

# Terms and Valuation

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Technology, and Economics from ETH Zurich.***

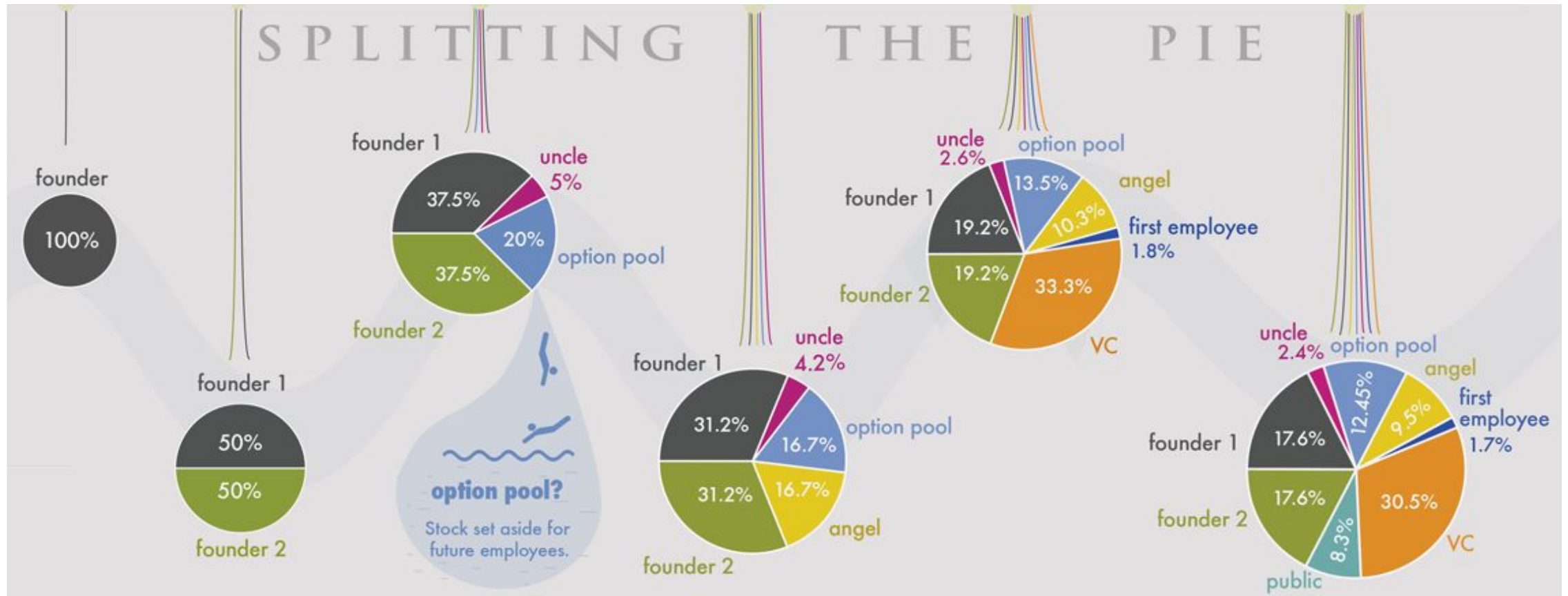
***Romeo Bütler***

*Principal and Team Lead Switzerland*



# FROM THE LAST LECTURE

## Splitting up the pie



# ***Agenda***

- 
- 1. Valuations**
  - 2. Terms**

HOW DO YOU REACH  
A **FAIR VALUATION**  
OF A STARTUP?

# **VALUATION**

## **Approaches**

- 
- 1. Market Comparables and fixed ranges**
  - 2. Bottom Up Analysis (aka Cost approach)**
  - 3. VC Method (aka Counting backwards)**
  - 4. Dave Berkus Method (aka Scorecard approach)**
  - 5. Discounted Cashflow**

# VALUATION

Strongly Stage (and industry) dependent

| Characteristics   | 1 Idea / Seed                | 2 Seed / Start-up | 3 Early growth            | 4 Expansion                             | 5 Sustainable growth |
|-------------------|------------------------------|-------------------|---------------------------|-----------------------------------------|----------------------|
| Cash flows        | NA                           | Only negative     | Negative (but increasing) | Positive (growing at a decreasing rate) | Stable               |
| Proof of concept  | x                            | x                 | ✓                         | ✓                                       | ✓                    |
| Historical data   | x                            | x                 | Limited                   | ✓                                       | ✓                    |
| Forecast data     | x                            | Limited           | Limited                   | ✓                                       | ✓                    |
| Valuation methods |                              |                   |                           |                                         |                      |
|                   | Fixed ranges and comparables |                   |                           |                                         |                      |
|                   | Cost approach                |                   |                           |                                         |                      |
|                   | Scorecard valuation method   |                   |                           |                                         |                      |
|                   |                              |                   |                           | VC method                               |                      |
|                   |                              |                   |                           | Discounted cash flows                   |                      |
|                   |                              |                   |                           |                                         | Market multiples     |

Source: PwC analysis

# VALUATION

## 1. Comparables – Valuation of similar companies at similar point in time

- 
- Industry
  - Geography
  - Stage
  - Sales + Sales Pipeline
  - Roundsize
  - Marketsize

# VALUATION

## 1. Comparables – Typical fixed valuation ranges for a 2-4mio Seed round in Europe

- 
- Medtech seed round: 4-8 million
  - Hardware seed round: 4-12 million
  - Biotech seed round: 5-15 million
  - SaaS seed round\*: 8-20 million

\*Revenues <1 mio CHF ARR

# VALUATION

## 2. Bottom Up (Cost approach) – What would it cost to rebuild the company?

- 
- **How much money was invested?** (equity, grants, etc.)
  - **How much time was invested?**
  - **What assets does the company own?**
    - Technology
    - Partnerships
    - Patents / Licenses
    - Clients / Users
    - Certifications / References
    - Team / Board / Advisors

# VALUATION

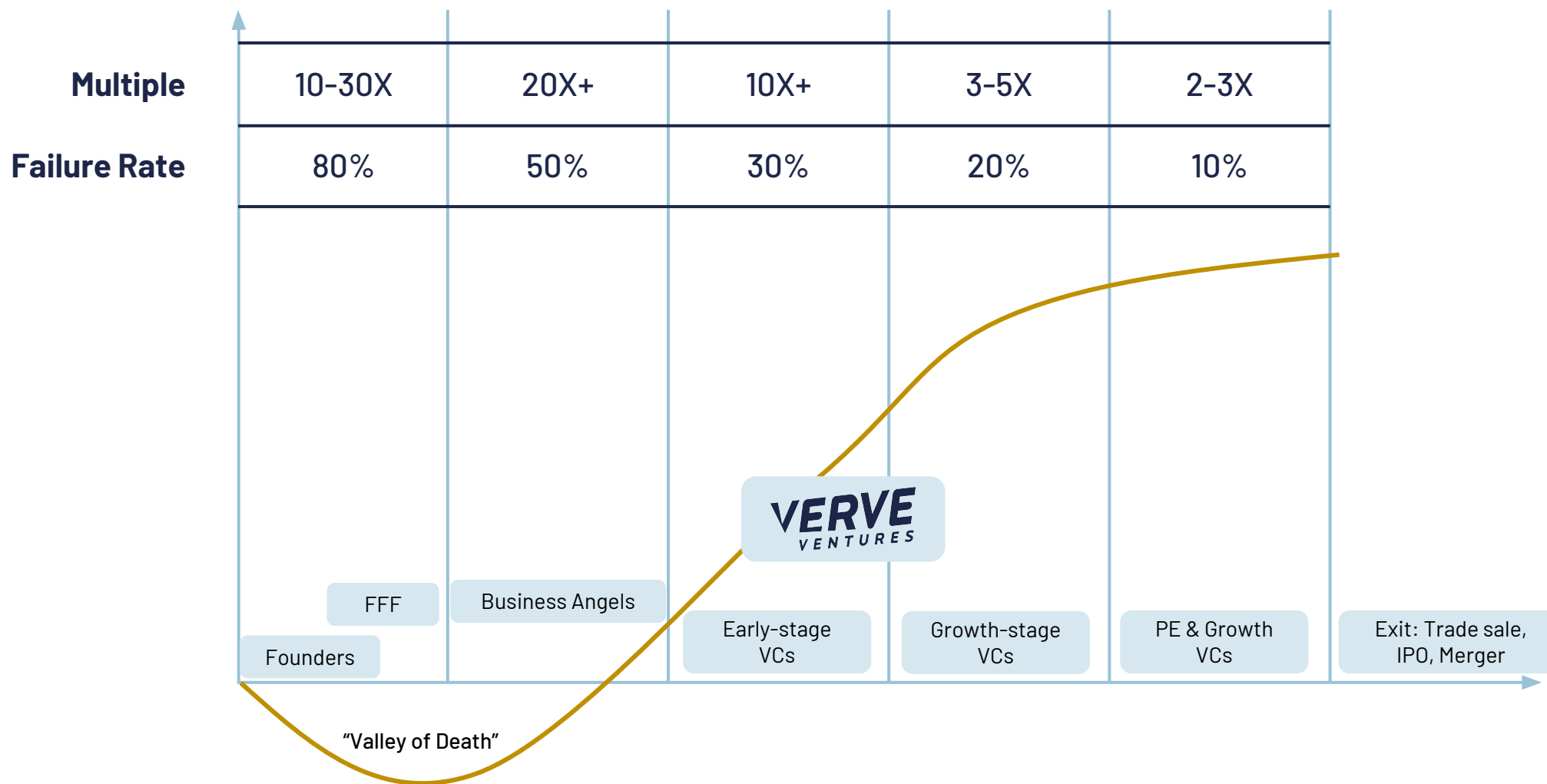
## 3. VC Method (counting backwards) – Reverse engineer an assumed exit value

- 
- This Method reverse engineers the valuation of a business to see if it has enough potential to yield solid returns.
  - The basic principle underlying the model is the estimation of the exit value of the company and its subsequent discount for a high year-on-year return on investment (ROI)

*For the Backward Calculation we assume, a potential investor would value the startup company at 10 mio and would invest 500k for 5% of the shares. This investor expects its exit with a factor of 10 in 5 years. So the 500k at exit should be worth 5 mio. This means, the startup company should have a value of 100 mio in 5 years (5% of 100 mio is 5 mio).*

# VALUATION

## 3. VC Method (counting backwards) - Reverse engineer an assumed exit value



# VALUATION

## 4. Dave Berkus Method (Scorecard approach)

- The checklist/scorecard approach, created by Dave Berkus, has a fixed value amount (e.g. CHF 500k) attached to each of the following elements:

| Characteristic             | Score | Max val. | Value           |
|----------------------------|-------|----------|-----------------|
| Quality of Management Team | 100%  | CHF 0.5m | 100%*0.5m= 500k |
| Sound Idea                 | 80%   | CHF 0.5m | 80%*0.5m= 400k  |
| Product and technology     | 100%  | CHF 0.5m | 100%*0.5m= 500k |
| Strategic Relationships    | 90%   | CHF 0.5m | 90%*0.5m= 450k  |
| Product Rollout or Sales   | 50%   | CHF 0.5m | 50%*0.5m= 250k  |

$\Sigma$  CHF 2'100'000

- This method considers a startup individually, without taking into account market and competitive environment.

# VALUATION

## 5. Discounted Cashflow (DCF) – Discount future cash flows to date

- 
- The discounted cash flow (DCF) is a valuation method that uses future free cash flow projections and discounts them to arrive at a present value estimated for a company.
  - The discount rate expresses the time value of money in DCF and can make the difference between whether an investment project is financially viable or not.

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \frac{CF_n}{(1+r)^n}$$

$CF_1$  = The cash flow for year one

$CF_2$  = The cash flow for year two

$CF_n$  = The cash flow for additional years

$r$  = The discount rate

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|                   | Fixed ranges and comparables |                   |                                |                                         |                      |
|                   | Cost approach                |                   |                                |                                         |                      |
|                   | Scorecard valuation method   |                   |                                |                                         |                      |
|                   |                              |                   | VC method and market multiples |                                         |                      |
|                   |                              |                   | Discounted cash flows          |                                         |                      |
|                   |                              |                   | Market multiples               |                                         |                      |

Source: PwC analysis adapted by Verve

# VALUATION

*Valuations are no science, they're an art*

- 
- No matter what valuation methodology or combination of....

....check the that the assumptions of business and financial plan are reflective of the current and future business

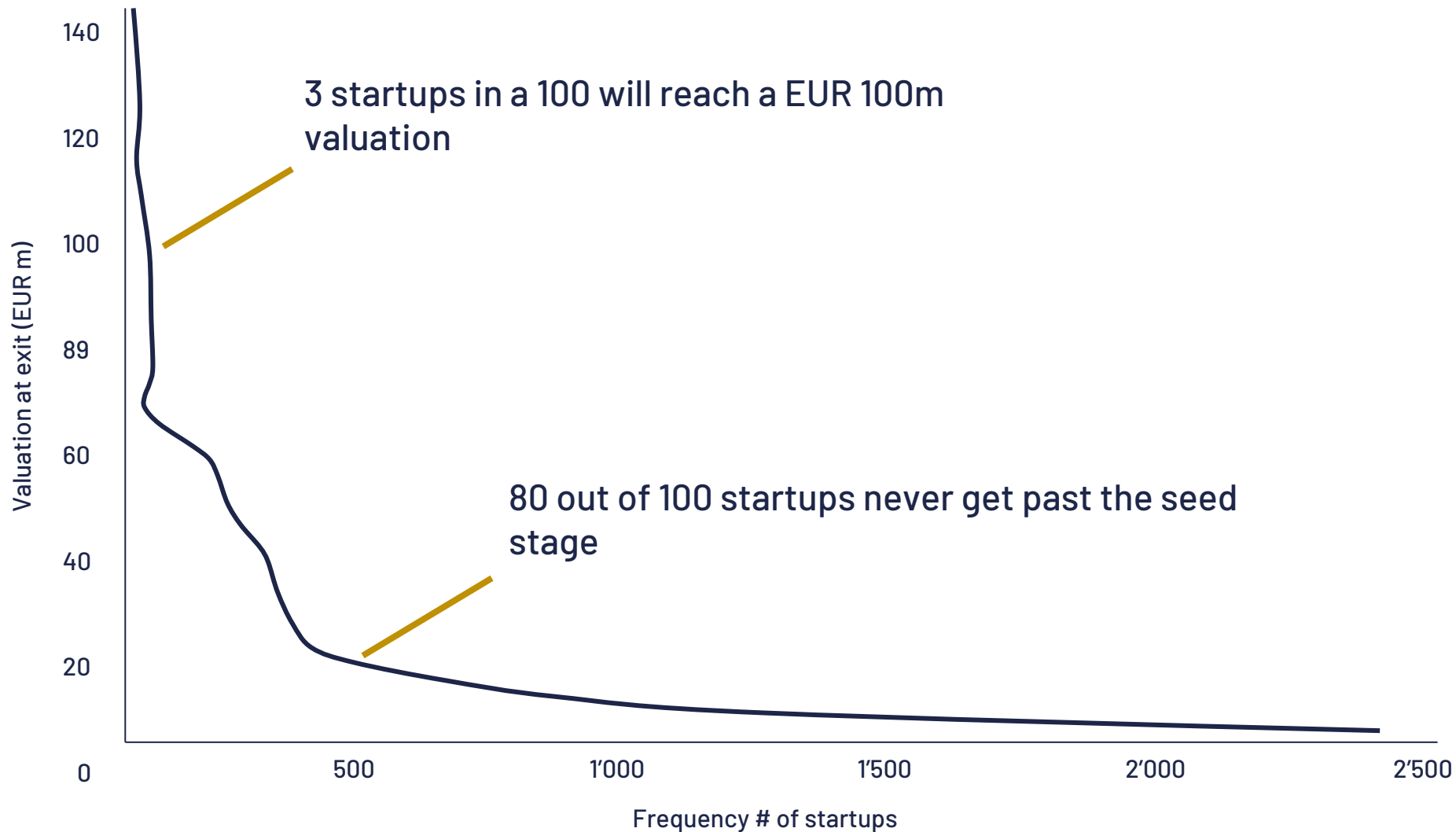
- USP and Defensibility
  - Pricing and Business Model
  - Market potential, dynamics and Pipeline (Customers)
  - Resources to achieve the plan
- 
- Stress-test the financials in scenarios (what-if)
  - Value of a business at the time of the financing round is not equal the "valuation" (many other terms must be considered and valued)

# VALUATION

**Valuations are no science, they're an art**

- 
- Investor perspective?
    - As an early investor, do I make a good return in case of an exit?  
→ *VC Method*
    - Don't underestimate the importance of supply and demand →  
*fixed ranges and comparables quickly explode into hypes*
  - Founder perspective?
    - How strong is the dilution for founders?
  - Common perspective?
    - We are setting the scene for the future (next round, exit, incentives, etc.). Everyone simply wants to get rich!

# THE POWER LAW CURVE OF VENTURE CAPITAL



**VALUATION** IS ONLY ONE  
PIECE OF THE **PUZZLE**

# TERMS

## *The most important terms in a Term Sheet*

- 
- Valuation (Share Price)
  - Investment Amount
  - Shareclass
  - Liquidation Preference
  - Anti Dilution
  - Stock Option Plan (ESOP/PSOP)
  - Drag Along
  - Tag Along
  - Board Composition
  - Information requirements

# **TERMS**

## ***Liquidation preference***



**Order in which shareholders are paid out  
in case of liquidity event**

- **Simple or multiple liquidation preference**
- **Participating & non-participating**
- **Strongly linked to negotiation around valuation**

# **TERMS**

## ***Pro-rata & anti-dilution***

### **Pro-rata**

Right to invest in order to maintain initial level of ownership percentage during later financing rounds

### **Anti-dilution**

Investor protection in case shares are issued at a lower price in future rounds

### **Pay to play**

Incentivizes investors to continue investing even when things are not going well

# TERMS

## *Drag-along, tag-along and right of first refusal*

### **Drag-along**

Provision requiring all shareholders to agree to a future acquisition if specified percentage of shareholders support the acquisition.

### **Tag-along**

Provision allowing minority shareholders to sell their share if a majority shareholder is negotiating a sale for their stake.

### **Right of first refusal**

Provision permitting existing investors in a company to accept or refuse the purchase of equity shares offered by the company.

# TERMS

## *Drag-along, Tag-along & Right of first refusal*

- 
- Oftentimes term sheet mentions that the final contract will include standard clauses
  - Especially important to take a closer look at if strategic investor is also in the round  
-> Avoid ROFR on acquisition

# **CONCLUSION**

- 
- For every round structure and terms are different
  - Best practices vary by sector and stage
  - Terms come as a package
  - Valuation is only one element in the equation
  - Importance of supply & demand

IN A GOOD ROUND,  
**EVERYONE IS HAPPY** IN  
THE END: **FOUNDERS**,  
**NEW** INVESTORS &  
**EXISTING** INVESTORS

**THANK** YOU  
FOR YOUR  
**ATTENTION!**

**VERVE**  
VENTURES