Questions?
Please contact:
Endeavor Catalyst Team
ECteam@endeavor.org

Confidential: Do Not DistributeAll figures as of August 31, 2025 unless otherwise noted.

Break!

Stretch for 15 min!





Topics Covered Next Modules- From Innovation To Business Model



- 1. What is innovation? What is the difference between invention and innovation?
- 2. What do we mean by breakthrough innovation versus incremental innovation?
- 3. What is customer value?
- 4. What is a value proposition?
- 5. What is "product-market fit"? How do you value PMF as an investor?
- 6. How do you know when the venture has achieved PMF? What are some ways you can be fooled?
- 7. Are there any industry guidelines to use in determining PMF for various markets?
- 8. Does the valuation of a company change when the venture has definitely achieved PMF? What is a business model? (Not the same as for large corporates)
- 9. Many new business models
- 10. What are the detailed considerations?
- 11. The value of experimentation
- 12. Business model vs PMF
- 13. How does the entrepreneur decide on a specific business model? How can the investor decide if this is the correct business model?
- 14. Provide some examples of business models

Moving from Idea to Scale.....



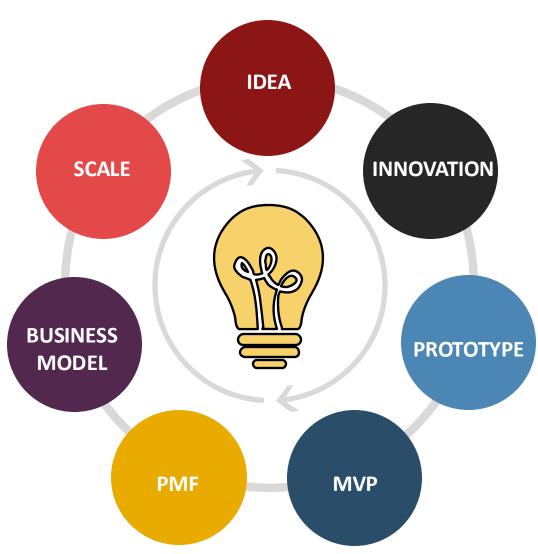
Decreasing Risk, Increasing Value

Logical Progression Of A VC-fundable Startup



- Idea (research market and use of technology)
- 2. Innovation (either deep tech (IP) or novel business approach)
- 3. Prototype
- 4. Determine First Target Customers and Market
- 5. Create Minimum Viable Product (MVP- Value)
- Achieve Product-Market Fit (PMF), align with industry category metrics
- 7. Evolve Business Model (BM-tested with real customers) and Go-To-Market (GTM) plan
- 8. Scale

Note to Entrepreneurs: ITERATE throughout (until you get it right)



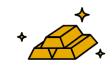
Innovation And Creating Value

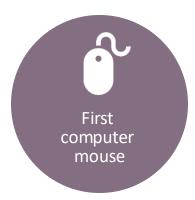


What Is Your Definition Of Innovation?



You Use SRI's Breakthrough Innovations Every Day



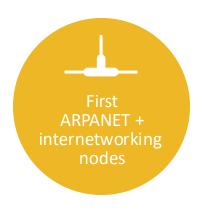








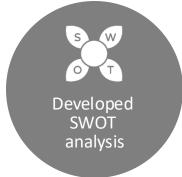


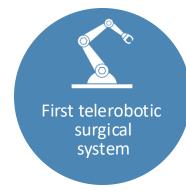








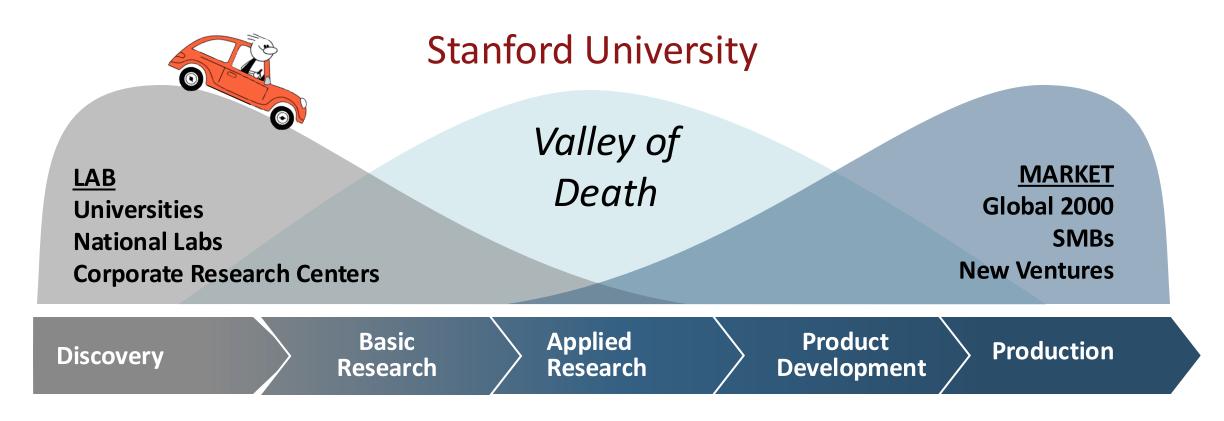






Bridging Basic Research To Commercialization

Easy to describe, very challenging to do!







DARPA Tech in your phone

- Internet
- Digital camera
- GPS, mapping and navigation
- MEMs sensors (gyro, accelerometer, compass, etc.)
- Antennas
- WiFi
- LEDs
- GPUs
- and many more.....

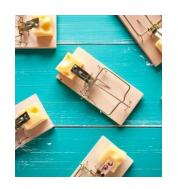
Invention = (not) Innovation

"Build a better mousetrap, and the world will beat a path to your door."

- Ralph Waldo Emerson

THE U.S. PATENT OFFICE HAS ISSUED OVER 6,000 MOUSETRAP PATENTS.

ONLY TWO HAVE HAD REAL SUCCESS!







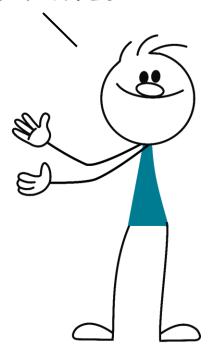


re-defining innovation

noun

The creation and delivery of new customer value in the marketplace with a sustainable business model for the enterprise producing it.

DEFINITIONS ARE
IMPORTANTESPECIALLY AMONG
TEAMMATES





Incremental and Disruptive Innovations are Both Essential

Startups, SMEs and Large Companies ALL To Do Both To Survive!



Incremental Innovation

Incremental innovations are improvements to existing products that will keep current customers happy and allow company to stay competitive ("Nurturing")



Disruptive Innovation

Disruptive innovations are new offerings that will allow company to expand and increase market share, move into new markets and inspire intrapreneurs

Most medium-large companies <u>FAIL</u> to create new disruptive products, and slowly (or sometimes quickly) become <u>irrelevant</u> (dinosaurs) in the market

Apple is an excellent example of a company that keeps creating disruptive innovations

Breakthrough Innovation Example



The DaVinci Robotic Surgery Platform, by Intuitive Surgical

birthed at SRI International, funded by DARPA

\$200B Market Cap

An Innovation Can Be So simple, So Powerful...



Many Large Companies Fail To Innovate (Complacency)





Types Of Innovation- Critical Distinction

Disruptive versus Incremental



Disruptive Innovation

Examples:

Rubber tire

Cellular phone (1G)

Amazon.com

Original iPhone (Smartphone)

WiFi



Incremental Innovation

Examples:

Longer-lasting tires

5G connectivity

One-click shopping

iPhone 17 (new)

Mesh Networks

Types Of Innovation

Disruptive versus Incremental



Disruptive Innovation

Startups

(Some) Corporates

(Some) NonProfits



Incremental Innovation

Larger organizations (both for profit and Nonprofit)

NOT (NEVER, EVER) startups

Innovation Is A Process...not An Event





...disciplined continuous improvement process with a focus on creating customer value



Write Down The Definition Of Customer Value

Value Can Be Quantitative



Quantifiable

Demonstrable

Measurable

Tangible

"Concrete"

NUMBERS!



Examples

Computer Performance

Financial returns

Growth

Energy improvement

Speed

Value Can Be Qualitative



Described but <u>not</u> measurable

Subjective

Judgmental

Vague

Unsubstantiated

Personal



Examples

Brand

Customer experience

Design

Quality of life

Status

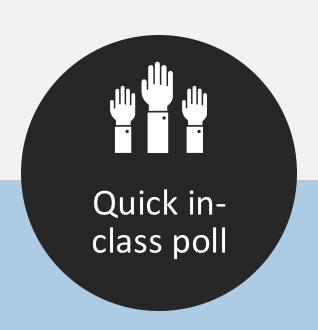
Association / Belonging

Which Formula Better Defines "value?"

Benefits - Costs = VALUE

OR

 $\frac{\text{Benefits}}{\text{Costs}} = \text{VALUE}$



Both Are Correct

Benefits - Costs = VALUE

OR COO

BUT WE LIKE THIS ONE BETTER
FOR DISRUPTIVE INNOVATION
(THE FIRST ONE IS BETTER FOR
INCREMENTAL INNOVATIONS

$$\frac{\text{Benefits}}{\text{Costs}} = \text{VALUE}$$

Stanford Graduate School of Business | Advance

Value Creation Forums



value creation forums ("VCFs")

noun

A FOCUSED exercise to tap into the full power of your new venture collaborators to create a Compelling Value Proposition



First Siri "Value Creation Forum" (VCF)



The Best Value Creation Forums Involve Many Points of View!

Value Creation Forums Uncover Golden Nuggets

Driving continuous value creation

What is a VCF?

- Meeting with experts about a specific Innovation to uncover highest value
- NOT A BRAINSTORMING EXERCISE!
- Recurring (every 2-6 weeks), structured feedback and learning meetings
- Formed around a specific market segment, product, or service area

Why do VCFs?

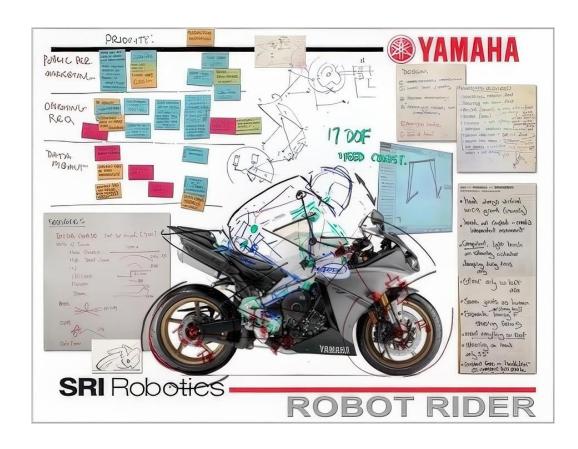
- Identify important customer needs and articulate Golden Nuggets
- Build compelling, quantitative Value Propositions, Elevator Pitches, and Innovation Plans
- Connect into the full resources of the enterprise
- Innovate at rapid, "exponential" rates to succeed- keep momentum going

Who should participate?

- Community of people with a shared interest in developing new science or technical discovery, or new business opportunities
- Innovation Champions with their Innovation Teams
- Topic experts

Value Creation Forums

...can be very powerful





Value Proposition



You Believe you have Created Value...

...now you need a Value Proposition Definition



defining:

value proposition

A quantitative, easy-to-remember statement that summarizes the value of your offering.

Note: If a startup approaches you for an investment, and does not have a value proposition that you can understand, think carefully about investing!

value proposition

A statement that includes:

The important customer/market (Need),

Our compelling (Approach*) to meeting that need,

The (Benefits) per-cost the customer will receive,

And why we'll beat the (Competition) and other options.



Value Proposition Components

Important Customer eeds Your solution or pproach Your justification enefits-per-cost Why you win versus ompetition and alternatives

A "relevant" Business Example Of An NABC Value Proposition

Need

I understand that you need to become much more efficient at your sales process- you really value top line revenue.

Approach

How about if you give our subscription-based service a try? It's called Customer Relationship Management Software or CRM- we provide this as a "service"

Benefits

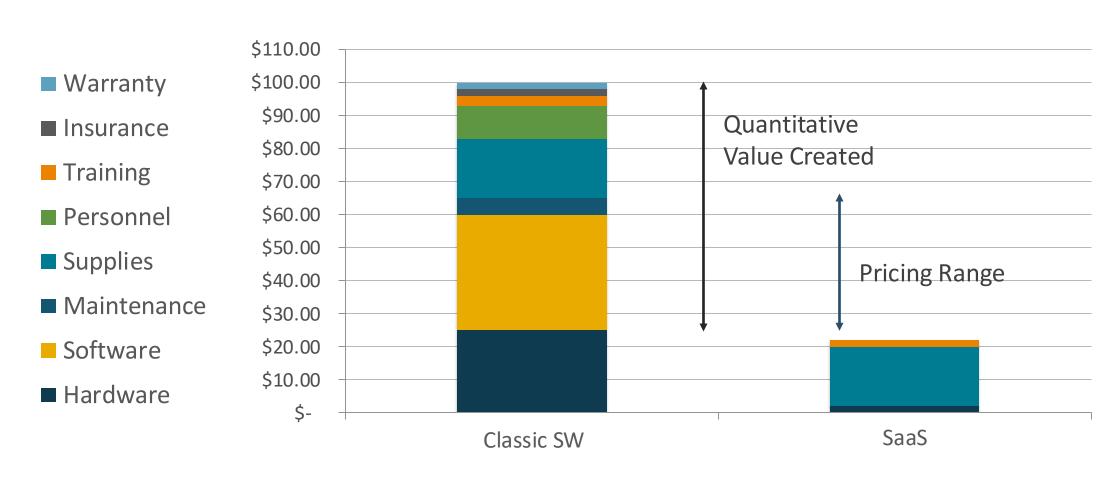
Salesforce.com can be implemented in days (not months or years), can be used immediately, is easy to use, does not involve your overworked IT department and costs 1/10th of what traditional licensed software costs. And if you're not satisfied, you can cut it off anytime.

Competition

You will NOT have to go through a lengthy, tortuous implementation process and spend tons of \$\$ before knowing whether the competition's product will work for you. And you will make your sales team happier and more productive than current products.

Example: Enterprise Software- License Vs Saas

Maximizing Customer Value



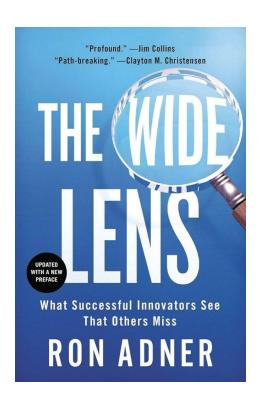
Objectives for this section



1. Understanding Innovation Ecosystems

2. Understand "Product/Market Fit" (PMF) and hear about PMF metrics and examples

Mapping Your innovation Ecosystem---- Lower Risks!



Current "Real" Example

- I'm currently working with an entrepreneur with an amazing idea
- He is excellent at product but not at tech and engineering
- We have 2 choices to create the new Venture:
 - 1. Hire and outside tech firm to develop architecture and first prototype and minimum viable product (MVP) ()shorter time, more features, less \$\$ near term, less control)
 - 2. Recruit a technical lead and a small team of programmers (more time, fewer features, a little more \$\$, more control)
- What direction do we go?
 - What is highest risk?
 - What provides more certainty, less risk?
 - What brings most VALUE to (1) customers, (2) investors (3) employees?
 - What would YOU do?

Assessing innovation "ecosystem" risks (DEPENDENCIES)



Innovation ecosystems — that is, collaborations between companies in which individual offerings are combined into a coherent, customer-facing solution — are characterized by three fundamental types of risk:

- initiative risks, or the familiar uncertainties of managing the TOTAL PROJECT;
- *interdependence risks*, or the uncertainties of coordinating with complementary innovators; and
- *integration risks*, or the uncertainties presented by the adoption process across the value chain.

Assessing innovation "ecosystem" risks (DEPENDENCIES)



Adner suggests that firms that assess these risks holistically and systematically will be able to

- establish more realistic expectations,
- develop a more refined set of environmental contingencies, and
- arrive at a more robust innovation strategy,
- ultimately enabling smoother and more effective implementation.

Diagramming and Assessing your ecosystem's risks

- **1. Initiative risks:** NABC, or your TOTAL VALUE PROPOSITION
- 2. Interdependence risks: what needs to work before yours can?
- 3. Integration risks: Who needs to adopt the solution before the customer can?



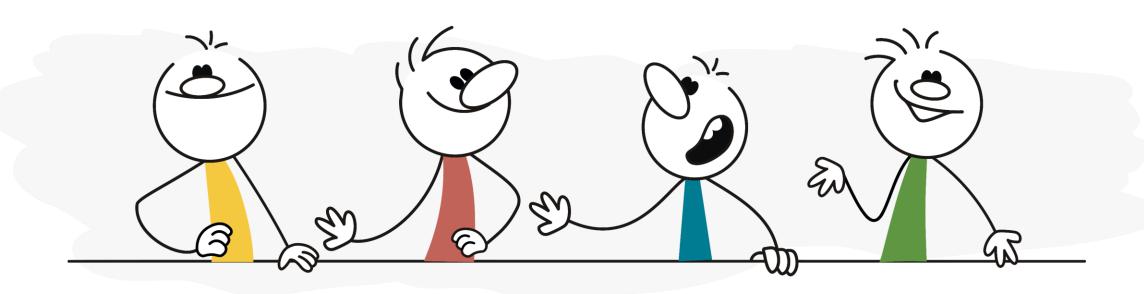
Assessing innovation "ecosystem" risks (DEPENDENCIES)



- 1. How does our project measure up?
 Which risks will you handle, which ones will your partners handle?
- 2. Whose projects must succeed before ours can?
 Gauge ALL parties' risk of failure
 Set expectations accordingly
- 3. Who must adopt the innovation before consumers/ businesses/customers can?
- 4. Where/How should we compete?

 Lower external risks even if raising internal risks
- 5. When should we compete?

Examples



Case Study: True Color

Daily skin measurement with mobile devices

Shiseido came to SRI for **expertise in computational imaging and machine learning** to enable a smartphone to analyze skin health.

SRI used a patent-pending computational magnification method on a standard smartphone camera to enable anytime, anywhere skin measurement. SRI also applied its expertise in deep learning to increase the accuracy of Shiseido's skin feature measurement algorithms.

Result:

- 1 year from concept to launch in iTunes Store
- Computational imaging and computer vision-based machine learning
- Perfect timing for the COVID issues









Case Study: Apple's iTunes



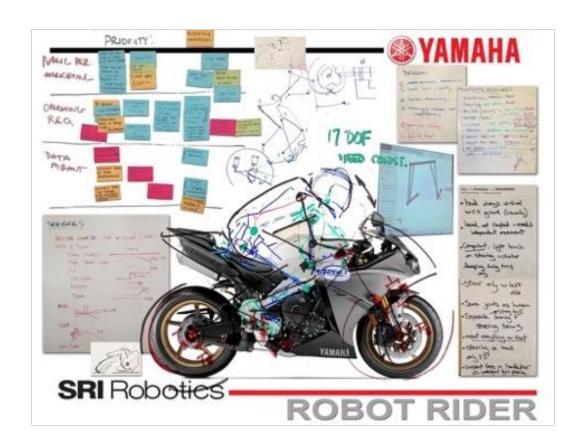
EXAMPLE

Apple's brilliance with iTunes was not being "the first to put down a piece of the puzzle, but in being the first to put down the last piece of the puzzle."

- Digital rights management solutions
- Major music labels cooperation
- Convenience of broadband connectivity
- Size and design of device
- User experience

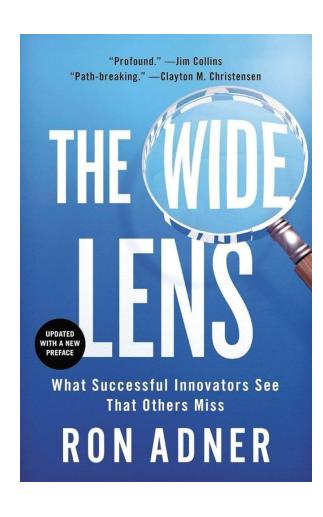
Value Creation Forums

...can be very powerful





Summary: map Your innovation ecosystem-Lower Risks!



MAP YOUR ECOSYSTEM

- Clarify the ways that <u>interdependence</u> and <u>integration risk</u> contribute to delays, ultimately to venture failure (or success)
- Forces you to be explicit about timing and order of key components to your innovation strategy
- Be explicitly PURPOSEFUL
- Plan your future, don't wait for it to happen

Michelle Colucci

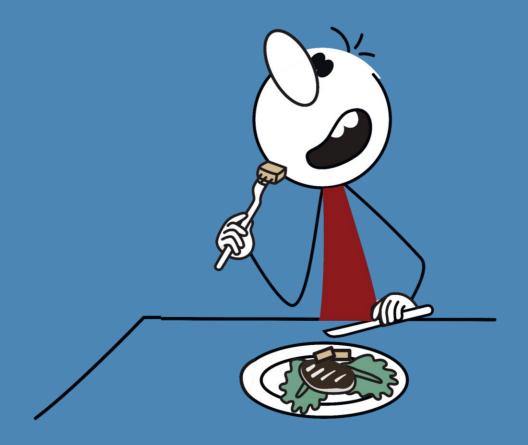
Founder of Digital DX Healthtech VC Firm; Veteran Value-add Investor



- Founder, DigitalDx Ventures
- Board member, various startups
- Entrepreneur mentor and advocate (especially women)
- Georgetown University JD Doctor of law
- Georgetown University BA English and Philosophy

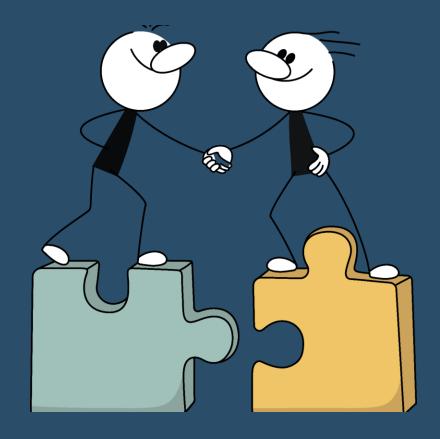
Lunch!

60 min!





Product-Market Fit (PMF)





VC Guest and Expert On PMF, Business Models and GTM

Bio, Guest Lecturer: Eric Chen

VC Guest, Expert on PMF, FMF, Business Model, OVO Fund and GSB Alum



Ecosystem Builder

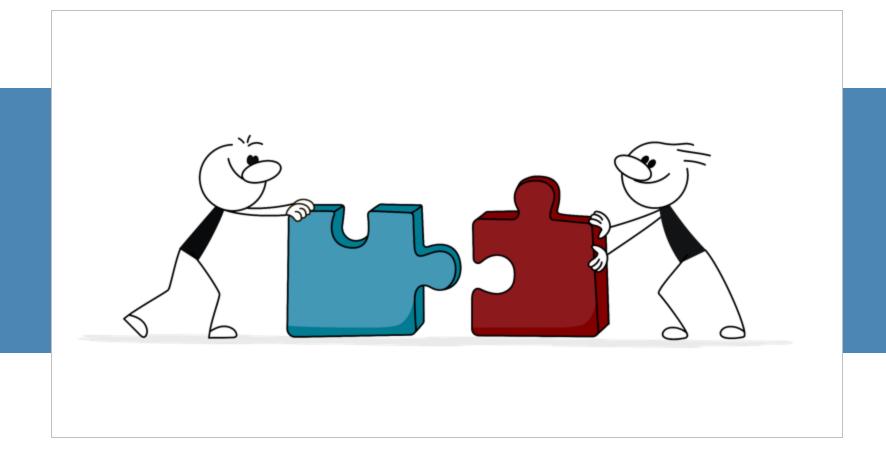
- Internet Entrepreneur (Tiny Prints Co-founder)
- Veteran early-stage investor
- WI Harper Partner (China investments)
- Co-founder of OVO Fund, seed stage fund
- Well known as a connector and advisor to many (Stanford) students and alums

Education

- Stanford University BS Industrial Engineering
- Stanford University GSB MBA

Product Market Fit (PMF): Once You Believe You Have A Disruptive, Valuable Innovation, You Need To Confirm With Customers

(Thanks to Eric Chen, GSB Alumnus and founder OVO Fund)



Many Seminars On PMF

Business Foundations & Strategy



THIS THURSDAY!

Join us on <u>August 31st</u> for a dynamic session with Mike Miles, Cofounder at 05 Advisors and Mentor-in-Residence and Adjunct Lecturer at the U of Arizona, to dive into the dimensions of product-market fit and strategies within each pillar that entrepreneurs can implement to set their offering up for success in a competitive market. Drawing from his experience working with startups on development and launch, Mike will equip you with a framework to ensure that your offering is sustainable and scalable.

<u>ALL</u> Activities in Exploration Stage are Focused on Reducing Risks and Obtaining Funding => Product-Market Fit

Market

- Country Selection
- Market Research
 - GSB Library
- Target Customer and Needs Identification
 - D.school methods
- Preliminary Value Proposition
 - ("NABC")

Product

- Creating VALUE
- Simple Prototype
 Development and
 Testing (Desktop?)
- Lab-scaleExperiments
- Technology Inlicensing/Patenting

Team

- Recruiting and/or
 Out-sourcing (Staff,
 BOD, Scientific
 Advisory Board)
- Role Definition
- Assignments
- Culture Development

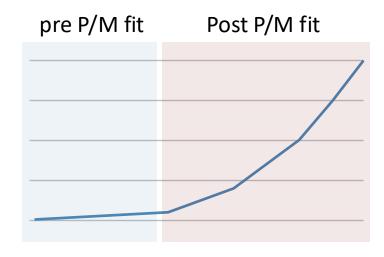
Funding/Admin

- Pre-seed round
- Attorney selection
- Incorporationwhere?
- Business Model and Plan Development
- Initial Partnering Discussions
- Regulatory?

What Is Product Market Fit (PMF)?

"EVIDENCE THAT THE PRODUCT IS WORKING IN THE MARKET"





2 Phases of a startup or new product introduction:

1. BPMF: Get to PMF

2. APMF: Scale

Not Helpful Definitions





"Make things people want" - YC

"You'll know it when you get it."

Notable Definitions

"Set of customers who will pay for your product."

- Steve Blank, Lean Startup

"Good <u>market</u> with a product that can satisfy that market."

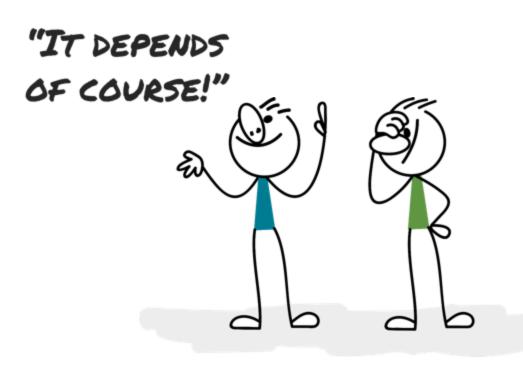
- @pmarca

"40% of users swear they can't live without the product..."

-Sean Ellis @ GrowthHackers



Our Definition



10-100X better than existing solution

(Aspirational, but helpful)

What Is Product Market Fit (PMF)?

"EVIDENCE THAT
THE PRODUCT IS
WORKING IN THE
MARKET"



- 1. You need to have proper metrics and standards to gauge your success
- 2. Metrics are different for every industry
- 3. This means you need to measure your progress
- 4. Adjust, modify or STOP! (Google is a great example)

E-commerce Example

\$100 GMV, clear path to \$1M GMV

>25% monthly growth (> 3x annually)

<10% returns

LTV / CAC > 3 (strong word of mouth)

NPS > 40 / 5-star reviews







Consumer App Example

Clear path to 100,000 users

> 25% monthly growth

< 2% churn

3 days a week, # of messages sent

DAU / MAU > 30% (Whatsapp record 70%!)

Organic growth of 100s of signups / day

30% users are active the day after signup







Enterprise (saas) Example

3-4 customers

Repeatable use case @ \$10K MRR

Clear path to \$100K MRR

No churn

5% conversion rate from free-to-paid

LTV / CAD > 3

Customer white paper testimonials







Big Bang vs. the Grind



Q Palantir





Juniper Square







PMF & Business Model Design





Repeatable AND Sustainable Channel

Value Capture

Defensibility

Scale



Customer Acquisition Cost

Customer Acquisition Cost (CAC)





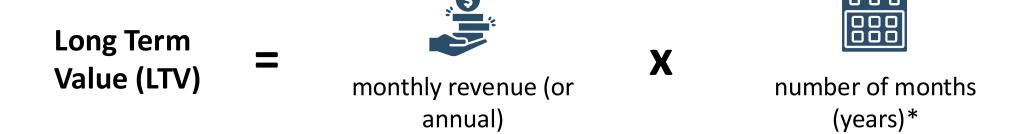






new customers

Long Term Value (LTV)



^{*} It becomes obvious with this formula why "customer retention" is important

LTV

Is LTV defined by total revenue or another variable?

(Hint: what about "Gross Margin"?)

Calculate LTV:CAC Ratio



Customer Lifetime Value (LTV)

Customer Acquisition Cost (CAC)

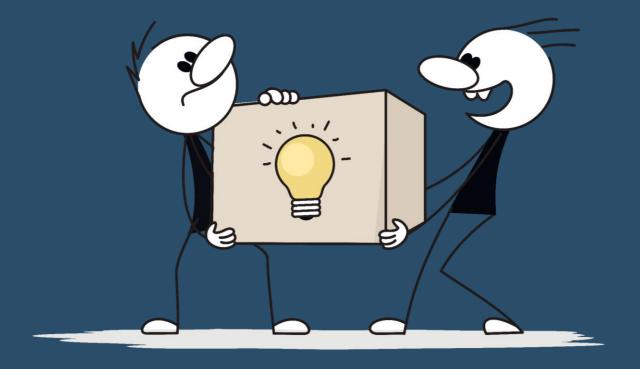
Example

Customer Lifetime Value (LTV)	\$800
Customer Acquisition Cost (CAC)	\$400
LTV:CAC Ratio	2.0x

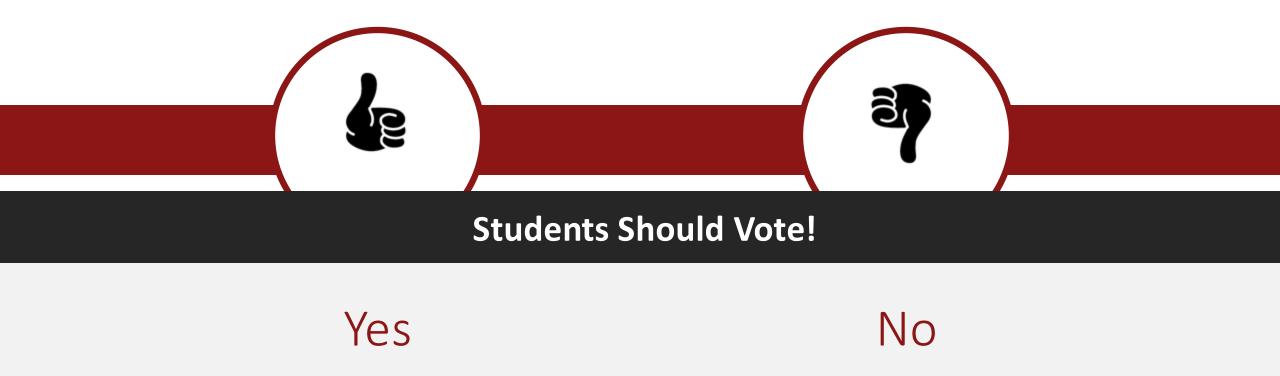
Calculate LTV:CAC Ratio

Example:	Customer Lifetime Value (LTV)	\$800
	Customer Acquisition Cost (CAC)	\$400
	LTV:CAC Ratio	2.0x

Business Models



First: Does Product-Market Fit = Business Model??????



Does PMF = Business Model??????

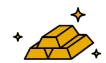
Students Voting!

1. Yes

2. NO!!!!

But, a great Product-Market Fit will lead to a very competitive Business Model

So, What Is A Business Model?



Volunteers can comment!

1. Basically, it's how a business makes money

Product or service

Pricing and positioning

Distribution

Customer success and support

Etc.

2. But it's also a "MOAT" or Deterrence (vs Competition)

Know - how

Intellectual Property (IP, patents, trademarks, etc.)

Supply chain

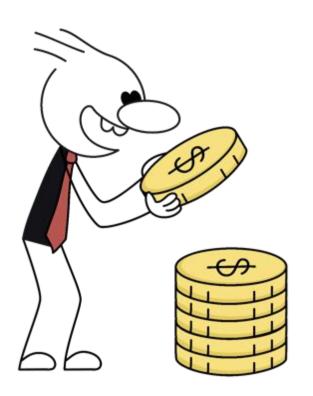
Distribution and channel partners

Etc.



The Business Model Is Basically How To Make Money

Many VCs think it takes 3x product investment to have a successful "Go-to-Market" Recipe (complex)



Customer Segments	Who will you sell to?
Value Propositions	How will you meet customers' needs?
Channels	How will you acquire customers and deliver value?
Customer Relationships	What does each segment require?
Revenue Streams	How will customers pay? One-time or recurring?
Key Resources	What is needed to provide product/services?
Key Activities	What needs to be done to provide product/service?
Key Partnerships	What is done externally and internally?
Cost Structure	Will the price cover costs and provide a good profit?

Examples Of New/old Business Models – Will One Work For You?

- Affinity Club (MBNA Credit Cards)
- Bundling (iPhone/App Store)
- Buy Now, Pay Later (Klarna)
- Charge Per Level (Cell Phone Plans)
- Crowdsourcing (Wikipedia)
- Disintermediation (Dell)
- Fractionalization (NetJets)
- Freemium (LinkedIn)
- Leasing (Cars)
- Low-touch (IKEA)

- Marketplace (eBay)
- Negative Operating Cycle (Amazon)
- Pay As You Go (Electric Utilities)
- Razor/Razor Blades (Printers/Ink)
- Reverse Razor Blades (Kindle)
- Reverse Auction (Upwork)
- Product To Service (Zipcar)
- Standardization (MinuteClinic)
- Subscription (HBOMax)
- User Communities (Angie's List)

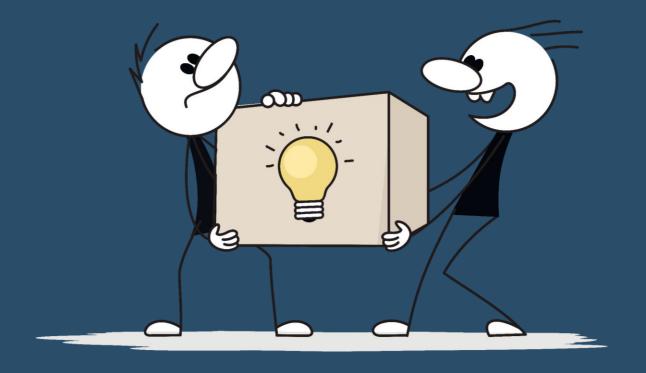
Business Model essentials







Go-To-Market Strategy



What is a Go-To-Market Strategy?*



Help people find your business when they need you most



Keep customers coming back and build long-term loyalty



Attract qualified leads and nurture them through the funnel



Show what's working through analytics and data-driven insights



Convert interest into sales with clear messaging and calls to action



Stay visible in a crowded market (so competitors don't gain traction if you go quiet)

^{*}BrandMark Studios, August 2025

Specific Elements Of The GTM Approach

- What Channels(s) will you be selling through (internet, direct sales, distribution, partnerships, agents?
- How will you sell your product (direct, telephone, e-commerce, etc.)?
- How will you educate the market?
- Are references important?
- What is your average price for your product?
- Will there be repeat sales?
- What form of customer service will you be providing?
- What NPS score is your goal?
- Will you have a Customer Success support group to assist customers?
- Will business partnerships be an important part of your GTM strategy?
- Etc. Many questions to be answered, experimentation is encouraged

The Capital Allocation Paradox

The Entrepreneur's Dilemma (especially in Silicon Valley)

- 70-90% of startup capital typically allocated to product development
- Only 10-30% reserved (if lucky) for go-to-market activities
- Reality: GTM often requires 2-3x more capital than anticipated
- Result: Great products that never find their market

Key Insight: PMF is not a destination—it's a dynamic process

requiring continuous GTM evolution

Suggested Capital Allocation Framework By Stage



Stage 1 (Market Discovery)

• Product: 60% | GTM: 40%

• Focus: Customer development, prototype refinement

Stage 2 (PMF Validation)

• Product: 40% | GTM: 60%

• Focus: Channel testing, messaging optimization

Stage 3 (GTM Scaling)

• Product: 30% | GTM: 70%

• Focus: Sales infrastructure, marketing automation

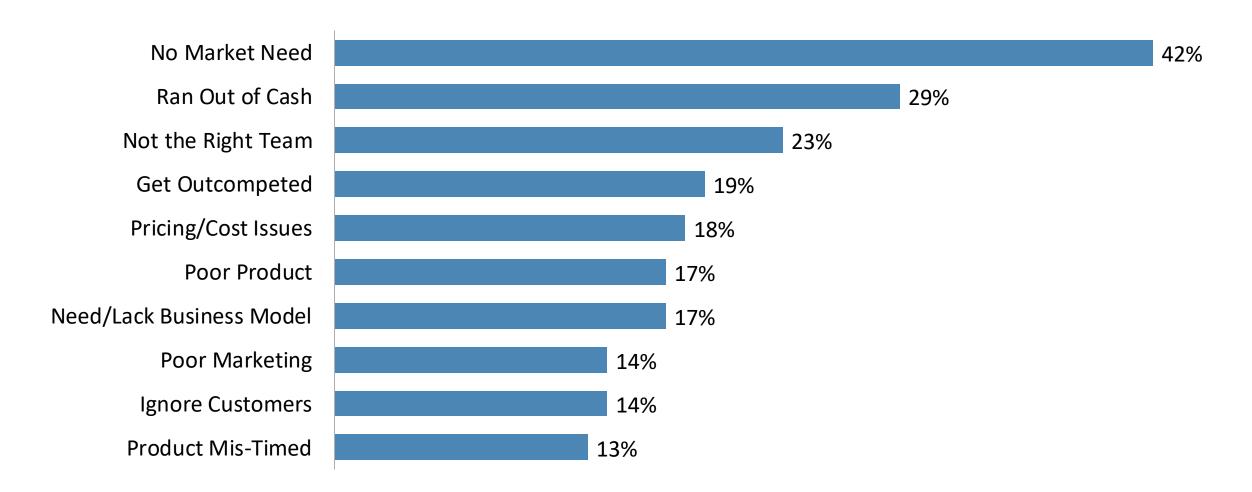
Stage 4 (Market Leadership)

• Product: 35% | GTM: 65%

• Focus: Market expansion, competitive defense

Remember! Lots of reasons Why Startups Fail

Top 10 Reasons Startups Fail <u>According to Their Founders</u>



Break!

Stretch for 15 min!





Investor "Pitch Deck"

Topics Covered In This Module



- 1. What is a Pitch Deck? Why is the pitch deck important? What is its purpose?
- 2. What are the essential elements of a pitch deck?
- 3. Explaining each element—what should you expect to see
- 4. Examples of Pitch Decks

You have...

a big market,
an important and unique innovation,
a fantastic team,
an MVP, Product-Market Fit, and
a rudimentary Business Model

but you need...



to progress your venture

SO... How Do You Create And Deliver A Compelling Narrative Of These Important Aspects Of A Business?



an organized

INVESTOR PITCH DECK

Steve's Essential Elements Of A "Seed-Stage" Investor Pitch Deck

- Cover and Title Slide (sets the tone)
- Why are We here? Summary
 of Venture Concept and Investment
 Thesis ("framing")
 - (Customer) Value Proposition (NABC)
 - Unmet Customer Need
 - Product/Service Solution
 - Clear benefits (NOT features) of Solution
 - Competitive Advantage
- Accomplishments and Momentum –
 Proof of PMF and FMF
- Business Model
- Market and Industry Trends- <u>WHY NOW</u>?

- Sales, Marketing and Comms Plan
- Team Introduction (sometimes upfront, especially if strong credentials), include Org Chart and Planned Key Hires
- Financials Including Cash Flows
- Operational Staging and Financing Plan, Including Key Milestones
- Summary and Key Takeaway Points: (Investor) Value Proposition
- The ASK (\$, another meeting, due diligence, references, etc.)

Dropbox's Pitch Deck - 2007



http://www.getdropbox.com

Variations of the Pitch Deck

Topics will remain consistent, but...

Focus and time spent per topic vary <u>depending on</u> <u>stage</u> the company is at

Examples:

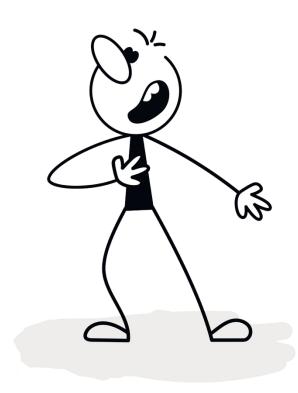
- Financials are more important in a Series A or B round, than in a Seed stage round.
- Proof of Value Proposition is more important in a Seed Stage than in a Series B.
- Market size and growth are important in Series A





How Would You Assess A Pitch Deck in Investment Decisions

- 1. Poise
- 2. Knowledge of Market and where it's going
- 3. Team
- 4. XX
- 5. YY
- 6. ZZ
- 7. Etc.





The Entrepreneur's Financial Plan

Topics Covered In This Module



- 1. Cash is King, it's all about cashflow in the early stages
- 2. Estimating revenues and costs and expenses
- 3. Formulating the Financial Plan
- 4. What does the financial plan reveal about the entrepreneurial team (reflections)?

Learning Goals

How to build a financial plan for the financial attractiveness of a venture and its financing needs, including income statement, balance sheet, and cash flow statement, and total capital needed.

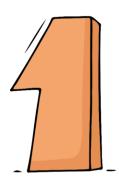
Key forecast metrics, such as revenues, costs, and cash flow.

How to identify milestones that can be used to provide salient information about the venture's progress.

How to pitch a financial plan to investors.



Two Key (financial) Questions



How financially attractive is the venture?

Financial goals: <u>where</u> to get to—bookings, revenue, growth, EBITDA, CF, etc.

What are the return possibilities?



What financial resources does the venture need?

Financial means: <u>how</u> to (financially) get there

Have alternatives been tested (outsourcing, partnerships, etc.?

Two Key Questions

The financial plan's configurations changes with the venture's stage of development:

- from skimpy cost structures and revenue hopes ...
- ... to increasingly precise, internally generated estimates

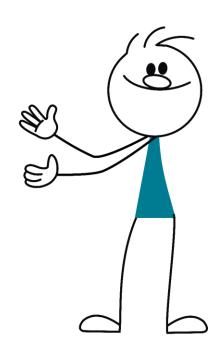
Do we always need a financial plan?

- Balance detail/analysis and realism: should be appropriate to the stage and nature of the venture
- early stage: quarterly/monthly up to two years forward
- later stage: lower frequency but further out into the future

Is a Financial Plan Necessary?

In my opinion, a pitch deck that does not show some sort of a financial plan is either:

- a "research project"
- a technology looking to become a product
- a product looking for a market
- But <u>probably not yet</u> a fundable angel venture



Think of Financial Projections As A "Mirror"



Financial projections can be thought of as reflections:

force entrepreneurs to reflect on their business model:

analyze, motivate, and discuss strategic choices

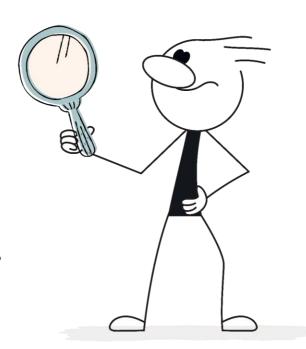
are a reflection of the business's financing plan

set expectations and make BP speak in numbers

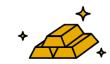
reflect something about entrepreneurs themselves



reveal their approach to business (how serious, thoughtful and detailed are they)



Limitations



The nature of the entrepreneurial process implies that:

- Financial projections are always <u>inaccurate</u>
- Financial projections quickly become outdated
- Financial projections are always *optimistic*

THAT'S A BIG CHALLENGE FOR INVESTORS!

So, the smart investor will attempt to see though the assumptions



The Structure Of Financial Projections

Financial projections consist of three main accounts:

IS

Income statement (IS):

business model and profitability

Costs, revenues, profitability measures (flows)

BS

Balance sheet (BS):

size, asset base structure, financing

Assets and financing (types); net income links to IS (stocks)

CF

Cash flow statement (CF):

cash changes from IS and BS

financing needs, their amount and timing

How To Build Financial Projections



The process requires discipline and an analytical approach, that result into five different steps:

Define a timeline

Estimate the revenues of the company

3

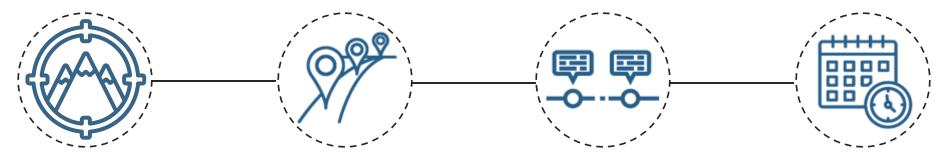
Estimate the costs and cash needs of the company

Build the three financial statements and total capital needs

Formulate the financial plan



Step 1: Define A Timeline



Identify the relevant business milestones

can be reflected into a Gantt chart

Define the appropriate time horizon (across milestones)

from 12-24 months (apps) to 10+ (pharma)

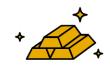
Set the level of account detail

(between milestones)

Monthly, quarterly, yearly

Set the time intervals, across the horizon

Example Milestones – Key To Building Value



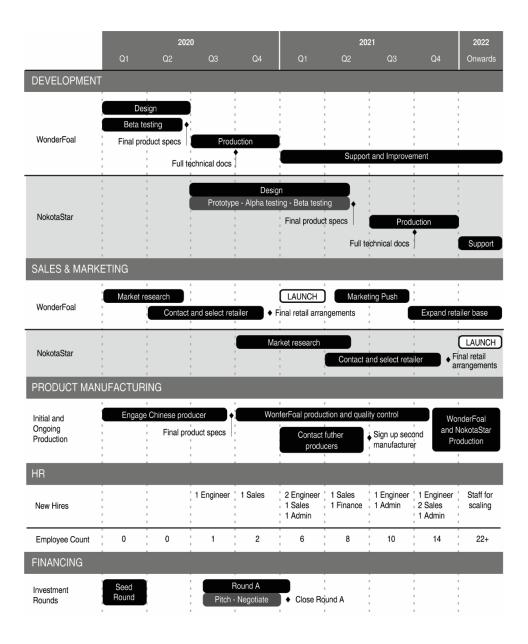


Milestones measure performance and achievements in different dimensions:

- 1. <u>Financial</u> (e.g., Sales, EBITDA, operating CF, financial ratio, others)
- 2. <u>Operational</u> (e.g., Regulatory (FDA) approval, supply contract)
- 3. <u>Managerial</u> (e.g., Hiring of CxO, independent director, first sales rep)
- 4. <u>Technical</u> (e.g., working prototype, license acquisition)



Gantt Chart Example





Step 2: Estimating Revenues

Revenue = Price * Quantity

1

Define unit: good/service, customer, contract

2

Estimate price:
focus on net average price

Price distribution (over time,
units, regions ...)

3

Estimate quantity: top-down vs. bottom-up

Revenues are the 'top line' – their timing is important.

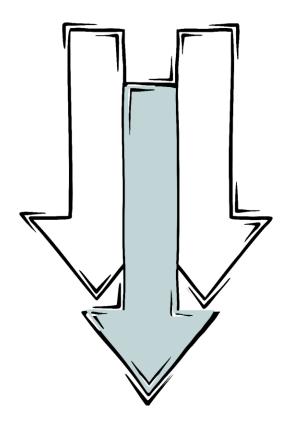


Top-down Revenue Projections

Based on demand-side logic and supported by secondary data sources, in steps:

- 1. Size of relevant target market
- 2. Segmentation, if any
- 3. Market share (captured share of addressable marketwe cover this in the due diligence section on TAM/SAM/SOM)

Importance of the speed/shape at which the market share is acquired.



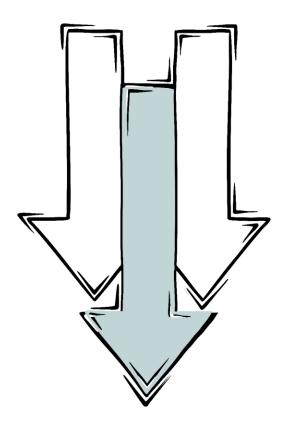


Top-down Revenue Projections

It works well when the target market share is well defined and can be well approximated.

It is less convincing when:

- the target market is much larger than what the venture can achieve ('restaurants in New York')
- the target market does not exist yet as the venture introduces something really new ('space flights')





Bottom-up Revenue Projections

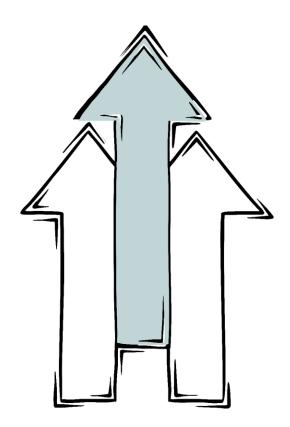
Based on supply-side logic based on the company's ability to develop and deliver the product. Supported by company data.

Necessary for very large markets or new markets.

Requires estimating realistic growth rate of sales and production capacity.

Complementary to top-down.

Need for realism: returns, discounts, fulfilment ... also sales cycles, sales training and attrition







Combining Top-down And Bottom-up

Estimated Market Share S = C/M

C = Bottom-up capacity

M = Top-down market size

Case 1: Small share (S<5%)

- Market segment defined too broadly?
- Bottom-up strategy too conservative?

Case 2: 'Normal' share (5% < S < 25%)

Is market share realistic?

Case 3: Aggressive share (S > 50%)

Can you really be the largest player?

Case 4: Impossible share (S>100%)

- Stop dreaming!
- Market doesn't support growth strategy

Step 3: Estimating Costs

Three types of costs:

1

COGS, costs of goods sold: producing and delivering the product

2

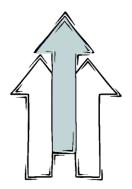
Operating expenses: running the business (sales, marketing, admin, customer support) 3

Development costs
("sometimes one-time
costs": creating venture)

Economic interpretation: fixed vs. variable costs; also: one-time vs. ongoing

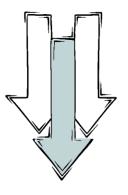
STEP 3: ESTIMATING COSTS

COGS are the costs that relate directly to the production and delivery of the product, and are lowest in services.



Bottom-up:

unit costs by looking at inputs.



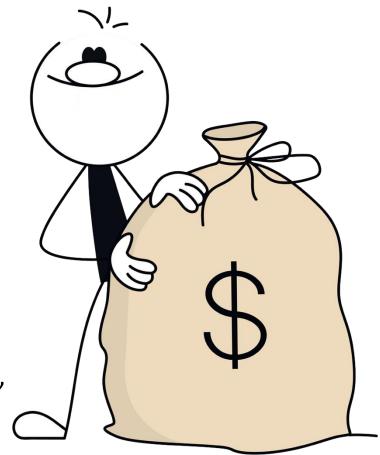
Top-down:

learn from existing competitors.

Example Of "Due Diligence": A Serious Look At Unit Economics

Can we (ever) make a profit?

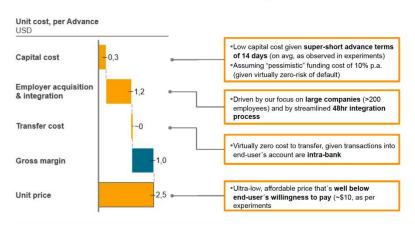
- Revenue Who will pay? How? When? **Transactional** Subscription Licensing
- Customer acquisition How will you find and acquire customers? How much does it cost? Is it cost effective?
- Manufacturing How will the product or service be made? By whom? At what cost? Variable vs. fixed costs?
- Distribution How will the product or service be provided to customers? At what cost? Who will support the customer?
 - Run these numbers "at scale"- then check your "bottom line"



Unit Economics Examples From Past Pitches

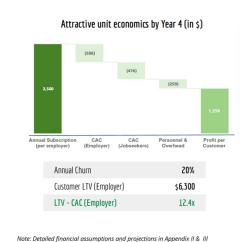
SueldoYa

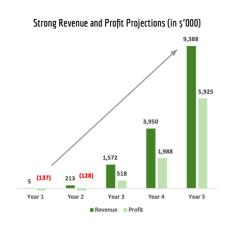
unit economics are solid gross margin of ~\$1 per served advance



SmartHire

SmartHire to achieve profitability in Year 3, with B2B Saas model driving IRR





1



Step 4: Build The Financial Model

Income vs. cash flow: start-ups need to **focus first on retaining strictly positive cash balances**, and then eventually to become profitable.

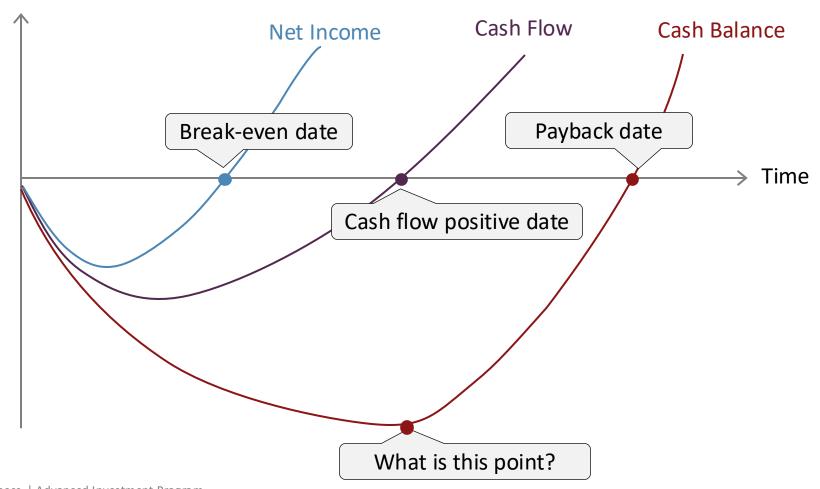
 $CF = Net Income - \Delta NWC - Capex - Depreciation$

So a positive net income may not be sufficient to ensure a positive CF, and in turn a positive cash balance.

The following 'hockey sticks' figure illustrates the point.



Cash Flow Forecasting – Early Stage Venture

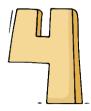




Step 4: Testing Financial Projections

Financial projections consider a single path for the venture. This is often restrictive, so both entrepreneur and investor often resort to ways to test the realism of the assumptions.

- A. Scenario analysis: construct <u>alternative sets of assumptions</u>
- B. Sensitivity analysis: understanding which assumptions are crucial, and to what extent



Step 4: Testing Financial Projections

Sometimes one can take a shortcut and make simplifications to make the financial plan more manageable. Three examples:

Build a unit model by expressing all accounts in product units and varying the scale of production

Limit the analysis to a key industry metric ("eyeballs" or "messages per day" or "transactions per month")

Remember that financial projects at an early stage in a company's lifecycle are bound to be inaccurate.

So the entrepreneur and the investor should concentrate on the ASSUMPTIONS that are inherent in the plan and make corrections as the company develops history.



Remember: Step 5: Formulate The Financial Plan

The financial plan builds on the projections and address the **two key questions** of interest to the investor:

1

How financially attractive is the venture?

- this can be argued using the three statements
- Also understanding the Business Plan (how it makes money)

2

What financial resources does the venture need?

- 1. this largely relies on the cash flow statement, and
- current and future funding needs

Pitching The Financial Plan

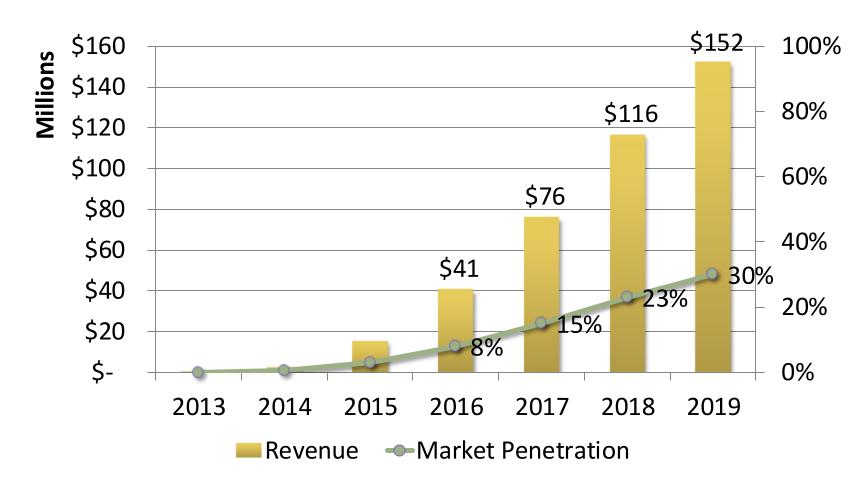
Key points to be covered are the following:

- Discussion of the underlying assumptions (<u>super important</u>)
- Revenues: level, growth, timing ...
- Costs: nature, level, growth
 Profitability: drivers and timing
- Funding needs and cash flow analysis

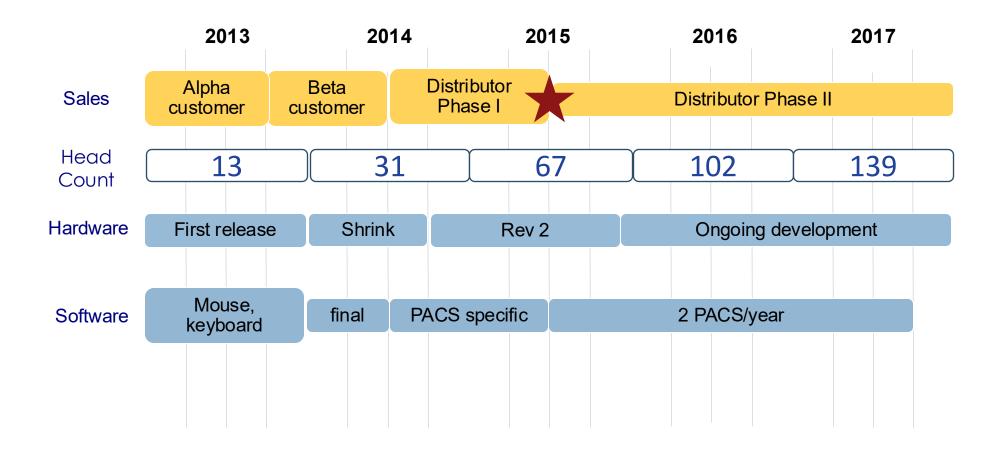


Example Slides That Tell A Compelling, Concise And Clear Story

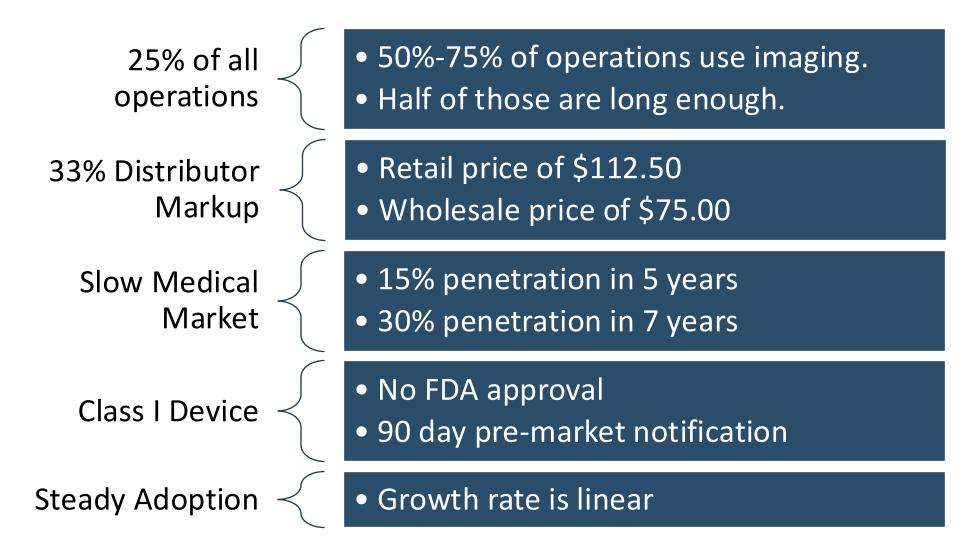
Revenue & Market Penetration



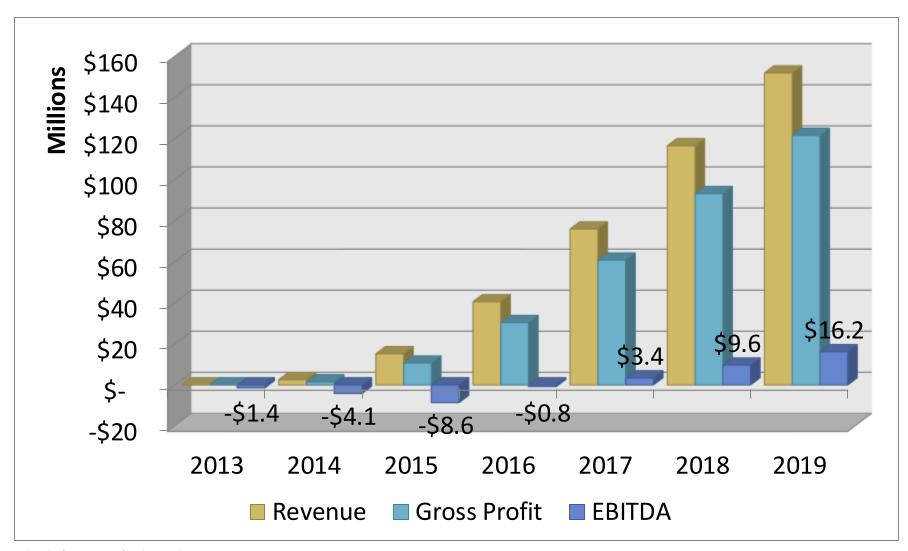
Go To Market



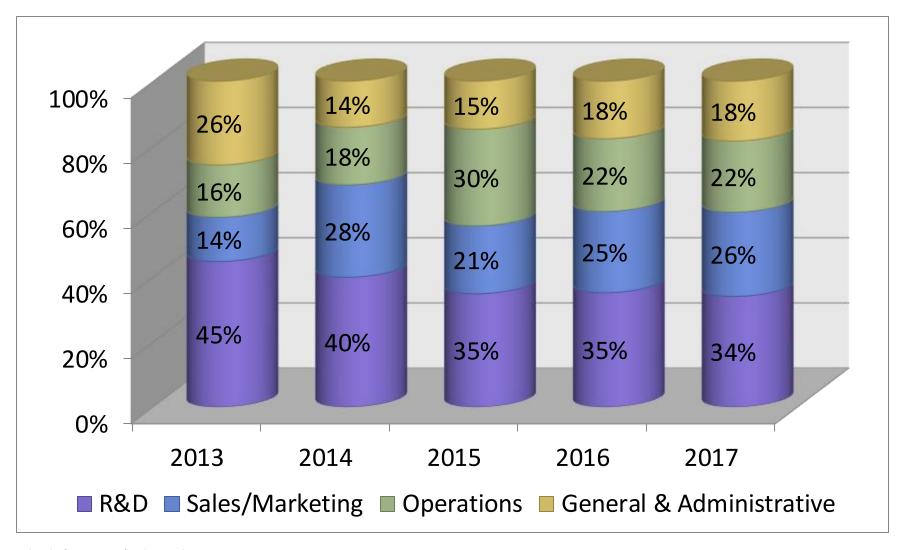
Assumptions



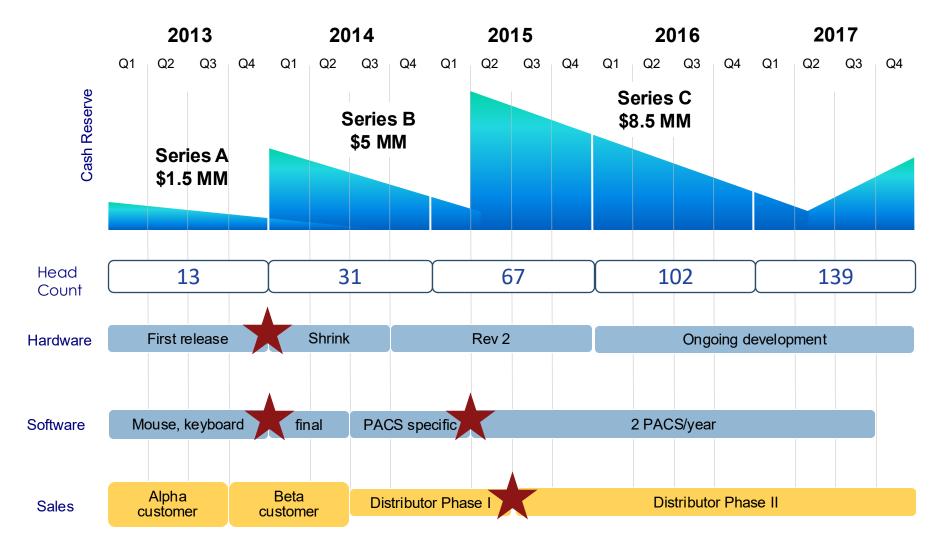
Financial Projections



Operating Stacks



Funding Milestones



Break!

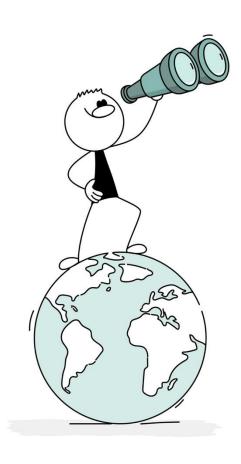
Stretch for 15 min!





Sourcing, Deal Flow And Diaspora

Topics Covered In This Module

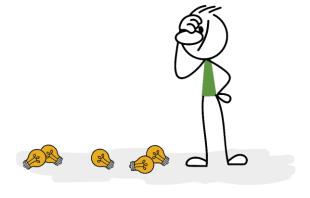


- 1. What do these phrases mean: Sourcing, Deal Flow, Diaspora...
- 2. How to find lots of deals
- 3. How to find "Quality Deals"
- 4. How to think about "Criteria" for a serious prospect

Quality Deal Flow Is Essential To Your Investment Strategy



Most investors try to be selective



But most investment opportunities are not VC-fundable



And those that are, are not all "great"

Quality Deal Flow Is Essential To Your Investment Strategy



So, the trick is to(1) find quality deals, and (2)eliminate non-matches ASAP to get to the serious situations

Achieving High Quality Deal Flow Is Work!

What is sourcing?

VC deal sourcing is the process firms use to find those potential investment opportunities for their VC funds

What is deal flow?

Deal flow refers to the flow, or rate, of incoming deals that signify investment opportunities for a firm. These inbound opportunities may come from

- pre-existing networks or relationships,
- word-of-mouth within the startup community,
- or interest and recognition from other investors.

What is diaspora?

A diaspora is a population that is scattered across regions which are separate from its geographic place of origin. The word is used in reference to people who identify with a specific geographic location, but currently reside elsewhere

A diaspora (like BayBrazil, or TIE) can be of enormous help in finding high quality deals!

Sourcing Involves Several Decisions

What Industries are You Interested in? ☐ What Geographies do you Favor (Domestic, International) ■ What Technologies Get you Excited? What Types of Founders Are You Attracted To What About the Business Models YOU Know Well? And Others...

Some of Steve and Diane's Criteria

☐ Non-solo entrepreneurs, makings of a strong team (at least 2-3) ☐ Ideally, a local team, good attorneys and a US domiciled company **Technology-based value proposition** ■ Nearing or at PMF ☐ Founders have been with startups previously, in responsible positions ☐ Mostly B-2-B business model ☐ Clear market runway to a very large market ☐ And a few more...

12 Things VCs Consider Before Deciding to Meet A Founder-Entrepreneur

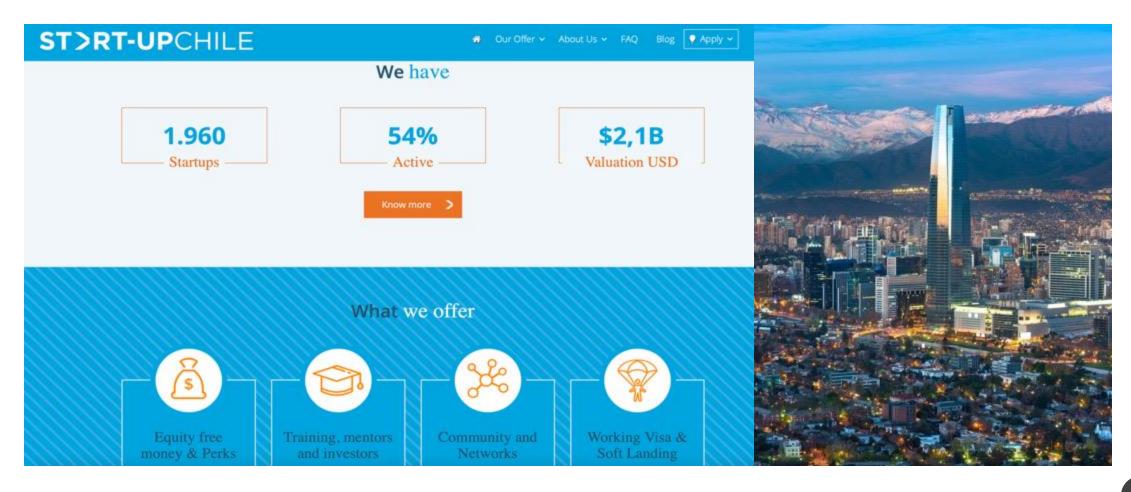
- The Team
- Quick Pitch
- The Big Picture
- Money Stuff
- Where You Have Worked
- Team Size

- Timing
 - Traction
- Fundraising Target
- Past Funding and Investors
- Investor Fit
- Referral Source

You learned about many of these in the Pitch Deck session

Start-up Chile: Example Of Importing Skills/talent

Aggressively attracting entrepreneurs



Y Combinator

THE YC PROGRAM

YC hosts two 3-month programs — one from January through March, and one from June through August. Here's what happens during the 3 months of YC:

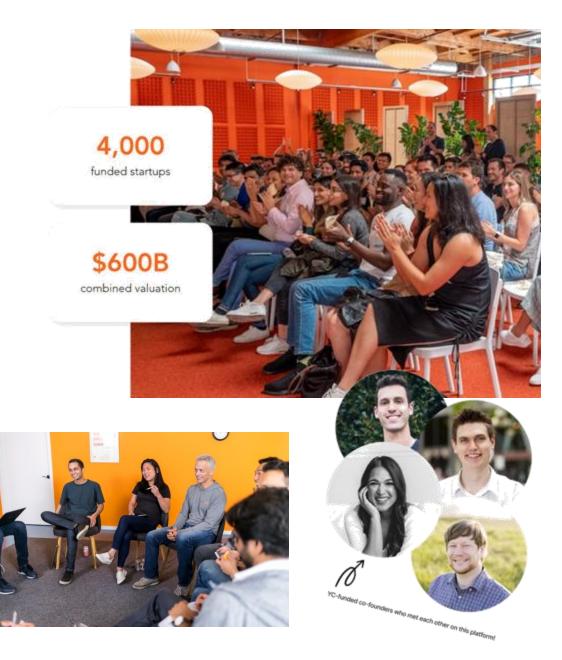
The Goal

The overall goal of YC is to help startups really take off. They arrive at YC at all different stages. Some haven't even started working yet, and others have been launched for a year or more. But whatever stage a startup is at when they arrive, our goal is to help them to be in dramatically better shape 3 months later.

Funding

YC <u>invests</u> \$500,000 in every company on standard terms. Our \$500K investment is made on 2 separate safes:

- We invest \$125,000 on a post-money safe in return for 7% of your company (the "\$125k safe")
- We invest \$375,000 on an uncapped safe with a Most Favored Nation ("MFN") provision (the "MFN safe")



THE YC PROGRAM

- 1. The Goal
- 2. Funding
- Groups
- 4. Office Hours
- Bookface
- 6. Batch Retreat
- 7. Tuesday Talks
- 8. Public Launches
- 9. First Customers
- 10. Weekly Meetups
- 11. Demo Day

ADVICE

- 1. Ongoing office hours
- 2. Series A Program

COMMUNITY

- 1. Alumni community
- 2. Alumni Reunion
- 3. Founder Communities
- 4. Alumni Demo Day
- Deals

BRANI

- 1. Credibility
- 2. Company Directory

HIRING

- 1. Work at a Startup
- 2. Hacker News

500 Startups And How They Attract Deals

PORTFOLIO ▼ VENTURE EDUCATION ▼ **500**

BLOG: THEGLOBALVC

ABOUT ▼

GET IN TOUCH

We invest in the world's 500 Global is a venture capital firm with \$2.5 potential billion¹ in assets under management that invests in founders building fast-growing technology companies. We focus on markets where technology, innovation, and

Then we turn potential into performance

We invest far and wide, across sectors and geographies, including 45+ companies valued at \$1B+ and 150+ companies valued at more than \$100 million².



AMERICAS

Austin Las Vegas Mexico City Miami New York San Francisco Silicon Valley Washington D.C. Oakland Los Altos Menlo Park Scarsdale



EUROPE

Istanbul



ASIA

Bangkok Kuala Lumpur Seoul Singapore Selangor Samutprakarn Giza



MIDDLE EAST & AFRICA

Dubai Rivadh



Lexington

UNITED STATES CHIEF EXECUTIVE OFFICER, FOUNDING PARTNER

Christine Tsai

capital can unlock long-term value and drive economic

PLUGANDPLAY

The world is moving fast. We help you move faster.

We catalyze technological advancement by connecting blue chip corporations with the brightest startups across the globe.

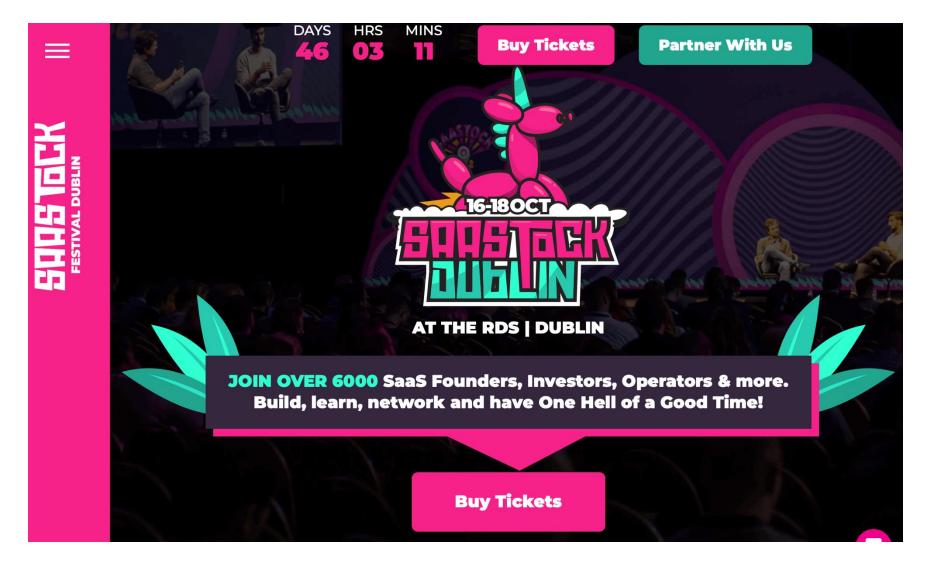
Innovate your corporation

Boost your startup

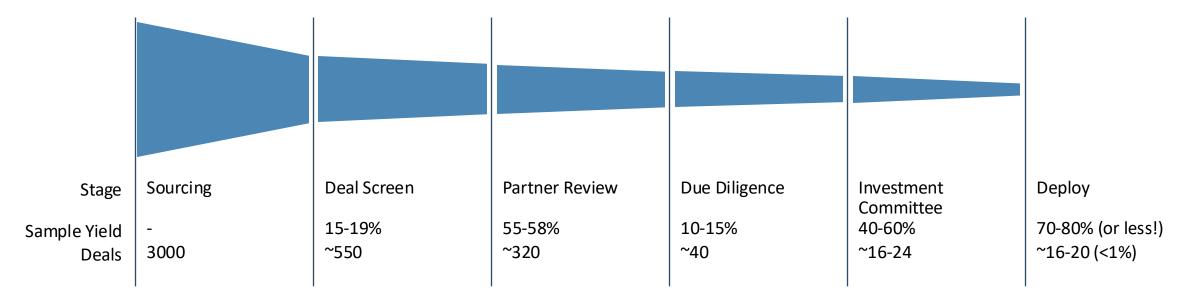


How do we boost innovation?

Just One Example Of Networking For Deal Flow



Venture Selection Process



Stage 1: Deal Sourcing

Finding appropriate leads and bringing them to your company through personal network and referrals.

Stage 2: Deal Screening

Meet with potential candidates to learn more and see if they are a good investment fit. Lead contact is assigned.

Stage 3: Partner Review

Leads present to firm's partners. Only 10-15% will move forward.

Stage 4: Due Diligence

Deep dive into each opportunity with competitive analysis, interviewing customers, trying product/service.

Stage 5: Investment Committee

Team made up of partners, industry experts and other experienced professionals that will review findings and decide whether or not to invest.

Deal has officially been closed! The final term sheet is signed, and the funds are transferred.

Deploy Capital

Stage 6:

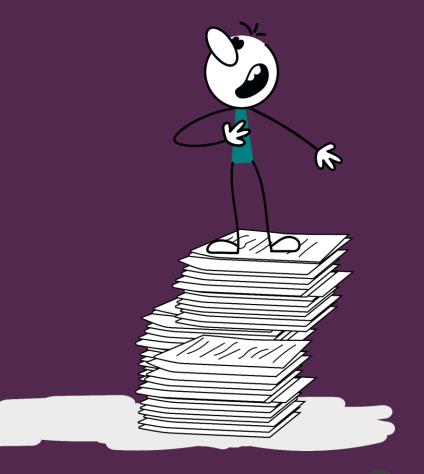
A Real "Funnel" from Real VC In A Developing Economy

1,300+ opportunities, narrowing prospects to 3 exciting deals



Panel Discussion: Quality Deal Flow

JJ Singh, Mark Belinsky, Margarise Correa



Jj Singh

Co-President, Stanford Angels and Entrepreneurs



- Stanford Angels & Entrepreneurs, Co-President
- Various high-tech companies, Advisor and Board Member
- Service Associates, President and CEO
- AllDocuments, President and CEO
- Caresoft, President and CEO

Margarise Correa

Founder, Diaspora Group BayBrazil



- BayBrazil (large diaspora), Founder and CEO
- Silicon Valley Center for Int'l Development, Program Manager
- eCaravan, Marketing Manager
- UEL Universidade Estadual de Londrina (Brazil), BA, Journalism
- San Jose State, Continuing Studies

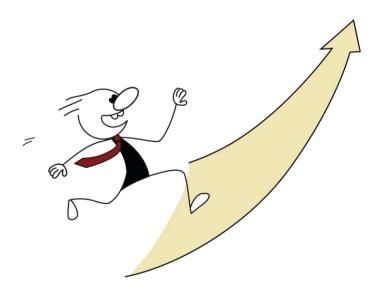
Mark Belinsky

Seasoned Early Stage Investor, Band of Angels



- https://www.mark-belinsky.com
- https://www.linkedin.com/in/markbelinskycalifornia/
- Mark Belinsky is a seasoned entrepreneur with over 30 years of business leadership experience.
- He currently serves as consulting CFO and COO at Copperwire Systems, Inc., an early-stage company he has invested in.
- His responsibilities include overseeing business operations, financial forecasting, accounting, and contract management.

Belinsky is the founding managing director of Venture



Case Study #4: How To Start An Entrepreneurial Revolution



Case Study: Questions

Review of 4th reading

- 1. How valuable can governments be in establishing an entrepreneurial ecosystem?
 - a. Why would governments be interested in such an initiative?
 - b. Why would <u>large corporates</u> be interested?
- 2. How should a country like Poland view Silicon Valley?
- 3. How do you begin to think about creating an <u>self-sustaining</u> <u>innovation environment</u> in Poland?
- 4. What do you think of the checklist provided by the author in the research paper, for "grading" a country's entrepreneurial ecosystem?
- 5. What is the author's philosophy regarding "quantity vs quality"?
- 6. How does he suggest "tackling" culture? Do you agree or disagree? Why?
- 7. If you were an angel or VC or corporate officer, would establishing a strong entrepreneurial ecosystem assist in your investing, partnership or acquisition strategies? How would it help your "deal flow"?



JJ Singh Chairman, Stanford Angels

CEO/Executive

- Caresoft (digital patient management)
- AllDocuments (revenue cycle management)
- Teknekron (data warehousing)
- Service Associates (practice management)
- Chestnut Medical (medical device)

Board/Investor/Advisor

Subtle Medical (Radiology AI)

Medrio (clinical trials)

Omny (data marketplace)

Workspan (marketing network)

Zum (EV transportation)

Aerin (ENT device)

Buzz (Visual AI for Utilities)

Zephyrus (BioTechne: NASDAQ:TECH)

Jetlore (Paypal, NASDAQ:PYPL)

CirroSecure (Palo Alto Networks, NYSE:PANW)

Dogster (Say Media)

Chestnut Medical (Covidien, NYSE:COV)

Second Foundation (Fidelity, NYSE:FIS).











Activities

- Angel Investments: Deals via faculty, alums, investment community referrals
- Thought leader speaker and Panel series (Tech/Business/Academics)
- Foster relations Pan-University & SV
- Events: Education, Mentoring, Professional Development, Investment portfolio growth, Tech innovations helping society

Stanford Angels and Entrepreneurs Faculty Advisors

Engineering:

Jeff Ullman, Professor, Computer Science
Andrew Ng, Director, Stanford AI Lab, *Cofounder Coursera*Ashish Goel, Professor, MS&E, *Cofounder Teapot*Serge Plotkin, Associate Professor, Computer Science Emeritus
Christopher Re, Assistant Professor, Computer Science
Mehran Sahami, Professor, Computer Science

Law

Mark Lemley, Professor, Stanford Law School, Cofdr Lex Machina

Business

Jennifer Aaker, Professor of Marketing, GSB Susan Athey, Professor of Economics, GSB Baba Shiv, Professor of Marketing, GSB

Richard Dasher, Director US-Asia Technology Management Center



Investment Process

- Pitch decks sent to
- Reviewed by investment committee
- Recommended to next pitch meeting (held every 2 months)
- Founders connected to interested investors
- Deal!

Stanford Angels and Entrepreneurs Portfolio













The easiest and most effective way to negotiate your job offer.

Visit Website



Toybox is a 3d printer and creativity platform that lets kids find and design the toys they love and print them at home.

Visit Website



Trucking industry Al platform.

Visit Website



Intelligent Technology for Retention and Compliance in Pharmaceutical Industry.

Visit Website



World-class drone defense technology.

Visit Website



Next generation video entertainment marketplace enabling content creators/owners, consumers, advertisers and financiers to transparently and instantaneously exchange value and attention.

Visit Website



Health Hero helps manage disease using automated adaptive outreach.

Visit Website



Smartphone Body Cameras. Disrupting hardware-centric industries with a software-based approach for use by law enforcement, private security and others.

Visit Website



Reimagines business payments empowering companies to stop writing paper checks and embrace blockchain-enabled digital payments effortlessly.

Visit Website



Stanford Angels and Entrepreneurs

Global Chapters

- India (Mumbai, Bangalore, Delhi)
- London
- Southern California
- Singapore
- Hong Kong
- Brazil
- Thailand

Deeply connected community of 3000 entrepreneurial alum, faculty, students

Strengthen the Stanford startup community - fosters relations among entrepreneurs, faculty, alum investors

Paying-it-Forward Advance Innovation & Entrepreneurship to be of service to Stanford community & Society

Dinner!

End of Day 1

