How to Accelerate Science based Innovation and Entrepreneurship
Clover Engineering 2030 International Advisory Board

Ikhlaq Sidhu
Chief Scientist & Founding Director, Sutardja Center for Entrepreneurship & Technology
IEOR Emerging Area Professor
Department of Industrial Engineering & Operations Research, UC Berkeley

Universities and Industry Misconception

Message 0: A Misconception

Sutardja Center for Entrepreneurship & Technology
College of Engineering, UC Berkeley
Universities and Industry

This is misconception

Universities and Industry

Talent

Execution

Universities: Grow
Smartest People
World Brain Drain

Skilled Employees
Large Firms
New Ventures

Create

Sutardja Center for Entrepreneurship & Technology
College of Engineering, UC Berkeley
Universities and Industry

Talent

- Universities: Smartest People
- World Brain Drain

Execution

- Large Firms
- New Ventures
- Skilled Employees
- Grow

Government Role is to:
1) allow competition and protect disruptors
2) keep business friction low (including paperwork and taxes)
3) Fund projects that create skills

Two Cities in USA

- Chicago
- San Diego

Message 1: (Innovation) Culture Matters
Message 2:
Teach both:

- skills for innovation
- culture for innovation

Question: How do you teach innovation culture:

Answer: Decide who will be the role models: entrepreneurs, innovators, political leaders, social leaders, professors, executives?

Also time and freedom:
1) to challenge conventional thinking
2) to build and create
How does one teach an entrepreneur?

Answer: It's like teaching a bird to fly

We need alumni entrepreneurs at scale in our projects and classrooms

A bird has to learn it by itself. If anyone can help – it's another bird
Message #5: Use-Inspired Research is generally along Pasteur’s Quadrant

Example Discipline:
- Computer Science
- Statistics
- Chemistry

Example Problem:
- Clean water
- Traffic congestion
- Cost of food
Message 6: There is still a gap

University → Skill/Culture → Research → ?

Industry

Venture Ecosystem
* Supplier to firms
* Not only high tech

What will speed this up?
What are the policy options?

Employment contracts? Subsidy to local small ventures? Tax incentives? Global partners requirements? Culture or education in firms?
Message #5: At Berkeley, our next mission is to leverage alumni at greater scale