Perspectives from Silicon Valley

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Perspectives from Silicon Valley

• SRI Backgrounder

• The Innovation Economy

• Research and Experiences about Entrepreneurial Ecosystems- Worldwide

• Remarks
SRI located in the heart of Silicon Valley

Founded 1946 by Stanford University

Independent, Not for Profit

~2,100 staff members

$500M+ in annual revenues

60+ spin-off companies (5-8 new per year)

$4B+ in basic/applied research investment last 10 years
You all use SRI innovations every day

- First computer mouse
- Created Siri (acquired by Apple)
- First ARPANET and internetworking nodes
- First assigned domain names
- Developed SWOT analysis
- Emmy Awards for Color TV
- First telerobotic surgical system
- Ultrasound for Medical diagnostics
- 1st drug for malaria; drugs for lymphoma
- U.S. Dept. of Education 2010 technology plan
- Vision technologies (HDTV, etc.)
- 1st Disneyland theme park

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SRI’s Expertise is Crossing the Valley of Death

Universities, National Laboratories and Startups

SRI

“Valley of Death”

Large Companies, SMEs, New Ventures

Discovery  Basic Research  Applied Research  Product Development  Production
New Innovation: Yamaha Motors
Build an intelligent motobot applying SRI technology

- Learn from the experience—without human harm
- Only 9 months to prototype
- Incorporate technology into standard motorcycles
Newest Venture: SRI’s Superflex: Conformal Robotic Clothing
Reduces Fatigue and Enhances Strength

- Wearable robotics
- Lightweight, low cost
- Enhance physical capabilities - provides 20% boost in performance
- Lightweight, low cost; quiet; lasts all day
- Healthcare applications - elderly, disabled youth, athletes
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SHOCKING: Being on the Fortune 500 list now means nothing

In **1960**, average age of a S&P 500 company = **60** years old

By **2020**, average age = **12** years old - a compression of **5X**!

Since **2000**, **52%** of the names on the **Fortune 500** list are gone!

"Digital Darwinism is unkind to those who wait..."

Source: Ray Wang
Disrupting Digital Business: Create an Authentic Experience in the Peer-to-Peer Economy
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The Pace of Disruption has Increased Exponentially
Time to Reach 100 million Users Worldwide

- TELEPHONE: 1878
- MOBILE PHONE: 1979
- INTERNET: 1990
- ITUNES: 2003
- FACEBOOK: 2004
- APPLE APP STORE: 2008
- WHATSAPP: 2009
- INSTAGRAM: 2010
- WECHAT: 2014

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We Are In The Global Innovation Economy

Driven by both markets and technology
World of abundance - unlimited opportunities
Rapid, exponential change- terrifying!
Intense, global competition
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Silicon Valley- Over 75 Years in the Making
Always Working On the “Next Big Thing”
Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics

Report Summary for the Annual Meeting of the New Champions 2013
8 Pillars of Successful Entrepreneurial Ecosystems
According to >1000 entrepreneurs throughout the world

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Source: Entrepreneurial Ecosystems around the Globe and Company Growth Dynamics
World Economic Forum
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Accessing Markets

• Where is your “test market?”

• Of course you will go global—where are your first target markets and why?

• When will you make the move beyond your local market?

• What is your expected supply chain?

• What is your expected distribution chain?
Developing Talent for the Workforce

Many aspire to entrepreneurship

- Executives and managers in large companies
- Researchers, engineers and scientists
- Yes, even children and students

Stanford *Ignite* Program

- For high potential non-business post-doctorates and mid-level engineers/scientists
- Taught by business school profs
- How to start and grow a new venture
Funding: Global Distribution of VC Investment (2015)

1. Silicon Valley – $33.4B
2. Beijing - $20.0B
3. Shanghai - $12.2B
4. NY Metro - $8.2B
5. India - $8B
6. New England - $7.2B
7. Southern CA - $7.1B
8. United Kingdom - $4.8B
9. Germany - $2.9B
10. Israel – $2.6B

Source: EY Venture Capital Insights
Funding: European Distribution of VC Investment (2015)

The UK leads VC activity

- **Sweden**: US$836m (41)
- **Germany**: US$2.9b (272)
- **United Kingdom**: US$4.8b (405)
- **France**: US$1.9b (331)
- **Switzerland**: US$724m (46)

Top Europe deals by value:

1. Spotify Technology (US$526m), Sweden
2. O3b Networks Ltd. (US$460m), UK
3. Delivery Hero Holding GmbH (US$325m), Germany
4. Immunocore Ltd. (US$320m), UK
5. Comuto SA (US$199m), France

Source: EY Venture Capital Insights
Support Systems - Essential for Startups

- Mentors, Advisors, Coaches
- Board members
- Legal – Corporate & IP
- Accounting
- Investment Banking
- Commercial Banking
- Recruiting
- Real Estate
- IT support
- And more...
Regulatory Environment

• **Patents and IP**: strong IP protection

• **Bankruptcy laws**: No penalty for an entrepreneur to start over

• **Government-funded research**: favorable for commercialization

• **Employment laws**

• **Immigration**: crucial for building an entrepreneurial hub

• **Investment Banking**: acting as brokers for IPOs and M&A

• **Taxation policy**
Culture for Entrepreneurship

Good to work for large company or startup after university
  • Follow your Passion
  • Where can you learn the most?
Failure is not punished
  • Permission to fail
  • “What did your experience teach you?”
Knowledge and people move rapidly
  • Academia to business, and back
  • Large Business to Small Business
  • Career Changes are “Normal”
Start-up Chile
Aggressively attracting entrepreneurs
Japan’s National Commercialization and Venture Program

- Country-wide initiative
- Evaluating university research for commercialization (Japan: 3%GDP= R&D)
- Encouraging entrepreneurship through competitions
- Guiding Japanese entrepreneurs in the global market
Other Examples - Developed and Developing Economies

- Aalto University, Finland
- Sweden
- startupRIO, Brazil
- Endeavor Global
- Seoul Space, Korea
- Badir, Saudi Arabia

And MANY more...
Startup Ecosystem in Kyrgyzstan? You bet!

Developing Economy Example

- Rugged Central Asian country along the Silk Road
- *Ideagrad* is an incubator to encourage new venture formation
- Student-led, internationally recognized
- Training, mentoring, seed capital – moving teams on the road to scaleup
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Entrepreneurship Drives Job Creation

Net jobs gained from startups (1977-2005): +85 million
Net jobs gained from existing firms: -30 million

Source: Business Dynamics Statistics, Tim Kane
Building “World-class” Entrepreneurial Ecosystems
What to Learn From the WEF Study

1. Target Big, Global Markets
2. Develop and Encourage Talent
3. Build Funding Sources (Startup --> Scaleup)
4. Provide Mentors, Coaches, Advisors
5. Offer Transparent and Consistent Regulatory Environment
6. Grow Research University Programs
7. Instill Strong Education Systems
8. Support Entrepreneurial Culture
Greece can Capitalize on Opportunities
But Requires Accepting and Addressing Challenges

SOME STRENGTHS

• Geographic positioning, climate
• Long history of trade and commerce
• Opportunities in tourism, agriculture/food, aquaculture, medical tourism, pharmaceuticals
• Entrepreneurial—many small, independent companies (also a “challenge”)
• Highly educated, but underutilized workforce
• Digitally-friendly population

SOME CHALLENGES*

• Consumption economy (low export psyche)
• Highly regulated (red tape) and unpredictable
• Poor foreign investment (growth inhibiting)
• Much lower-than-average R&D investment
• Entrepreneurial cultural barriers
  • Tolerance of failure
  • Diversity of founders/teams
  • Little “scale-up” capital available
  • Lack of universal sophistication around global markets, supply, distribution, venture resources
• Risk of “brain-drain”?

*Preliminary
How To Do it? (Not Easy!)
Success = Full Cooperation Between the Key Participants
Thank You!