVSF Round 37						
Approval Rate by Round						
Phase 2						
Round	\$ Recommended	Approval Rate		Round	\$ Recommended	Approval Rate
1 (APR 2012)	\$950,000	35%		20 (NOV 2019)	\$1,350,000	43%
2 (AUG 2012)	\$900,000	52%		21 (FEB 2020)	\$3,944,000	56%
3 (DEC 2012)	\$610,000	44%		22 (JUN 2020)	\$1,398,630	53%
4 (JUN 2013)	\$864,000	30%		23 (DEC 2020)	\$900,000	50%
5 (FEB 2014)	\$1,462,000	46%		24 (MAR 2021)	\$2,092,900	55%
6 (JUN 2014)	\$998,000	39%		25 (JUN 2021)	\$800,000	75%
7 (OCT 2014)	\$1,100,000	57%		26 (OCT 2021)	\$1,700,000	55%
8 (FEB 2015)	\$710,000	37%		27 (FEB 2022)	\$850,000	43%
9 (JUN 2015)	\$550,000	31%		28 (APR 2022)	\$2,499,976	64%
10 (DEC 2015)	\$925,000	38%		29 (JULY 2022)	\$850,000	100%
11 (APR 2016)	\$1,239,000	46%		30 (OCT 2022)	\$3,700,000	71%
12 (OCT 2016)	\$3,537,269	46%		31 (JAN 2023)	\$100,000	50%
13 (MAR2017)	\$1,567,500	38%		32 (APR 2023)	\$850,000	64%
14 (SEP 2017)	\$498,832	27%		33 (JULY 2023)	\$1,100,000	73%
15 (DEC 2017)	\$2,250,000	38%		34 (OCT 2023)	\$250,000	33%
16 (MAR 2018)	\$2,098,600	52%		35 (JAN 2024)	\$800,000	59%
17 (SEP 2018)	\$2,100,000	42%		36 (APR 2024)	\$2,350,000	80%
18 (DEC 2018)	\$1,150,000	35%		37 (JULY 2024)	\$1,798,000	82%
19 (APR 2019)	\$2,250,000	43%		Total Funding	\$53,093,707	
				Average/Round	\$1,434,965	51%

Phase 2 Recommended Funding

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9475	Advanced & Innovative Multifunctional Materials LLC	Scale Up for Dye & PFAS Water Treatment Technology	\$200,000	University of Dayton

- AIMM has developed sorbents for removing both dyes and PFAS from water. The technology is targeting recycling organizations with their respective industries.

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9476	AxoNeural Therapeutics, Inc	Neupron: Therapeutic for Spinal Cord Injury	\$198,000	Cleveland Clinic

- AxoNeural Therapeutics has developed a therapeutic to treat neurodegenerative disease and injury by delivering powerful antioxidant enzymes to sites of neurological disease or insult to mitigate the toxic effect of Reactive Oxidative Species and promote regeneration and healing.

Phase 2 Recommended Funding

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9478	LAACClamp Inc	Left Atrial Appendage C-Clamp	\$200,000	Ohio State University

- LAACClamp has developed an implantable device that has a curved base to conform to the base of the left atrial appendage. The target market is open heart surgeries in the US.

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9479	LLKD	SkySwatter Counter Drone Tech	\$200,000	US Army DEVCON Armaments Center

- The SkySwatter is a ballistic counter drone ammo device for versatile, low-cost approach to mitigating close-range drone threats.

Phase 2 Recommended Funding

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9480	Protein Capture Science	Rapid Biotech Manufacturing with Revolutionary Next Generation of High-Speed iCapTag	\$200,000	Ohio State University

- Protein Capture Science LLC has developed, validated and are selling an intein cap self cleavable tag, iCapTag™ technology for the protein purification market. The company is focused on introducing this platform into Good Manufacturing Practices (GMP)-driven protein and protein fragment purifications for mid-size and large-scale protein manufacturers.

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9481	Raider Technologies, LLC	Intelligent Spectrum Access to Enable Smart City Infrastructure	\$200,000	Air Force Research Laboratory

- Raider Technologies seeks to create a hybrid radar-communication system using the same frequency spectrum to serve both functions simultaneously.

Phase 2 Recommended Funding

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9483	Scioto AgriTech	Sustainable Farming with Cell-Penetrating Peptides	\$200,000	Ohio State University

- Scioto AgriTech leverages a powerful intracellular peptide- and protein-delivery platform, termed “membrane translocation domains (MTDs)”, to deliver biopesticides and biostimulants to crops to increase yield.

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9484	Shark	Autonomous Rescue Craft	\$200,000	Air Force Research Laboratory

- Shark Rescue Systems is commercializing an optionally piloted autonomous jet ski with add-on automated airdrop and self-righting capability. Initial target market is military & defense. Other possible markets include law enforcement, search/rescue, firefighting, and lifeguarding.



Phase 2 Recommended Funding

Proposal	Lead Applicant	Project Title / Product Focus	Recommended Funding	Licensing Institution
24-9485	Zafer Therapeutics Inc	IND enabling studies for HXB-319 and MSC-based cell therapy	\$200,000	Case Western Reserve University

- Zafer Therapeutics is developing a specifically programmed mesenchymal stromal cell (MSC)-based therapy, HXB-319, to treat autoimmune vasculitis, that often results in end organ failure.

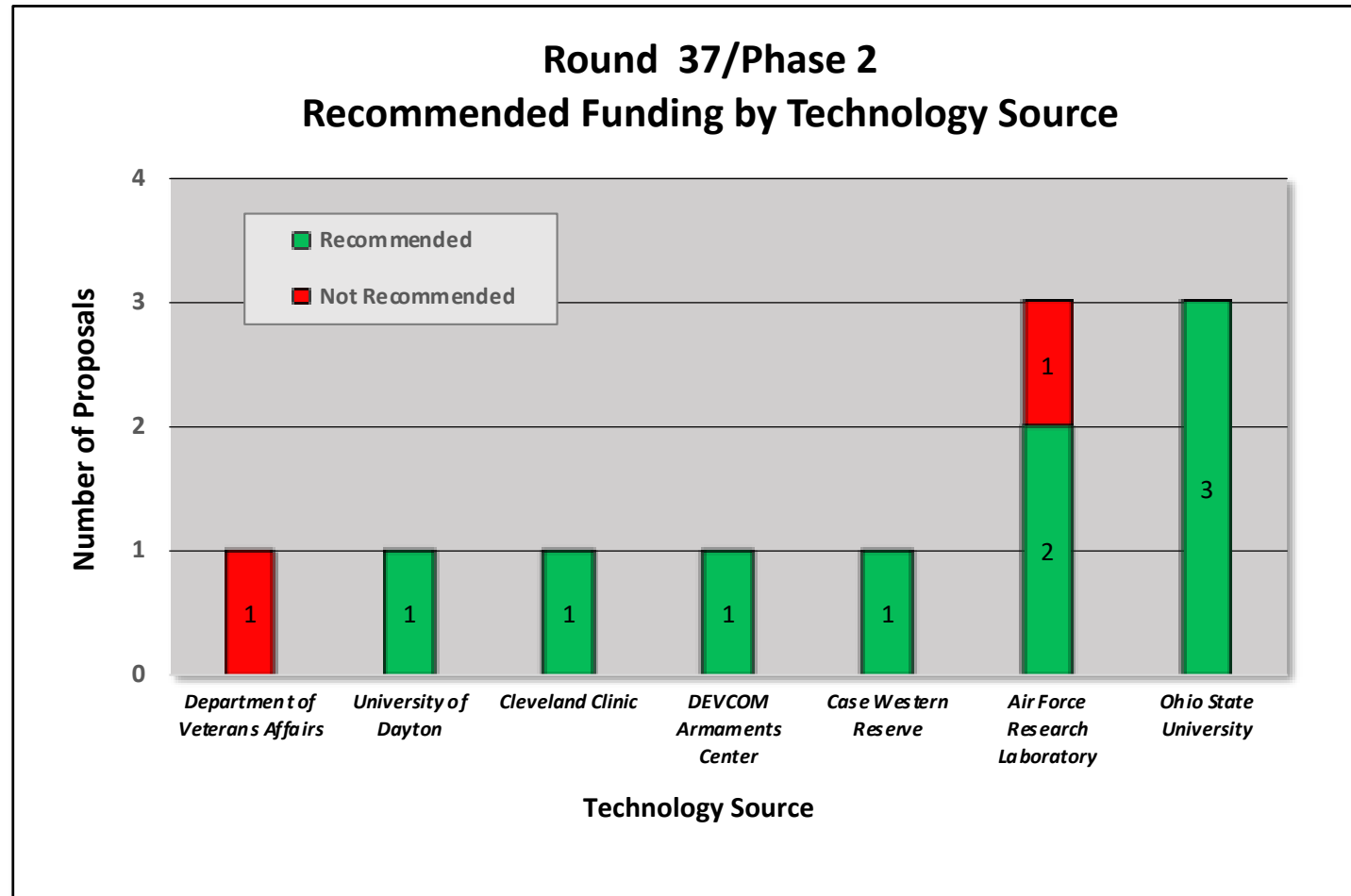
Round 37 Analysis & Recommendations



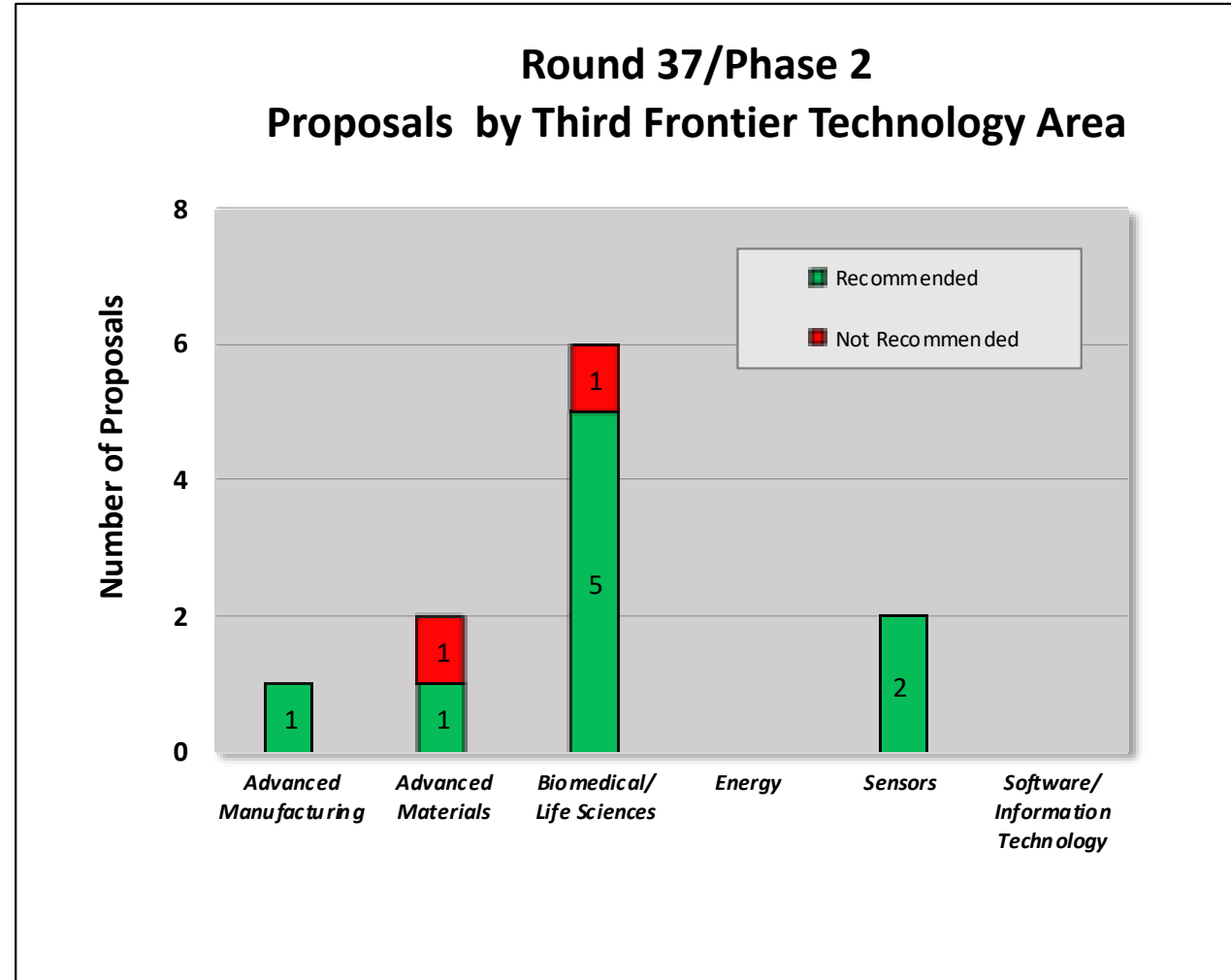
Phase 1 Carry Through and Reapplications

- Phase 1 Carry Through:
 - There were 4 Phase 2 applicants that previously received Phase 1 funding. All are recommended for funding.
- Phase 2 Reapplications:
 - There were 4 Phase 2 reapplications. One was a first time reapplication and is recommended for funding. Two were second time reapplications and both are recommended for funding. One was a fifth time reapplication (2 separate projects) and is recommended.

AFRL and Ohio State Were Each the Source for 3 Applicants

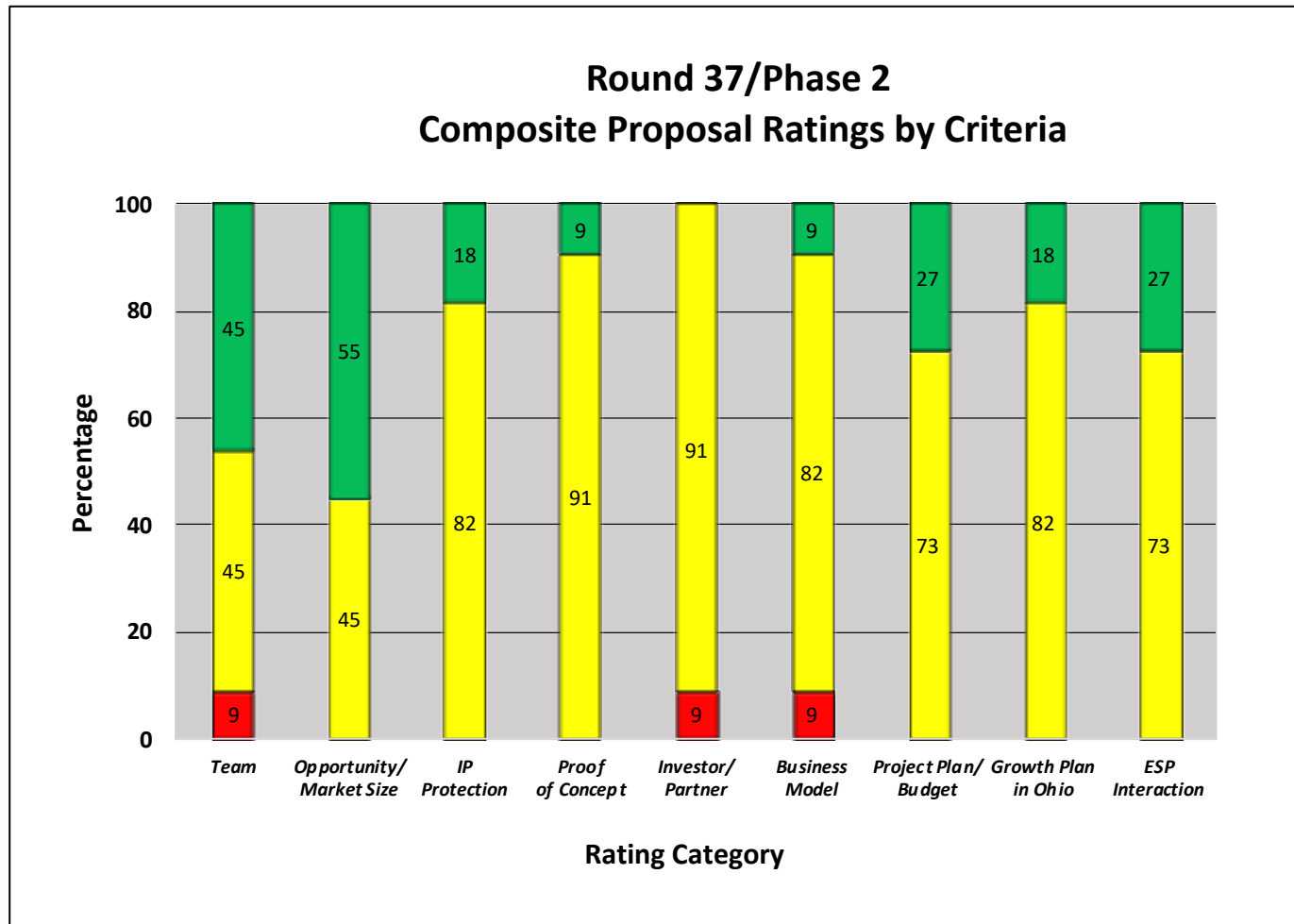


Biomedical/Life Sciences fraction is 55% of the applicants
(Round 20 – 36 Average is 55%)



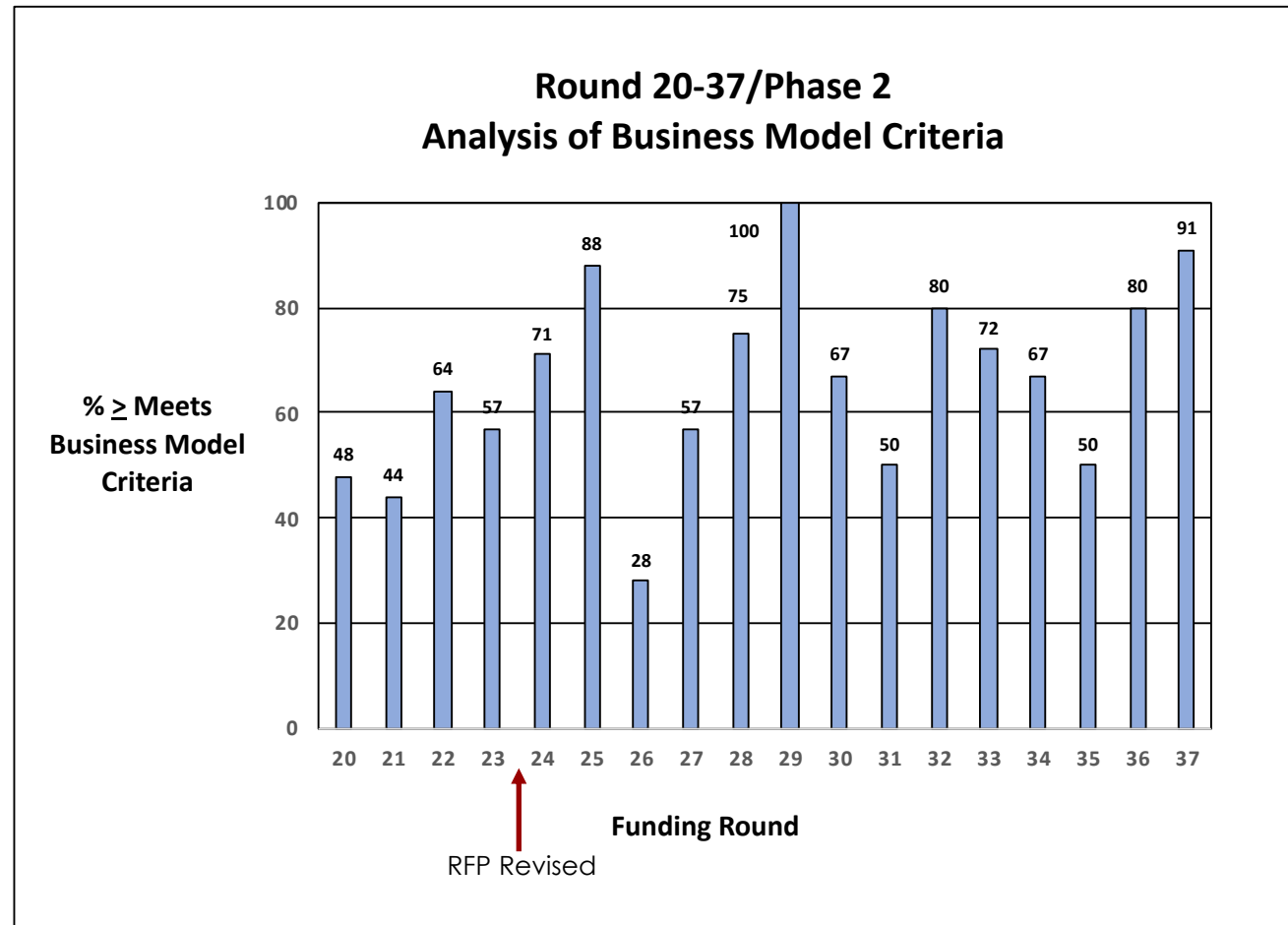
Phase 2 composite rankings show:

- Opportunity/Market Size and Project Plan were the highest rated criteria
- Investor/Partner then Business Model were the lowest rated criteria



Phase 2 Business Model Analysis

- Business model average in Round 20-23 was 53% average $\geq$ meets
- After RFP revision, Rounds 24 to 37 average is 70% average $\geq$ meets

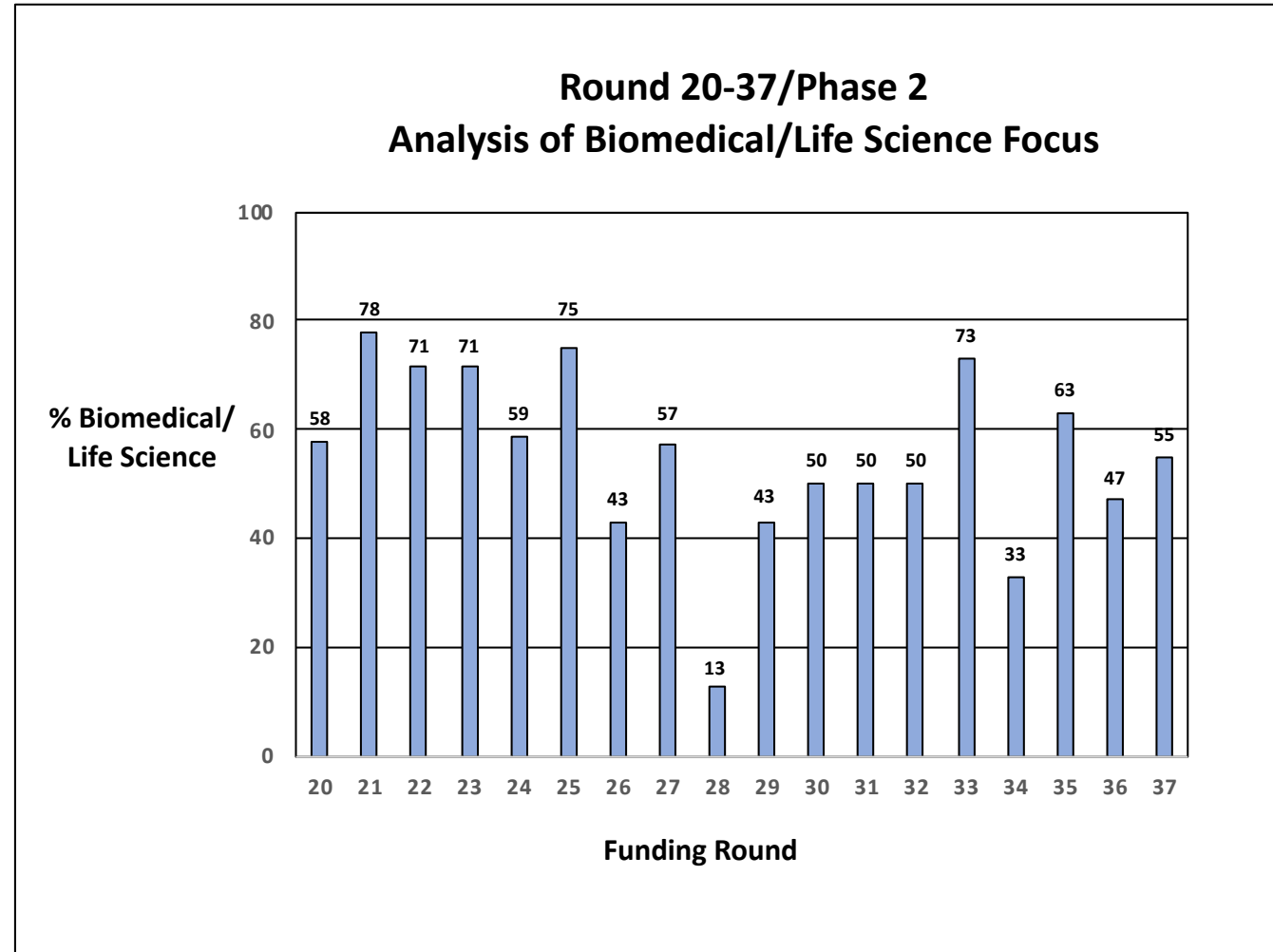


Observation:

Business model low in Round 26 appears to be an anomaly

Phase 2 Biomedical/ Life Science Focus

- Previous 17 Rounds average 55% Biomedical/ Life Science vs 55% this round



Commissioners Vote on Applications



Technology Validation and Start-Up Fund (TVSF)

Summary: Round 37 Phase 2

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HIGH SCHOOL TECH INTERNSHIP PROGRAM UPDATE AND FUNDING REQUEST

OFFICE OF WORKFORCE
TRANSFORMATION



High School Tech Internship Program Update

**Governor's Office of
Workforce Transformation
Will Ashburn
Workforce Project Manager**



**Governor's Office of
Workforce Transformation**

High School Tech Internship

Program Details

- Opportunity for Ohio employers to receive reimbursement for establishing a recruitment pipeline by hosting high school interns in tech-related roles
- Provide businesses with tech talent
- Equip students with valuable work experience

Technology roles focus on

- Software Development
- Data, Cloud, and IT infrastructure
- Cybersecurity
- Broadband/5G
- Auto & Advanced Mobility
- Other in-demand technology focused roles



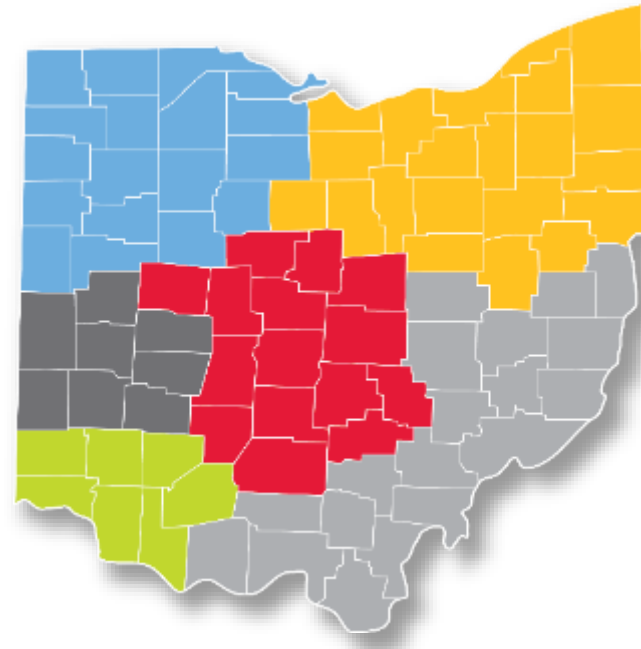
Previous Performance



2021
70 Internships
18 Counties

2022
38 Internships
7 Counties

2023
510 Internships
36 Counties



- Educational entities and businesses described past program design as overly burdensome
- Cited a lack of resources to successfully implement the program and create lasting partnerships

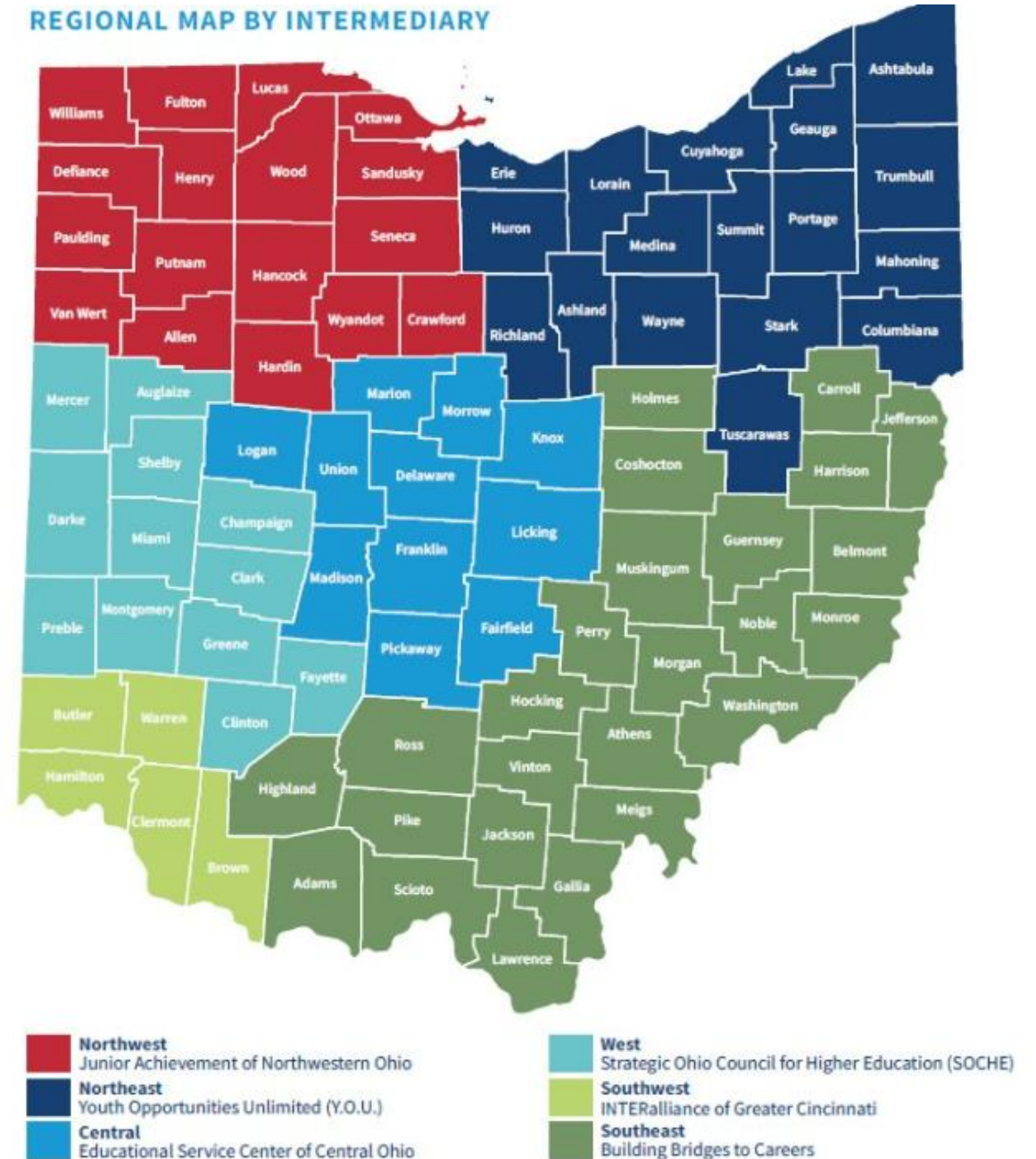
2024 Program

- Introduction of Intermediaries in each region of the state
- Program Duration
 - January 2 – September 30
- Wage Reimbursement Model
 - 200 hours or more: Full Reimbursement
 - 120-199 hours: Two-Thirds Reimbursement



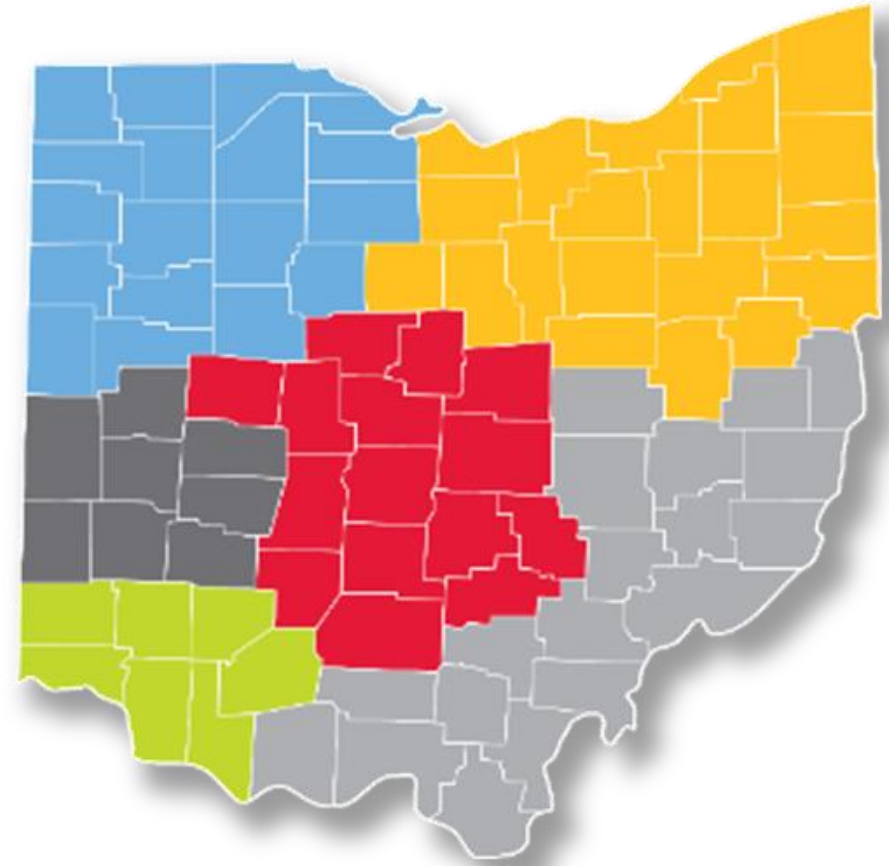
**Governor's Office of
Workforce Transformation**

REGIONAL MAP BY INTERMEDIARY



2024 Performance

Region	Interns
Southeast	103
Southwest	128
Northwest	28
Northeast	218
West	292
Central	226
Total	995



Future Program Plans

Intermediary Model

- **Continue Intermediary in each region of the state**
 - Enhanced support for educational entities and businesses statewide.
 - Increased outreach and partnerships.
 - Increased student internships and tech-related role exposure.
- **Intermediary RFA**
 - To be released this fall to onboard granted organizations in anticipation of the 2025 program.



Funding Purpose

2024 Reimbursement of student wages

- With a new enhanced program design, additional funds are necessary for program growth

2025 Intermediary support

- Funding to support six regional intermediaries

Funding Request
\$4,500,000



**Governor's Office of
Workforce Transformation**

OTHER BUSINESS

Next Meeting Date: October 22, 2024

ADJOURN

LYDIA
MIHALIK

Director, Ohio Department of Development





**Department of
Development**