



**Board of Regents  
Committee on Economic Development and Technology Commercialization**

**March 30, 2023**

Virtual (public listen only access at 443-353-0686, Conference ID: 911 013 805)

Committee Members will be sent Zoom information

Materials can be found here: <https://www.usmd.edu/regents/agendas/>

Public Session Agenda

- (1) Research and Economic Development Highlights: A Focus on EDA support around the USM bwtech@UMBC EDA Fellows Program – Marjie Cota, Director of Entrepreneurial Services at bwtech@UMBC, and Aaron Miscenich, Executive Director of bwtech@UMBC (Information Item)
- (2) USG 2.0: A Community of Innovation for the USM – Dr. Anne Khademian, Executive Director of USM Shady Grove (Information Item)
- (3) Current Activities of the Office of the Vice Chancellor for Research and Economic Development – Dr. Michele Masucci, Mike Ravenscroft, Lindsay Ryan (Information Item)

# Office of the Vice Chancellor for Research and Economic Development

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Board of Regents Committee on  
Economic Development and Technology  
Commercialization

**Update**

**March 30, 2023**





## **Agenda**

### **1. Research and Economic Development Highlights**

**A Focus on EDA support around the USM**

**bwtech@UMBC EDA Fellows Program**

### **2. USM Shady Grove – Shady Grove 2.0**

### **3. Current Activities of OVCRED**

### **4. Q and A**

Research and Economic Development Highlights



# US Department of Commerce support of USM institutions through funding, positioning, and programs

- \$80 Million in EDA Funding to MD Obligated from 2017-2022





Research and Economic Development Highlights



## Maryland Innovation Extension



### Partners



- The Maryland Innovation Extension is an Economic Development Administration (EDA) University Center
- Additional support provided by: UM Ventures Baltimore Fund, TEDCO MII, TEDCO RBII, TEDCO UBII, and the University System of Maryland (USM)
- Partners with Bowie State University, Morgan State University, Coppin State University, and the University of Baltimore
- Collaboration to bring entrepreneurial resources to the entire state of Maryland, with a particular focus on underrepresented groups in entrepreneurship

Research and Economic Development Highlights



## Maryland New Venture Fellowship

- The Maryland New Venture Fellowship for Cybersecurity is a \$1.3M program funded by EDA with matching support from partners
- Partners include: bwtech@UMBC, UMBC, the University System of Maryland
- Supports cybersecurity entrepreneurs who are working in collaboration toward cyber solutions and technologies that impact the public
- Program Leadership: **Marjie Cota**, Director of Entrepreneurial Services and **Aaron Miscenich**, Executive Director of bwtech@UMBC



**Dr. Anne Khademian**  
**Executive Director, The Universities at Shady Grove,**  
**and Associate Vice Chancellor for Academic Affairs,**  
**University System of Maryland**



### 3. Update on Ongoing Activities of OVCRED

- USM Investments ecosystem and current market issues – Mike Ravenscroft
- Launch Fund (Early Capital Pilot) – Lindsay Ryan
- Outreach activities – Michele Masucci





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## 4. Q and A

# Contact OVRED

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Development

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UNIVERSITY SYSTEM  
*of* MARYLAND



**BOARD OF REGENTS**

**SUMMARY OF ITEM FOR  
INFORMATION**

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**TOPIC:** bwtech@UMBC EDA Fellows Program

**COMMITTEE:** Economic Development and Technology Commercialization

**DATE OF COMMITTEE MEETING:** Thursday, March 30, 2023

**SUMMARY:**

Marjie Cota, Director of Entrepreneurial Services at bwtech@UMBC, and Aaron Miscenich Executive Director of bwtech@UMBC, will present an update on the U.S. Economic Development Administration (EDA)-funded Maryland New Venture Fellows program, now in its third year of operation. The program forms teams around promising technologies. The teams consist of a technologist, mentor, and program fellow. The cohort program has achieved dual objectives of venture creation/development and human capital development.

**FISCAL IMPACT:** This item is for information purposes.

**CHANCELLOR'S RECOMMENDATION:** n/a

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COMMITTEE RECOMMENDATION:

DATE:

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BOARD ACTION:

DATE:

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SUBMITTED BY: Michele Masucci 410-409-2236

[mmasucci@usmd.edu](mailto:mmasucci@usmd.edu)

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# Programming

2023



# Programming

Mission

Partners

bwtech@UMBC Programming

Signature Events

Site Miners & Entrepreneurs in Residence (EiR's)





# Mission



Provide **BEST IN CLASS** programs and services

To be the **convener and connector**



Obtain **results to maximize social and economic impacts** for bwtech@UMBC and Maryland



# Partners





# Signature Events





# MD New Venture Fellowship - Year 2

**\$ 1.3m EDA grant - three years**

- Learn skills to start business
- Pitch, compete

**Year 3 Applications in Fall 2022**

**Year 2 ended in June 2022**

- 8 teams (*Tech, Mentor, Fellow*)
- Jan-June
- 2 Winners \$10K and \$1K

**Year 1 ended in June 2021**

- 7 teams
- 1 winner of \$10k prize







# MD New Venture Fellowship - Year 3

**\$ 1.3m EDA grant - three years**

- Teams of 3
- Learn skills to start business
- Pitch and Win

**Year 3 underway 2023**

- 8 teams (Tech, Mentor, Fellow)
- New Project and Program Fellow
- 3 Technologists and 9 Fellows from UMBC
- February - May

**Year 1 & 2 Completed**

- 15 teams (Tech Mentor, Fellow)
- Over \$21K in prize money



<b>TEAM 1 - SOHIVE</b> Technologist      Mentor      Fellow			<b>TEAM 2 - INTRAORAL SYSTEM</b> Technologist      Mentor      Fellow		
Chris Schilstra	Donna Ruginski	Sanju Biju	Ankit Goel	Tom McCabe	Neha Chama
<b>TEAM 3 - ALIRTIFY</b>			<b>TEAM 4 - VIRTUAL APPRENTICE</b>		
Kwabena Okrah	Hillel Glazer	Bhanu Reddy	Elle Giles	Lily Bengfort	Rahul Podugu
<b>TEAM 5 - SYSTEMS EXPLORATION ENVIRONMENT</b>			<b>TEAM 6 - XEDDY</b>		
Lee Boot	Bill Anderson	Charan Duggirala	Basil Udo	Brandon Mason	Sreya Nagineni
<b>TEAM 7 - PNEUMA</b>			<b>TEAM 8 - SENTINEL FORGE</b>		
Ramana Vrijamuri	Ellington West	Pranay Narava	Colin Hamill	James Faison	Harish Krishnamoorthy
 Marjie Cota Program Director		 Matthew Lowinger Project Manager		 Kavya Ravi Program Fellow	





# SCALEUP Maryland



## Maryland Executives learn strategic growth plans

2022 Fall Cohort 4 - 11 Participants



2023 Spring Cohort 5 - 9 Accepted - 7 Participants





## AWARD CELEBRATIONS

### Bio Life/Sciences

Save the Date!

**March 30, 2022**

5:00 PM - 7:30 PM

UMBC - bwtech South Campus

**Alumni \* Experts \* Innovators**

### Technology

Save the Date!

**October, 2023**

5:00 PM - 7:30 PM

UMBC - bwtech South Campus

**Alumni \* Experts \* Innovators**



## Collaboration Expert Presenters





## International Global Gateway Program



Soft Landing for Foreign Companies started Fall 2022  
20 MD Participating Partners in MD - 5 bwtech clients!

Australia



Spain



Korea



Australia



England







# Entrepreneurs in Residence

## South



Dave Fink  
MII Site Miner



Rick Chipkin

## North



Hillel Glazer  
SMII ite Miner



Bill Anderson



Tom McCabe





- Questions
- Comments
- Feedback



**BOARD OF REGENTS**

SUMMARY OF ITEM FOR  
INFORMATION

**TOPIC:** USG 2.0: A Community of Innovation for the USM

**COMMITTEE:** Economic Development and Technology Commercialization

**DATE OF COMMITTEE MEETING:** Thursday, March 30, 2023

**SUMMARY:**

USG 2.0 centers on building the capacity for innovation to serve the fluid student of today and tomorrow -- students who need to flow in and out of jobs and education, rather than pursue a degree in two or four years; who direct their educational experience toward personalized career opportunities, while stacking and banking credentials and experience into degrees; who want choices to study virtually, in person, and in applied experiential settings; and students for whom an institutional ranking and record of degree completion may be less relevant than the support they receive to achieve meaningful employment related to their areas of study. This is fundamentally about a new model of higher education that is pathway focused, centered in career readiness, and built through a new partnership between academic partners and employers to deliver on meaningful employment and career/business success--lifelong learning.

The presentation will focus on how the Universities at Shady Grove is building this effort, and to socialize the idea of USG being designated (as some point) by the regents, and perhaps the legislature, as a hub to do this innovative work with our academic and workforce partners. Our challenge is how to catalyze the opportunity of 9 (and hopefully 12) institutions working together in one campus to transform and scale opportunities for the fluid students of today and tomorrow.

**FISCAL IMPACT:** This item is for information purposes.

**CHANCELLOR’S RECOMMENDATION:** n/a

COMMITTEE RECOMMENDATION:

DATE:

BOARD ACTION:

DATE:

SUBMITTED BY: Michele Masucci 410-409-2236

[mmasucci@usmd.edu](mailto:mmasucci@usmd.edu)



The Universities  
AT SHADY GROVE

# USG 2.0: A “COMMUNITY OF INNOVATION” FOR THE USM

Committee on Economic Development & Technology Commercialization  
USM Board of Regents  
March 30, 2023

# USG AT A GLANCE: AN RHEC AND USM ASSET

The Universities at Shady Grove (USG), is an innovative partnership of nine University System of Maryland (USM) universities on one campus in Montgomery County. Each of the partner universities provides its most highly sought academic programs and awards its own degrees. USG, in turn, provides centralized on-site student, academic and administrative services.

This unique integrated approach allows USG to offer 80 upper-level undergraduate, graduate degree and certificate programs, in flexible formats that allow students to live, work and study close to home. USG connects students to outstanding career opportunities while providing regional employers with a highly educated, skilled workforce.



**15,000+**

students have earned degrees from programs offered at USG since its inception in 2000.

**3,100+**

in undergraduate and graduate programs; all undergraduate are upper-level transfers.

**\$8,000**

can be saved by completing the 2+2 community college to university pathway versus a 4-year pathway.

**79%**

of students who transfer to programs at USG graduate within four years. This is higher than the four year graduation rate of 55% for transfers across the system.

**80%**

of undergraduate students transfer from a community college.

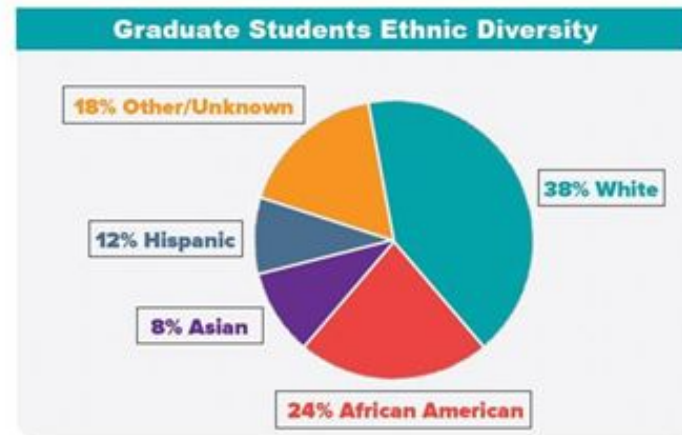
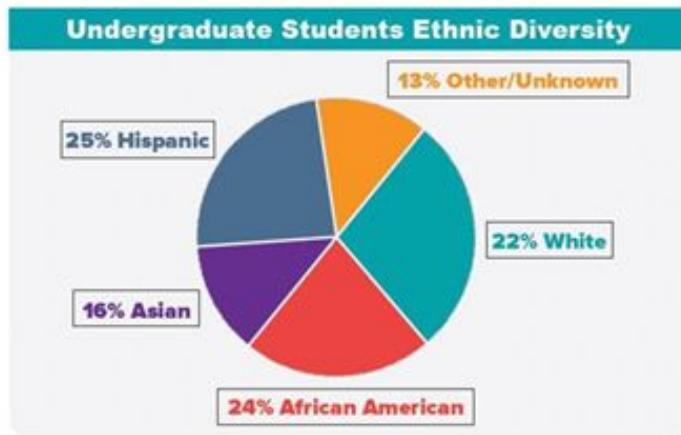
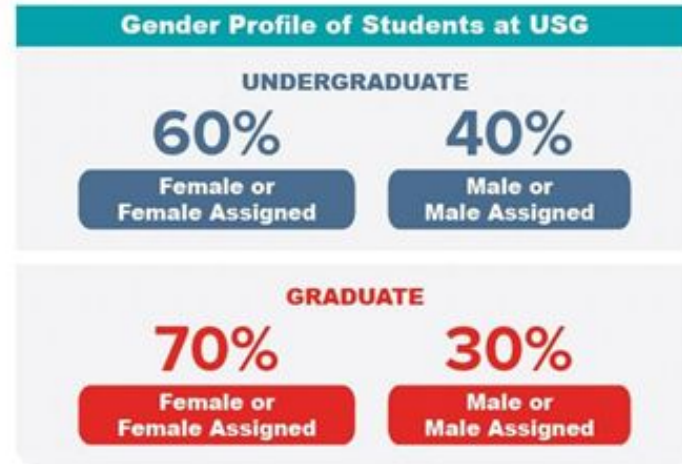
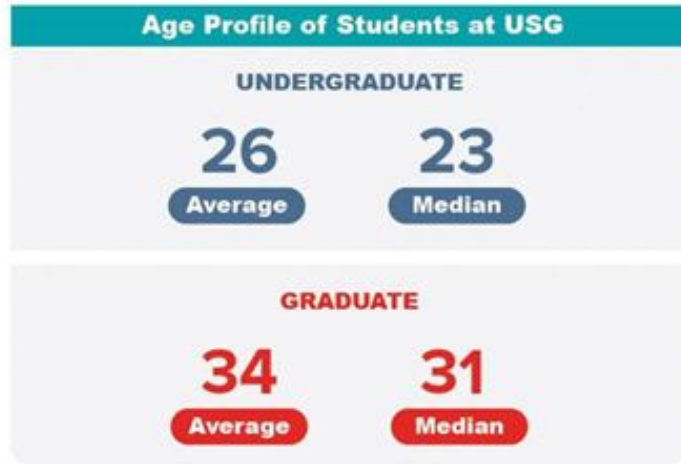
**88%**

of graduates are working in the region or attending graduate school in their intended field.





# EDUCATING A DIVERSE STUDENT BODY



# USG 2.0 STRATEGIC PLAN

## THE FLYWHEEL

**THE FLYWHEEL** conveys that change is not a single action, but is an **ITERATIVE PROCESS** building on many decisions and actions, all directed towards a **COMMON VISION**. The USG Flywheel consists of processes, actions, programs, and innovations identified as the **KEY DRIVERS** behind what the Universities at Shady Grove is deeply passionate about.



The Universities AT SHADY GROVE

2022 STRATEGIC PLAN USG 2.0 4



## USG 2.0: BUILDING ON DECADES OF SUCCESS

**THE UNIVERSITIES AT SHADY GROVE** always has been – and always will be – **A CHAMPION FOR STUDENTS** who are often underrepresented in higher education.

With our deep commitment to equity, diversity and inclusion, we proudly provide life-changing opportunities for all students to access high quality, career-enriching academic, degree and/or certificate programs offered through our university partners.

We excel at successfully serving the unique needs of non-traditional students, which now comprise 74 percent of all students in higher education, nationally.

### FOUR NEW STRATEGIC IMPERATIVES

- 1 THE PROMISE**  
 Historically, we have been driven by enrollment and degree completion, although this is not necessarily shared for the purpose of our university partners. Under USG 2.0, we will hold ourselves accountable for ensuring students are able to access meaningful educational and career opportunities upon completion of their studies.
- 2 PATHWAYS TO CAREERS**  
 Historically, we have worked with our university partners to develop individual degree programs. Under USG 2.0, together with our university partners and additional partners to the industry, we will also be able to build career pathways that ensure students succeed.
- 3 CAREER-READY STUDENTS**  
 Historically, we have provided traditional student services. Under USG 2.0, we will change our focus on career preparation and career readiness.
- 4 FISCAL SUSTAINABILITY**  
 Historically, our educational and fiscal model has been built around our funding of various degree programs and the use of our "net assets". Under USG 2.0, we will work to build a model that supports growth, innovation and collaboration, both in focus on return on investment (ROI) for students and other stakeholders.

The Universities AT SHADY GROVE

2022 STRATEGIC PLAN USG 2.0



# USM 2022 STRATEGIC PLAN: VISION 2030-FROM EXCELLENCE TO PREEMINENCE FOR OUR STUDENTS

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*Where the USM's work has been centered on our institutions and processes, it must instead be **centered on our students**. Where we've been focused on degree output, we must be focused on learner outcomes. Where we've been siloed, we must be collaborative. Where our innovation has been institution-bound, it must be scaled. Where our impact has been local, it must be global."*

- *Five Transformation Imperatives: Diversity, Equity & Inclusion; Action & Accountability; Academic Excellence & Innovation; Access, Affordability & Achievement; Workforce & Economic Development*



# FEEDBACK ON DESIGNATING USG AS A “COMMUNITY OF INNOVATION”



- ★ Bowie State University
- ★ Coppin State University
- ★ Salisbury University
- ★ Towson University
- ★ UMBC
- ★ Frostburg State University
- ★ University of Baltimore
- ★ University of Maryland, College Park
- ★ University of Maryland, Baltimore
- ★ University of Maryland Eastern Shore
- ★ University of Maryland Global Campus
- ★ University of Maryland Center for Environmental Science



## WHAT IS A LEGISLATIVE DESIGNATION?

***A State recognition/designation of USG and other RHECs as a Community of Innovation and a commitment to the resources, flexibility, and support to take on this role sustainably for the long term.***

# COMPONENTS OF A COMMUNITY OF INNOVATION

- ***A shared challenge:*** Serving the fluid student of today and tomorrow
- ***A shared purpose:*** Building pathways for greater access, affordability, career readiness, and life long career opportunities
- ***A shared framework:*** Academic institutions and employers working in partnership
- ***A shared benefit:*** Activate the power of the USM to learn together, model, scale, impact, lower risk





# SERVING THE FLUID STUDENT: TODAY AND TOMORROW

- ▶ *Working, family responsibilities, financing their own education, first generation, mental health challenges*



# REGION & STATE'S WORKFORCE NEEDS ARE CHANGING RAPIDLY

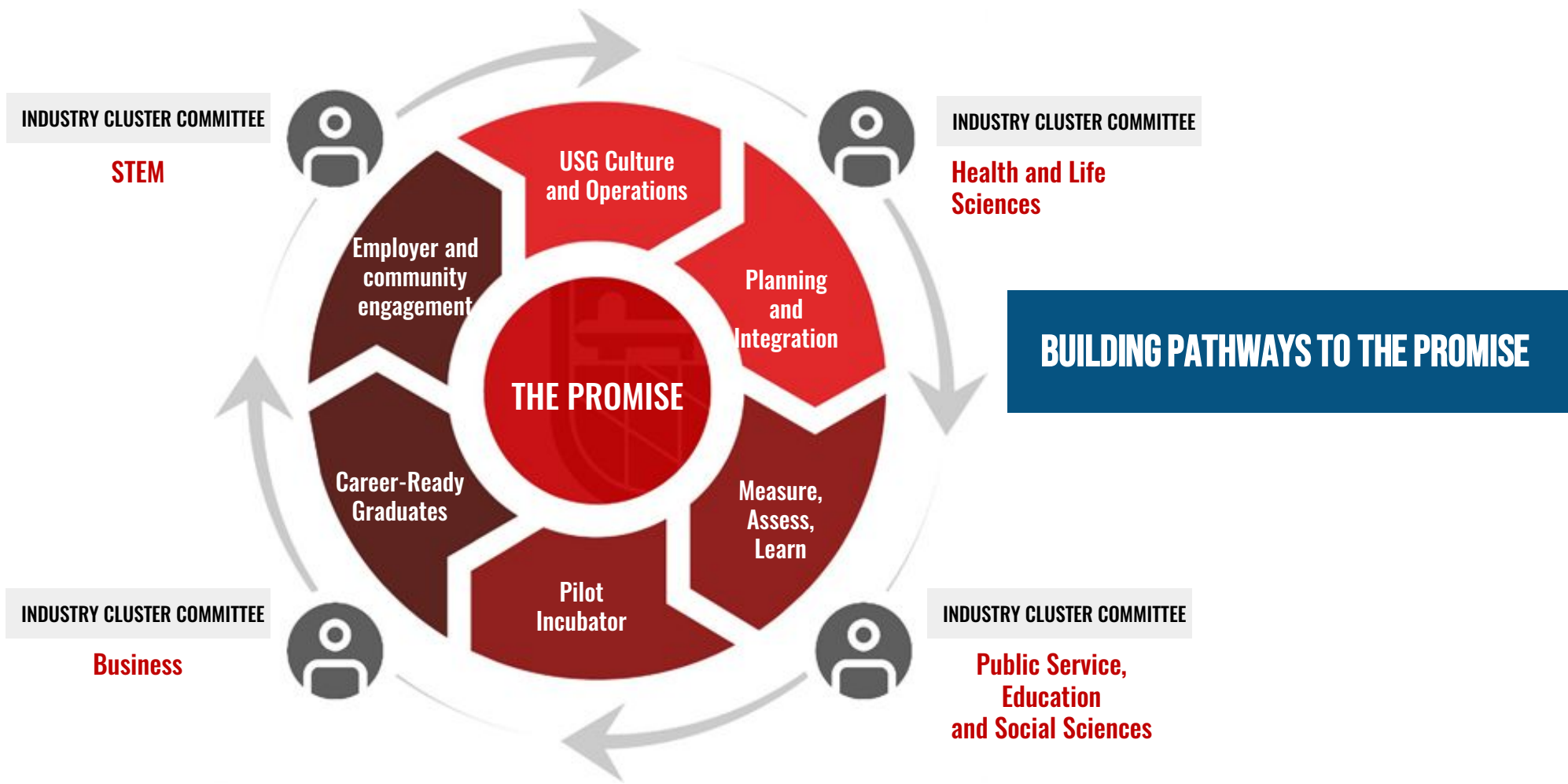


- ▶ **65%** of jobs nationwide require **college degrees** \*
- ▶ **75%** in Montgomery County
- ▶ Skyrocketing **growth** in health and life sciences, IT and Cybersecurity
- ▶ **High demand** for teachers, behavioral health professionals in Montgomery County
- ▶ **Career-ready AND research-ready** employees

\* [Source: Recovery: Job Growth and Education Requirements through 2020](#)







## IMPLEMENTATION OF THE FLYWHEEL TO DATE

- **Hire U and Career Readiness**
- **Employer Engagement Framework**
- **Culture & Operations**
  - **Diversity, Equity and Inclusion**
  - **USG Culture & Human Resources**
  - **Fiscal model development**
- **Academic Planning and Pathways Framework & Summit**
- **READY and Data Analytics Strategy**
- **Community Wealth Building Summit**
- **Community Partners Summit on College Access**





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*“Building a diverse, highly skilled talent pool is vital to ensuring continued economic growth and the success of any industry. . . . By measuring and assessing what works best, we hope they can continue to model and scale such successful pathways.”*

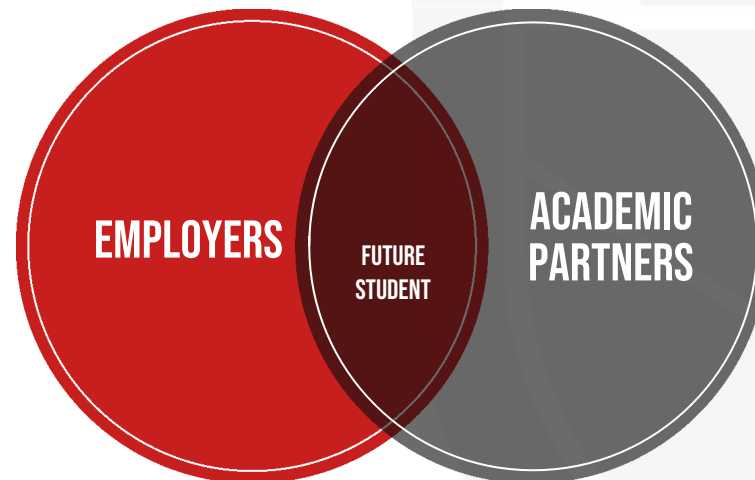
# FRAMEWORK: OPERATION WARP SPEED FOR HIGHER ED

Google partnership: *Shanika Hope, Director of Google's Education for Social Impact team.*

- **Common Goal:** Delivering on the promise for the fluid student
- **Partnership and dialog:** Academic partners and employers work together to plan for, build and activate pathways
- **Organizational structure:** Four sector model – hubs with multiple stakeholders
- **Agreed upon metrics and exceptions:** Measure assess and learn, flexibility
- **Collective impact:** without sacrificing academic quality

## EMPLOYER AND ACADEMIC PARTNERSHIP TO BUILD PATHWAYS

*The Promise* is an integration of employers and academic partners, building lifelong learning pathways for the fluid student



# IMPLEMENTATION OF THE 4 SECTOR MODEL, TO DATE

- **Board of Advisors Reorganization**
- **Launch of the STEM Industry Sector Hub**
- **Academic Partners and Employers Summit for Sector Alignment**
- **Early READY work with Reach Advisors**

# COMMUNITIES OF INNOVATION

## Current State:

- Individual Institution initiatives at home campus & Kirwan Center support
- Communication and Assessment for Individual Initiatives around identified subject areas

## Current State PLUS Pilot Incubator:

- Individual Institution initiatives at USG that can be measured, scaled, and applied to home campus
- No changes to current relationships and structure

## Pilot Incubator PLUS Community of Innovation: operation warp speed for USM

- **Common Goal:** Delivering on the promise for the fluid student
- **Partnership and dialog:** Academic partners and employers work together to plan for, build and activate pathways
- **Organizational structure:** Four sector model – hubs with multiple stakeholders
- **Agreed upon metrics and exceptions:** Measure assess and learn, flexibility
- **Collective impact:** without sacrificing academic quality

# THE POWER OF A DESIGNATION

**Navy Demonstration Project at China Lake  
(China Lake) in San Diego**

**Pay for performance approach and  
flexibility to fill vacancies and maintain top  
performers at China Lake**

**1980, permanent in 1994**







# SHARED IMPACT AND BENEFIT

- ▶ **Activate the power of the USM to learn together, model, scale**
- ▶ **Greater impact for access, affordability, and enrollments**
- ▶ **Reduce the risk to individual institutions, apply lessons**
- ▶ **Deliver on a *student centered approach* and ROI for fluid students**
- ▶ **Develop shared assessment framework**

## **PATHWAY TO SOCIALIZATION**

- **USM C8: January 30th**
- **BOR Overview: February 17th**
- **USM CUSP and Councils: March 6th**
- **USG Provost Executive Group March 8th**
- **Economic Development & Technology Commercialization :March 30th**
- **BOR Meeting: April 14th**
- **Initiate/design study of Communities of Innovation and develop blueprint:  
May - October 2023**
- **Designation request submitted to Governor: Nov-Dec 2023**
- **Designation request submitted to Legislature: January 2024**