

Maryland Industrial Partnerships (MIPS)

*Matching Awards for collaborative R&D projects between
Maryland industry and University System of Maryland faculty*

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Creating Partnerships for Innovation



Mtech: Maryland Technology Enterprise Institute

- Mtech – an Institute within the A. James Clark School of Engineering
- Programs and Activities
 - Entrepreneurship Education
 - Venture Creation
 - Partnerships**

Mtech Programs

Education

- Entrepreneurship and Innovation Program
- Hinman CEOs Program
- Hillman Entrepreneurs Program
- International programs
- Graduate certificate
- Executive education

Ventures

- TERP Startup Shell
- VentureAccelerator (VA)
- On-campus Incubator (TAP)
- 2nd Stage Incubator (TVB)
- Tech Startup Boot Camp
- Business Plan Competition
- Citrin Entrepreneurial Fellows

Partnerships

- **Maryland Industrial Partnerships (MIPS)**
- Biotech Scale-Up and Education (BREP)
- International Incubator (MI²)
- Manufacturing Assistance

E-Office Hours, MIPLRC, Mentoring, Seed & Venture Funding, Venture Fairs



MIPS Overview

- MIPS fosters academic-industrial partnerships for innovation
- Funds from MIPS and Maryland companies go toward accelerating research and knowledge into products
- **Commercialization (and economic development) is a key factor**

Key Points about MIPS

- MIPS projects are conducted by university faculty in conjunction with company researchers
- Proposals are evaluated on technical merit and economic development potential
- Projects are jointly funded by MIPS and companies
- All funding goes toward university project costs

Eligible Campuses

- Bowie State University
- Coppin State University
- Frostburg State University
- Morgan State University
- St. Mary's College of Maryland
- Salisbury University
- Towson University
- U of Baltimore
- U of Maryland, Baltimore
- U of Maryland, Baltimore County
- U of Maryland, College Park
- U of Maryland Eastern Shore
- U of Maryland University College
- U of Maryland Center for Environmental Science



MIPS: The Process

Proposal Evaluation Process

- Scientific/technical evaluation
- **Business/economic review**
- 60 day turnaround from application to award
- 2 funding cycles per year, May and October deadlines
- Proposals due: **May 1 and October 15**

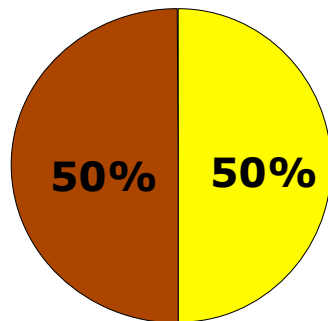
Competition for MIPS Awards

The primary criterion for ranking proposals:

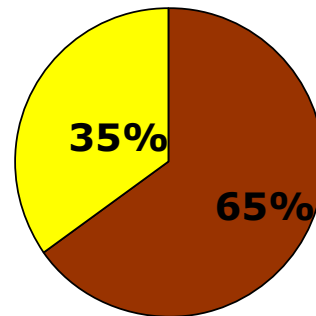
What is the likely degree of long-term job creation in Maryland resulting from the proposed R&D project?

Minimum Company Cash Match

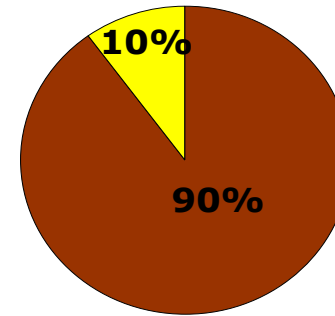
Large Company
 >100



Small Company
 13 to 100



Start-Up Company*
 Up to 12



Company Share



MIPS Share

*** Plus other requirements**

MIPS offers up to \$100K/year in matching funds for projects for up to two years. With minimum company contributions, total project value can be:

\$200K for startups

\$310K for small companies

\$400K for large companies

Start-Up Criteria

- 1 to 12 Employees
- Must submit Business Plan (Executive Summary)
- Annual Sales under \$1,000,000
- Time in business cannot exceed 5 years
- No Public Offering
- Must be in good standing with State

Benefits to Companies

- Financial support for commercially applicable research
- Leveraging assets/ outsourcing R&D
- Access to university
 - ❖ faculty & students expertise
 - ❖ facilities
- Companies can establish lasting relationships with faculty experts, hire students

Intellectual Property

- Company has right to an exclusive license to I.P. created by the university research team during the course of a project
- Terms negotiated with campus after the invention

Program Summary

53 Competitive Rounds

- 1924 Applications Received
- 1071 Different Contracts & Amendments
- 711 Individual Projects
- 514 Companies
- 393 Faculty

MIPS: An Innovative Job Creation Engine for Maryland

5,600 jobs created in MIPS companies
(impacts created 15,000 total jobs)

Leading MIPS products have sold \$28.1B

Annual Tax Revenues

State: \$87M, Counties: \$70M



MIPS Cumulative ROI

- \$28.1B Product Revenues
- 5% of that returned to State treasury from corporate and employee income taxes, and 3X jobs multiplier effect
- \$42.1 M total state funding for MIPS projects
- Total Maryland Tax Revenues:
- $\$28.1\text{B} \times 0.05 = \1.4 B
- **MIPS ROI: $\$1.4\text{B} / \$42.1\text{M} = 33\text{ to }1$**

Round 53 – MIPS Projects

- A&G Pharmaceutical Inc.
- Earth Networks
- Fiberight LLC
- High Impact Environmental Inc.
- Hoopers Island Oyster Aquaculture
- Metompkin Seafood, Inc.
- Pothole Pros
- Rehabtics, LLC
- Remedium Technologies, Inc.
- Shore Thing Shellfish LLC
- vCalc LLC
- XChanger Companies, Inc.

Mamm-Assure, a test to stratify suspicious BIRAD
Verification of EN remote energy audits
High-rate anaerobic digester pilot unit
Agricultural stormwater cascading system
Oyster sorting and grading machine
Automated Spat-on-shell oyster prod. system
Infrared asphalt repair quality assurance
Physical rehabilitation software system validation
Hemostatic “silly putty” for battlefield wounds
Extension of In-Situ Oyster setting method
vCalc Free On-line Mathematics System
Evaluation and optimization for XChanger box

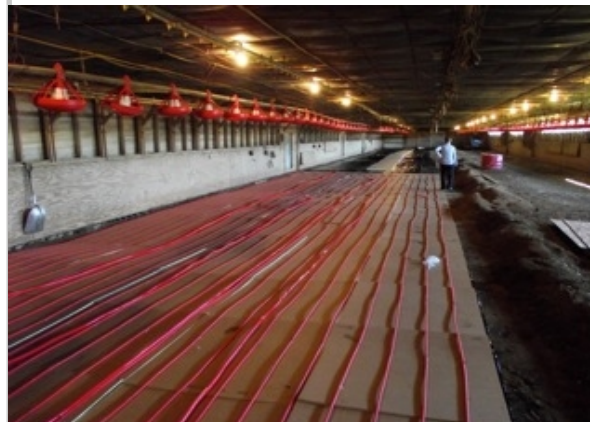
MIPS Partnership with Maryland DNR

- Maryland Dept. of Natural Resources funds MIPS projects targeted at Chesapeake Bay sediment & nutrient reduction
- MIPS receives proposals, DNR & MIPS both do full reviews, DNR selects projects to fund
- Four projects funded in past year, total \$230,000

HY-TEK Bio: system scrubs harmful greenhouse gases from industrial smoke stacks



AHPharma: heated chicken house flooring reduces ammonia pollution



Shore Thing Shellfish: advanced oyster farming; cleans the Bay



New DNR “Manure to Energy” Chesapeake Bay Funding

- MIPS Received special MtoE \$\$ for FY 2014
- Individual project budgets of \$250k each
- Projects must fit specific MtoE criteria
- Projects jointly approved by DNR & MIPS

Thank You! ***Web Site and Contact***

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