The Role of Intermediaries

Intermediary Management in the University

USIMP 2012
Sabanci University, Istanbul
June 21 - 22, 2012

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Associate Director
MIT Office of Corporate Relations

Outline

- Strategic perspective on academic-industry relations
- Strategic perspectives on university intermediaries
- MIT functional intermediaries:
  - *Outreach*
  - *Contracting/Legal*
  - *Licensing*
  - *Others*
- Summary

Why Industry Engages with Academia

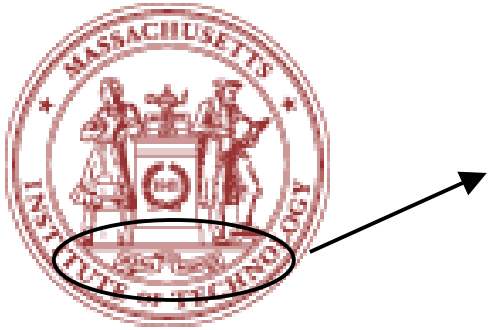
- Identify new management practices
- Monitor emerging/cutting-edge technologies
- Gain insight from internationally-recognized experts
- Strengthen strategic decision-making
  - *development of new products and processes*
  - *implementation of innovative management practices*
  - *achievement of effective growth strategies*
- Discover new technologies through [proprietary] research collaborations
- Identify and access technology and expertise outside company's core competencies
- Technology transfer through licensing
- Recruit new employees
- Enhance technical and managerial skills through training

The Academic-Industry Complement

- Different missions
  - *Academia - education and advancement of knowledge*
  - *Industry - maximize returns to stakeholders/shareholders*
- Some common interests
  - *Global problems - opportunities and challenges*
  - *Knowledge transfer - both directions*
  - *Human resources - talent acquisition/talent development*
- The research complement
  - *Academic basic research "feeds" industry applied research and product development*
  - *Industry provides financial support*

The challenge for industry to understand

University Culture: MIT and the Real World



mens et manus is "mind and hand"

It is the <u>culture</u> of MIT, the faculty and students to have an impact on the world and to solve real-world problems

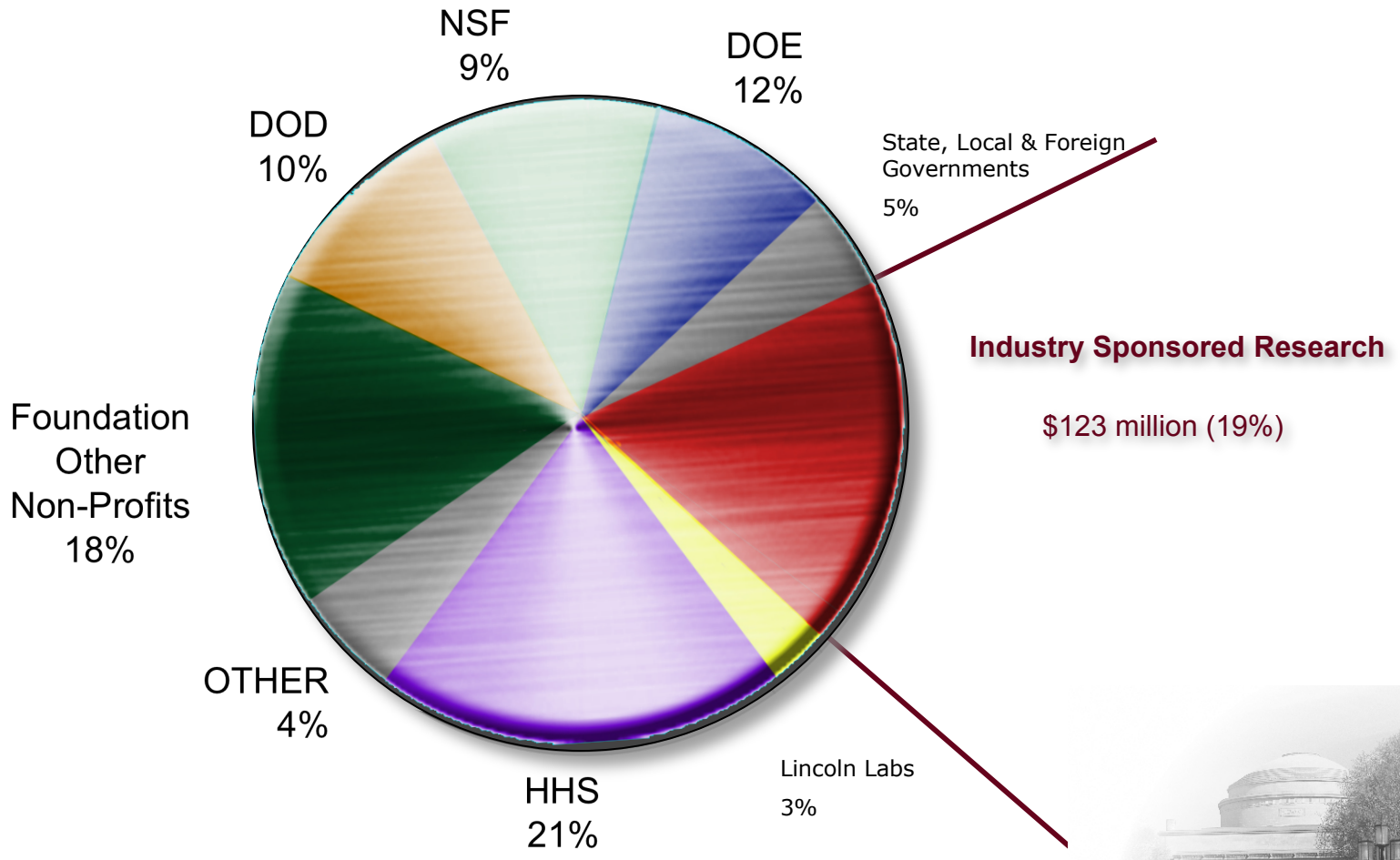
It is part of the <u>academic mission</u> of MIT and the faculty to forward the advancement of knowledge with research

It is part of the <u>educational mission</u> of MIT to use research in the education of students

A university culture for industry engagement

University Culture: MIT Research Funding

On-Campus R&D: $661 million*



*FY 2011

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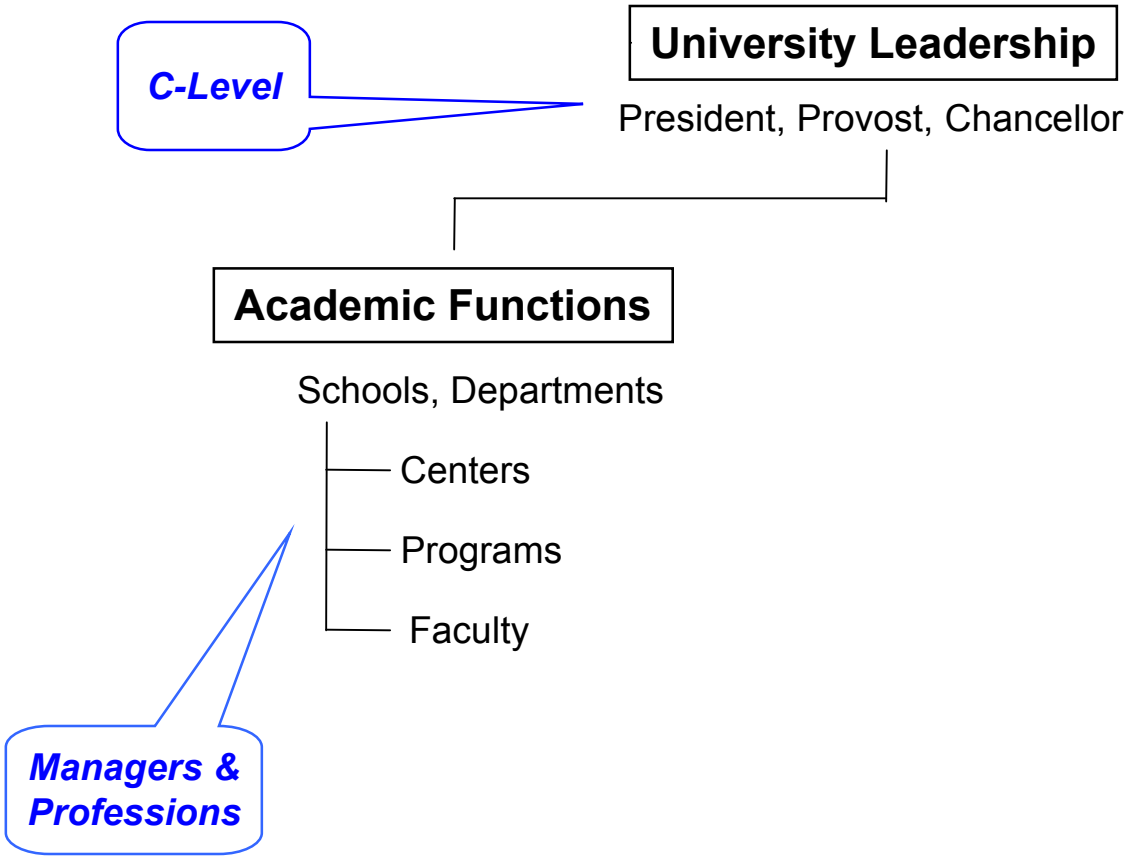
University Intermediaries: A University Structure Perspective



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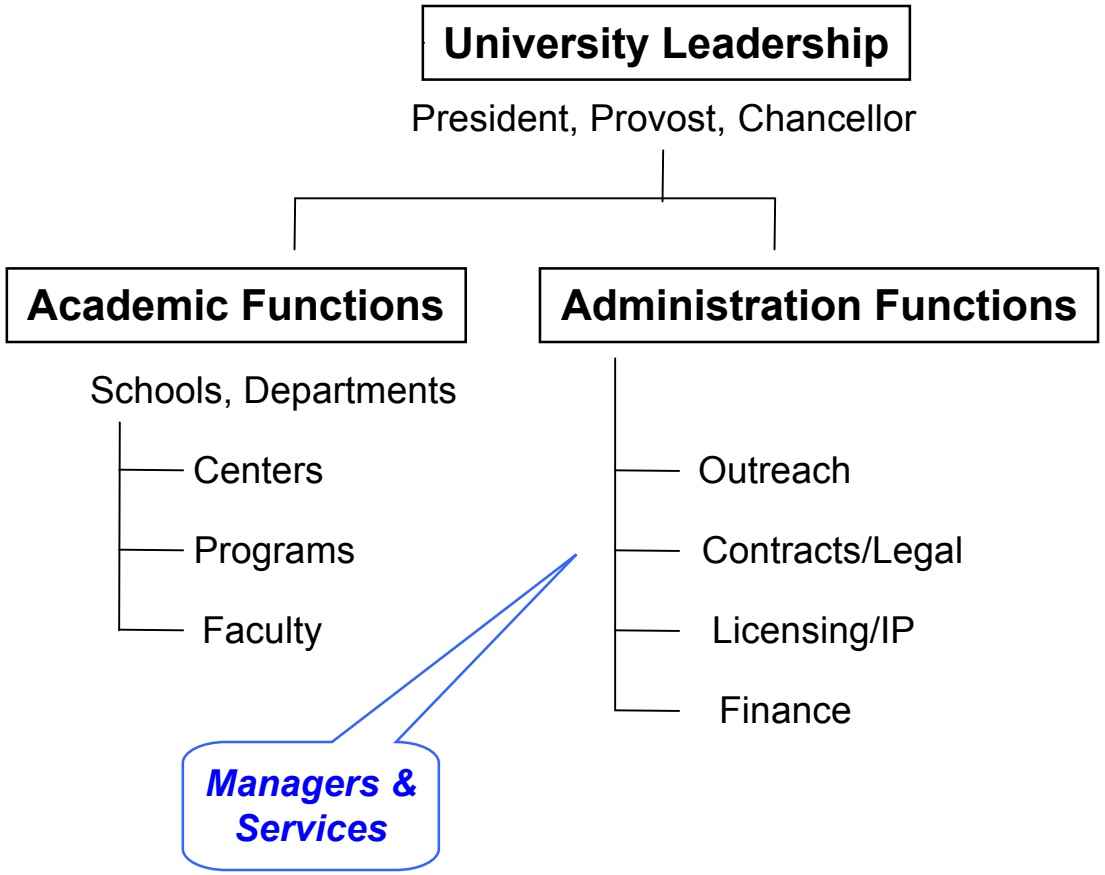


University Intermediaries: A University Structure Perspective

University Leadership

President, Provost, Chancellor

Academic Functions

Schools, Departments

- Centers
- Programs
- Faculty

Administration Functions

- Outreach
- Contracts/Legal
- Licensing/IP
- Finance

Students

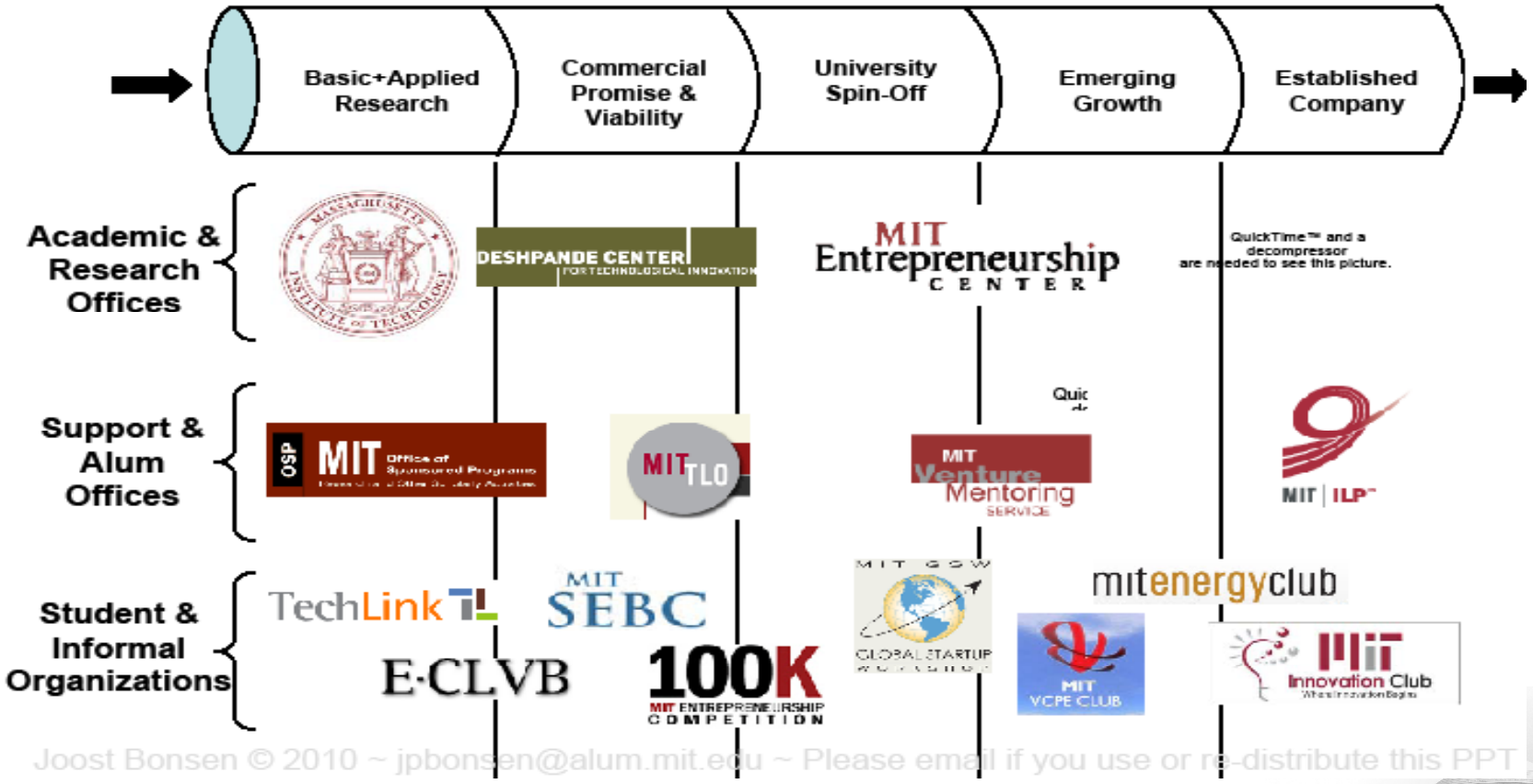
Deans, Heads

- Recruiting
- Clubs
- Competitions

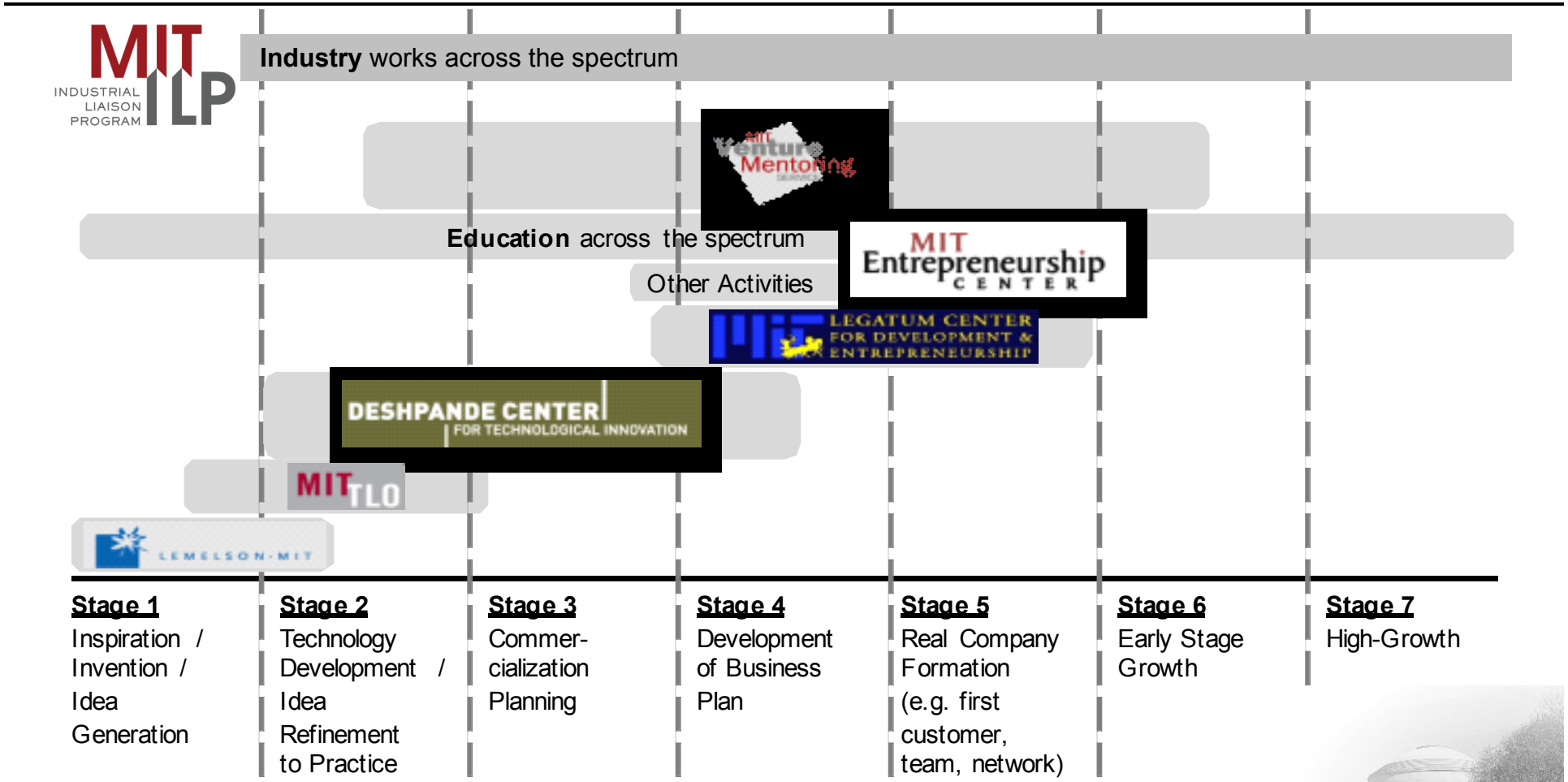
Managers & Services

The university is decentralized

MIT Innovation Pipeline



University Intermediaries: A Innovation Cycle Perspective



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University Intermediaries: A University Structure Perspective

University Leadership

President, Provost, Chancellor

Academic Functions

Schools, Departments

- Centers
- Programs
- Faculty

Administration Functions

- Outreach (OCR)
- Contracts/Legal (OSP)
- Licensing/IP (TLO)
- Finance

Students

Deans, Heads

- Recruiting
- Clubs
- Competitions

Managers & Services

The university is decentralized

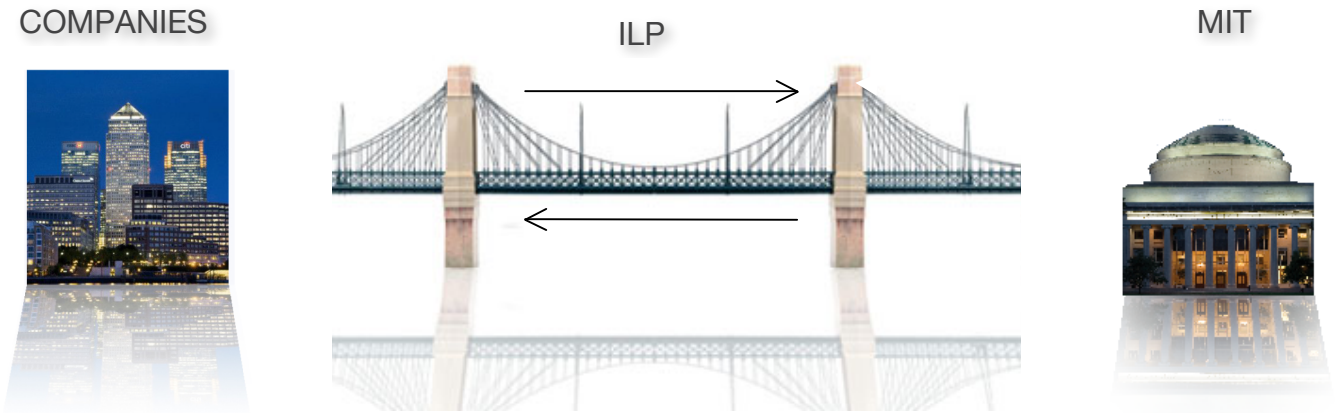
Outreach: MIT Office of Corporate Relations

- Serves
  - *MIT leadership and faculty*
  - *Industry member partners (ILP)*
- Professional program and staff (45 people)
  - *Liaison Officers (20)*
  - *Conference management and marketing*
  - *Research and publications*
  - *Website and IT*
  - *Management processes, CRM*
- Self-funded business model
  - *ILP fee base*
  - *Distribution of incentives and profits to MIT community*

Not the only entry for industry to MIT

MIT Industrial Liaison Program

- The ILP is industry's chief gateway and guide to MIT



- Provides expert counsel on building productive partnerships
- Develops customized, cost effective programs
  - *assess, address strategic research needs*
  - *facilitate faculty, researcher interactions*
  - *monitor emerging technologies and innovative management practi*

ILP Service Model

- Experienced Officer, custom workplan
- Executive research briefings
- On-campus meetings with faculty and research staff
- Faculty visits to company sites
- Symposia and conferences
- Customized research reports
- Member website
  - *KnowledgeBase*
- Publications
  - *ILP News Mosaic*
  - *Web reports and digital presentation archive*

A holistic and strategic approach

Tactical Best Practices*

THE SEVEN KEYSTO COLLABORATION SUCCESS

1. Define the project's strategic context as part of the selection process.
- Use your company research portfolio to determine collaboration opportunities.
- Define specific collaboration outputs that can provide value to the company.
- Identify internal users of this output at the working level; executive champions are not a substitute for this requirement.

2. Select boundary-spanning project managers with three key attributes:
- In-depth knowledge of the technology needs in the field
- The inclination to network across functional and organizational boundaries
- The ability to make connections between research and opportunities for product applications

3. Share with the university team the vision of how the collaboration can help the company.
- Select researchers who will understand company practices and technology goals.
- Ensure that the university team appreciates the project's strategic context.

4. Invest in long-term relationships.
- Plan multiyear collaboration time frames.
- Cultivate relationships with target university researchers, even if research is not directly supported.

5. Establish strong communication linkage with the university team.
- Conduct face-to-face meetings on a regular basis.
- Develop an overall communication routine to supplement the meetings.
- Encourage extended personnel exchange, both company to university and university to company.

6. Build broad awareness of the project within the company.
- Promote university team interactions with different functional areas within the company.
- Promote feedback to the university team on project alignment with company needs.

7. Support the work internally both *during* the contract and *after,* until the research can be exploited.
- Provide appropriate internal support for technical and management oversight.
- Include accountability for company uptake of research results as part of the project manager role.

* J. Pertuze, E. Calder, E. Greitzer, W. Lucas, "Best Practices for Industry-University Collaboration", MIT Sloan Management Review 51, no. 4 (Summer 2010): 83-90

Contracting: MIT Office of Sponsored Programs

- Serves
  - *MIT leadership and faculty*
  - *All external parties, public and private*
- Professional staff (55 people)
  - *Contracts Officers (25)*
  - *Information, data and cost analysis*
  - *Training and communications*
  - *Website and IT*
- Legal services is separate
  - *Internal, MIT Office of General Counsel (4)*
  - *External*
- Mission
  - *Administer all stages of research related funding and contracting with the MIT community and funding sources*

Contracting: MIT Office of Sponsored Programs

- Pre-proposal contracts
  - *Teaming agreements*
  - *Non-disclosure Agreements*
- Research contracts
  - *Sponsored research agreements*
  - *Fellowship agreements*
  - *Consortium agreements*
  - *Unfunded collaboration contracts*
  - *Industrial Alliance Agreements*
- Post-award
  - *Use of non-MIT facilities for MIT research*
  - *Inbound Equipment Loan Agreements*
  - *Research Data Use Agreements*
- Other
  - *Material Transfer Agreements*
  - *Academic Host Agreements*
- Sub-awards to research partners

Licensing: MIT Technology Licensing Office

- Serves
  - *MIT leadership and faculty*
  - *All external parties, public and private*
- Professional staff (35 people)
  - *Licensing Officers (15)*
  - *Patent administration and maintenance*
  - *Information and financial analysis and management*
  - *Website and IT*
- Mission
  - *Manage all aspects and stages of MIT intellectual property*
  - *Facilitate the transfer of MIT research results into society via technology licensing*
- Strategy is “Volume”
  - *Maximize the number of technologies, patents, and licenses (rather than pick winners)*

Licensing: MIT Technology Licensing Office

- Patent filing and administration
  - *Assess commercial potential with inventors*
  - *Strong and broad patent filing*
  - *Protect and defend*
- License for impact
  - *Understand licensee potential and plans*
  - *Balance MIT and licensee interests*
  - *Focus on impact vs. income*
  - *Maintain legal and academic integrity*
- License maintenance
  - *Monitor licensee performance*
  - *Support licensee efforts to attract investment*
  - *Evolve, amend agreements as appropriate*
- Support for start up companies
  - *Provide advise for licensing options*
  - *Provide networking with investors and entrepreneurs*

Licensing: MIT Technology Licensing Office

Volume (FY2011)

• Invention disclosures	632
• US patents filed	~2-300
• US patents issued	153
• Licenses & options granted	113
• Companies started with MIT IP	26

Financials (FY2011)

• Revenues	$85M
• Royalties	$70M
• Cashed-in equity	$3.3M
• Total patent costs	$17.6M

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Just begin, and make engagement a competency

MIT ILP
INDUSTRIAL LIAISON PROGRAM

Thank you

James Gado
Associate Director
MIT Office of Corporate Relations

Massachusetts Institute of Technology

MIT "Inside" Activity

THE CAMBRIDGE-AREA INNOVATION ECOSYSTEM

A sample of the rich resources available in the MIT Community and beyond.

EDUCATIONAL INSTITUTIONS
- Harvard University
- Boston University
- Boston College
- Northeastern University
- Tufts University
- Babson College
- Brandeis University
- University of Massachusetts
- Worcester Polytechnic Institute

REGIONAL PUBLICATIONS
- Mass High Tech
- Boston Business Journal
- Xconomy
- Innovation Economy column in the Boston Globe

ENTREPRENEURS/START-UP COMPANIES
- Life Sciences/Biotech
- Energy
- Robotics
- Internet/Web 2.0/Web 3.0
- Gaming
- Information & Communication Technologies

SERVICE PROVIDERS
- Law Firms
- Marketing and Publicity Services
- Accountants and Part-Time CFOs
- HR
- Outsourced IT
- Traditional Office Space
- Incubators
- Consultants

ENTREPRENEURSHIP SUPPORT
- TiE Boston
- 128 Innovation Capital Group
- Boston Entrepreneurs' Network

CORPORATE R&D LABS
- Microsoft
- Google
- Mitsubishi Electric
- Novartis
- Pfizer
- Schlumberger
- Nokia

MIT ORGANIZATIONS
- Deshpande Center for Technological Innovation
- Venture Mentoring Service
- MIT Entrepreneurship Center
- MIT Enterprise Forum
- MIT Entrepreneurs Club (e-Club)

INVESTORS
- Venture Capitalists
- Angel Investors
- Private Equity
- Corporate Investor Groups

MODULAR, ADD-AS-YOU-GROW OFFICES / SERVICES
- Cambridge Innovation Center
- One Kendall Square
- Regus

STATE & LOCAL GOVT. INITIATIVES
- Life Sciences Cluster
- Robotics Cluster
- Clean Energy Cluster
- IT Cluster

REGIONAL TRADE ASSOCIATIONS
- Mass Technology Leadership Council
- Mass Software Council
- Mass Innovation and Technology Exchange
- Mass IT Collaborative Entrepreneurship Committee

COMPETITIONS
- MIT $100k Entrepreneurship Competition
- MIT Clean Energy Entrepreneurship Prize
- MIT IDEAS
- X-Prize
- MIT and Dow Materials Engineering Contest

Seed funding, marketing, mentoring, VC contact

Mentoring, networking

Education, culture

Education, culture, networking, competition, team building

MIT "Bridges" to/with the Boston Innovation Ecosystem

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ILP, faculty, students, TLO, VMS, competitions

Entrepreneurs, investors

Business plan review, networking, legal

Entrepreneurs, investors

ILP, TLO, OSP, faculty

Faculty, TLO, VMS, Deshpande Center, Entrepreneurship Center, MITEF