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www.mtech.umd.edu



What is Mtech?

Mtech is an institute within the College of Engineering that develops and operates all the technology entrepreneurship programs for the University of Maryland, College Park.

- 50 full time staff
- \$10M/year budget
- Educational Touch >1000 students/year
- Industrial Touch >400 companies/year
- Oldest programs are >25 years
- Programs that span:
 - Students (undergraduate, graduate)
 - Faculty and staff
 - University System of Maryland (10 universities)
 - Local non-university community

Goals of Innovation and Entrepreneurship Organizations

Revenue Stream

- Target creating a revenue stream for the University
- Technology transfer organizations (licensing)
- Venture funds (equity)

Value Creation

- Target creating value for the local, state and/or national economies
- Job creation
- Tax revenue creation
- Knowledge creation
- Equity collection (for services rendered)

Donor Creation

- Entrepreneurial Alumni

Mtech considers itself to be primarily a value-creation organization

Mission

- Educate the next generation of technology entrepreneurs
- Create successful technology ventures
- Connect Maryland companies with university resources to help them succeed

Entrepreneurship Education

<i>Middle School</i>	<ul style="list-style-type: none"> • Summer program for 8th grade students interested in entrepreneurship
<i>High School</i>	<ul style="list-style-type: none"> • Young Scholars Summer Program • Young Scholars Spring Program (Select high school campuses)
<i>UM Freshmen & Sophomores</i>	<ul style="list-style-type: none"> • Entrepreneurship & Innovation Program (EIP) • Freshmen Connection Program • Courses open to all UM students
<i>UM Juniors & Seniors</i>	<ul style="list-style-type: none"> • Hinman CEOs Program • Hillman Entrepreneurs Program • Courses open to all UM students
<i>Graduate Students</i>	<ul style="list-style-type: none"> • Courses
<i>Public</i>	<ul style="list-style-type: none"> • MOOC

**Masters of Professional Studies
in Technology Entrepreneurship
(Sept 2014 start)**

- 20+ courses a year with >1000 students
- MOOC (over 200,000 students in 2013)
- Replication of Hinman program at other universities



Hinman CEOs Program

- Innovative residential entrepreneurship program for 90 junior and senior students to *live, learn, and launch* new ventures
- 12-credit academic track + coaching and mentoring + incubator space
- Highly competitive application process yields the top students on campus with 1/3 business, 1/3 engineering, and 1/3 arts & sciences



2014 Graduate

- Legislation tracking and prediction software
- Co-founder and CTO Jonathan Chen is a senior CS major
- Raised \$1.2M in venture funding from Mark Cuban, NEA, and First Round Capital in Fall 2013



2005 Graduate

- Online publishing platform for web and mobile experiences
- Founder & CEO is Anthony Casalena '05
- Raised \$30.5M in 2010
- *Inc. 500* Fastest-Growing Companies
- 262 employees today
- Super Bowl ad in 2014



Mtech Partnerships Programs

- Maryland Industrial Partnerships (MIPS)
- International Incubator (MI²)
- Biotech Research and Education Program (BREP)
- Mtech Baltimore (“bioentrepreneurship”)

Mtech has a 25+ year history connecting Maryland industry to USM faculty and resources through MIPS, which has resulted in significant economic (>\$27B) development and job creation (>7000)

MIPS Partnership with Maryland DNR

- Maryland Dept. of Natural Resources (DNR) funds a subset of 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



UMCES

AHPharma: heated chicken house flooring reduces ammonia pollution



UMES

Shore Thing Shellfish: advanced oyster farming; cleans the Bay



St. Mary's College of Maryland

Venture Creation (End-to-End Entrepreneurship Ecosystem)

- Entrepreneur Office Hours
- Maryland legal resource center
- DC I-Corps (NSF) – with GWU and VT
- Venture Accelerator
- First and Second Stage Incubators
- Start-up Shell

Mtech has unique venture creation experience and resources that it provides to faculty, staff and students (and we are actively disseminating this outside of the university)

Startup Shell

- 100% student-run incubator and collective that cultivates entrepreneurship through collaboration
- 22 student companies
- Sponsor several on-campus programs: Bitcamp, RECESS, TEDxUMD





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Current Mtech Challenges

- University (or university system) lack of policy for managing equity
- Separation anxiety with venture accelerator companies
- “Do no harm” – some still treat entrepreneurs like university employees
- Exiting “competition” business – other organizations at the University of Maryland focused on this
- Use EIPs as creators (not “stock pickers”)

FLEXEL



Electrical Engineering Professors at Maryland:

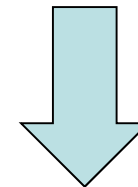
- Marty Peckerar
- Neil Goldsman

- Thin Film Battery Technology
- Flexible
- RF Rechargeable
- High Energy Density
- Unique Chemistry
- Broad Applications



Mtech Venture Accelerator Program (2009-2010)

- Business Modeling
- Hired Management Team
- Grant and Equity Funding



Today:

- Resident of Mtech TAP incubator
- 38 full time employees



CEO

Bob Proctor:

- Angel Investor
- Head of Global Sales & Marketing, CEB
- VP, Marketing, SABA
- Consultant, McKinsey
- PhD, Applied Physics, Cornell



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