



BOARD OF REGENTS

**SUMMARY OF ITEM FOR
DISCUSSION**

TOPIC: Early-Stage Support Feasibility Study Recommendations

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Wednesday, April 13, 2022

SUMMARY:

USM provides a portfolio of resources to promote and support entrepreneurship among its student, faculty, and community. However, gaps remain, and some potential is untapped. On September 2, the Economic Development and Technology Commercialization Committee encouraged USM to study the feasibility of developing a multi-institution resource(s) that: 1) promotes and supports entrepreneurial success, generally at an earlier stage than the Momentum Fund; and 2) equitably supports a diversity of entrepreneurs and ventures, with broad engagement across USM as a primary goal.

Lindsay Ryan, USM Interim Executive Director of Economic Development, will present recommendations resulting from a multi-stakeholder analysis and process addressing the topic. The recommendations include to establish: 1) More efficient and effective coordination, interoperability, and communication of existing entrepreneurial resources within and outside of USM; 2) Collaborative efforts to enhance several specific existing entrepreneurial resources within and outside of USM; and 3) In the context of the other recommendations, flexible, non-prescriptive non-dilutive capital to be deployed alongside resources and accountability. Additional information about a pilot for the early capital resource is also provided.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR'S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

SUBMITTED BY: Lindsay Ryan 410-409-2236

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USM Support for Early-Stage Entrepreneurship

Briefing for the Regents Committee on Economic Development and Technology Commercialization

April 13, 2022





New Early-stage Resource(s) Feasibility

- On September 2, the Economic Development and Technology Commercialization Committee encouraged USM to study how to:
 - Support entrepreneurial success, earlier than the Momentum Fund; and
 - Equitably support a diversity of entrepreneurs and ventures broadly across USM
- The study spurred **action!**
 - **Internal** - Discussion and gap analysis as a USM community
 - 34 individuals from 14 institutions/programs; >8 Zoom hours
 - **External** - Outreach to partners, entrepreneurs, industry members
 - 73 individuals; feedback from 38; over 200 views
 - Beginning to activate some recommendations

Overarching recommendations:

Work collaboratively with non-USM partners.

Leverage existing resources, when possible, instead of creating new ones.



USM's Existing Venture Support

USM adds >100 ventures annually to the broader USM portfolio, 30% student-led

- **Physical location, programs, and mentorship** – Almost all universities do or will
- **Licenses for university-owned technology** – UMCP, UMB, UMBC, more to come

USM deploys ~\$4M (capital, in-kind) annually in almost 100 ventures, 40% student-led

- **Maryland Momentum Fund** (Open, USM provides)
- **Maryland Industrial Partnerships - MIPS** (Open, [UMCP](#) provides; funds university)
- **TEDCO MD Innovation Initiative/[MII](#)** (UMCP, UMB, UMBC; soon FSU, BSU)
- **Competitions/Grants/Awards** (~\$500k)
 - Shore Hatchery (Open, [SU](#) provides; \$200k)
 - StarTUp Accelerator (Open, [TU](#) provides)
 - Baltimore Fund (Open within Baltimore, [UMB](#) provides)
 - Various Institution Competitions/Grants/Awards (Most institutions)

USM already significantly invests in many student, faculty, and community ventures!

Common Challenges Remain for Entrepreneurs

- **Information barriers** – which resource(s) to utilize, when, and how
- **Availability barriers** – the right resource doesn't have capacity or has other access limitations (e.g. wet labs/commercial kitchens/equipment, programs)
- **Financial barriers** – for the business or even in accessing resources
- **Mismatches** – between institutional resources and entrepreneur needs

- And more...

Strategic alignment and augmentation of existing resources can go a long way and can even mitigate some financial barriers!



Early-stage Resource Recommendations

- 1. Connect** – More effectively coordinate and communicate existing entrepreneurial (human and other) resources.
- 2. Enhance** – Enhance selected existing entrepreneurial resources.
 1. Greater access to angel investment
 2. Greater access to professional services e.g., accounting, legal, regulatory
 3. Greater facilities and equipment availability; e.g, wet labs, commercial kitchens, testing
 4. Greater MIPS program capacity; emphasis on non-major research institutions
- 3. Capitalize** – In the context of the other recommendations, enable flexible, non-prescriptive early capital to be deployed alongside resources and accountability.
 - Grants and other forms of early capital, typically <\$75k
 - Maximize impact: quick to obtain, smartly deployed
 - Address access barriers (e.g., students, smaller institutions) head-on, not reactively
 - USM must seek funding and a sustainable business model



Looking Forward

Defining success

- “Generate economic development outcomes” – Simple, right?

HOW matters as much as WHAT

- The most thriving ecosystems haven’t gained success through carefully orchestrated maneuvers but through commitment and a culture that supports the flourishing of entrepreneurship.

We go further together

- Will continue institutional engagement and create structures to incorporate institutions in sustainable leadership of these efforts!

This ecosystem is dynamic; we must continually adjust

Early Capital Recommendation



UNIVERSITY SYSTEM
of MARYLAND



Design Recommendations/Guidelines

Specific to Early Capital

Optimize Impact and Accessibility

- Investigate existing slowdowns in transfer of capital.
- Max \$ must be high enough to make an impact, but smaller amounts quickly can be valuable.
- Submission process can have multiple routes (e.g., written, pitch) and/or submission prep.
- Stage-gating and standardizing terms for upfront/milestone payment will likely be helpful.
- The process itself should add value even for entrepreneurs who do not receive the funding.
- Leveraging diligence via other programs

Funding Vehicles - Ideally, a mix of options below

- *Grants* - Conventional. Best for lower amounts. Optimize for progress, not serial grant obtainers.
- *Loans* - Not preferred, but provide connections to local banks when appropriate.
- *Reimbursable Grants/Revenue Share* - Lots of options.
- *Convertible Notes* – And SAFE notes when appropriate.

Potential Capital Pilot Design

Values: Diversity, Equity, and Inclusion | Valuable to All Applicants
Value to Institutions | Transparency

Track	Goal/Use	Key Preferences	Award Range	Decisions & Oversight	Demand Information
Groundwork and Gas Money <i>Students, Faculty, Employees ONLY</i>	<ul style="list-style-type: none"> Exposure-to-idea opportunities Addressing access issues 	<ul style="list-style-type: none"> Those with no prior funding Those aiming to make use of another Maryland resource 	Up to \$1k grants	<p>Institution decisions and budget</p> <p>Cross-USM best practices sharing, USMO oversight</p>	Demand will far outstrip supply, but a small amount at each institution can go a long way.
Liftoff <i>Students, Faculty, Employees, Alum, Community</i>	<ul style="list-style-type: none"> Get started in the right direction Proof of concept funding 	<ul style="list-style-type: none"> Those with no prior funding (except Ground and Gas Money) Those vetted through another resource 	Up to \$25k total in grants; default is tranches, max \$5k first tranche	<p>MMF model incorporating all institutions</p> <p>USMO signoff on collaborative deals</p>	<p>USM invests \$500k in similar capital already, with demand outstripping supply (\$300k to spinouts from 7 institutions; \$120k to UMCP spinouts; and \$200k to community ventures).</p> <p>3 institutions not currently accessing significant capital.</p>
Boost <i>Students, Faculty, Employees, Alum, Community</i>	Continue in the right direction	<ul style="list-style-type: none"> Those facing capital access challenges Those vetted through “Liftoff” or another resource If over \$50k, non-grant vehicles 	Up to \$75k, potential for tranches; grants and other financing	<p>MMF model incorporating all institutions</p> <p>USMO signoff on collaborative deals</p>	<p>Not much of this type of capital</p> <p>“Following on” with 2-3x the capital for 1 of every 2 or 3 ventures means a similar amount for just <i>current</i> pipeline.</p>

Tracks build on each other but are NOT prerequisites



Potential Capital Pilot Notes and Discussion

Fundraising strategy still being developed

Demand estimates are difficult and underestimate

- Entrepreneurial activity is growing
- At institutions with lower on-campus funding sources and/or programming yet, demand is particularly difficult to predict

Institutional Balance

- Demand and quality will surpass needs for any pilot, and even at full scale. Therefore, portfolio balance across institutions will be required, with several approaches possible, ranging from dedicated budgets to evaluation weighting factors to simple monitoring and adjustment.
- The “gas money and groundwork” track aims to prime the pump at institutions without as much entrepreneurial support capacity. However, support at some institutions may be required in order to enable maximum participation.

APPENDIX





Early-Stage Resources Goals & Scope

Each USM institution has their own goals for entrepreneurship, with the balance between economic and institutional impacts varying. For this Early-stage Resource(s) Feasibility study, the following is the proposed focus, as determined by the USM entrepreneur supporters:

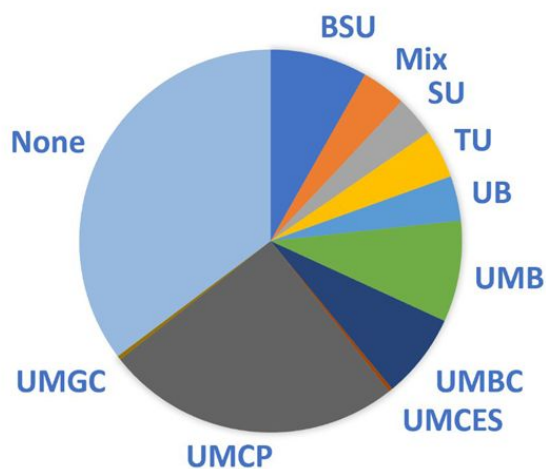
Generate economic development outcomes while being...

- **Open** - being open beyond USM students and faculty, including alumni, ventures physically located near campus, and ventures with some other collaborative tie to USM
- **Equitable** - proactively addressing diversity, equity, and inclusion across venture types, founders, industries, entity types, communities, and universities
- **Early** - focusing on entrepreneurs pursuing ideas but before they have attracted significant capital or are earning significant revenue

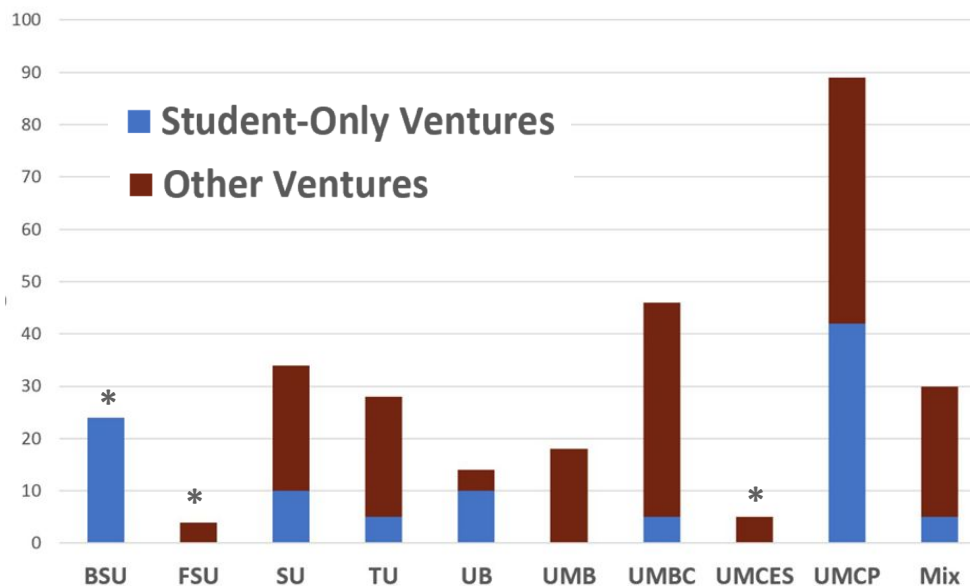
The goals and scope are ambitious; and so are the people who are recommending them!

Existing Venture Support Ventures Newly Supported with Space, Programs and/or Intellectual Property

By Founder or IP Affiliation



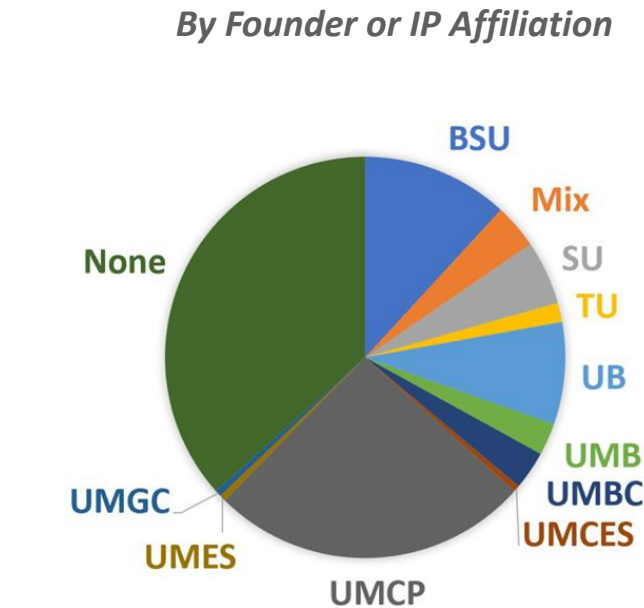
By Institution Providing Support, FY '19-21



* = Began reporting in the last 3 years

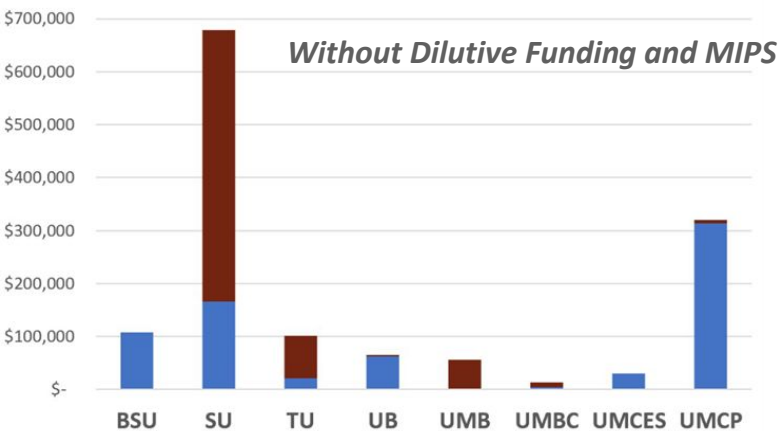
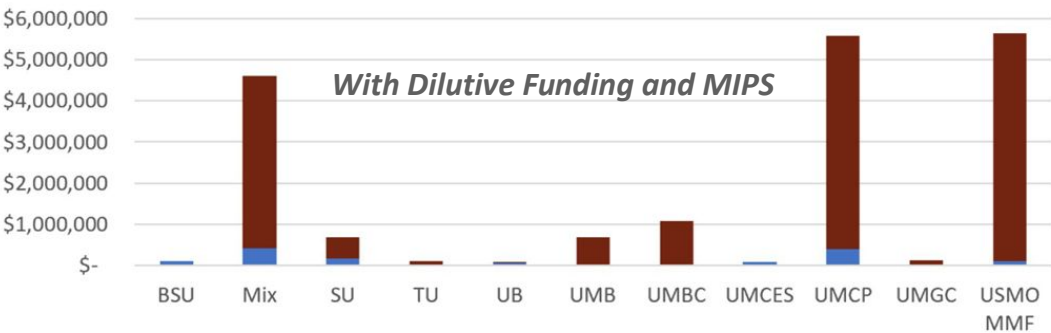


Existing Venture Support Ventures Newly Supported With Capital



By Institution Providing Capital, FY '19-21

■ Other Ventures ■ Student-Only Ventures



Existing Venture Support

Notes and Future Support

Data caveats and considerations:

- Captures only ventures significantly assisted by USM
- Shows where an institution has been, not necessarily where it is going
- Reporting is robust, but there is room to improve

Looking forward to future growth!

- **UMES** – Participate in MIPS; recently named their first [Endowed Chair in Entrepreneurship and Innovation](#)
- **CSU** – Recently established the Center for Strategic Entrepreneurship and active partner in the new [Maryland Innovation Extension](#)
- **FSU** – Frostburg State University has been ramping up [placemaking initiatives](#)
- **USG** – The Universities at Shady Grove recently established the [Lab for Entrepreneurship and Transformative Leadership](#)

Identified Gaps in Venture Support

The following are examples of some of the gaps identified through the process, some of which are better poised to address collectively and as USM than others:

- Better awareness and coordination of access of existing resources
- Evaluating the feasibility of a business beyond customer discovery, including market size, unit economics/financial model, regulatory processes, manufacturing, etc.
- More robust networks of individuals (entrepreneurs, corporates, and service providers) who can inclusively support early-stage innovators. Near-peer and peer connections and mentorship (team-building); more systematic, pinpointed, and reliably helpful network leveraging
- Personally assisted navigation, including understanding “prerequisites for programs” for those not in an incubator or dedicated program
- Increase space capacity -- flexible, affordable lab space in some locations; commercial kitchen space in others; general space in others, being solved through repurposing
- Appropriate personal housing for entrepreneurs, which impacts their business
- Pilots and early manufacturing help
- Funding for proof of concept work
- Angel funding, pre-seed investment, non-dilutive funding across a variety of scenarios

Overall Design Recommendations/Guidelines

- Consider and proactively address any systemic and/or institutional barriers to access.
- Involve entrepreneurs, investors, and other stakeholders in design and implementation.
- Aim for flexibility and inclusion, sometimes clustering by industry, venture type, etc. to help ensure proper coverage, access, and navigation; and potentially attract non-USM support.
- Systematizing milestones can help entrepreneurs and those who help them better understand benchmarks generally for success and in terms of what resources when.
- Emphasize resources for finding and acquiring customers (including sandboxes and pilots) and business planning; help ventures define who their customer will be and if it could be viable before they go after resources to execute.
- Although not primary goals, don't miss opportunities to: 1) create exposure and raise the spirit of entrepreneurship; 2) promote student and faculty development; 3) bolster and enhance the capability of those who help entrepreneurs; and 4) help later-stage ventures
- Build in mechanisms for continued collaborative needs assessment, action, and storytelling, in addition to impact evaluation, in line with USM's commitment to innovation and continuous improvement.



Recommendations – *Next Steps*

Recommendation	Next Step
Connect – More efficient and effective coordination, interoperability, and communication of existing entrepreneurial resources within and outside of USM	<p>Better connect USM resources through pilots, coordinating outside USM as well</p> <ul style="list-style-type: none"> - Human resources - Physical resources - Overall navigation
Enhance – Participate in collaborative efforts to enhance existing entrepreneurial resources within and outside of USM	<ul style="list-style-type: none"> - Continue to seek MIPS enhancement - Convene others regarding angel investment - Professional services pilot; e.g. iStart - Join collaborative efforts to call for resources to create wet lab space; advocate for RISE Zone program; identify funding sources for infrastructure; collaborate with others such as federal labs on access to equipment
Capitalize – In the context of the other recommendations, enable flexible, non-prescriptive non-dilutive capital to be deployed alongside resources and accountability.	<ul style="list-style-type: none"> - Further define pilot size and fundraising strategy