

Technology Validation and Start Up Fund

Round 40 Proposal Evaluations

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Submitted to:
Lydia L. Mihalik
Director, Ohio Development of Development
Chair, Ohio Third Frontier Commission



TECHNOLOGY VALIDATION AND STARTUP FUND

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1) Executive Summary

Redwood is a Columbus, Ohio based LLC founded by former Battelle executives over 12 years ago. Redwood has assembled an extraordinary team for this Program. Each member of the five-person Redwood team is an accomplished technology commercialization professional with decades of experience in performing business and technical evaluations. This team, combined with identified external subject matter experts, has extensive experience in all six of the Ohio Third Frontier technology focus areas. More detail on the Redwood team is provided in Appendix 1 of this report and on our website (www.Redwdinnnov.com). Details of the TVSF program and the review process are provided in Appendix 2.

Seventeen (17) TVSF Round 40 applications, totaling \$3,225,000, were received and evaluated.

The proposals consisted of 3 Phase 1 applications totaling \$425,000 (1 Phase 1, Option 1 applicant of \$225,000, 2 Phase 1, Option 3 applicants totaling \$200,000) and 14 Phase 2 applications totaling \$2,800,000 for a combined total of \$3,225,000.

Funding is recommended for 2 Phase 1, Option 3 applications totaling \$200,000 and 8 Phase 2 applications for a total of \$1,600,000 yielding a combined total of \$1,800,000. This translates to a 59% recommended application funding rate for Phase 1/Phase 2 TVSF Round 40, compared to the average of 51% over all 40 TVSF rounds. The recommended approval rate for Phase 2 proposals in this round is 57%.

2) Evaluation Results

Summaries of the evaluations of the proposals for Round 40, incorporating the interview, and funding recommendations are shown below in Tables 1 and 2. Round 40 interviews were conducted via video conference. The total recommended funding for Phase 1 and Phase 2 projects is, respectively, \$200,000, and \$1,600,000. Note that the Table 1 and 2 column widths are proportional to the weighting of the evaluation criteria. For example, in Table 1, Selection Committee which is weighted at 20 is four times as wide as project selection which is weighted at 5. Note that a yellow evaluation indicates that the proposal meets that particular criterion.

More detailed evaluations and recommendations for each Phase 1 and Phase 2 proposal may be found in Section 3 of this report.

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Table 1
Phase 1 Proposal Evaluation and Funding Recommendation
TVSF Round 40

Proposal #	Applicant	Requested Funding	Recommended Funding	Selection Committee	Deal Flow & Budget Strategy	External Participation	Track Record	Metrics	Project Management & Experience	Project Selection Process
FY25-2596	Parallax Advanced Research	100,000	100,000							
FY25-2598	University of Akron Research Foundation	100,000	100,000							
	Sub-Total	200,000	200,000							
FY25-2597	Shawnee State University	225,000	-							
	Sub-Total	225,000	-							
	Total	425,000	200,000	Column width is proportional to score weighting in each category						
Evaluation Scale				Weak		Meets		Exceeds		

Option 1: \$200,000 to \$500,000, 1:1 cost share, 1 year to allocate funds, 2 year project period.

Option 2: \$1,000,000, 1:1 cost share, 2 years to allocate funds, 3 year project period.

Option 3: \$100,000, internship component, 1 year to allocate funds, 2 year project period.

TECHNOLOGY VALIDATION AND STARTUP FUND

Table 2
Phase 2 Proposal Evaluation and Funding Recommendation
TVSF Round 40

Proposal Number	Lead Applicant	Requested Funding	Recommended Funding	Team	Opportunity/Market Size	IP Protection	Proof of Concept	Potential Investor & Business Partner Engagement	Business Model	Project Plan/Budget Narrative	Growth Plan in Ohio	ESP Interaction
FY25-2599	Airtrak Robotics	200,000	200,000									
FY25-2600	Bisc Therapeutics, Inc	200,000	200,000									
FY25-2601	CARTx Therapeutics	200,000	200,000									
FY25-2602	ComHealth Data Solutions, LLC	200,000	200,000									
FY25-2605	NeolIndicate, LLC	200,000	200,000									
FY25-2606	Pavaka Wound Care, LLC	200,000	200,000									
FY25-2610	Volynt Aero, Inc.	200,000	200,000									
FY25-2611	WaterWise Technologies, LLC	200,000	200,000									
	Sub-Total, \$	1,600,000	1,600,000									
FY25-2603	FlightProfiler	200,000	-									
FY25-2604	Glengary Brain Health, Inc.	200,000	-									
FY25-2607	Saturn Sports, LLC	200,000	-									
FY25-2608	Tactical Triage Technologies, LLC	200,000	-									
FY25-2609	Viscous Biologics, LLC	200,000	-									
FY25-2612	WhichFoodsR	200,000	-									
	Sub-Total, \$	1,200,000	-	Column width is proportional to score weighting in each category								
	Total, \$	2,800,000	1,600,000									
Evaluation Scale				Weak	Meets	Exceeds						

Table 3 lists the funding approval rate by TVSF round. This round's approval rate of 59% of the total submitted proposals is on the high side of the average over all rounds. The Phase 1 applications recommended for approval comprised 12% of the total submittals for this round. The historical range of recommendations for individual rounds has spanned 27 – 100%, with an average of 51%.

Table 3. TVSF Approval Rate by Round

TVSF Round 40 Approval Rate by Round

Round	\$ Recommended	% Recommended
	Phase 1 & Phase 2	Phase 2 Only
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%

Round	\$ Recommended	% Recommended
	Phase 1 & Phase 2	Phase 2 Only
20 (NOV 2019)	\$1,350,000	43%
21 (FEB 2020)	\$3,944,000	56%
22 (JUN 2020)	\$1,398,630	53%
23 (DEC 2020)	\$900,000	50%
24 (MAR 2021)	\$2,092,900	55%
25 (JUN 2021)	\$800,000	75%
26 (OCT 2021)	\$1,700,000	55%
27 (FEB 2022)	\$850,000	43%
28 (APR 2022)	\$2,499,976	64%
29 (JULY 2022)	\$850,000	100%
30 (OCT 2022)	\$3,700,000	71%
31 (JAN 2023)	\$100,000	50%
32 (APR 2023)	\$850,000	64%
33 (JULY 2023)	\$1,100,000	73%
34 (OCT 2023)	\$250,000	33%
35 (JAN 2024)	\$800,000	59%
36 (APR 2024)	\$2,650,000	80%
37 (JULY 2024)	\$1,798,000	82%
38 (OCT 2024)	\$6,475,000	65%
39 (JAN 2025)	\$1,400,000	50%
40 (APR 2025)	\$1,800,000	59%
Total Funding	\$63,068,707	
Average/Round	\$ 1,576,718	51%

3) Proposal Summaries

Phase 1 Proposal Summaries - Recommended for Funding

Proposal 25-2596	Parallax Advanced Research	Amount Requested: \$100,000
Prior Phase 1 Applications: Yes	Parallax TVSF Research Commercialization Fund	Amount Recommended: \$100,000

TOTAL BUDGET: \$100,000

Institution Snapshot: The Parallax TVSF Research Commercialization Fund will be used to select projects that can leverage non-dilutive dollars to establish critical early-stage milestones that are established based on customer and investor input.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Selection Committee	There is a strong and experienced 6-member Selection Committee identified with startup, fund raising, investing and company development and successful exits.
Y	Deal Flow; Budget Strategy	A robust deal flow approach is provided. Two projects are expected to be funded in one year. Parallax has IP rights from OAI, research contracts and internal research and development.
Y	External Participation	The proposal clearly states the use of 3rd parties and the guidance of ESPs to manage the programs.
Y	Track Record	This applicant does not have a track record. However, the principals have a strong track record. Further, a credible outcome plan is provided.
Y	Metrics	Metrics are provided for # of funded projects, licensing and follow on funding. 100% success rates are simultaneously laudable and VERY ambitious.
G	Project Management & Experience	Both the TTO leader and designated program manager have strong backgrounds.
Y	Project Selection	Selection process is clear and aligned with TVSF goals.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendation: This is Parallax' second Phase 1 funding application. Since the Round 38 application, a strong Tech Transfer office has been established and significant IP / deal flow potential has been added. This application is recommended for funding.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2598	University of Akron Research Foundation	Amount Requested: \$100,000
Prior Phase 1 Applications: Yes	<i>Ohio Third Frontier Technology Validation and Startup Fund Phase 1 Round 40</i>	Amount Recommended: \$100,000

TOTAL BUDGET: \$100,000

Institution Snapshot: The University of Akron Research Foundation (UARF) Spark Fund will provide the proof needed to bring University of Akron (UA) technologies in areas of institutional strength to the point where a scalable startup can be built based on the technology.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Selection Committee	The 5-Member selection committee has the entrepreneurial skills, industry knowledge and fund management expertise necessary for serving on the committee and are committed to the success of the program.
Y	Deal Flow; Budget Strategy	It is anticipated that there will be 10 Project Pitches, 4-5 for due diligence and 2 to 3 projects funded from the Option 3 grant.
Y	External Participation	The need for external providers is acknowledged. A list of providers was not shared. An example of 3 providers was shared in the answers to the pre-interview questions.
G	Track Record	The number of licenses and startup companies from all Phase 1 projects is at a 65% licensing rate. The 15 licenses were to startup companies that have raised ~\$21M in funding and 2 exits.
G	Metrics	Startups formed, licenses signed, follow-on funding, company exits are all tracked.
Y	Project Management & Experience	Projects are managed by one person who is both the UA Director of Tech Transfer and Executive Director for UARF. Projects are monitored by Senior Fellows.
G	Project Selection	UARF has a well-established 4 step selection process.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendation: The UARF program has been well run. The Senior Fellows program has been very effective. The track record is very impressive with 15 licenses executed to startup companies and ~\$21M in follow on funding. Significant personnel changes occurred in the past year, resulting in one person sharing both the UA Director of Tech Transfer and Executive Director for UARF positions.

Proposal Summaries - Phase 1 Not Recommended for Funding

Proposal 25-2597	Shawnee State University	Amount Requested: \$225,000
Prior Phase 1 Applications: No	<i>ShawneeXP: A New Frontier for Independent Game Development</i>	Amount Recommended: \$0

TOTAL BUDGET: \$0

Institution Snapshot: The ShawneeXP (SXP) Game Accelerator seeks to validate early-stage game studios by funding prototype development and market fit assessments, provide structured mentorship through industry experts, and prepare studios for investment through training and convertible grants.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Selection Committee	The 8-member Selection Committee consists of game developers and leaders in the gaming industry with experience in game development and entrepreneurship. Independent third-party validation of candidates is performed.
R	Deal Flow; Budget Strategy	Deal flow is inconsistent with the intent of TVSF Phase 1 award for market or commercial validation activities of the institution's intellectual property.
G	External Participation	Outside organizations and leaders have been engaged that are capable of assessing projects, market position, mentoring and aiding teams to present a clear value proposition for investors.
Y	Track Record	The track records of the Selection committee and the likely SXP team are impressive.
R	Metrics	New program. No discussion of the Metrics that will be tracked were contained in the application. Some metrics provided in written answers to pre-interview questions.
G	Project Management & Experience	Project management is performed by the Accelerator Director who has successfully managed gaming projects in previous companies.
Y	Project Selection	A detailed 3 round process is provided in the application.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendation: Shawnee XP does not meet the criteria for TVSF Phase 1 funding as it does not use internal intellectual property for market or commercial validation activities. Shawnee has developed an Accelerator to build upon the strength of the University in the gaming industry. The Accelerator concept presented is a very innovative, cost-effective approach to creating economic growth for the Portsmouth region.

Phase 2 Proposal Summaries - Recommended for Funding

Proposal 25-2599	Airtrek Robotics	Amount Requested: \$200,000
<i>Licensing Institution</i>	Air Force Research Laboratory	Amount Recommended: \$200,000
Prior Phase 1 Applications: No	Prior Phase 2 Applications: No	<i>Autonomous Robot for Airport Debris Cleaning</i>
Software / Information Technology		Entrepreneurs' Center

Company Snapshot: Airtrek Robotics proposes to offer regional airports IRIS (Intelligent Robotics Inspection System)—a self-driving robot that automatically detects, removes, and analyzes dangerous Foreign Object Debris in real time while providing immediate safety alerts to airport staff.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	The leadership team has been actively involved in the development of the technology and has direct experience with the target market. They have been successful in obtaining funds to enable start-up and ongoing activities aim to secure further Seed funding.
Y	Opportunity/Market Size	The global TAM is estimated to be \$2.27B, with the US SOM \$936M. Initial focus will on the US SOM. General Aviation airport market size is estimated to be ~\$37M over the next 5 years.
Y	Intellectual Property Protection	Airtrek holds 2 non-provisional patents (#19/014,147 and #19/014,134). License applied for on AFRL's U.S. Patent 10,827,190 (RL10206) and is expected to be granted by Q3 2025.
G	Proof of Concept	Technology is currently at TRL 5. Integration of the USAF technology will enable successful demonstration of TRL 6 and achieve critical performance metrics.
Y	Potential Investor/ Business Partner Engagement	Airtrek has obtained funding of ~\$300K. Pre-seed funding of \$1.5M currently ~30% committed; Series A funding of \$3M planned in 2027.
Y	Business Model	Systems provided with monthly subscription fees. Initial target is general airports. Airtrek projected revenues of ~\$21M.
Y	Project Plan/ Budget Narrative	Plan and budget are consistent with achieving TRL 6 in 12 months.
Y	Growth Plan in Ohio	30 employees by Y5. Will use Ohio manufacturing infrastructure.
Y	ESP Interaction	Engaged with the Entrepreneurs' Center.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations:

Airtrek Robotics has demonstrated the viability of automated robotic systems for the detection and removal of debris from airport runways. The management team has the technical experience and application knowledge to successfully commercialize the technology. Feedback from potential customers and investors has focused the short-term business actions; continued close interaction with these supporters will be extremely valuable to achieve the business potential. Additional expertise in fund raising may need to be brought into the business to meet the projected growth plans.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2600	Bisc Therapeutics, Inc.	Amount Requested: \$200,000
<i>Licensing Institution</i>	Case Western Reserve University	Amount Recommended: \$ 200,000
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: No	<i>Oral Therapy for Geographic Atrophy</i>
Biomedical/Life Sciences		Entrepreneurs' Center

Company Snapshot: Bisc Therapeutics is developing a first-of-its-kind oral medication to stop the root cause of vision loss in Geographic Atrophy (GA), by blocking Bax, a key protein that triggers the death of retinal cells.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	Strong 4-member team with skills and experience in medical, technical and entrepreneurial business and fund raising. Team appears to be well connected with the medical community.
G	Opportunity/Market Size	Global and US Geographic Atrophy market size is identified and quantified.
Y	Intellectual Property Protection	PCT/US2020/035564 (filed June 1, 2020), has entered national stage in the U.S., Europe, Canada, Australia, and Japan in November 2021.
G	Proof of Concept	Currently at a TRL 4 with tolerability studies in rodents over six months. Lead development candidate Bax inhibitor has been identified along with several back up molecules.
Y	Potential Investor/ Business Partner Engagement	Pre-seed round is anticipated to start in Q2 2025.
Y	Business Model	Business model is well articulated and logical for a therapeutic product with an anticipated launch in Q 3 2031.
G	Project Plan/ Budget Narrative	Six-month project plan. Outcome - toxicology report on 2 species.
Y	Growth Plan in Ohio	Anticipate hiring 11 employees over the first 3 years in NE Ohio.
Y	ESP Interaction	Engaged with the Dayton ESP and have engaged with JumpStart.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: The team is strong with appropriate experience to be successful. A multibillion-dollar market size with a strong need and pending intellectual property protection. The company has a well-articulated business model and is logical for a therapeutic product.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2601	CARTx Therapeutics	Amount Requested: \$200,000
<i>Licensing Institution</i>	Nationwide Children's Hospital	Amount Recommended: \$200,000
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: No	<i>Innovating off-the-shelf CRISPR/AAV generated CAR T-cell therapies to treat cancer</i>
Biomedical/ Life Sciences		Rev1

Company Snapshot: CARTx has developed a versatile, off-the-shelf, affordable CAR T-cell immunotherapy platform that genetically engineers a certain type of T-cell using CRISPR/AAV to treat cancer patients more quickly, effectively and less expensively.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	Highly experienced team with a well-developed board of advisors. CSO is a leader in the field and director of core facility at NCH. CEO is retired exec from GE Healthcare. CMO has cellular therapy clinical trial experience.
G	Opportunity/Market Size	CAR T-cell therapy market is \$10B. CARTx platform technology has large market potential.
Y	Intellectual Property Protection	Exclusive license agreement recently signed for patents and applications from NCH.
G	Proof of Concept	<i>In vitro</i> human and <i>in vivo</i> animal models have successfully demonstrated the technology as part of TVSF Phase 1 project.
G	Potential Investor/ Business Partner Engagement	Seeking a lead investor for initial fund raise. Significant engagement with Rev1 Ventures and other venture and institutional investors.
Y	Business Model	Standard business model for advanced therapies: show Phase 1 data to attract large venture and strategic partners.
Y	Project Plan/ Budget Narrative	TVSF funds will be used to convert protocols to GMP and submit IND
G	Growth Plan in Ohio	Committed to Ohio operations. Excellent fit for Ohio tech ecosystem.
G	ESP Interaction	Regular engagement with Rev1.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Breakthrough platform technology for off-the-shelf CAR-T therapy seeks to reduce costs tenfold, while simultaneously improving safety and efficacy of CAR-T for blood and solid cancers. The technology has been successfully demonstrated in the laboratory and seeks Phase 2 TVSF funding to help ready it for clinical trial. The highly experienced business and technical team is actively engaged with potential investors. The technology fits within and leverages the growing Ohio cell and gene therapy ecosystem.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2602	ComHealth Data Solutions LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Cleveland State University	Amount Recommended: \$200,000
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: 39	CHW Digital Platform
Software/ Information Technology		Entrepreneurs' Center

Company Snapshot: The i-Hope platform is an intuitive community electronic data collection platform to eliminate paper-based data collection for community health workers (CHW), allows for data exchange between clinics and facilitates longitudinal tracking and collaboration.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
Y	Management Team	Team has significant medical and entrepreneurial experience. Time commitments of the principals are appropriate for the stage of the business.
Y	Opportunity/Market Size	Applicant estimates market at ~ \$190M. Evaluator believes market may be substantially larger if pricing is value based.
Y	Intellectual Property Protection	Patent application has been in prosecution for some time. The team is hopeful that patent issue is forthcoming. If not, will they pursue copyright / trade secret.
Y	Proof of Concept	Initial validation has occurred with Ohio based Community Health Organizations (CHO).
G	Potential Investor/ Business Partner Engagement	Strong engagement with multiple Ohio CHOs, including candidate early adopters. Initial discussions with prospective investors.
Y	Business Model	Applicant has done a good job quantifying value created, reimbursement and approach to several market segments.
Y	Project Plan/ Budget Narrative	Project plan is appropriate. Scope of project is optimistic but possible.
G	Growth Plan in Ohio	A clear commitment to Ohio is provided.
G	ESP Interaction	Significant interaction with the Entrepreneurs Center is described.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: This is a promising product that has the potential to improve health outcomes AND provide economic returns. The team has now clearly quantified the economic value proposition and reimbursement pathway(s). This application is recommended for funding.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2605	NeolIndicate, LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Case Western Reserve University	Amount Recommended: \$200,000
Prior Phase 1 Applications: No	Prior Phase 2 Applications: 25,33,36	<i>Chimeric antibody theranostics for imaging and treatment of cancer</i>
Biomedical/ Life Sciences		JumpStart; CincyTech; Rev1

Company Snapshot: NeolIndicate has a proprietary platform utilizing a unique cell surface adhesion molecule fragment that is only present on tumor cells that is tunable for diagnosing, imaging and selectively treating cancers.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	Strong leadership team with expertise needed to advance technology and business. Inventor/founder providing scientific leadership. Engaged and committed CEO leading business development, partnering and investment. Capable operations manager.
G	Opportunity/Market Size	Potential US market \$4.5B for single use in a single disease. Platform technology can be developed for all major cancers, potential market of over \$200B per year.
G	Intellectual Property Protection	Seven US issued patents, others pending. NeolIndicate in negotiations for new IP describing immunotherapy implementation.
Y	Proof of Concept	Significant progress toward new application of the core platform technology has been made.
G	Potential Investor/ Business Partner Engagement	CEO in conversation with potential investors. Track record of successful fundraising for NeolIndicate by CEO.
G	Business Model	TVSF work would position new therapy for IND, a key valuation and potential licensing milestone.
Y	Project Plan/ Budget Narrative	TVSF funding is for antibody synthesis and preclinical work.
G	Growth Plan in Ohio	Continued operation and commitment to Ohio.
Y	ESP Interaction	Engagement with multiple ESPs: JumpStart, CincyTech, and Rev1.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: This new application of NeolIndicate's core technology results from new IP generated in the founder's lab at CWRU. Immunotherapy is a rapidly growing and investable area of cancer drug development. The team continues to make appropriate progress on the technology tracks previously funded in Rounds 25, 33 & 36. The Round 25 TVSF Phase 2 project will reach FDA IND application in early April 2025. If successful, that first clinical trial will open up opportunities for the other tracks to move quickly into clinical studies. This application is recommended for funding.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2606	Pavaka Wound Care LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Ohio State University	Amount Recommended: \$200,000
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: No	Pavaka Wound Care
Biomedical/ Life Sciences		Rev1

Company Snapshot: Pavaka Wound Care's (PWC) Electroceutical Advanced Wound Dressing (EAWD) uses a low-level electric field to disrupt bacterial biofilms and speed up healing in serious drug-resistant bacteria and biofilms, offering a new, drug-free approach to infection management.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	Founders have relevant technical and entrepreneurial experience in medical device development, healthcare operations and start-ups. Advisory board provides expertise in technology, product development, manufacturing scale up and wound management.
Y	Opportunity/Market Size	US TAM identified as \$2.7B in 2022, SOM for EAWD is ~\$151M. The platform technology suggests efficacy for treatment of pathogen agnostic therapeutic infections such as viral and fungal infections.
Y	Intellectual Property Protection	OSU granted US patent #12,102,508 in Oct 2024; patent application 17/918,051 filed April 2021. License secured by Pavaka in Nov 2024. No freedom to operate analysis currently performed.
Y	Proof of Concept	Efficacy demonstrated in porcine and human trials, including a clinical safety study and DoD study of biofilm infection. Potential users have provided metrics for cost, ease of use and accessibility.
Y	Potential Investor/ Business Partner Engagement	Discussions held with critical industry leaders, investment partners and DoD personnel. Plan to raise \$6M in equity investment.
Y	Business Model	Traditional distribution direct to users requires FDA approval and authorization for insurance reimbursement.
Y	Project Plan/ Budget Narrative	The budget and project plan can be completed within 12 months.
Y	Growth Plan in Ohio	Company based in Columbus and will manufacture products in Ohio.
Y	ESP Interaction	Engaged with Rev 1.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Pavaka Wound Care's (PWC) platform technology has demonstrated a cost-effective drug-free treatment of multi-drug-resistant bacteria and biofilms that offers a unique approach to management of severe infections. Feedback from commercial customers and investors has focused the short-term business actions; continued close interaction with these supporters will be extremely valuable to achieve the commercial potential. Critical expertise in fund raising, manufacturing scale up and navigating the FDA approval process will be important to demonstrate and commercialize the technologies potential.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2610	Volynt Aero, Inc.	Amount Requested: \$200,000
<i>Licensing Institution</i>	Miami (OH) University	Amount Recommended: \$200,000
Prior Phase 1 Applications: No	Prior Phase 2 Applications: 39	<i>DC/DC Converter for Hybrid Multirotor Aircraft</i>
Advanced Manufacturing		Entrepreneurs' Center

Company Snapshot: Volynt Aero plans to commercialize the **Vyper** aircraft, an unmanned, hybrid-electric, multi-mission aircraft for use in defense contested logistics, humanitarian disaster response and commercial mid-mile logistics.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	The management team has been involved in the technology development and have demonstrated success in fund raising in prior business ventures. All are currently active in leading the business and raising \$8M Seed funding.
Y	Opportunity/Market Size	The technology provides military logistics and disaster relief support. Initial market is DoD. The current product provides unique capability suggesting a market in excess of \$19B.
Y	Intellectual Property Protection	Background IP owned by Volynt Aero. U.S. Provisional Patent Application 63/674,490 filed July 19th, 2024 for the DC/DC converter; license for IP in development.
Y	Proof of Concept	Integration of DC/DC converter will provide TRL6, when coupled with additional developments, the stated customer performance metrics will be met.
Y	Potential Investor/ Business Partner Engagement	Discussions to obtain \$8M in seed funding underway. A \$28M Series A funding is planned for 2026.
Y	Business Model	Initial market is DoD for sales in 2028. Underlying technology can be scaled for future commercial applications.
Y	Project Plan/ Budget Narrative	Plan and budget will demonstrate technology within 12 months.
Y	Growth Plan in Ohio	Use of Ohio infrastructure with 50 jobs and \$100M in 5 years.
Y	ESP Interaction	Existing relationship with The Entrepreneurs' Center and EIR.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations:

Volynt Aero has demonstrated the feasibility of operation of an unmanned aircraft for logistical support and distribution. The management team is well qualified to continue product development, obtain financial backing and commercialize the technology. The team is engaged in establishing manufacturing capability and raising funds to support future market penetration with a clear path to meet key performance metrics for the end user. Immediate focus is for DoD applications. The maintenance of close relationships with key stakeholders will be critical to successful deployment of the product.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2611	WaterWise Technologies LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Ohio State University	Amount Recommended: \$200,000
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: 39	Field-Scale Validation of Unmanned Surface Vehicle (USV) and COO model for Water Resource Management
Sensors	Rev1	

Company Snapshot: WaterWise Technology has field tested an alpha version unmanned surface vehicle (USV) equipped with ultraviolet (UV) light for surface water monitoring, prevention and treatment of harmful algal blooms (HABs).

Rating (R/Y/G)	Category	Highlights/Issues/Comments
Y	Management Team	Core management team has strong operational and environmental science expertise focused on water management. Outside contract entities have been identified that include financial and engineering services.
Y	Opportunity/Market Size	Surface water monitoring/treatment for HABs remediation/prevention is a recognized large and growing market opportunity. Initial target market is golf course ponds with estimated \$816 MM SOM.
Y	Intellectual Property Protection	PCT application US2023/063556) filed in March 2023. Initial office actions are public.
G	Proof of Concept	Alpha prototype USV-UV has been built and field demonstrated at a TRL 6 - with associated lab testing for HAB control and toxin removal under TVSF Phase 1 funding.
Y	Potential Investor/ Business Partner Engagement	Identification of potential public and private investment funding. Initial partner outreach to Delco Water and Aquatic Environmental Service.
Y	Business Model	Pro-forma identifies projected revenue streams, including leasing and direct sales. Significant capital investment will be required.
G	Project Plan/ Budget Narrative	Sites for beta prototype drone demonstrations have been secured.
Y	Growth Plan in Ohio	Projected 29 full-time employees with \$2.7 M/year payroll (2029).
Y	ESP Interaction	Interaction with Rev 1.
	Evaluator Recommendation	This application is recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Core management team has strong operations and environmental science capabilities for management of water bodies. Finance and engineering contract services have been identified. The proposed field demonstration is the logical next step to validate the current beta prototype and identify performance improvements and manufacturing cost savings. Pro-forma shows very aggressive revenue projections that will require significant equity investment or other sources of capital funding.

Proposal Summaries - Phase 2 Not Recommended for Funding

Proposal 25-2603	FlightProfiler	Amount Requested: \$200,000
<i>Licensing Institution</i>	Ohio University	Amount Recommended: \$0
Prior Phase 1 Applications: No	Prior Phase 2 Applications: No	LAWN Visibility Tool
Software/ Information Technology		Entrepreneurs' Center

Company Snapshot: FlightProfiler's Low Altitude Weather Network (LAWN) Visibility Tool provides Machine Learning, image-processing technology that delivers accurate, hyper-localized visibility data and assessments in real time to improve safety and operational challenges.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
R	Management Team	Team has strong technical background. Significant entrepreneurial, fund-raising and sales / marketing experience is lacking.
R	Opportunity/Market Size	Three target markets are mentioned - Aviation, EMS and personal health. These markets are highly fragmented and the financial opportunity is not quantified.
Y	Intellectual Property Protection	IP strategy is to use a copyright to protect this software. Ohio University is prepared to enter into an exclusive license.
Y	Proof of Concept	Meaningful customer testing with feedback has occurred.
R	Potential Investor/ Business Partner Engagement	No prospective investor engagement at this time. Some engagement with potential customers has occurred.
R	Business Model	Primary revenue model is SaaS / app sales. Economic value created for / by prospective customers is not well understood.
Y	Project Plan/ Budget Narrative	Plan is reasonable. Vendors have a history with team.
Y	Growth Plan in Ohio	Principals are Ohio based. No Ohio growth plan is provided.
G	ESP Interaction	A long-standing relationship with the Entrepreneurs Center is noted.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: This product has a high commercial potential. However, this application is not recommended for funding as it has several important gaps. The team is encouraged to add entrepreneurial and marketing expertise to complement their current technical strengths. It will also be very helpful to clearly understand how economic value is created and for whom in each of the target markets and channels.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2604	Glengary Brain Health, Inc.	Amount Requested: \$200,000
<i>Licensing Institution</i>	University Hospital Health System Inc	Amount Recommended: \$0
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: No	AAP Neuroprotective Compounds
Biomedical/ Life Sciences	JumpStart Inc.	

Company Snapshot: Glengary Brain Health has developed three novel small molecule series that show promise for treating Alzheimer's disease (AD) and other neurodegenerative diseases.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
G	Management Team	Strong, highly experienced team including a serial entrepreneur, physician-inventor and medicinal chemist-inventor. Long successful track records provide access to financial and business networks.
G	Opportunity/Market Size	Huge unmet clinical need. The 2022 revenue for Alzheimer's Disease therapeutics in the United States was estimated to be \$1.7B.
G	Intellectual Property Protection	Patent applications for drug chemistries for both families. License just executed with University Hospitals includes access to IP from inventor's prior institutions.
R	Proof of Concept	The drug is at a very early stage, equivalent to TRL 3. The lead drug compound has not been identified.
Y	Potential Investor/ Business Partner Engagement	Investor/partner engagement is nascent. Business contacts have been made casually, not formally. This effort is maturing.
R	Business Model	Business model is generally described. Proforma was incomplete. Expenses shown are not coordinated in time or with narrative.
R	Project Plan/ Budget Narrative	TVSF-funded project will not result in MVP. Lead identified in 2027.
Y	Growth Plan in Ohio	Company based in Cleveland area and committed to remain.
G	ESP Interaction	Long-standing relationship with JumpStart.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Highly skilled and experienced team. Large unmet clinical need and market opportunity. Very promising preliminary data *in vitro* and *in vivo* in animal models. Early-stage drug development will not result in a lead drug compound to enter formal pre-clinical testing until at least 2027. Engagements with potential investors and partners require follow up. Commitments for future funding are needed to support the immaturity of the technology. This application is not recommended for funding.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2607	Saturn Sports LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	US Army DEVCOM Chemical Biological Center	Amount Recommended: \$0
Prior Phase 1 Applications: No	Prior Phase 2 Applications: No	Saturn Strap
Sensors	Entrepreneurs' Center	

Company Snapshot: Saturn Sports LLC is commercializing a football helmet chin strap designed to enhance a player's safety with visual and audible signals that indicate whether a chin strap tightly secures the helmet to the player.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
R	Management Team	Core management team are college students graduating in May with minimal experience in product development, general business management and S/U fund raising. Advisory team providing support to the core team during early-stage company development.
Y	Opportunity/Market Size	SAM chin strap market is \$256 MM. SOM for American football chin strap market is \$100 MM. Adapting rugged and miniature electronic components to enhance helmet safety has a strong social focus.
Y	Intellectual Property Protection	In discussions with TechLink for licensing of USP 11723441B1. This is US Army DEVCOM IP. Competition can potentially quickly develop from established sports equipment suppliers.
R	Proof of Concept	Envisioned chin strap concept is in early stage. No designed or built alpha prototype. Proposal states that project will begin with "concept development and product specification".
R	Potential Investor/ Business Partner Engagement	Finalist in 2025 Flyer Pitch Competition. Potential seed investors are EC Angels, Flyer Angels, and Ohio Gateway Tech Fund.
Y	Business Model	Sales channels include direct sales, e-commerce, and wholesale with tiered pricing.
Y	Project Plan/ Budget Narrative	Project plan is to award \$150,000 engineering contract to third party.
Y	Growth Plan in Ohio	Project annual revenue of \$15 MM and 20 FT employees (Year 5).
Y	ESP Interaction	Engaged with Entrepreneurs' Center.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Profitable growth prospect of company will be enhanced with the addition of team members with expertise in general business management, product development and S/U fund raising. Proposed technology is comparatively early-stage in development for TVSF program funding with alpha prototype not fully specified, designed or manufactured. Commitment of the core management team and advisors not fully demonstrated outside of the academic environment.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2608	Tactical Triage Technologies, LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Ohio State University	Amount Recommended: \$0
Prior Phase 1 Applications: No	Prior Phase 2 Applications: No	<i>Tactical Triage Technologies, LLC</i>
Software/ Information Technology		Rev1

Company Snapshot: Tactical Triage Technologies, LLC proposes to offer first responders a high-pressure, scenario-based virtual reality training platform that improves decision-making and response accuracy.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
Y	Management Team	Team appears qualified on paper. Application does not convey commercial savvy, including repeated references to TVSF GRANT, and no proforma.
R	Opportunity/Market Size	Markets mentioned include: First responders, military and healthcare. Number of target organizations is provided. No quantitative \$ estimate of market is provided. Highly fragmented market.
R	Intellectual Property Protection	IP is not mentioned in the application. A letter of support from OSU tech transfer is provided indicating an invention disclosure has been filed and that OSU plans copyright protection.
G	Proof of Concept	Have already conducted training with 12 fire departments and military units. Prior DARPA funding. Now at TRL 7 - demonstrated in an operational environment but requires refinements including scaling.
Y	Potential Investor/ Business Partner Engagement	Have already conducted trial with 12 fire departments and military units. No mention of investors or go to market partners.
R	Business Model	Two revenue streams planned: 1) instructor led training, 2) software subscriptions for on-demand training. No proforma provided.
R	Project Plan/ Budget Narrative	Tasks and associated budget listed. No Gantt chart or vendors.
Y	Growth Plan in Ohio	Application states desire to create multiple jobs in Ohio.
R	ESP Interaction	Mentions several Rev1 workshops. Rev1 involvement is not clear.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: The company has made significant progress identifying a market opportunity and developing and demonstrating a product. The business side of the company is not sufficiently advanced to recommend funding. This includes clearly identifying the economic incentives at an ecosystem level and clarifying the pricing strategy.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2609	Viscus Biologics LLC	Amount Requested: \$200,000
<i>Licensing Institution</i>	Cleveland Clinic Foundation	Amount Recommended: \$0
Prior Phase 1 Applications: No	Prior Phase 2 Applications: No	ReAlign Tendon Repair Device
Biomedical// Life Sciences		JumpStart Inc./ MAGNET

Company Snapshot: Viscus Biologics LLC proposes to develop and commercialize an implantable surgical device consisting of a tendon-derived material combined with a fiber reinforcement technology to improve performance for shoulder and rotator cuff tendon repair.

Rating (R/Y/G)	Category	Highlights/Issues/Comments
Y	Management Team	The team has relevant business operating and technical skills. Limited information on experience in fund raising and sales/marketing is provided.
R	Opportunity/Market Size	US market size for tendon repair quoted. No breakdown for what portion of this is for shoulder tendon repair. No estimate of the market size for the specific product type provided.
Y	Intellectual Property Protection	Viscus Biologics holds a provisional patent application, Cleveland Clinic possesses 4 patents that are intended to be licensed to ReAlign Medical.
R	Proof of Concept	Technology suggests improved performance. Performance metrics for MVP will be developed in the proposed work but no detailed plan provided for development of an MVP.
R	Potential Investor/ Business Partner Engagement	Plan to raise \$5M in seed money for Realign. Financial relationship between Viscus and Realign is not clear.
R	Business Model	Unclear if any product or technology will be completed with TVSF funds, IP ownership, and if Realign will be formed.
R	Project Plan/ Budget Narrative	Plan will "define" a product, proposed budget exceeds TVSF limits.
R	Growth Plan in Ohio	Indicate creation of 25-50 jobs and revenues of ~\$13M in 5 years.
R	ESP Interaction	Interaction with JumpStart and MAGNET not clearly stated.
	Evaluator Recommendation	This application is not recommended for funding.

Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: The technology associated with the development of tendon repair product for use in the treatment of shoulders combines a tendon extracellular matrix (ECM) patch with fiber reinforcement technology. The nature of the intertwined operations and IP licensing agreements between two existing entities (Viscus and Cleveland Clinic) and one not yet registered as a separate entity adds complexity to the proposal that hinders a clear understanding of the plan, budget, business operations and deliverables that will be provided on project completion. A clear definition of the TAM, SAM and SOM for the initial target market and any future potential markets would improve an accurate assessment of the proposed business opportunity.

TECHNOLOGY VALIDATION AND STARTUP FUND

Proposal 25-2612	WhichFoodsR	Amount Requested: \$200,000
<i>Licensing Institution</i>	Case Western Reserve University	Amount Recommended: \$0
Prior Phase 1 Applications: Yes	Prior Phase 2 Applications: No	<i>Fecal Test to Monitor and Manage Intestinal Inflammation at Home: Prototype and Validation for Marketing</i>
Biomedical/ Life Sciences		JumpStart Inc.

Company Snapshot: WhichFoodsR is developing an at-home fecal test for personalized monitoring intestinal inflammation in patients with Inflammatory Bowel Diseases (IBD).

Rating (R/Y/G)	Category	Highlights/Issues/Comments
R	Management Team	Experienced scientific founder/inventor, a veterinarian with history of successful invention leading to a product. Medtech entrepreneur CEO is brand new to the team and unprepared to lead.
Y	Opportunity/Market Size	Large overall market of \$5B with significant opportunity for this specific market opportunity.
Y	Intellectual Property Protection	In negotiations to license an issued US patent.
R	Potential Investor/ Business Partner Engagement	New CEO has not engaged with potential investors. No path to investment shown as needed in year 1 or additional years.
R	Business Model	Significant elements lacking. Realism of business plan is incomplete without regulatory, market strategy and timing.
G	Proof of Concept	MVP essentially complete except for manufacturing transition. Biomarker validated in animal and human studies. Method and prototype kit demonstrated.
Y	Growth Plan in Ohio	NE Ohio-based and stated commitment to remain there.
Y	Project Plan/ Budget Narrative	Achieve manufacturing transition, clinical testing within budget, time
Y	ESP Interaction	Could benefit from increased JumpStart engagement.
	Evaluator Recommendation	This application is not recommended for funding.

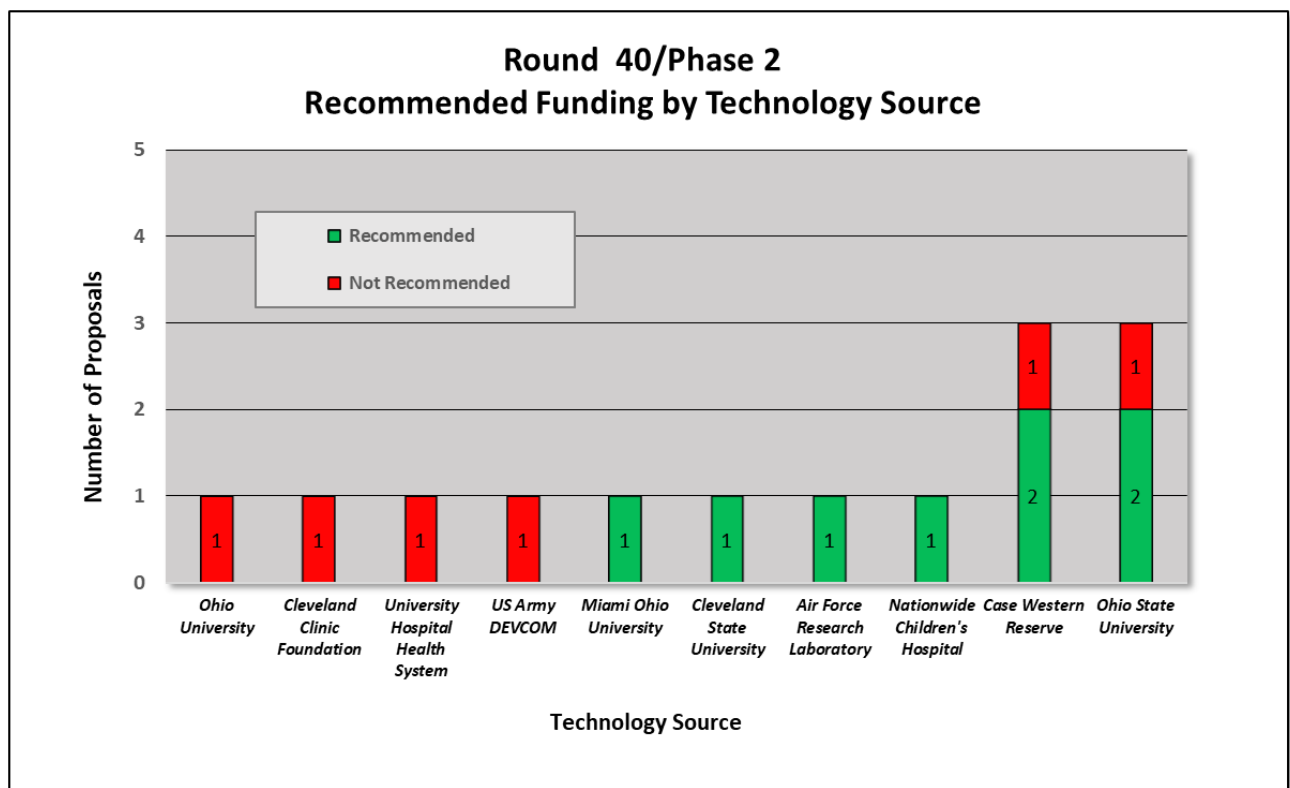
Evaluation Scale	Weak	Meets	Exceeds
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Comments and Recommendations: Significant prior work puts this promising technology in good position for future success. Business expertise was lacking. New CEO to fill that gap is unprepared to lead. Business model was not adequately explained in the proposal. Significantly, FDA strategy, made clear in interview, not explained in proposal. Investor engagement needs to be strengthened. We encourage the team to reengage with JumpStart. This application is not recommended for funding.

4) Round 40 Analysis

Figure 1 shows the proposal activity and funding recommendations by technology source for Phase 2 proposals. Ohio State University and Case Western Reserve University each submitted the most proposals with 3 of which two are recommended. Single application submissions were received sourcing technology from Ohio University, Cleveland Clinic Foundation, University Hospital Health System, US Army DEVCOM, Miami (OH) University, Cleveland State University, Air Force Research Laboratory and Nationwide Children's Hospital. One each from Miami (OH) University, Cleveland State University, Air Force Research Laboratory and Nationwide Children's Hospital are recommended for funding.

Figure 1. Round 40 Funding by Technology Source



TECHNOLOGY VALIDATION AND STARTUP FUND

Figure 2 depicts Phase 2 proposal activity and funding recommendations by Third Frontier focus area. In this Round, seven of fourteen were in Biomedical/Life Sciences (50%), four of fourteen were in Software/Information Technology (29%), two of the fourteen were in Sensors (14%) and one of the fourteen was in Advanced Manufacturing (7%).

Four of the fourteen in Biomedical/Life Sciences (29%), two of the fourteen in Software/Information Technology (14%), and one of the fourteen in each of Advanced Manufacturing (7%) and Sensors (7%) were recommended for funding. This round represents 50% in Third Frontier Technology areas that were Biomedical/Life Sciences. The last 21 rounds have averaged 53% of the applications in Biomedical/Life Sciences.

Figure 2. Round 40 Phase 2 Proposal Activity by Third Frontier Technology Area

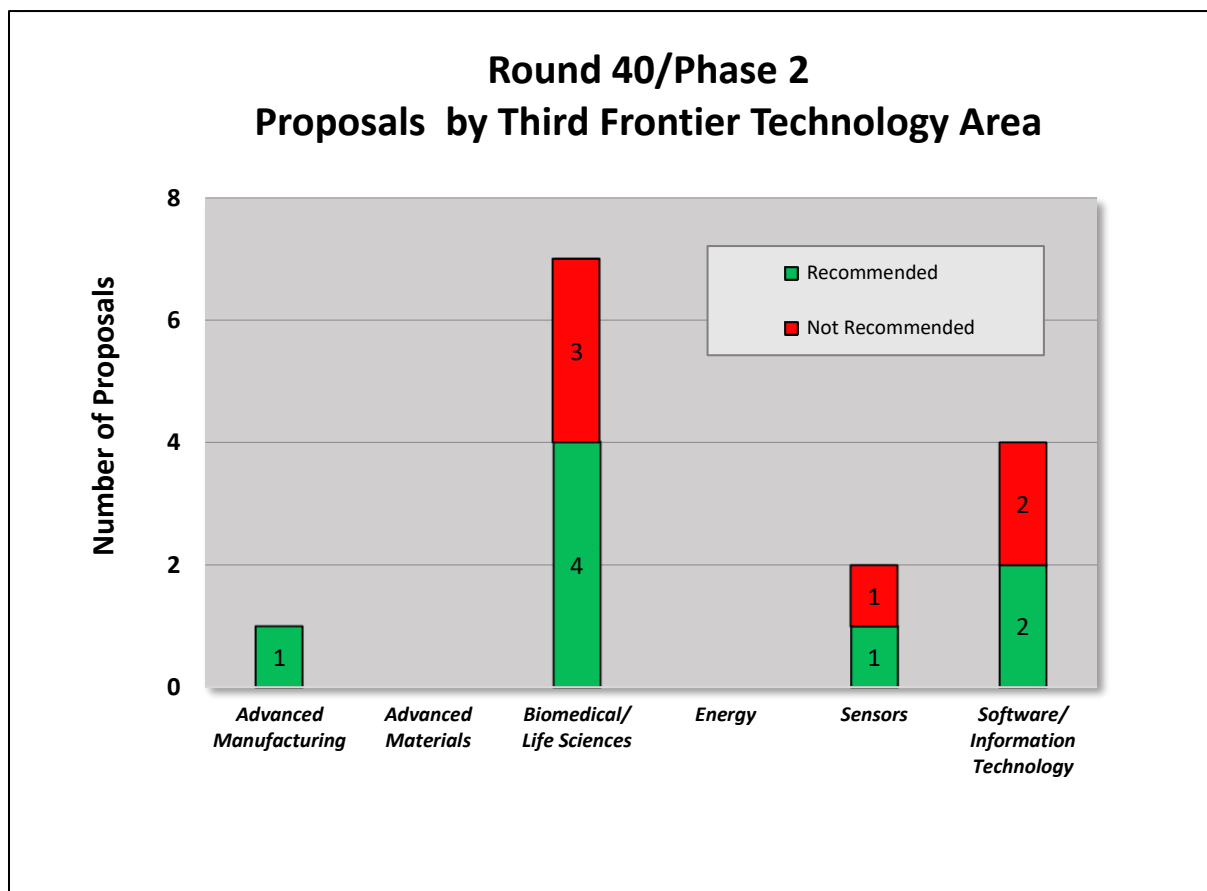
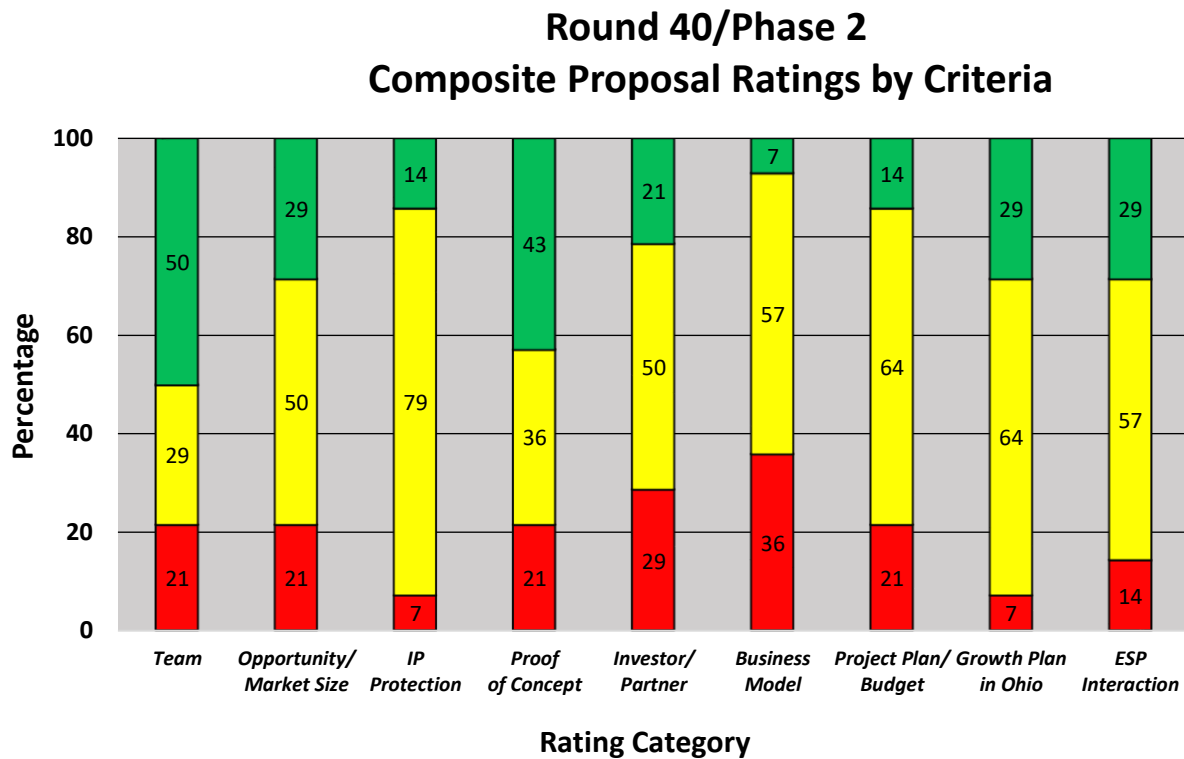


Figure 3 shows the aggregate ratings by evaluation criteria for all Phase 2 proposals. Setting aside the Growth Plan in Ohio and ESP Interaction categories, the Intellectual Property Protection had the lowest percentage of weak scores in this round. Business Model followed by Investor/ Partner had the highest percentage of weak scores in this round.

Figure 3. Round 40 Phase 2 Proposal Rating Summary



In the previous twenty Rounds, business model was the lowest rating in Rounds 20-23 (53% average $\geq$ meets) and Round 26 (28%). The RFP was revised prior to Round 24 to elicit stronger business models and it appears that the proposals have provided stronger business models in Rounds 24-39 (68% average $\geq$ meets). Rounds 20 to 40 the overall average is 65%. Round 26 appears to be an anomaly. Future rounds will be monitored to see if the improvement continues.

Figure 4: Rounds 20 to 40 Phase 2 Analysis of Business Model

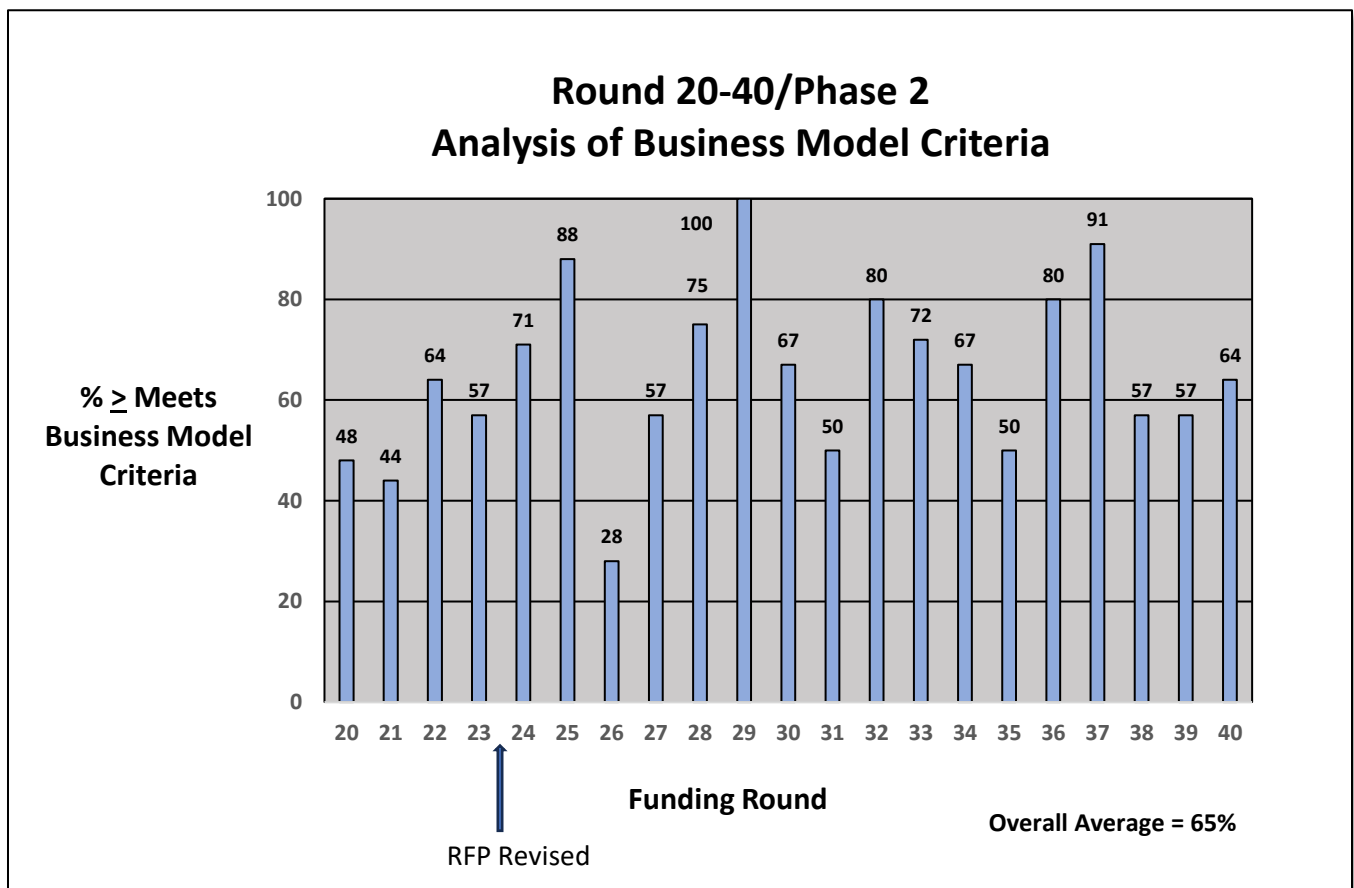
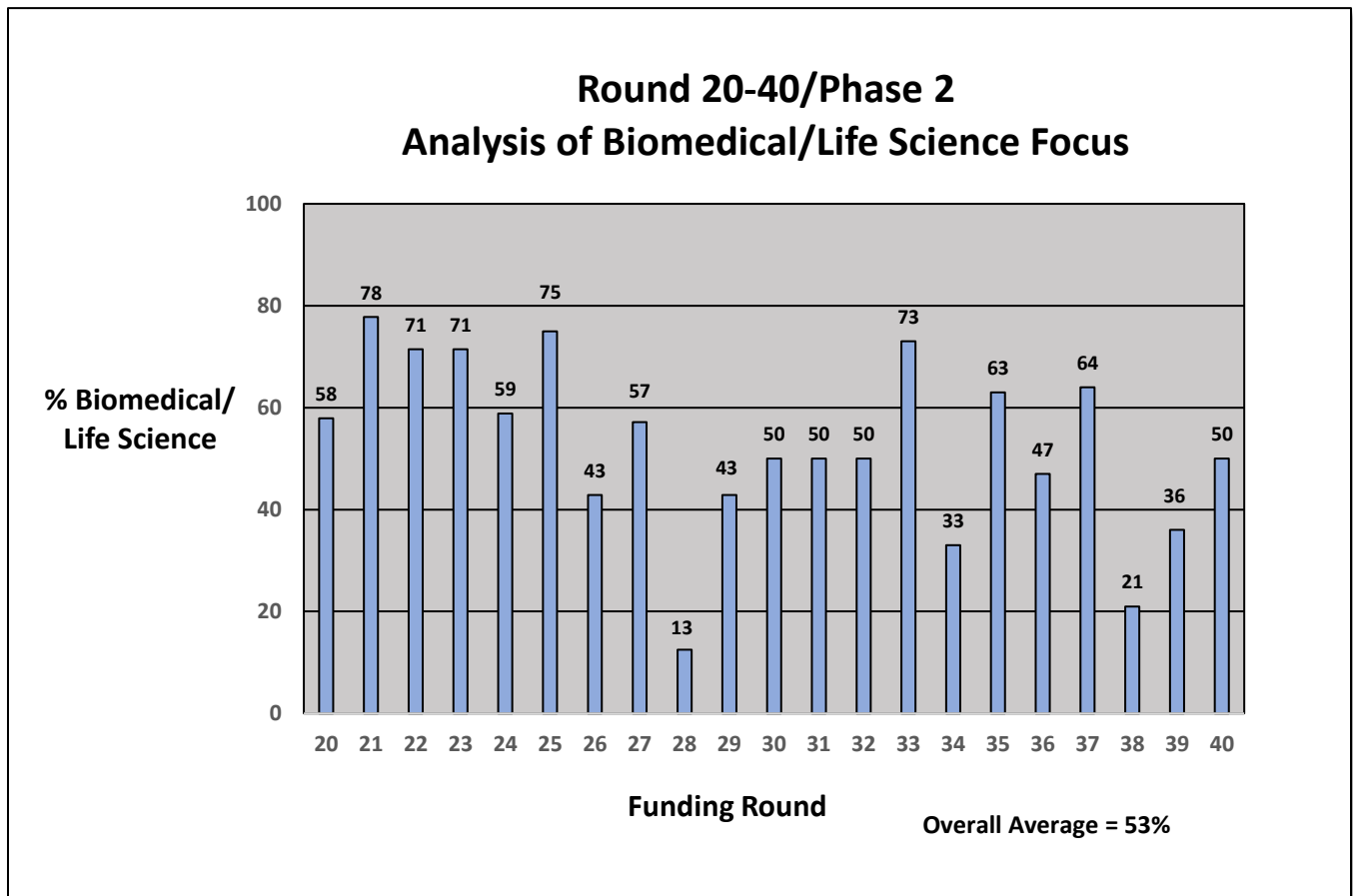


Figure 5 shows the percentage of Biomedical/Life Sciences applications for the last twenty-one Rounds. Round 40 represents 50% in Third Frontier Technology areas that are Biomedical/Life Sciences. The overall average is 53% of the applications in Biomedical/Life Sciences.

Figure 5: Rounds 20-40 Phase 2 Analysis of Biomedical/Life Science Focus



Carry Through and Reapplication

Phase 1 Carry Through: There were 5 Phase 2 applicants that previously received Phase 1 funding. Three applications are recommended for funding.

Phase 2: There were 5 Phase 2 reapplications in this Round. Four were first time reapplications and all four are recommended for funding. One was a fourth time reapplications, each a different and related technical aspect and is recommended for funding.

Appendix I

Summary of Redwood team and qualifications

Redwood, as a company, has been providing technology commercialization services for over 9 years while each team member has been active in this field for over 25 years.

Each Redwood team member

- possesses an advanced technical degree and extensive business proficiency
- has worked across the spectrum of technology commercialization from invention to successful market introduction
- understands how to assess a concept case from the perspective of aligning technologies to product applications in specific markets
- has lived, both conceptually and literally, the iterative process of understanding market needs and wants, value chains and who the customers are within the value chain

Team members have all worked for major corporations, research institutions, venture capital firms and technology start-up companies gaining a comprehensive understanding of what is necessary for development teams to successfully commercialize a technology. The Redwood team has served as evaluators for the Ohio Advanced Manufacturing program and an individual team member served as an evaluator for CALF, TIP and IOF loan programs for over a decade.

The five members of the Redwood team are highly qualified evaluators for the TVSF program and have combined experience and expertise in the following areas (combined years):

Commercializing technology into market pulled products (125+ years)

Market/Technology Assessment (140+ years)

Startup/ Spin out companies (50+ years)

Board member/Advisor to Startups (30+ years)

Evaluating/ monitoring RFPs/ Funding selection (40+ years)

The following is a brief summary of the five principal team members used in this evaluation Round.

Herb Bresler

- BS Biological Sciences, University of Maryland; BS Secondary Science Education, University of Maryland; PhD Immunology and Infectious Diseases, The Johns Hopkins University School of Hygiene and Public Health
- Former Senior Research Leader and Chief Scientist for Health and Life Sciences, Battelle Memorial Institute, responsible for evaluation of new technology-based business opportunities, intellectual property development, licensing and tech transfer; created and implemented new metrics to increase returns on discretionary R&D; cultivated approximately 1150 invention disclosures, 900 patent applications, and 120 granted patents, leading to \$52 million company funding
- Recipient of four R&D 100 awards for breakthrough medical devices in neuroscience and diagnostics
- Former Director of the Laboratory of Cellular Immunotherapeutics at the Arthur G. James Cancer Hospital and Research Institute at The Ohio State University

Jeff Crompton

- M.A., D.Phil., University of Oxford, Materials Science
- Founder and Former CEO AltaSim Technologies LLC
- Former Market and Technology Leader, EWI
- Former Technology Manager, Calgon Specialty Chemicals
- Former Principal Scientist, Alcan International
- Led development of innovative technology for computational analysis, medical products, aerospace and automotive markets
- Led commercial implementation of technology in production operations in North America, Europe and Asia
- Former Wolfson Industrial Fellow, University of Oxford

John McArdle

- BE, Manhattan College, MS, Northeastern University, Chemical Engineering
- MBA, Finance / International Business, University of Chicago (Booth School of Business)
- Former Business Development Manager, Battelle
- Former Product Line Manager – Koch Industries
- Former Technical Sales Manager, Allied Signal Corporation
- Recognized expert in water and wastewater treatment technologies
- Successful track record of introducing innovative technologies for a variety of municipal, industrial, and military applications in domestic and overseas markets.

Jim Sonnett

- BS, University of Virginia, MS, University of Massachusetts, PhD, University of Delaware, all in chemical engineering
- Former Vice President – Science and Technology, Battelle Health & Life Sciences
- Former R&D Leader – W. L. Gore & Associates and E. I. DuPont
- Built and led high impact innovation organizations in aerospace, electronics, and life sciences
- Former Board Member – Velocys, Ventaira, Battelle Ventures
- Adjunct professor – Ohio State University Fisher School of Business

Susan Stanton

- BS, Millersville University, Chemistry, MPh, Syracuse University, Organic Chemistry, PhD, University of Rochester, Organic Chemistry
- Personally developed 12+ products and led new product development teams at Mobay, Alcoa & Nexicor
- Holder of 10+ patents
- Former VP Market and Technology Assessment at the National Technology Transfer Center
- Over 15 years as an angel investor in technology-based startups
- Over 15 years as an evaluator for Ohio Third Frontier funds including IOF, CALF and TIP
- Over 8 years teaching market and business analytics to STEM graduate and post doc students.

Appendix 2

TVSF objectives and phases

The Technology Validation and Start-up Fund (TVSF) provides grants under two phases to transition technology from Ohio Eligible Research Institutions into the marketplace through Ohio start-up companies. Under Phase 1, Ohio Research Institutions may apply for a pool of funds to support validation/ proof that will directly impact and enhance both the commercial viability of their unlicensed technologies and ability to support a start-up company. Under Phase 2, Ohio start-up and young companies may apply for funding to commercialize a technology they intend to license from a university or an Ohio research institution.

The goals of Phase 1 include:

- Generate the proof needed to move technologies to the point that they are either ready to be licensed by an Ohio start-up company or deemed unfeasible for commercialization. The institutions are encouraged to work with potential Ohio licensees to identify the proof needed.
- Perform validation activities such as demonstration and assessment of critical failure points in subsequent development, prototyping, scale-up and commercialization in order to generate this proof with strong preference for these activities being performed by an independent 3rd party source.

The goals of Phase 2 include:

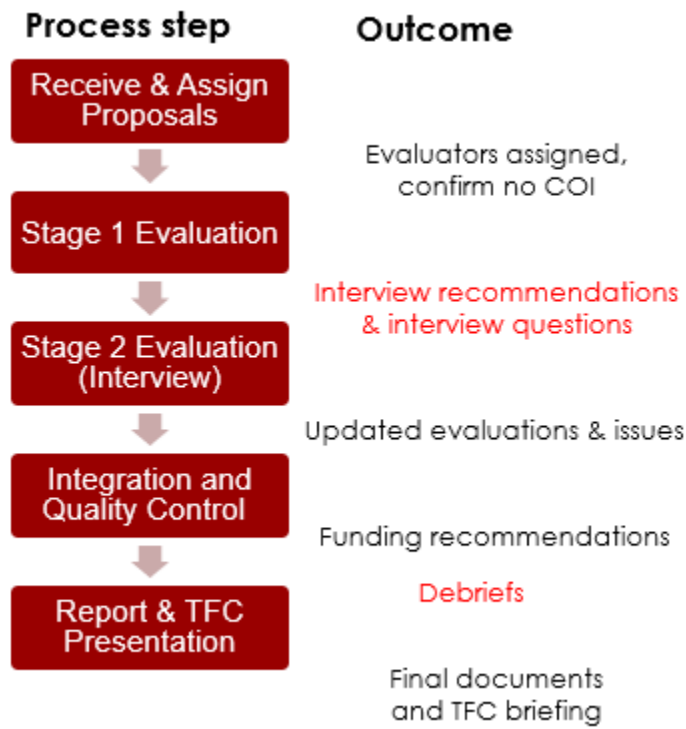
- Accelerate the commercialization of technology by Ohio start-up companies that license technology developed at Eligible Institutions during the critical early stage of life of the company.
- Generate the proof needed to move technology to the point where it is able to be commercialized or additional funds for commercialization can be raised. A clearly identified path to subsequent funding opportunities and working directly with potential investors to define the proof needed for investment into the company is strongly encouraged.
- Funded activities may include, but may not be limited to, beta prototype development and deployment to potential customers for testing and evaluation and market research/ business development in order to generate the proof needed.

Based upon these goals, the proposal evaluation criteria were developed. The proposals were then evaluated based on the criteria.

Description of review process

Review summary. Our overall review process flow and outcomes by stage are shown in Figure 1. A similar process has been successfully used by Redwood in prior projects for public and private clients. Discussions were held with the TVSF program manager after all but the initial step in Figure 1.

Figure 1. TVSF Evaluation Process



Review and Assign Proposal In this first step proposals were summarized and a primary evaluator was assigned who has the appropriate background and no conflict of interest.

Stage 1 Evaluation Stage 1 evaluations were conducted for each proposal using the criteria shown below in Tables 1 and 2. Differentially weighted criteria were used to evaluate Phase 1 and Phase 2 proposals. Each proposal was rated on a 0 (absent) – 5 (Outstanding) scale for each criterion, an approach used by the NSF and in other State of Ohio programs. The weightings reflect the experience of the Redwood team and our belief that some factors, for example team and market opportunity in Phase 2, are more important than others.

The entire review team subsequently discussed all the evaluations to ensure consistency and agreed upon which applicants to invite for interviews. Interview questions were then provided in advance to each applicant.

TECHNOLOGY VALIDATION AND STARTUP FUND

Stage 2 Evaluations (Interviews) The standard procedure for this step is: In-person, 45-minute interviews were held with each invited applicant to discuss the advance questions plus other topics of interest to the evaluators. Two Redwood team members participated in the interviews in person with additional team members joining via Zoom or a conference call.

Integration and Quality Control Proposal evaluations were updated based on interview results. A calibration review was held by the review team to ensure that evaluations were performed consistently and that any changes made were a result of team consensus. Based on this review, proposals were recommended for funding.

Table 1 – Phase 1 Evaluation Criteria

Criterion	Weighting	Description
Alignment and Compliance	Go / No go	Institutional alignment with TVSF intent and compliance with RFP
Project Selection Committee	20	Skills, background and commitment of the committee members
Deal Flow; Budget Strategy	15	Is the projected deal flow consistent with the requested budget to enable committing funds within 1 year?
External Participation	15	Does process ensure validation activities will be performed by 3 rd parties; ESPs and state-funded programs/organizations are enlisted to enhance commercialization activities of the project?
Track Record	15	Is there a strong Phase 1 or comparable program track record of licensing and newco creation? If not, is there a plan for improvement?
Metrics	15	Realism and impact of proposed metrics, including licensing, start-ups.
Project Management & Experience	15	Is there a strong project management strategy and appropriate experience of people who allocate the pool of funds and manage individual projects?
Project Selection Process	5	Is there a clear, appropriate process for project selection?

TECHNOLOGY VALIDATION AND STARTUP FUND

Table 2 – Phase 2 Evaluation Criteria

Criterion	Weighting	Description
Alignment & compliance	Go / No Go	Proposal alignment with TVSF intent and compliance with RFP
Management Team	20	Skills, background and commitment
Opportunity / market size	15	What is the market segment and total addressable market? Is it a platform or breakthrough technology or incremental improvement? If breakthrough, is it compatible with viable commercialization pathways?
IP Protection / License	15	Is IP adequately protected, does it enable the business model, is it differentiated from likely competition, is license likely within 9 months?
Compelling Proof of Concept	15	Was meaningful input from potential customers and key performance metrics used to design Proof of Concept? Are the competitive advantages compelling for potential customers?
Potential Investor / Business Partner Engagement	10	Is there company engagement / collaboration independent of licensing institution, including financial backing?
Business Model	10	Is the business model realistic AND achievable? Can the service / manufacturing model be scaled?
Project Plan / Budget Narrative	5	Is the budget consistent with proof in 1 year?
Start-up in Ohio	5	Does a start-up exist or is it planned? Will the start-up be in Ohio?
ESP Interaction	5	Is team engaged with ESP? Has team incorporated feedback from ESP into the project, proposal or business plan?