MIT Sandbox Innovation Fund Program

Jinane Abounadi, Executive Director
Advances in science when put to practical use mean more jobs, higher wages, shorter hours, more abundant crops, more leisure for recreation, for study, for learning how to live without the deadening drudgery which has been the burden of the common man for ages past. Advances in science will also bring higher standards of living, will lead to the prevention or cure of diseases, will promote conservation of our limited national resources, and will assure means of defense against aggression.

— Vannever Bush, July 1945
Public/Private Funding supported research of ~ $750M in 2018

MIT Research Highlights

1930s— High-speed photography
1940s— Practical microwave radar
1950s— Magnetic core memory paving way to digital
1960s— World’s first biomedical prosthetics
1970s— First workable public key cryptography
1980s— First free-standing hologram
1990s— New genetic and multiple-cell monitoring technology
2000s— First acrobatic robotic bird
2010s— Genetic Engineering/CRISPR
2018 — Acceleration of AI research and applications

Source: web.mit.edu/facts/research.html
Founders are getting younger: Why?

- Technologies are mature; the pace of innovation is faster.
- Capital needs to start develop a web or mobile app are not that high with the availability of cloud services, flexible co-working space, …etc.
- Investors are willing to fund younger, inexperienced founders

The median age of first-time MIT alumni founders is declining*

*these figures may reflect “right-censoring bias,” i.e., an underestimation of the ultimate median age among recent graduates

Sources: Entrepreneurship and Innovation at MIT Continuing Global Growth and Impact, Edward B. Roberts, Fiona Murray, and J. Daniel Kim, MIT Sloan School of Management
Sandbox has a unique approach

- Lower the barrier to “explore” entrepreneurship for ALL students
- Open to ALL students from ALL schools: Undergrad and Grad
- Focus on student-driven entrepreneurship
- Funding is exempt from usual IP ownership
- Students apply for funding – no need for Principle Investigator
- Milestones and pace of work are flexible to accommodate academic and research obligations
- Students get to choose their entrepreneurship framework
- Provides continuity: Teams stay in program for 2-3 semesters on average (12-18 months)
- Large scale
MIT Sandbox provides a tailored **educational** experience, including seed funding, plus mentoring from within MIT and a broad network of committed partners.

**WHO**
- All 11,000 MIT undergraduate and graduate students

**WHAT**
- Experience authentic entrepreneurship
- Explore how to get an idea to impact and learn from failures
- Engage with knowledgeable mentors and potential funders

**HOW**
- Funding $1K-$25K cumulative
- Mentorship from experienced professionals
- Coaching from Entrepreneurship Fellows
- Workshops
- Corporate partnerships
- Legal and IP guidance
- Networking with MIT and external innovation ecosystem
Sandbox Demographics As of Spring 2019

~2600 Entrepreneurs

- 28% Bachelors
- 26% Masters
- 25% MBA
- 22% PhD
- 30% Management
- 8% Science
- 7% Architecture
- 2% Humanities
- 53% Engineering
Sandbox Demographics As of Spring 2019

1245 Ventures

Target Market
- 20% Global
- 11% Asia
- 48% USA
- 6% Latin America
- 6% Africa
- 8% Europe

Innovation Support
- $5.8M of Funding Allocated
  - Under $1k: 16% of teams
  - $1k - $35k: 66% of teams
  - Over $35k: 18% of teams

Innovation Verticals
- 360 teams are working on social enterprises
- 59 teams are working on non-profits

Entrepreneur Spend
- 645 hours of expert office hours
- 4952 hours of mentoring

MIT Sandbox Innovation Fund Program
<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
<th>Award</th>
<th>Department</th>
<th>Degree level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escher Reality</td>
<td>Spatial computing in Augmented Reality. First team to receive Sandbox Funding. Recently acquired by Niantic</td>
<td>$23,000</td>
<td>EECS</td>
<td>Graduate</td>
</tr>
<tr>
<td>Lightmatter</td>
<td>Lightmatter dramatically improves energy efficiency and speed for AI computations. Raised $11M in Series A</td>
<td>$20,000</td>
<td>EECS, Physics, Sloan</td>
<td>Graduate</td>
</tr>
<tr>
<td>Pirouette Medical</td>
<td>Pirouette is developing a drug delivery device that significantly increases ease-of-use and reduces anxiety surrounding administration of drugs</td>
<td>$20,000</td>
<td>HST</td>
<td>Graduate</td>
</tr>
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</table>

Over 1000 teams have used Sandbox to help innovate across industries
The mentorship really helped us **grow and mature from students to serious entrepreneurs**. The foundation of our mentors’ advice will be extremely advantageous as we move forward.

—Anne Kim, EECS ’18, MEng

Sandbox has been so instrumental to our success. We founded AirWorks out the summer program and have been working with the mentors all year around. It’s really a **fantastic very unique program among universities** in the US.

—David Morczinek, MBA ’18

Sandbox has provided the additional push necessary to transition from research and vision to proof of concept. Sandbox program is currently unique to MIT and **should be expanded to every university**.

—Sebastien Mannai, PhD ’18

Students are learning a great deal and continue to reiterate MIT Sandbox was critical in their entrepreneurship journey.
Sandbox teams have been winning awards and getting into top accelerators
An estimated 100+ start-ups have successfully raised seed rounds and/have paying customers
MIT Sandbox Program Structure

3 Application cycles a year: Fall, Spring, (partial) Summer

2 Funding Board meetings a year
Selection Criteria

- Must have one full-time MIT, degree-seeking student in leadership role
- Clearly defined problem using innovative technology or idea
  - Plan to prove the feasibility of the technology
  - Clear milestones - technology vs. market validation
- Customer Focus: Plan to validate the idea with potential users
- Team
  - Commitment to project
  - Ability of team to deliver
  - Educational value for team
- Budget: Clear proposal
Students participating in the MIT Sandbox program are expected to continue to make academic and research progress according to their academic program.

Funding and programming will be available throughout the year and available throughout the academic tenure.

It is important to balance entrepreneurship endeavor with the academic program.

Undergraduate students are encouraged to discuss their engagement with their academic advisor.

Graduate students are expected to discuss their projects and engagements with their research advisor. If commercializing research, students will be asked to get a form filled and signed by the TLO, requiring a signature from PI.

If students encounter any challenges balancing the academic demands and the demands from the MIT Sandbox program, they are encouraged to meet with the MIT Sandbox Executive Director for additional advising.
Important Deadlines – Spring 2021

- **Continuing teams**
  - Self-assessment due: December 18, 2020
  - Do not submit a new application unless you are pursuing a new idea

- **New applications**
  - Open: December 11, 2020
  - All new applications are due by: January 8, 2021

Apply at: sandbox.mit.edu/apply
Sandbox is supporting undergraduate ELOs via stipend payments:

- **Opportunity I:** Students must commit to 80 to 140 hours during IAP, IAP+Spring, or Spring to working on their Sandbox project.

- **Opportunity II:** The ELO stipend may be used to pay an undergraduate intern with a current Sandbox team or a recent alumni team.

- **Opportunity III:** The ELO stipend can support interns working on predictive analytics for the MIT Sandbox.

Details and forms at: sandbox.mit.edu/elobysandbox
Sandbox ELO Opportunities – Application Process

▪ For Continuing Teams:
  • ELO forms available through sandbox.mit.edu/elobysandbox
  • ELO applications are open and will be reviewed on a rolling basis
  • Deadline for IAP: December 20th
  • Deadline for IAP+Spring or Spring: January 8th

▪ For New Team Undergraduate Members:
  • For IAP-only Opportunity I:
    o Should be participating in an IAP entrepreneurship workshop
      (e.g. StartMIT, FUSE, Hong Kong Node)
    o Fill up Sandbox application preferably by December 20th
    o Follow up with ELO application by December 22nd
  • For IAP+Spring & Spring Opportunity I:
    o Fill up Sandbox application by January 8th
    o Follow up with ELO application by January 10th
Funding isn’t all we provide: Sandbox gives students guidance and support as they evolve their idea expert with mentoring...

Under $5K teams participate in group mentoring

$5K-25K teams are matched with 1-1 mentors with a relevant background
Teams attend workshops covering topics important to founders, including:
- Introductory Entrepreneurship
- Start up equity
- Agile Project Management
- Founder-to-Founder topics

Teams sign up for expert office hours to get advice in specific areas
Sandbox funds are paid in the form of reimbursements

<table>
<thead>
<tr>
<th>How do I get paid?</th>
<th>What can I buy?</th>
<th>What can’t I buy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Make a purchase</td>
<td>• Purchases must be made from budget approved by mentor</td>
<td>• Only under 25% of funds can be used for outside developers or contractors</td>
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<tr>
<td>2. Request a team Dropbox folder by emailing <a href="mailto:sandbox-funds@mit.edu">sandbox-funds@mit.edu</a></td>
<td>• Travel can be reimbursed if approved by Sandbox Executive Director</td>
<td>• Tax cannot be reimbursed (This includes sales tax AND franchise tax). Please inform vendors of MIT's tax-exempt status and provide forms when requested</td>
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<tr>
<td>3. Fill out reimbursement cover sheet (available on website)</td>
<td>• Food and meals can be purchased, but only when associated with meetings with prospective customers or subjects of market research</td>
<td>• Purchases over $5000 per item (except with approval from Sandbox Executive Director)</td>
</tr>
<tr>
<td>4. Upload cover sheet and receipts to team Dropbox folder</td>
<td>• Legal fees cannot exceed $1000</td>
<td></td>
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<tr>
<td>5. Email <a href="mailto:sandbox-funds@mit.edu">sandbox-funds@mit.edu</a> to request reimbursement</td>
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<tr>
<td>6. Please wait until you accumulate $300 or more for reimbursement and do not file reimbursements more than once per week</td>
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Teams are required to use their funds in a manner consistent with the hands-on learning philosophy of the program.
Need more info?

Visit our website:
sandbox.mit.edu

View ELO opportunities:
sandbox.mit.edu/elobysandbox

Email: sandbox@mit.edu