Entrepreneurship in Materials Science and Engineering at MIT

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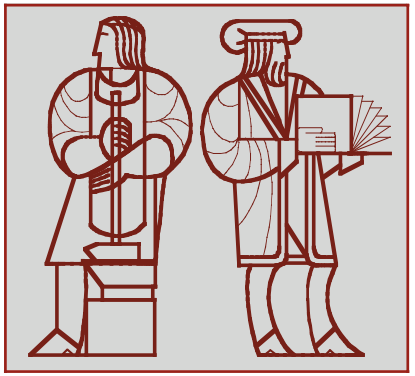

Massachusetts Institute of Technology

MIT innovation initiative

MIT Departments, Labs, and Centers

D-Lab Development Through Dialogue, Design & Dissemination

MARTIN TRUST CENTER FOR MIT ENTREPRENEURSHIP

MIT GLOBAL FOUNDERS' SKILLS ACCELERATOR

LEGATUM CENTER FOR DEVELOPMENT & ENTREPRENEURSHIP
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MIT Venture Mentoring SERVICE

TATA CENTER TECHNOLOGY + DESIGN

MIT DESHPANDE CENTER FOR TECHNOLOGICAL INNOVATION

MIT IMPACT program

TLO MIT TECHNOLOGY LICENSING OFFICE

With Blood in Their EyesThomas CobbUniversity of Arizona Press

BERNARD M. GORDON MIT Engineering Leadership PROGRAM

SUTD-MIT INTERNATIONAL DESIGN CENTRE
Undertake the impossible. Design the unexpected

MIT Sandbox

StartMIT

MIT IDEAS GLOBAL CHALLENGE

pkg center

TRANSLATIONAL FELLOWS PROGRAM

EDGERTON CENTER
Build It, Learn It, Share It

LEMELSON-MIT
Celebrating innovation, inspiring youth

MIT Startup Exchange

emerging worlds

MIT innovation initiative

I&E Student Groups

MIT innovation initiative

30,000

currently active companies
founded by MIT alumni

4.6 million
employees

+

$1.9 trillion
In annual revenue

=

the GDP of the 10th
largest economy in the world

Our goal in DMSE is to promote *strategic* entrepreneurship

It is NOT	It IS
An end unto itself	A search for the best path for a technology to reach the market (a great program will kill off many incipient startups before they are invested)
A quick grab at low-hanging value	A technology development path you commit yourself to for a potentially long time (teach how true innovations build value for decades to come)
Out of line with academic interests	A manner of strategic thinking that connects engineers to social sciences

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We have entrepreneurship at all levels across the department:

- Undergraduate students
- Graduate students
- Postdocs
- Junior faculty
- Senior faculty

Materials-based startups are difficult:

- Difficult to meet VC standards
- Long development cycles
- High capital intensity

- **Infuses a go-long attitude**
- DMSE is recognized Institute-wide as a leader here: help set the strategic tone

Undergraduate Minor in Entrepreneurship & Innovation

Innovation: Moving Ideas to impact

Venture Engineering

Two 12-unit core subjects

E&I In Context

Leadership of Teams and Organizations

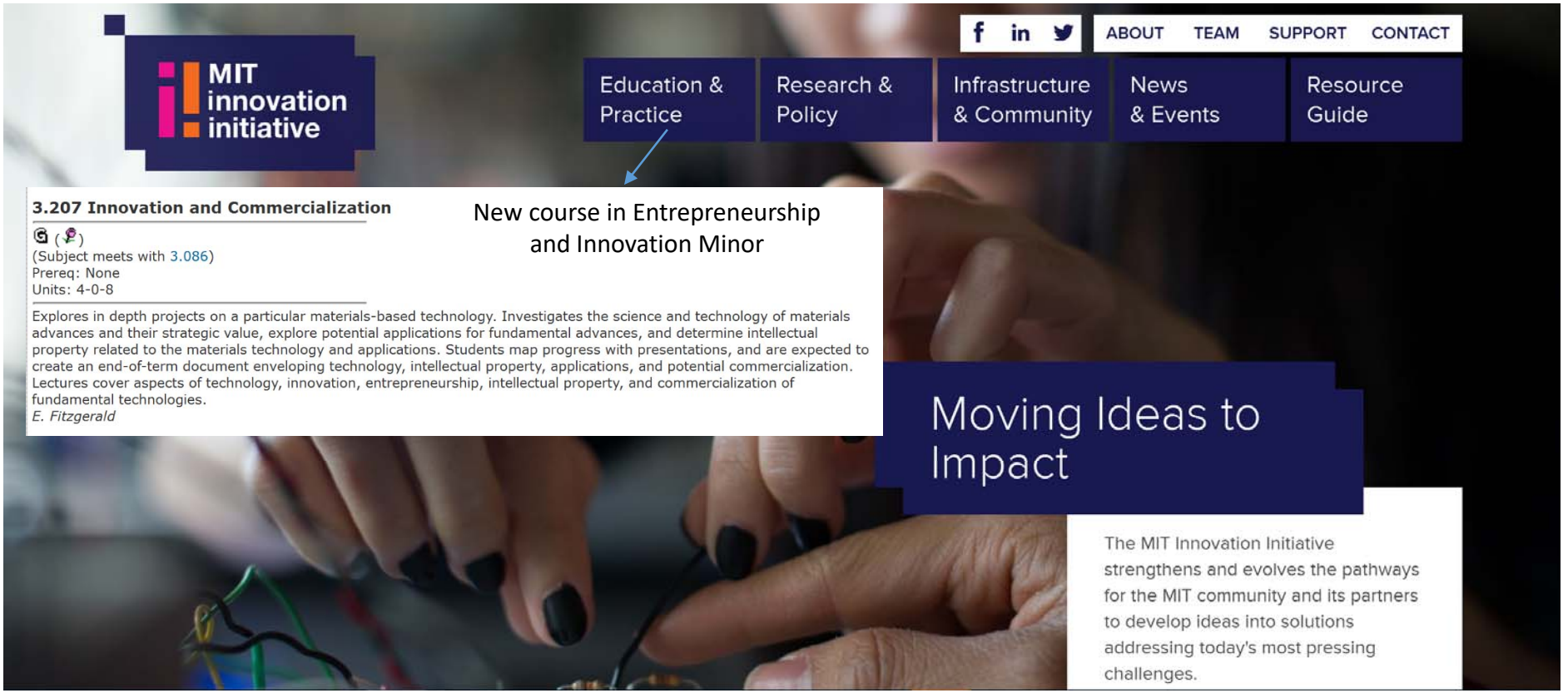
E&I Capstone

At least one subject in each of three domains

Jointly offered by the School of Engineering and Sloan School of Management with an advisory board across all five schools.

MIT innovation initiative

Director: Michael Cima from DMSE


MIT innovation initiative
ABOUT TEAM SUPPORT CONTACT
Education & Practice
Research & Policy
Infrastructure & Community
News & Events
Resource Guide
3.207 Innovation and Commercialization
(Subject meets with 3.086)
Prereq: None
Units: 4-0-8
Explores in depth projects on a particular materials-based technology. Investigates the science and technology of materials advances and their strategic value, explore potential applications for fundamental advances, and determine intellectual property related to the materials technology and applications. Students map progress with presentations, and are expected to create an end-of-term document enveloping technology, intellectual property, applications, and potential commercialization. Lectures cover aspects of technology, innovation, entrepreneurship, intellectual property, and commercialization of fundamental technologies.
E. Fitzgerald
New course in Entrepreneurship and Innovation Minor
Moving Ideas to Impact
The MIT Innovation Initiative strengthens and evolves the pathways for the MIT community and its partners to develop ideas into solutions addressing today's most pressing challenges.

Stages of E&I Support on Campus

MIT innovation initiative

MIT delta v

MIT Venture Mentoring Service

MIT LEGATUM CENTER FOR DEVELOPMENT & ENTREPRENEURSHIP

MIT $100K

MIT Sandbox

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Inspiration/ Invention/ Idea Generation	Technology Development/ Idea Refinement	Commercialization Planning	Development of Business Plan	Real Company/ Project Formation	Early-Stage Growth	High Growth

i-Teams

MIT DESHPANDE CENTER FOR TECHNOLOGICAL INNOVATION

TRANSLATIONAL FELLOWS PROGRAM

MIT ILP

TLO MIT TECHNOLOGY LICENSING OFFICE

LEMELSON-MIT

MADMEC

Materials-based prototyping competition
Aims at products in energy, sustainability
Industry sponsored, industry and entrepreneurial mentoring

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MADMEC

DMSE Lemelson-Vest endowed fund $10k grants to student projects to move 'one step closer to product viability' (off scope of a funded project)

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MADMEC

Postdoc entrepreneur bootcamp program

Kavanaugh Fellows:
Fully supported postdocs, liberated from funding concerns to mature their technology and develop a commercialization plan

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MIT innovation initiative

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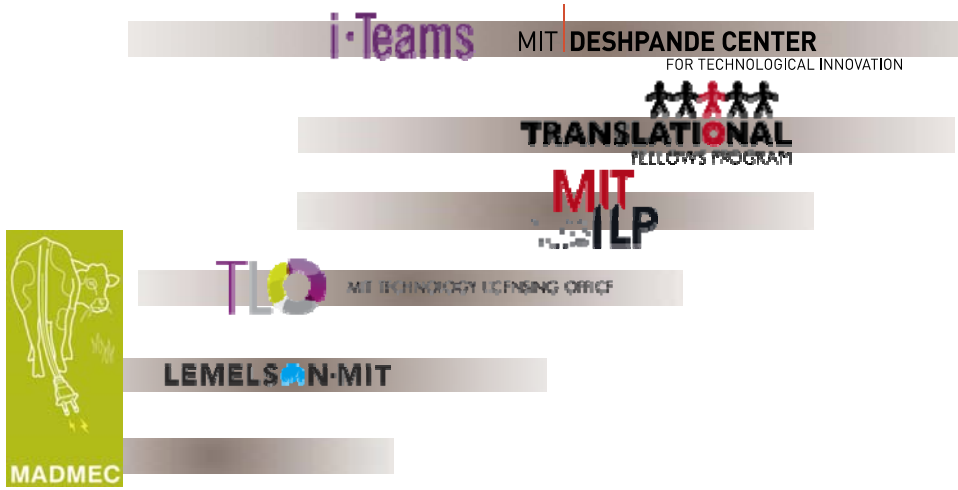

The Engine:
An MIT-founded, independent capital fund aimed at “go-long” value building through hard tech investing

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