

**VENTURE CAPITAL:
WAYS AND MEANS
FOR
ADVANCED NUCLEAR
STARTUPS**

Ray A. Rothrock

Venture capitalist

Venrock

Partner Emeritus

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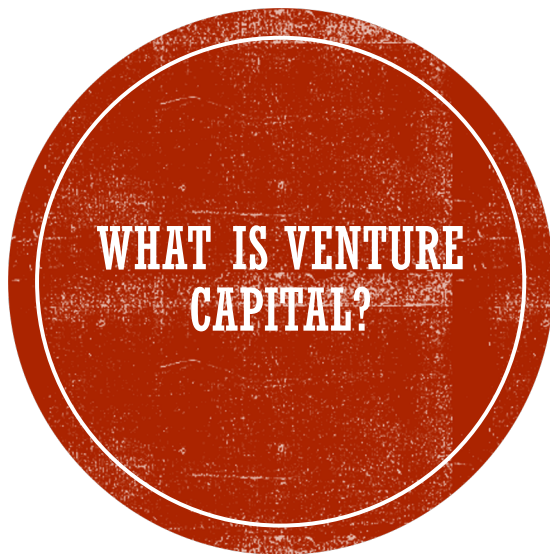
AGENDA

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- What is Venture Capital
 - Structure
 - Landscape
 - Results
- Applying Venture
- Advanced Nuclear

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As originally envisioned:

Sponsor of talented people tackling difficult problems with technology solutions. Risk capital.

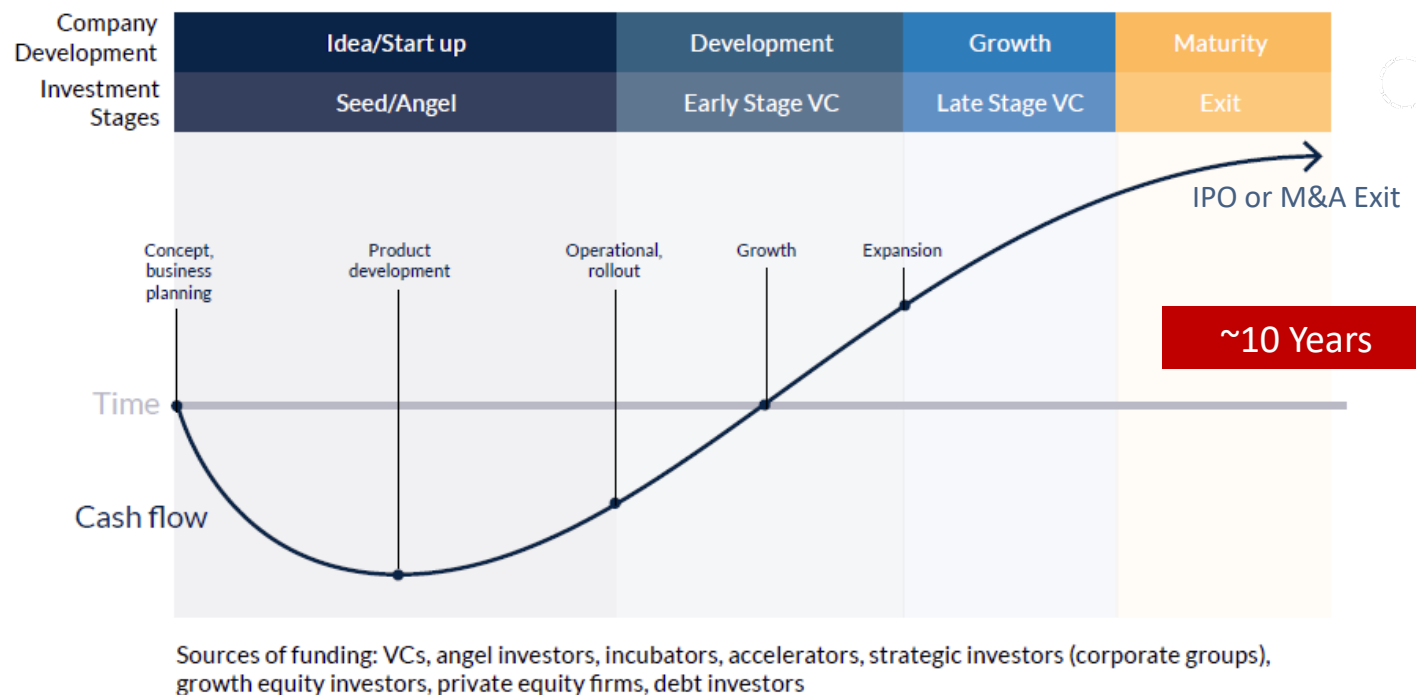
Today: Modern asset class

- No liquidity, long term, very risky but with substantial upside
- Sophisticated and well organized
 - Limited Partnerships, tens of thousands, global
 - Capital largely from pensions, endowments, family offices
- Concentrated in California, NY, Texas
 - But activity is everywhere
 - Typical investment seeks 10x return within 7-10 years

Private Equity Differentiation

- No product or market risks
- Invests to find efficiency and scale, large \$ investments
- Typical investment seeks 4-5x return within 3-5 years

VENTURE CAPITAL INVESTMENT PATH IS LONG



VENTURE CAPITAL'S VITAL ROLE IN STARTUP GROWTH



IDEA / START-UP SEED/ANGEL INVESTOR

- CONCEPT -> PRODUCT
- PRODUCT RISK
- SMALL CASH NEED
- NO REVENUE



EARLY DEVELOPMENT EARLY STAGE VC

- BUILD TEAM & Co.
- MARKET RISK
- LARGER CASH NEED
- NO PROFITS

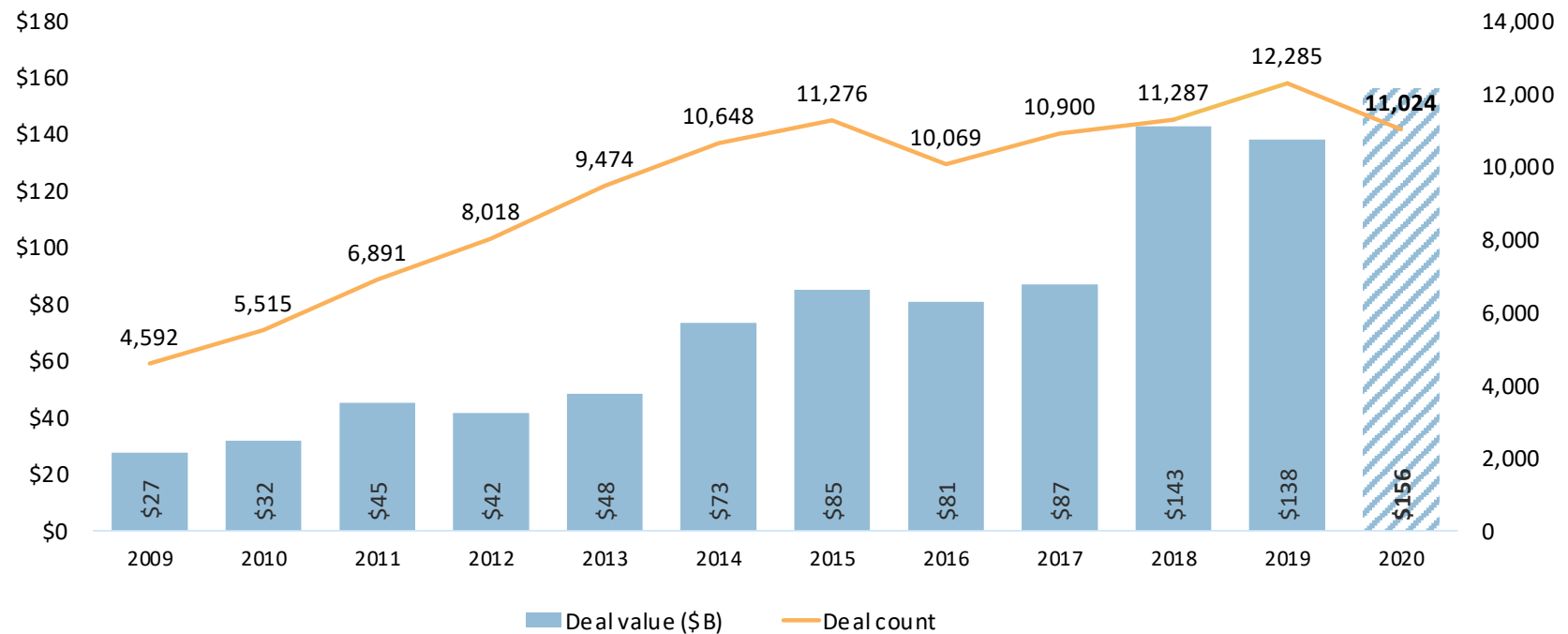


GROWTH LATE STAGE VENTURE

- SCALE Co. -> EXIT
- EXIT RISK
- HIGH CASH NEED
- PATH TO PROFITS

VC DEAL MAKING POSTED A RECORD YEAR IN 2020 - DESPITE PANDEMIC HEADWINDS

US VC Investment Activity

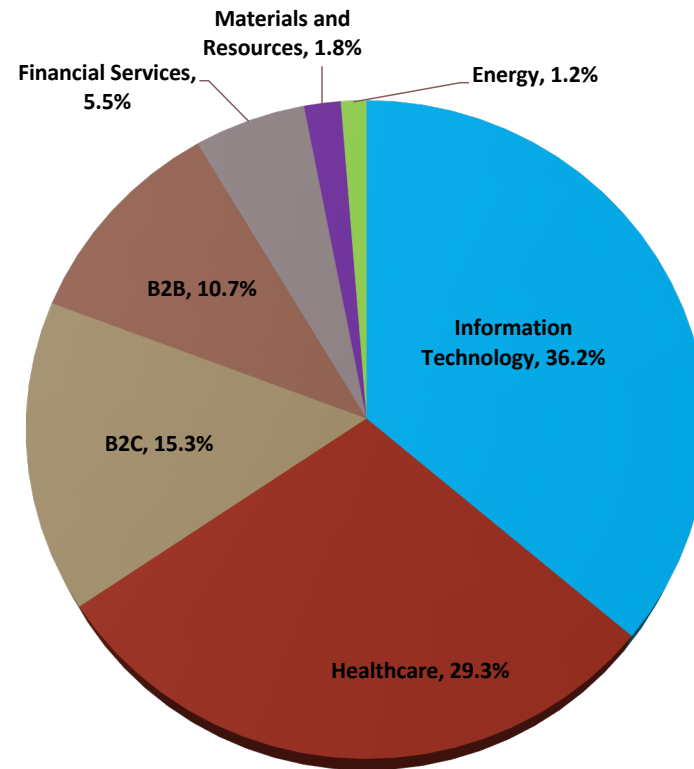


Source: PitchBook-NVCA Venture Monitor, data as of 12/31/20

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IT, HEALTHCARE, & B2C STARTUPS LEAD US INVESTMENT ACTIVITY



Source: PitchBook Platform, data as of 1/19/21

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SOURCES/IDEAS FOR VENTURE CAPITAL

Era	Capital Source	Tech	Life Science	Thought Leaders
1950-60s	Wealthy Families	Transportation Semiconductors Wireless	DNA Recombinant DNA	Georges Doriot, ARDC & HBS Lawrence Rockefeller Robert Swanson
1970-80s	Pensions, Families	CPUs Computing Networking	Genetic Engineering	Dave Swenson, Yale Endowment
1990s-2000	Endowments, Pensions, Families	Internet Web 2.0, 3.0 ...	RNA Computational FITB	Tim Berners-Lee Jeff Bezos James Clark
2010s+	All above, plus smaller entities	AI, Cloud Internet 3.0 Energy	CRISPR	Health: Academia, globally AMZN, MSFT, GOOG
2020s	Ditto	Fusion?		

VENTURE CAPITAL + FOUNDER BUILD COMPANIES FROM SCRATCH

Five of the largest public companies today by market cap



Disrupting traditional industries/creating new industries



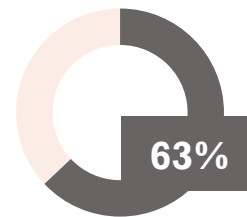
Life-saving technologies



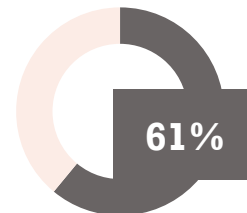
IMPACT OF VC-BACKED COMPANIES BEYOND FINANCIAL RETURNS

2015 Stanford Study of U.S. public companies founded 1974-2015...

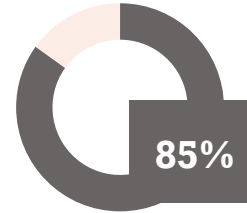
42% of all public companies are VC-backed & employ 8.1 million people



Market Capitalization
\$4.4 trillion

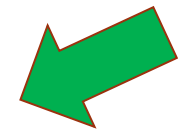


Net Income
\$151 billion



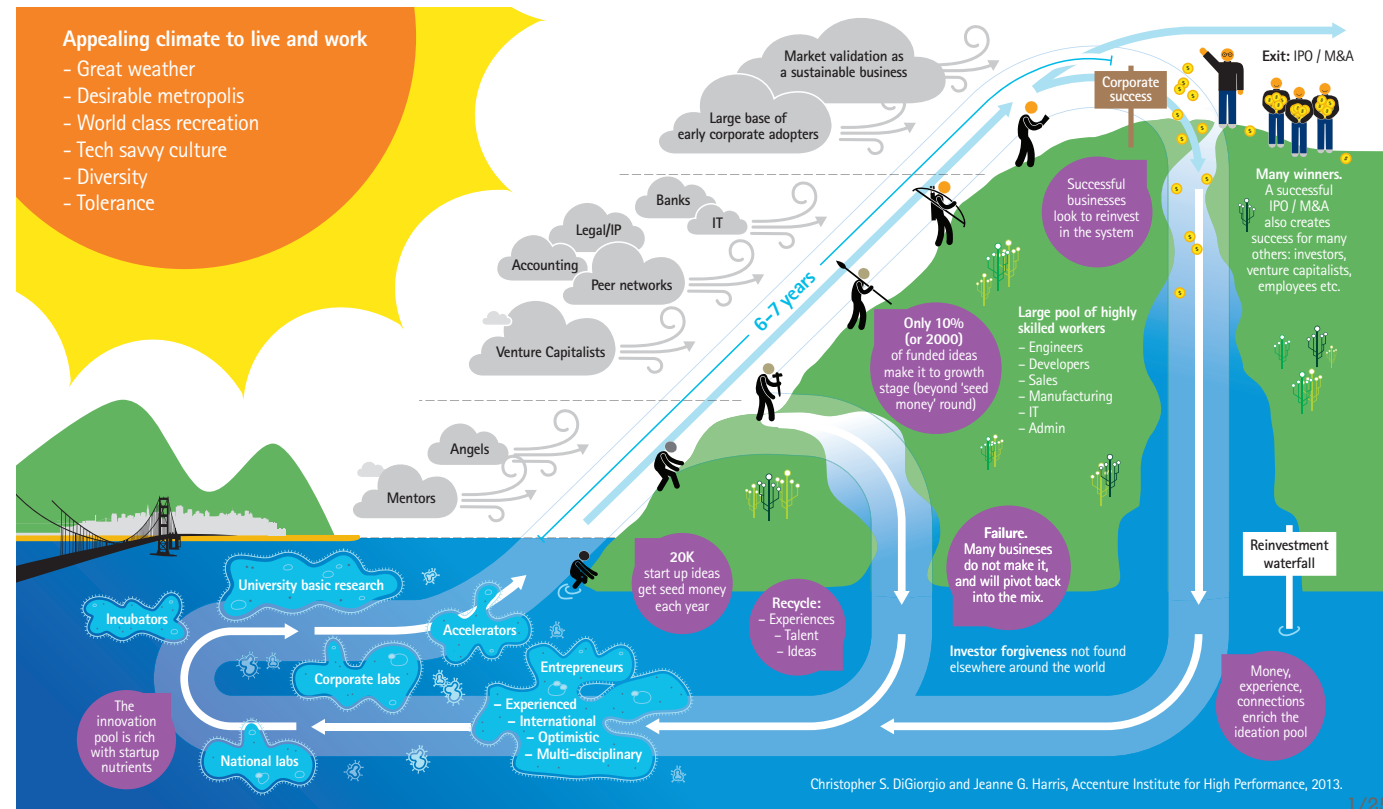
R & D Spend
\$115 billion

VC-backed Companies as % of All



Silicon Valley Tech Innovation Ecosystem

Silicon Valley's greatest innovation – how companies evolve from ideas to successful enterprises



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PRACTICING VENTURE

ELEMENTS OF A VENTURE DEAL



Management

Founder/CEO

Confident projection of the future; understand the customer needs/pain

Must command the subject matter

Must “sell” investors, employees and customers



Market: Either very large or emerging

Emerging markets: clear understanding of the “pain.” Must move fast to win.

Large markets: compete on price performance

GoToMarket strategies vary, but ability to describe, cost out, and drive the GTM is critical success factor



Product

Self-evident value to the buyer/consumer

Features/characteristics that make the product unique and valuable, and *cost competitive*

Technology-basis for barriers, enablement, unmet capability

Could be manufacturing advantage, design advantage, network advantage, and economic advantage



Finance/Capital

Staged financing strategy reducing key risks over time

Stages are typically 12-18 months

If capital intensive, need to understand sources of capital, potential syndicate partners, long term value (pharma)

Path to profitability once in revenue

A GOOD VENTURE DEAL*



Clear vision of the future
by a capable founder



Rapid growth potential in
a new or emerging
market, or known HUGE
market



Leverage: technology-
based product built on
the shoulders of giants



Attractive comparables
or clear public market
returns



Reasonable time-frame
with which to exit the
investment



Reasonable capital
requirements



There are always
exceptions

* Typical for a product venture. Many venture deals back innovations in business models, and other non product related



VC & ADVANCED NUCLEAR

THE TIME IS NOW FOR ADVANCED NUCLEAR

White House
Climate Agenda

National
Political
Leadership

Industrial
Investment
for Scaling

Global supply
chain,
manufacturers,
receptive capital
markets

University
enrollment at
all time high

Academic
Research
and
personnel

Public
Support

Green energy is in vogue.
Wind.
Solar.
Nuclear – 24x7x365.

VC STRUCTURAL COMPATIBILITY WITH ADVANCED NUCLEAR

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■ Tail Winds

- Fission works and works well. (So, what's the innovation?)
- Educated and anxious entrepreneurs on a "mission"
 - Ample talent and human capital
- URGENCY: Presidential imperative on climate
 - Demonstrated climate mitigation technology with concentrated power generation
- Massive market, broadly distributed, public company success stories
- Broad economic impact, -- skills, supply chain, electricity for growth
- National security imperative
- ESG* emerging as a driver on "Wall Street"

*ESG: Environmental, Social, and Governance

■ Head Winds

- Early customers may not be domestic; adds complexity
- "Old tapes" keep getting played
- Electricity is commodity priced unless standards or tariffs applied
- Capital intensive with long time horizon (not always)
- NRC regulatory pathway and duration can be long
- Some negative public sentiment
- Not well-known area or typical of the private investor communities
- Few funding organizations interested in nuclear

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ROLE OF US GOVERNMENT

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- **DOD, DOE, other agencies as initial customers**
 - This 10x more powerful than other items
 - Jumpstarts the supply chain, forces industry to scale faster, purchase orders are always major a forcing function
 - Credibility with investors, capital markets
 - Would demonstrate the national climate initiative and national security
- **DOE Secretary & Nuclear Energy**
 - Uranium (HALEU required for nearly all ARs)
 - Convening power of key stakeholders
 - Finance (limited)
 - Advocacy and education
 - Research
 - Supplier and provider of unique nuclear resources
- **Nuclear Regulatory Commission**
 - Risk-based regulatory pathway (underway)
 - Funding for NRC R&D for independent verification, methodology evaluation, future road map

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ROLE OF PRIVATE SECTOR FINANCE

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- **Sponsorship by brand name firms essential for subsequent rounds of finance**
 - *Ray's Rule of taking VC \$: I am your staunchest advocate and sometimes your harshest critic*
- **Sophisticated boards with strategy expertise essential**
 - Financial supply chain is as important as material and skills supply chain
 - Business model expertise beyond making product with margin
- **Maintain focus on “making something work” without losing sight of economics**
- **Other benefits**
 - Enables recruitment of the best management and talent
 - Access to customer relationships, or credibility with customers
- **Unique Family Office opportunity**

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BOTTOM LINE

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- **Venture capital for AR is doable, but it will not be an easy path**
 - Financing risk is probably the highest risk to an AR startup
 - Need early customer commitments to attract VC \$
 - There is VC interest, and there are \$ already committed
 - More \$ will follow if early successes can be demonstrated
- **Ample AR opportunities for VCs to get in the game**
 - Congress/DOE should add an “**contest**” element to the program (creates urgency)
 - DOE should play by private capital market rules and follow
 - Convening the VC/PE/Wall Street is essential to “erase old tapes” and start anew
- **Headwinds issues must be addressed**
 - NRC licensing regime
- **White House priority must be maintained**

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