Maryland Industrial Partnerships (MIPS)

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

Ronnie Gist
Associate Director

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)
- 2<sup>nd</sup> 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 (M$^2$I)
- Manufacturing Assistance

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**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

<table>
<thead>
<tr>
<th>Company Type</th>
<th>MIPS Share</th>
<th>Company Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Company &gt;100</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Small Company 13 to 100</td>
<td>35%</td>
<td>65%</td>
</tr>
<tr>
<td>Start-Up Company* Up to 12</td>
<td>10%</td>
<td>90%</td>
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</tbody>
</table>

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

*Plus other requirements
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:
  - $28.1B x 0.05 = $1.4 B
- **MIPS ROI**: $1.4B / $42.1M = 33 to 1
# Round 53 – MIPS Projects

<table>
<thead>
<tr>
<th>Company</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;G Pharmaceutical Inc.</td>
<td>Mamm-Assure, a test to stratify suspicious BIRAD</td>
</tr>
<tr>
<td>Earth Networks</td>
<td>Verification of EN remote energy audits</td>
</tr>
<tr>
<td>Fiberight LLC</td>
<td>High-rate anaerobic digester pilot unit</td>
</tr>
<tr>
<td>High Impact Environmental Inc.</td>
<td>Agricultural stormwater cascading system</td>
</tr>
<tr>
<td>Hoopers Island Oyster Aquaculture</td>
<td>Oyster sorting and grading machine</td>
</tr>
<tr>
<td>Metompkin Seafood, Inc.</td>
<td>Automated Spat-on-shell oyster prod. system</td>
</tr>
<tr>
<td>Pothole Pros</td>
<td>Infrared asphalt repair quality assurance</td>
</tr>
<tr>
<td>Rehabtics, LLC</td>
<td>Physical rehabilitation software system validation</td>
</tr>
<tr>
<td>Remedium Technologies, Inc.</td>
<td>Hemostatic “silly putty” for battlefield wounds</td>
</tr>
<tr>
<td>Shore Thing Shellfish LLC</td>
<td><strong>Extension of In-Situ Oyster setting method</strong></td>
</tr>
<tr>
<td>vCalc LLC</td>
<td>vCalc Free On-line Mathematics System</td>
</tr>
<tr>
<td>XChanger Companies, Inc.</td>
<td>Evaluation and optimization for XChanger box</td>
</tr>
</tbody>
</table>
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

- MIPS Web site: www.mips.umd.edu
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