

How to assess a startup

14/04/2023

VERVE
VENTURES

... by saying “no”



50/6'500 ➡ >99% “no”

First step – Negative Selection

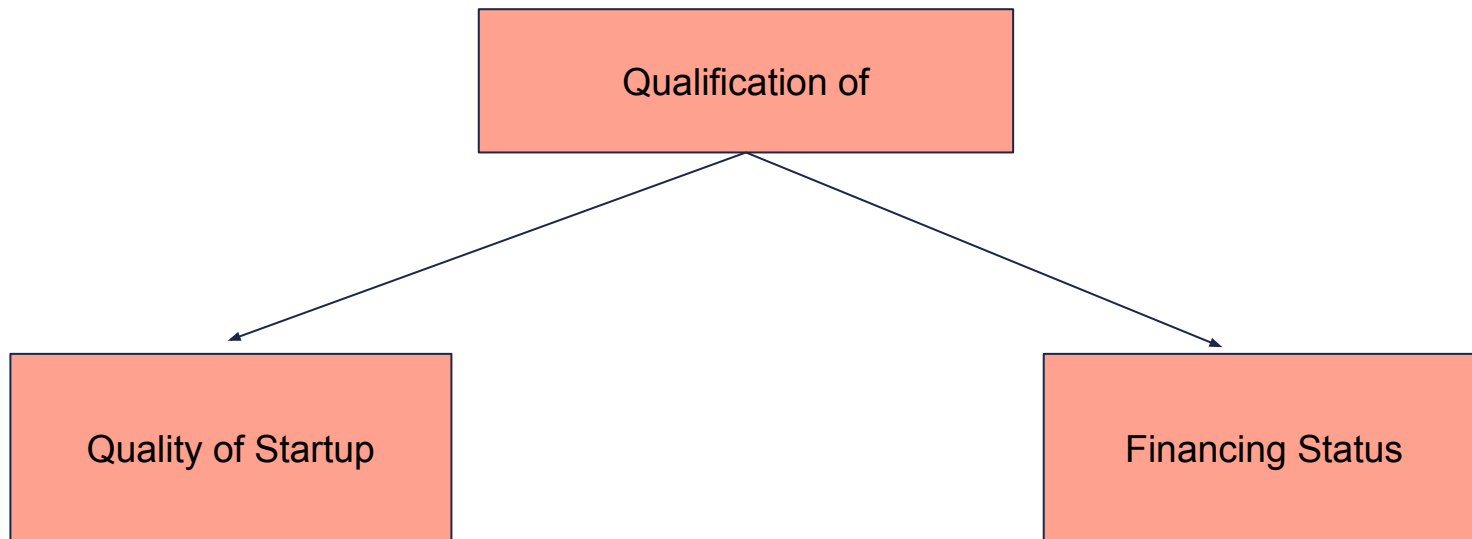
Finding “red flags” fast

- Geography correct?
- Team complete?
- Healthy company history?
- Founding date?
- Target stage
- Financing request correct (equity vs loan)
- In general a “scalable” company/business model
- Exit targeted



Second step - Positive Selection

Qualification of company and financing status



What type of startup are we assessing?

Technological Innovation

Unique and disruptive technology. At least 10x better than status quo. Technological defensibility. Investment necessary to “prove” technology.



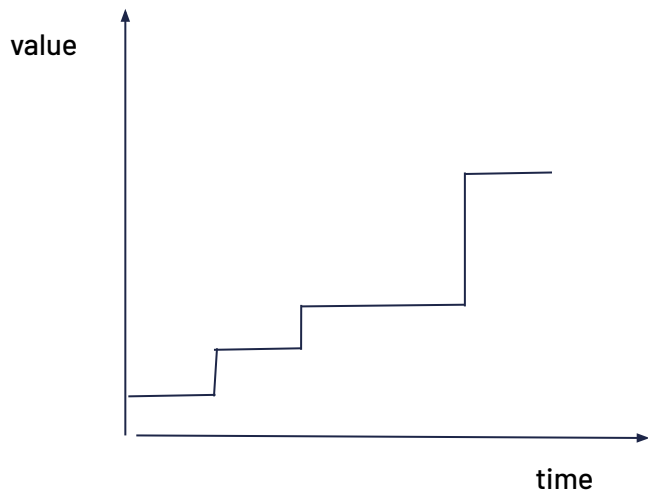
Commercialisation

Innovative, new product with low defensibility. Investment necessary for rapid commercial growth and capture of market share which provides defensibility.

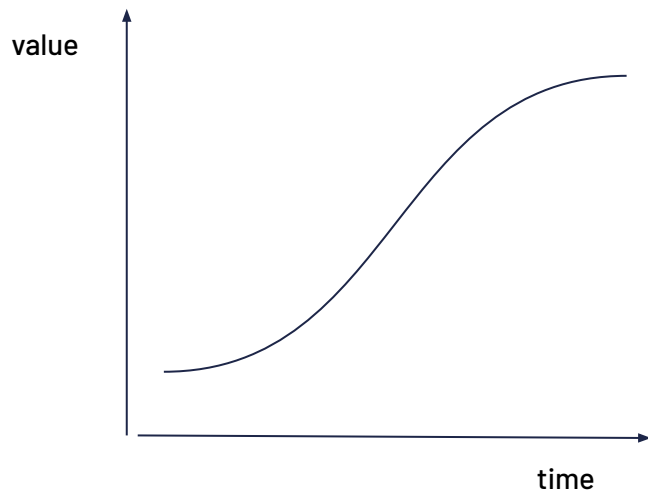


Value development of tech and commercial startups.

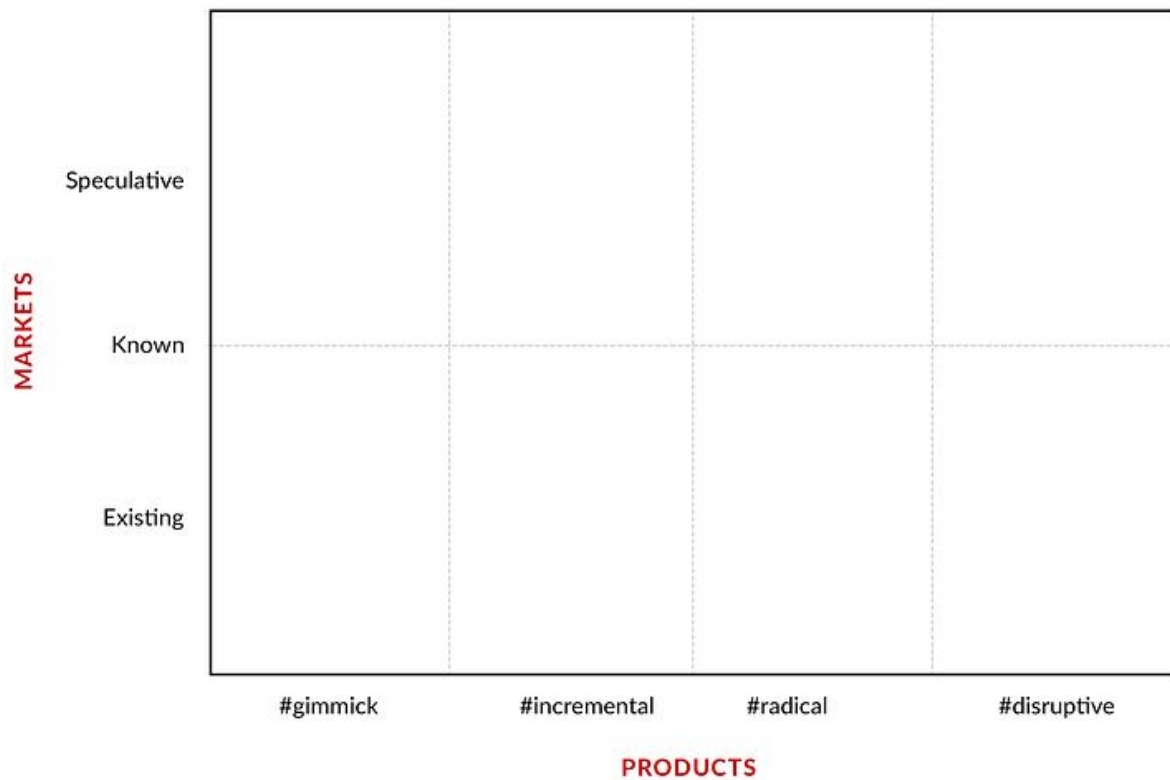
"Tech" Startups



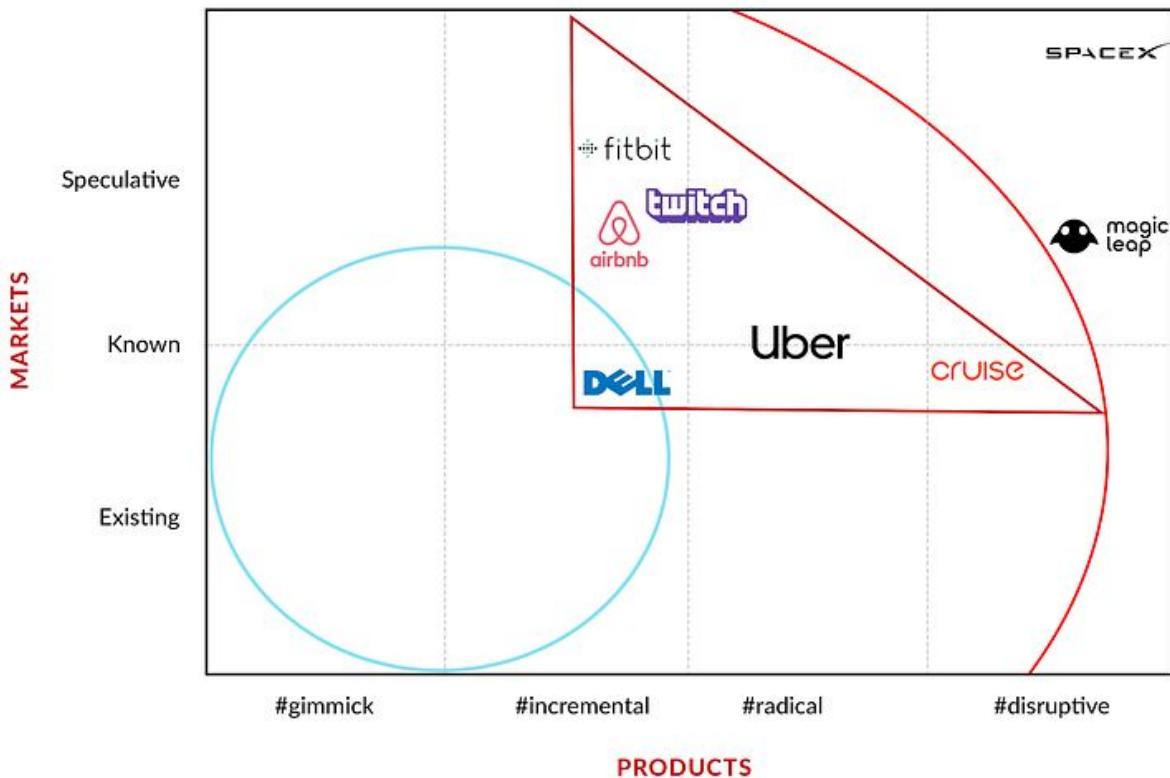
"Commercialisation"
Startups



Product vs Market risk



Circle of Competence and VC Investment Triangle



The Investment Thesis

- How will the future look like with regard to the respective company and what would this mean for our investment?
- What are the key value inflection points / milestones the company has to achieve on the way to “fulfil” this thesis. (“divide and conquer”)



Assessment of risk and likelihood that company can achieve those milestones within the given timeline and framework.

Key Assessment Areas



Problem & Need



Market size & target



USP/Defensibility



Competition



Business model & revenue streams



Go-to-market & strategy



Team & Board of Directors



Financing strategy



Use of funds and milestones



Exit strategy



industry experts
clients
competitors
co-investors

Internal Report Templates

Curation Report:

https://docs.google.com/document/d/1mU_uirfmmGldLYK9wys6x5j6nerTKps_jWU00IzoxFk/edit

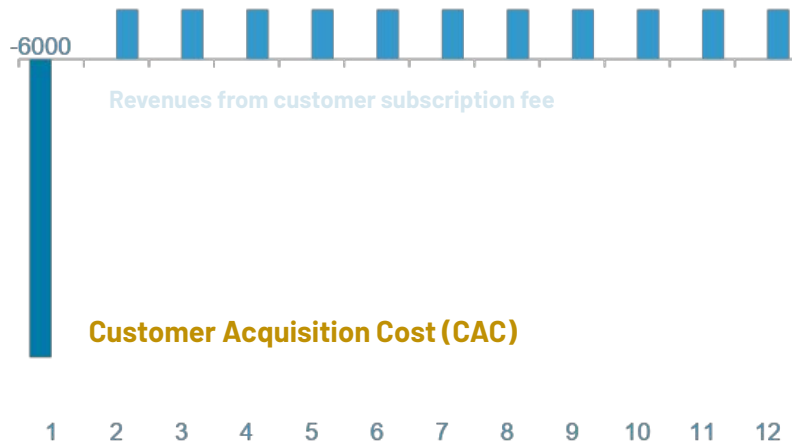
Decision Framework:

<https://docs.google.com/spreadsheets/d/1N8jg1TNSeqeP4DyrR4wpJC7UkEFB9Joi3d0ygd1fjWM/edit#gid=930873986>

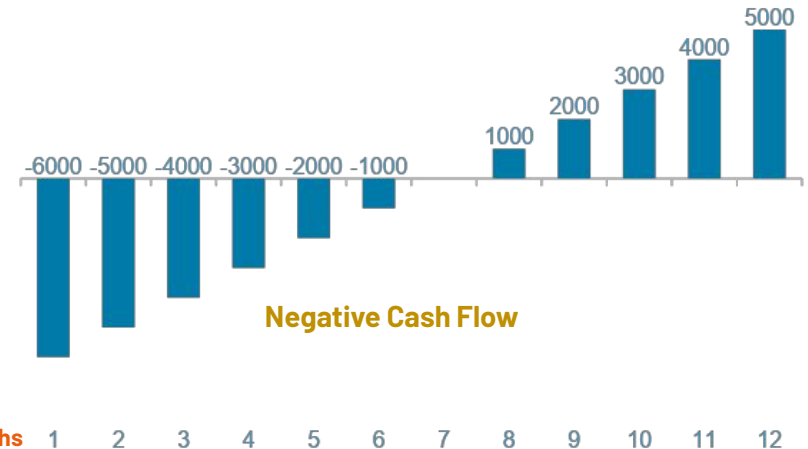
Zoom In – Commercial “SaaS” Companies

TYPICAL CASH FLOW OF SAAS COMPANIES

Single Customer Cash Flow

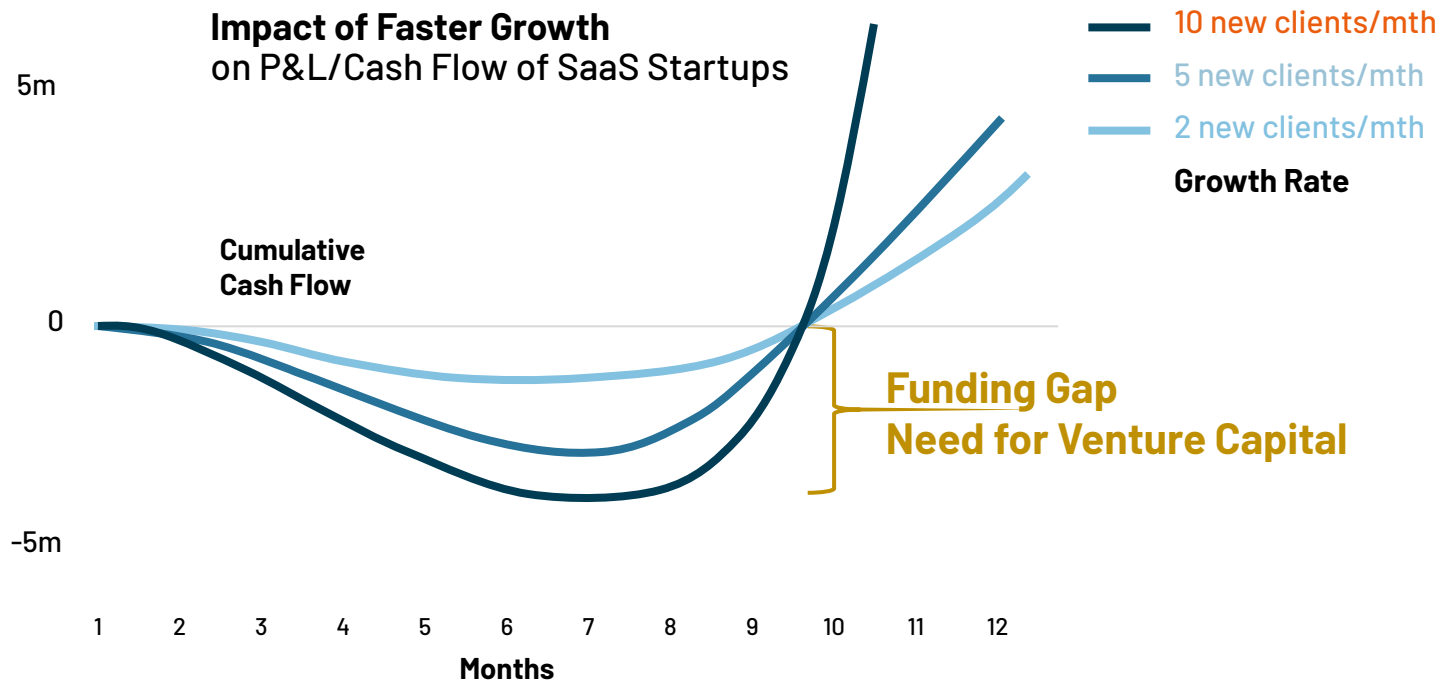


Cumulative Cash Flow - Single Customer



COVER A FUNDING GAP

The faster they plan to grow, larger the need for funding



BASIC FRAMEWORK AND KPI

SaaS companies can be analyzed with frameworks and KPIs

CLV

Customer Lifetime Value

ARPA Average Revenue per Account

Churn Revenue Churn Rate

>

<

?

CAC

Customer Acquisition Cost

SUM of all Marketing & Sales expense

Number of new customers added



CLV > 3x CAC

Time to recover CAC < 12 months

QUESTIONS ASKED IN DUE DILIGENCE

Customer acquisition and cost

- 
- How many customers do they have?
What kind of customers?
How did they get them?
 - How long are sales cycles?
 - What does the sales pipeline look like?
Who is in charge of sales?
 - Direct sales, indirect sales or self-service?

CUSTOMER LIFETIME VALUE

Don't forget to have a closer look at the CLV

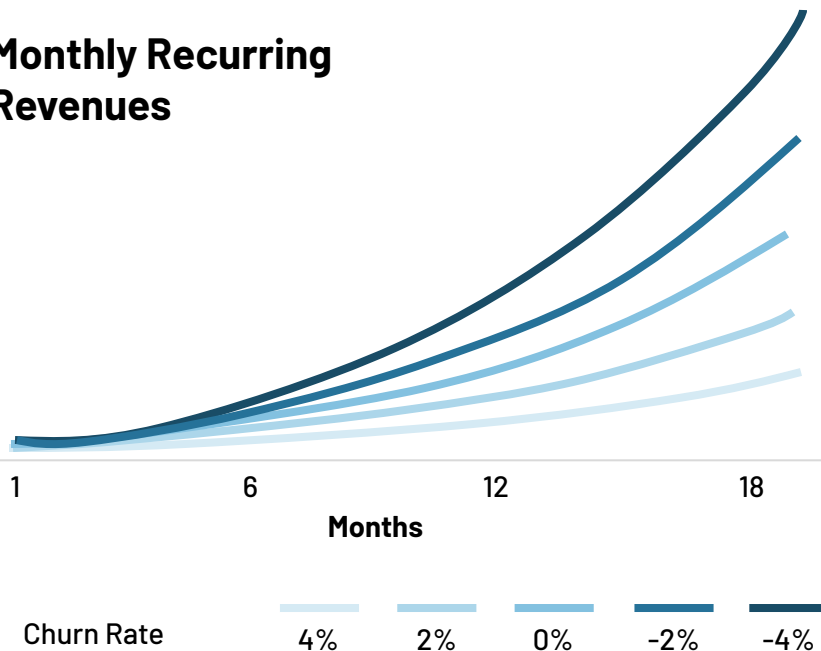


- **What's the average revenue per account? ARPA**
How does it impact the clients budget?
- **What level of customer support is necessary?**
- **Why do customers leave?**
- **Can the company handle significant growth in its user base?**

CHURN IS KEY

Churn's impact on revenue growth

Monthly Recurring Revenues

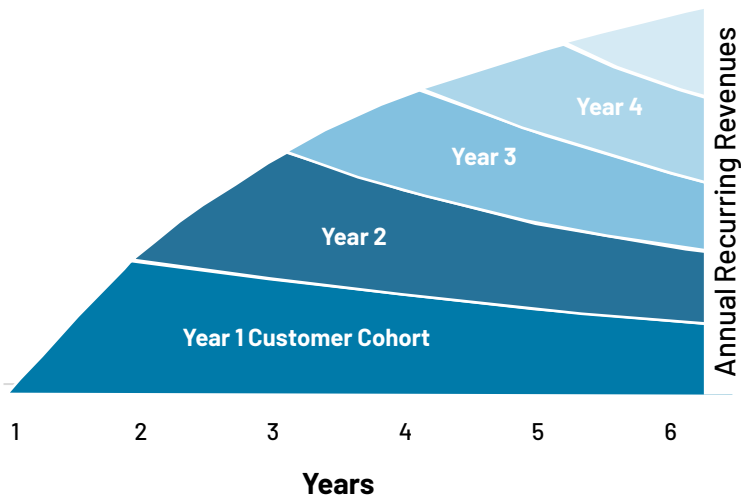


- i** Revenue churn rate is the rate of lost revenues due to lost customers or decreased subscription plans
- i** A negative revenue churn rate means that instead of losing customers, the company is managing to generate more revenues from its existing customers "Up-Selling"

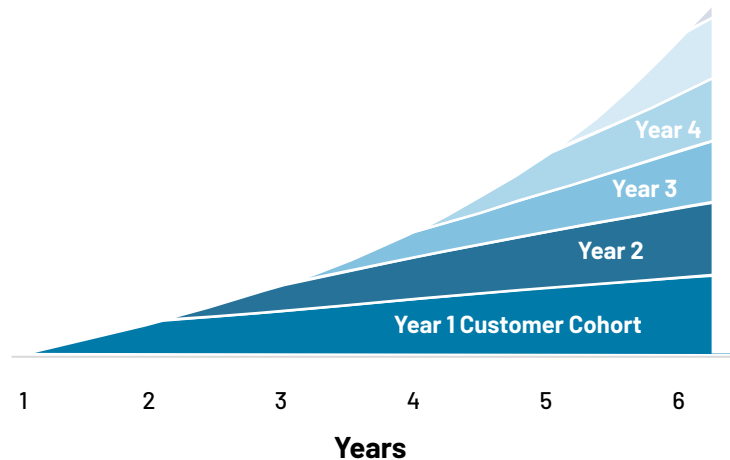
THE REVENUE HOCKEY STICK

Which is associated with net negative revenue churn

Revenue Cohort Performance Positive Revenue Churn



Revenue Cohort Performance Negative Revenue Churn



TYPICAL PRE-CHURN INDICATORS

- 
- Number of daily/monthly active users
 - Account activation rate
 - Amount of data uploaded/ downloaded
 - Number of transactions conducted

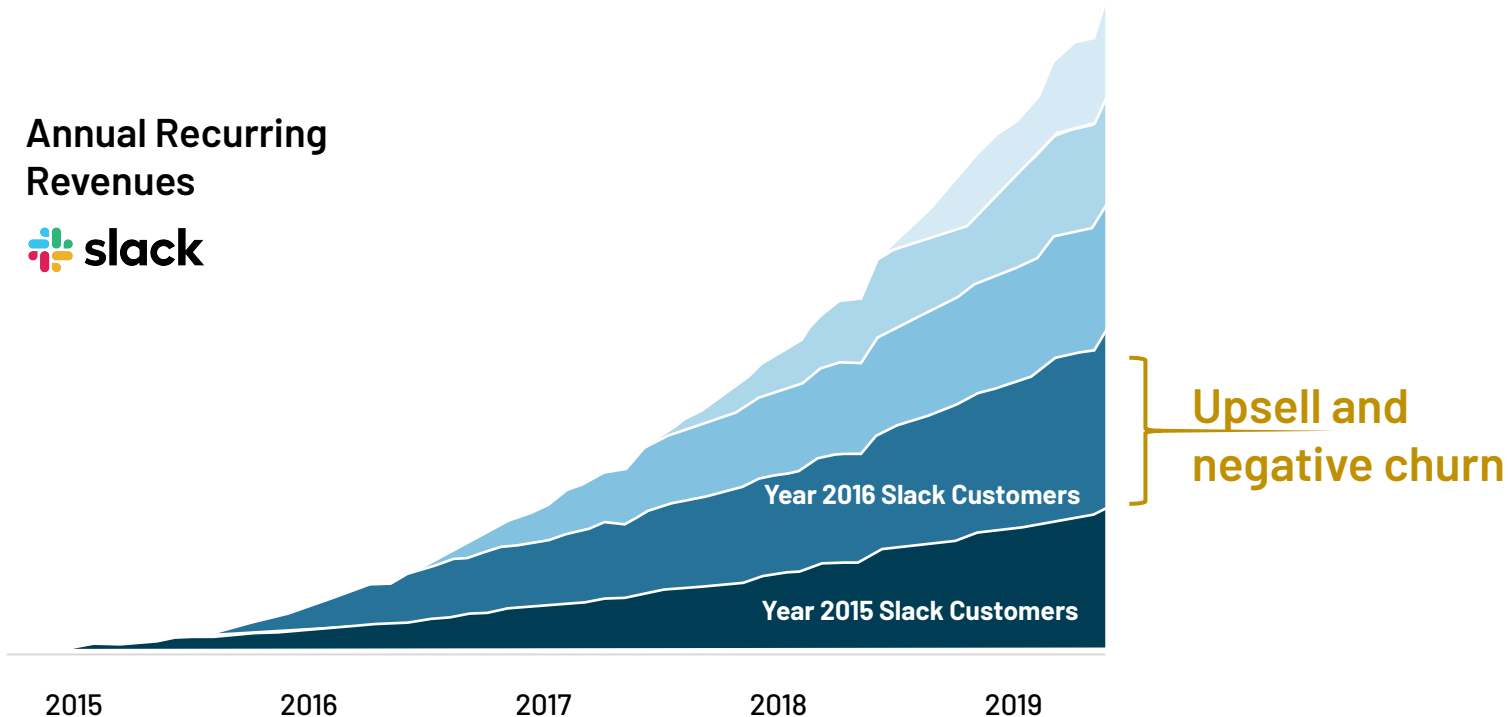
Additional KPI's

- 
- Rule of 40
 - Burn Multiple
 - “Magic Number”
 - ...

REAL EXAMPLE

Let's have a look at the case of Slack

Annual Recurring
Revenues



KEY TAKEAWAY

Here are the main points to remember on how to assess SaaS

- 
- SaaS is a textbook example for venture investments
 - Proof of concept in SaaS is not a working product, but (first) reliable data on CAC and CLV
 - Don't get lost in the KPI jungle: Understand the basic numbers and questions

Zoom In – Size of Market and Exit Opportunity

Is the opportunity “big” enough?

Some VC math:

- 1) Top quartile VCs need to return 20%+ interest p.a. meaning that without compound interest and a 10y lifetime, a fund needs to return 200% ($10y * 20\% \text{ p.a.}$) profit + 100% initial investment, or said differently “3x the fund”
- 2) VC returns follow a Power-Law distribution (think Pareto Principle 80/20) where few investments generate majority of the returns. On average, 1/3 of the portfolio is written off, a bit more than 3/5 of the portfolio returns the fund once (the “walking deads” = 100% initial investment) and only about 5-10% of investments return the 200%+ profit
- 3) Lead-VCs typically seek somewhere btw 10-20% shareholding at initial investment and assuming sufficient reserves (50/50 initial/follow-on) to defend this shareholding in (at least the first of the) subsequent rounds, they likely end up btw 5-10% at exit
- 4) Most early-stage VCs assemble portfolios of approx 25-30 companies. 2-3 (or 5-10%) of them need to return 2x (or 200%) of the fund with a respective exit shareholding of 5-10% per company
- 5) 1x the fund (200% profit divided by 2 outlier companies) needs to equal 5-10% of the startup’s exit value, or said differently:



Your startup needs to have an exit potential of 10-20x the size of the VC fund to have a match

Example: \$300m early-stage VC fund needs an exit potential for every investment of \$3-6bn. A 10x peer group ARR multiple means that at exit the company would need to generate \$300-600m ARR.

Adoption of model

- Level of risk has strong impact on “required” outliers
 - US style 0-1 vs European more de-risked approaches and business models
 - Investment Stage of entry ticket
- Fund sizes in EU vs US
- Timeline to exit

Zoom In – Medical Technology

WHAT MAKES A MEDTECH STARTUP INTERESTING?



If the product...

- significantly improves patient outcome
- significantly saves costs
- seamlessly integrates into existing workflows
- gains market acceptance

THE KEY ELEMENTS TO CONSIDER AS AN INVESTOR



- How is the technology protected?
- Regulatory path to market
- Reimbursement

HOW IS THE TECH PROTECTED?



Patents

- Broad enough to protect technology
- For applications: how likely that it will be granted?
- Which markets are covered?

HOW IS THE TECH PROTECTED?



- Is the startup infringing upon other companies' patents?
- «Freedom to Operate» analysis

THE REGULATORY PATH
DEPENDS ON THE **RISK**
THAT THE **DEVICE**
POSES IN CASE OF
MALFUNCTION

CLASSIFICATION

«Harmless»
non-invasive

CLASS I

Surgically invasive
but only used for a
short term,
diagnostics

CLASS IIA

Long term implants

CLASS IIB

Breast implants,
joint replacements,
implants in contact
with the spinal
column, pacemakers

CLASS III

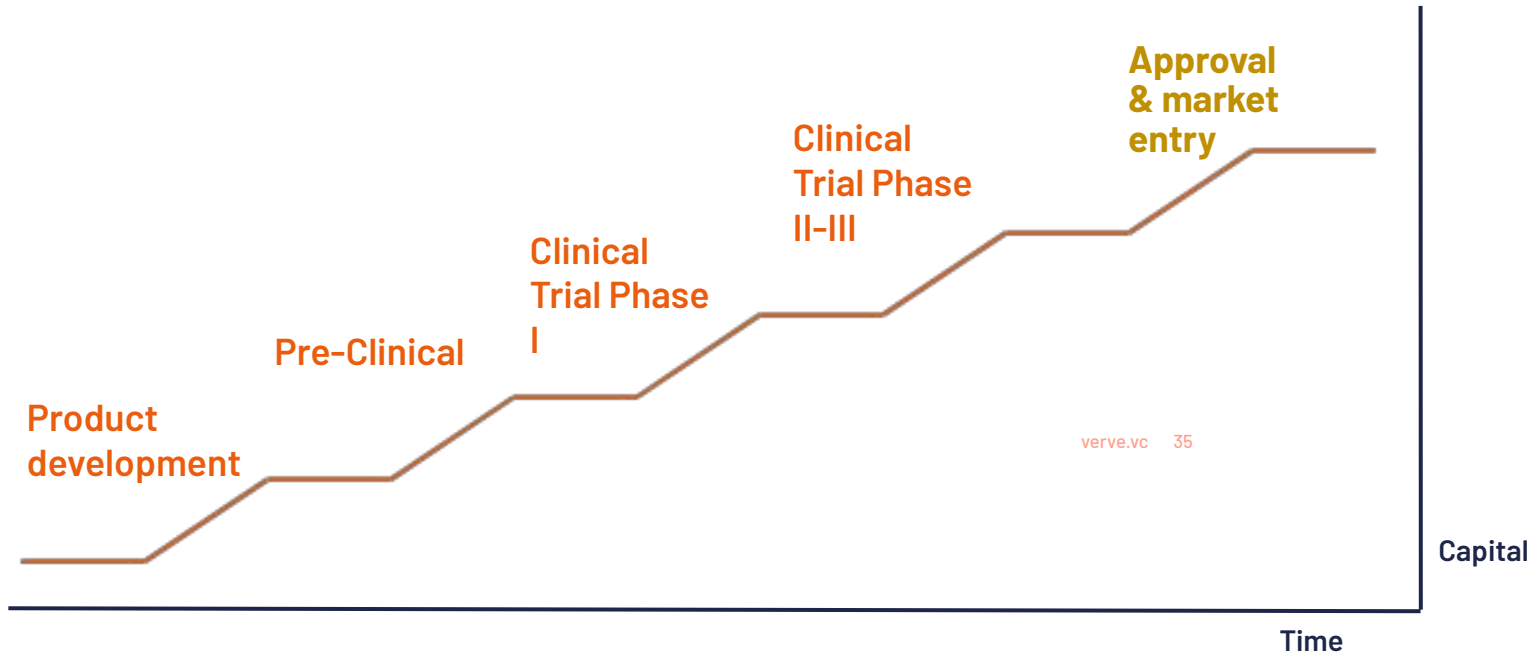
CERTIFICATION



- Conformity assessment proving the product fulfills criteria to be deemed safe.
- Inspection and control of the product and its documentation.
- Review clinical data proving safety and efficacy of the product.



REGULATORY PATH TO MARKET ENTRY



THE MOST COMMON
REGULATORY PROCESS
IN THE US TAKES
40 MONTHS
AND COSTS
24 MILLION DOLLARS

CERTIFICATION

Questions investors ask

- Who is in charge of certification process?
- In-house expertise?
- External expert or consultancy?
- EU or US market first?
- Time planned for regulatory clearance?
- What if it takes longer?
- Setup of clinical study and quality of clinical data?
- Who is running clinical study?

MARKET AUTHORIZATION
SIGNIFICANTLY
DERISKS A COMPANY...

**BUT THIS DOES NOT
GUARANTEE SALES**

VERVE
VENTURES

REIMBURSEMENT

- 
- Reimbursement is a key driver of a technology being widely available for patients (and profitable for a manufacturer to provide)
 - CE mark does not guarantee reimbursement.
 - Reimbursement is decided on a national level.
 - It costs additional effort (in terms of time and money) to secure reimbursement country by country

REIMBURSEMENT
FURTHER DERISKS
A COMPANY



THANK YOU FOR YOUR
ATTENTION