Bench2Market Workshop
August 10, 2012
The Contract

• You will be fully present for the day’s activities
  – Check e-mails, news, your stock portfolio during breaks
  – Leave the workshop only for issues of biological necessity

• You will be fully engaged in today’s activities
  – Commit to doing your best
  – Let go of your defensiveness

• You will keep the contents of today’s discussions confidential
  – The workshop involves the consideration of sensitive and proprietary information
  – We will discuss personal issues and, potentially, sensitive information

• You will provide feedback to the organizers about the day’s events
  – Help us build a better BPEP
Introductions

• Name, Department, Year/Status
  – Clearly
  – Loudly
  – Quickly
The Plan for the Day

Morning – 4 speakers, distilled wisdom of ~ 110 years of experience
Lunch – Discussion and Q&A
Early Afternoon – Team Exercise
Afternoon – Report out from Team Exercise
Late Afternoon -
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Morning</td>
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<td>Early Afternoon</td>
<td>Team exercise</td>
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<tr>
<td>Afternoon</td>
<td>Report out from Team Exercise</td>
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<td>Thereafter</td>
<td>Q&amp;A, Discussion, Beer</td>
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The Team Exercise

• You are part of a start-up founding team
• You have the opportunity to present your business idea to a group of seasoned investors
• You have 3 minutes to give a pitch that will win your team an investment
Introducing the Ideas

• Bahram Bahrami
• Nelson Coates
• Michael Ilg
• Yanika Schneider
• Arunan Skandarajan
• Naresh Sunkara
• Mandana Veiseh
Public Perception of Science

Hmm I wonder if...

Start →
Science in Reality

Start

Hmm I wonder if...

Challenge Accepted

Do science

Find out someone already did this

Read science

Instrument breaks

Melvin deleted calibration

Hmm not quite going as expected...

ARE YOU FUCKING KIDDING ME

AMAZING RESULTS

Results turn out to be bullshit

WTF is going on?!
Science in Reality

Start

Hmm I wonder if...

Do science

Find out someone already did this

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Instrument breaks

Are you fucking kidding me

Hmm not quite going as expected...

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AMAZING RESULTS

Results turn out to be bullshit

WTF is going on?

Thinking

Wait, no it doesn't

Hmmm, that's funny

Oh hey, this makes sense

Sweet, maybe I can publish this!

They figured this out 50 years ago

Go back to Start

Paul Vallett
Scientist’s View of Entrepreneurship

Hmm... I think this will work...

Start
This workshop will not:

• Turn you into an entrepreneur
• Give you all the information you need to start a company
• Provide you with the contacts and connections necessary to make your entrepreneurial venture a success
The goal of this workshop (and all BPEP activities)...

• Provide a scattering of information about technology commercialization

• Alert you to some of the common pitfalls (and opportunities) that come with starting your own... something

• Help empower you to make better decisions about your career, your research, and what you do with the rest of your life
Entrepreneurship vs. entrepreneurship

Entrepreneur – a career

entrepreneurial – a personal quality

Leading an entrepreneurial life does NOT require you to follow an Entrepreneurial career...

“Entrepreneurship is not about starting a company. Entrepreneurship is an approach to life. It is about leaving footprints.”

Ed Zschau, 10/6/00
What is a “start-up”?

A startup is a temporary organization used to search for a repeatable and scalable business model.

- Steve Blank
Searching Is An Experimental Process

Steve Blank
What happens in a start-up?

Build
Measure
Learn

Steve Blank
So... young scientists make GREAT start-up people

- Accustomed to resolving uncertainty
- Familiar with building and testing hypotheses
- Versatile, multi-talented
- Resourceful, efficient, penny-wise
- Comfortable with temporary gigs
- Able to live on meager pay and long hours..
BUT

• Scientists tend toward technophilia
• Scientists want to look the answers up in the library
• Scientists like complexity
• Scientists like to teach, and don’t like to sell
Steve Blank

• Author: The Start-up Owner’s Manual
• Professor – UC Berkeley
• Course: Lean Lauchpad
Tool #1: Agile Engineering

– You CANNOT know all the features the customer needs
– Build iteratively and Incrementally
– Minimum viable product
Tool #3: Customer Development

- Articulate and Test your hypotheses
- Design experiments, start listening
- Continuous Discovery
- Done by founders
Discovery

• How big is the market?
• Who’s the customer?
  – What’s their problem/need
• What’s the product/service/need?
  – Does it solve the customers problem?
• How do you create demand?
• How do you deliver the product?
• How do you make money?
Tool #2: Business Model Canvas
The Inventor’s Contribution: Value Proposition
Meet the world’s most important Venture Capitalist:

I want to FUND your Company
Total Venture Capital Dollars Annually

Venture Capital Amount Invested ($B)

DATA SOURCE: THE MONEYTREE REPORT BY PWC AND NVCA; DATA: THOMSON REUTERS
U.S. R&D Funding by Source, 1953-2007

expenditures in billions of constant 2007 dollars

Source: NSF, Division of Science Resources Statistics. (Data for 2007 are preliminary.)

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“People forget this: Silicon Valley was actually built on federal funding. People have this notion that SV was built in garages. And it’s true, we have some high-profile cases, Jobs – basement, Google in dorm, these things are true – the real fact is that Silicon Valley is the story of federal funding. HP – National Semiconductor, Sherman Fairchild…. People forget that Lockheed was our largest employer. It was these activities that led to the commercial spin-offs – We need to jump “back to the future””

Russell Hancock, Chief Executive, Joint Venture: Silicon Valley Network
KQED Forum: State of the Silicon Valley Economy, 2/17/10