**April 26, 2010** 

MIT

### The Deshpande Center: Accelerating Technology Commercialization from University Laboratories

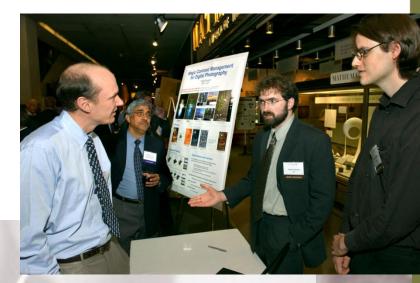
April 26 2010

Prof. Charles L. Cooney
Faculty Director
Leon Sandler
Executive Director

web.mit.edu/deshpandecenter

# The Deshpande Center for Technological Innovation

- Launched September 2002
- Founded by gift of \$20M from Desh and Jaishree Deshpande



#### **MISSION:**

 Create impact through technological innovation

### **University Research**

#### **Evolution of an Idea**

Ideas Emerge from Basic Research

**Selection** thru peer review – academic and business

**Direction** towards Market

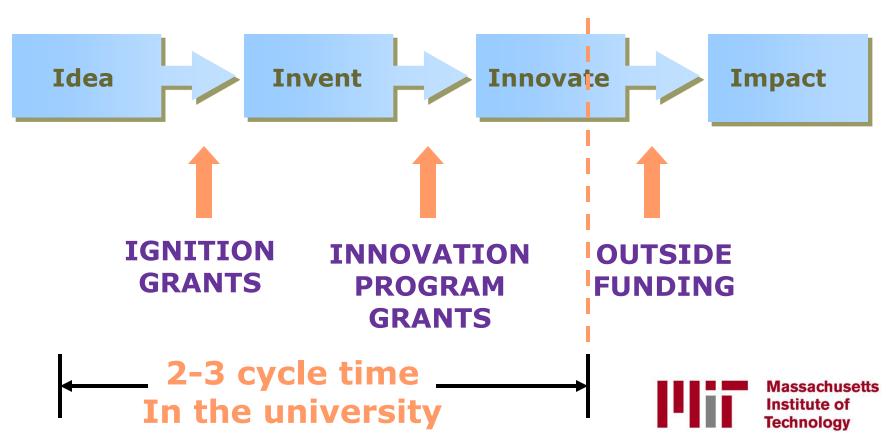
Connection to Markets and Financing

NewCo Creation Company

Growth

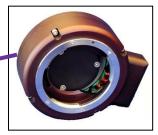
## Supporting the Idea-Innovation Value Chain

SELECT → DIRECT → CONNECT



#### Invention in the lab: A solution in search of a problem





### 3-D IMAGING TECHNOLOGY

- A tool for visualization of turbulent fluids in the lab
- Very fast, high resolution 3D imaging
- Good IP
- What should be the commercial focus?



### Entrepreneurship: A problem in search of a solution

- Commercial photography
- Rapid prototyping
- New video games
- Medical imaging
- Security cameras and facial recognition
- Aerial imaging of bombing targets
- Digital imaging for complicated parts manufacturing

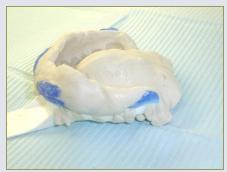
#### Let's find a way to do high resolution 3-D images



### **The Dental Impression**

Approximately 200 million dental impressions are done worldwide each year... dentistry is a \$250 billion dollar cottage industry.

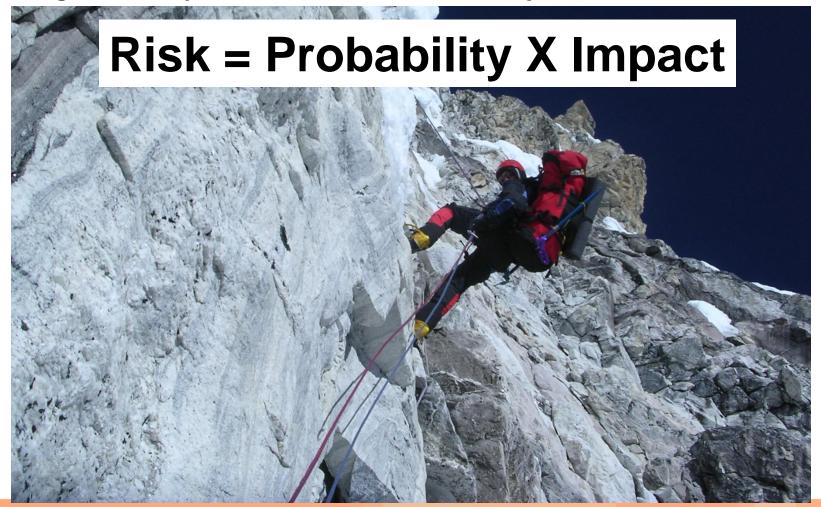




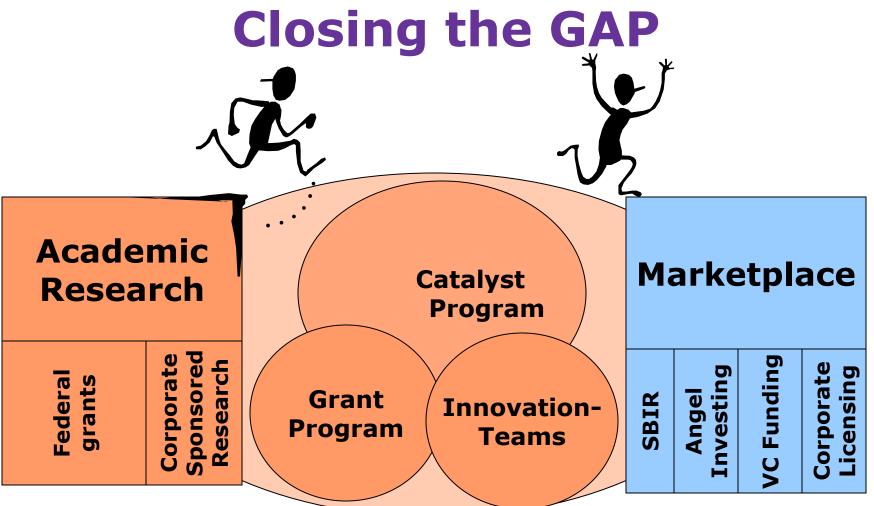


Digitizing Dentistry
A.K.A. 'No More Goop!'

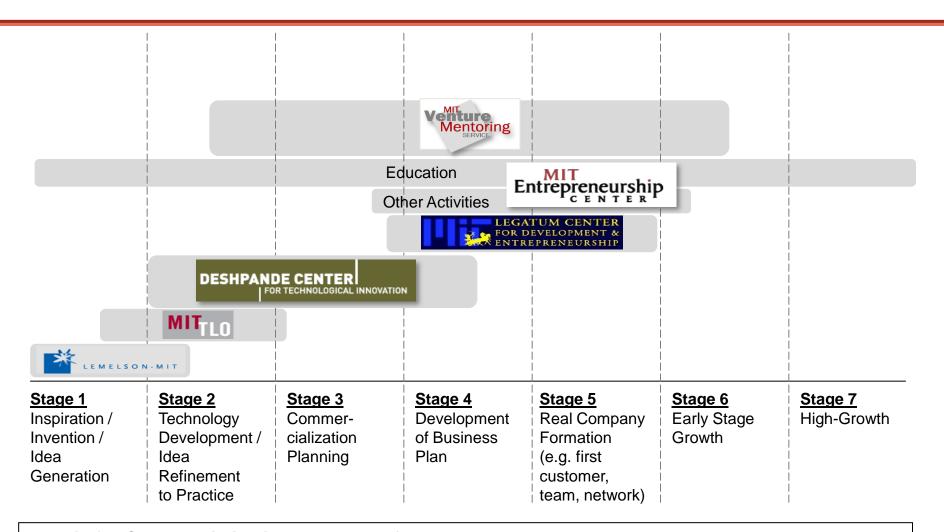




### **Managing Risk While Closing the GAP**



#### MIT's Internal Ecosystem by Entrepreneurial Stage



- Basis for Commercialization: 45 years of growing research & insight into the entrepreneurial process
- Knowledge Base: Outstanding scientific and engineering research ... & pioneering of new fields
- Underlying Foundation: 150 years of MIT's "mens et manus" culture

### Leverage on Science Platform

- Incredible leverage:
  - » Funded 80 projects with \$9.5M in grants
  - » One third are making progress towards startups
  - » Twenty startups have attracted >\$160m in venture financing
- We have involved:
  - > 200+ faculty and their students
  - » 100+ VCs and entrepreneurs

## **Translating Academic Research Into Commercial Impact**

- Ideas emerge from a platform of basic science – "Prior Scientific Knowledge"
- Ideas need to be recognized as solutions to problems – "Prior Market Knowledge"
- BOTH funding and mentoring are needed to bridge the Knowledge GAP
- The "internal Ecosystem" stimulates and rewards innovative risk
- The "External Ecosystem" supports, nurtures and absorbs innovative ideas

FOR TECHNOLOGICAL INNOVATION

"Progress is about focusing on your goal and managing risk"



C. L. Cooney, Faculty Director Deshpande Center. Approaching summit of Ama Dablam, 22,600 ft