

Structure and Operating  
Procedures of the M.I.T.  
Technology Licensing Office

<http://web.mit.edu/tlo>

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# TLO reports to Academic Function of M.I.T.

Technology Licensing Office is a department  
of the university

Reports to the Vice President of Research

Who reports to the Provost

Employees of the TLO are employees of  
M.I.T.

# Staffing

- Director
- Associate Director
- Seven Technology Licensing Officers
- One Lawyer and one paralegal
- Four Technology Licensing Associates
- Plus administrative and support staff

# Technology Licensing Officer Qualifications

- Degree in Engineering (most commonly) or science, with good qualifications
- Significant industrial experience (most have 15-20 years in industry)
- Product development and marketing experience; significant customer exposure
- Ability to deal with complex personal and

# The Process begins with the Invention Disclosure

1. Researcher submits an “Invention Disclosure”
  - We get 450/year
  - Meet with inventor to discuss
  - Time urgency (imminent publication?)
  - What’s new about the invention
  - Potential commercial utility
  - Any known interested parties
  - Inventor’s wishes/ideas for commercialization?
2. Report to sponsor (government or company), if any

# Decision Whether to Patent

1. Patentability (and potential breadth of patent)
  - Literature search for prior art (when time allows before public disclosure)
  - Recommendation of (outside) patent attorney
2. Commercial potential—a judgement call based on:
  - Potential utility
  - Advantage over competing technology
  - Reasonable market size anticipated
  - Known interested investors, if any
  - (sometimes) Reputation of researcher in the field

# In deciding whether to patent

We do NOT:

- Conduct a formal market research study (impossible with >400 inventions/year)
- Use committees to decide whether to patent (they are not effective or fast enough)
- Delay publication (MIT policy: publication must have highest priority; decision whether to patent must be made quickly, before publication, even in a couple of days!)

## Decisions whether to patent are made by individual TLOfficers after discussion with inventors

- About 50% of invention disclosures are patented (>200/year)
- Patenting done by outside law firms
- If decision not to patent:
  - Meet with inventors/ explaining reason
- Usual reasons for not patenting
  - Significant prior art (thus not broadly patentable)
  - Market potential not significant
  - Not enough data (consider patenting later)

# Marketing New Inventions

## First questions:

1. Is there an industrial sponsor with option rights?
2. Has any company expressed interest in the technology?
3. Is this a potential startup company, or to be licensed to an existing company?

# When is a startup considered?

About 25% of our licenses are to new startup companies (25-30 companies/year)

## Criteria for considering a startup:

- Technology broadly applicable (not a single product)
- Large market potential
- No existing industry
- Type of technology that can attract investors
- ENTHUSIASTIC PARTICIPATION BY ONE OR MORE INVENTORS

# The Zero Stage Venture

A Technology

+

A Business plan

+

A Management Team

LOOKING FOR \$\$

# The University Venture: “Minus Two Stage”

A Technology (Barely reduced to practice)

NO Business plan

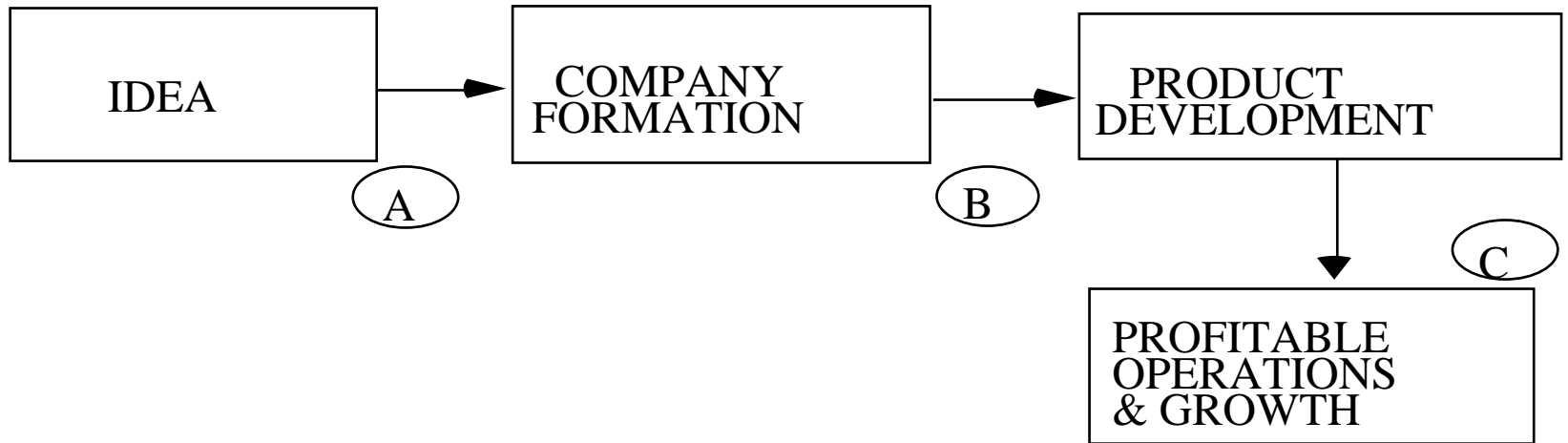
NO Management

LOOKING FOR A SYNTHESIZER

(with \$\$)

# The Virtual Incubator

## "Incubation"





## WHAT'S NEEDED?

- Intellectual Property Protection
- Company Conceptualization
- ("What's the shape of the business?")
- Business Plan
- Management Team
- Legal Advice
- Office Space

# Phase A: What MIT Contributes

- Patent Filing
- Advice (Coaching and Counseling)
  - Business model conceptualization
    - » Structure
  - What's Feasible
  - Relationships
  - Career Advice
  - Conflicts Policy
- Introduction to Funders (Venture capitalists and other investors)

# And we provide a good License Agreement

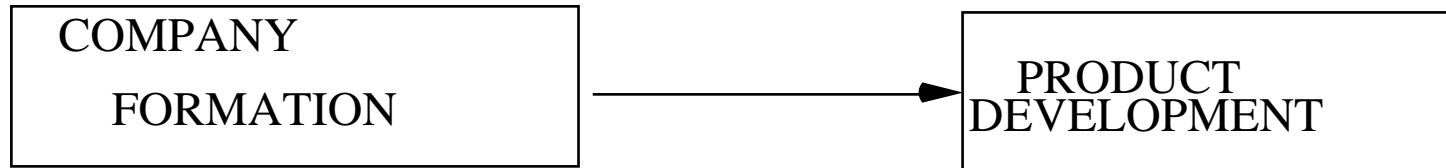
- Definition of Intellectual Property rights granted
- Fair licensing terms
  - Share the risk
  - Don't ask too much "upfront"
  - Help the company succeed
- Performance provisions
  - Money to be raised by set date
  - Other development milestones

# Phase A

## MIT does Not Provide

- Money
- Space
- Management Team Selection
- Business Plan Writing
- Formal Guidance (No Board Seats)

# Phase B



WHAT DOES THE COMPANY NEED?

- Labs
- Technical Expertise
- Strategy
- Management
- Board Guidance
- Business Development/Alliances
- Money

# Phase B: What MIT Contributes

Nothing Formally.

## Informal:

- Coaching
- Introduction to Funders
- "Pushing" on Milestones
- Informal Dispute Resolution
- Introduction to Executive Talent
- Referral to Strategic Alliances
- Intellectual Property Coordination
- FLEXIBILITY on License Renegotiation

# Marketing Licenses to Existing Companies

## Difficulties

- Technology is unproven
- Market is also unproven
- Significant development required—at high risk
- Company must have highly competent research and development capabilities
- Company R&D agenda already full
- NIH: “Not Invented Here”

# Marketing of early stage new technology works best when people know each other

- Work on establishing a network
- Publicize areas of expertise
- Encourage consulting by professors
- Encourage presentations at meetings by researchers
- Have a very open, responsive TLO, encouraging visitors
- Establish a reputation for fair dealing, license agreements that make sense, and an efficient process (“We can get the deal done”)

# The License Agreement: How do we “evaluate” the worth of the technology?

The Secret: We don't!

- It is impossible to assess the total value of unproven, new technology
- Rely, instead, on “linearity” of running royalties (“3% of \$10 million, or 3% of \$1 billion”—only time will tell), and of equity
- Running royalty ranges are well known
- Don't try to get very much upfront—just enough to pay for patents, show seriousness, and make a small income

# Negotiating the License Agreement

- Terms and negotiations are done by the Technology Licensing Officers, and signed by the Director
- Standard agreements, but with most terms negotiable on a case-by-case basis
- Legal review only when needed on legal issues—not routine
- No committees!

# Objectives in Negotiating License Agreements

- Get a fair return for the technology
- We know that we underprice, in order to get many deals done, rather than maximize a few
- We know that we cannot protect against all risk and all change; make a sensible agreement with reasonable protection

- Aim for a “Win-Win” deal with relationships intact for future dealings
- Realize that most agreements will need renegotiation in future years