



Developing + Positioning the Business Idea



MGMT 6260
ESHIP FINANCE
FALL 2023

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AGENDA

1

WELCOME! (2 min.)

Questions or comments?

3

FIRST SIMULATION (5 min.)

A quick overview and expectations.

5

EXERCISE No. 1 (20 min.)

Understanding Value - You Need to Pick One

7

EXERCISE No. 2 (20 min.)

Splitting the pie.

2

KEY TERMS OVERVIEW (5 min.)

Investors and data and then some more data.

4

THE BUSINESS LIFE CYCLE (20 min.)

Understanding pre-seed, seed and Series A

6

EQUITY (15 min.)

What you own, what you need to give up.

8

READING AND TUESDAY (5 min.)

Rand Fishkin and Labor Day

COMPANY VALUATION

A LIFE CYCLE IN FOUR PARTS

WHAT DOES A VALUATION TELL YOU?

Classical Definition (Startup): The process of quantifying the worth of a company. During the seed funding round, an investor pours in funds in a startup in exchange for a part of the equity in the company.

FOUR BASIC METHODOLOGIES

- Market Valuation
- Discounted Cash Flow (DCF) Analysis
- Multiples Method
- Comparable Transactions Method

FOUR BASIC METHODOLOGIES

- Market Valuation (SEED or SERIES A)
- Discounted Cash Flow (DCF) Analysis (SERIES B or C)
- Multiples Method (SERIES D or MATURE)
- Comparable Transactions Method (M + A)

MARKET VALUATION

(SEED OR SERIES A)

MARKET VALUATION

(SEED OR SERIES A)

STARTUP EXAMPLE: ENDOSENSE

REQUIRED IRR:	70%
INVESTMENT:	\$5.5 MILLION
TERM:	5 YEARS
YEAR 5 NET INCOME:	\$3.5 MILLION
YEAR 5 PER:	18

INTERNAL RATE OF RETURN

Take the difference between the current value of the investment and the original value, divide it by the original value and multiply the result by 100.

A good IRR is 30 percent.

It's basically saying – this is what I own and you got me to 30 percent of the valuation.

HOW DO WE GET TO THE VALUATION?

A venture capital firm is considering a **\$5.5 million** investment into EndoSense, an affordable at-home saliva testing kit that allows for detection of endometriosis through specific miRNA biomarkers, with no further capital over the next five years.

HOW DO WE GET TO THE VALUATION?

EndoSense is projected to net
\$3.5 million in Year Five, based on its revenue
projections and assumptions and should be comparable
to companies within its sector commanding
price/earnings ratios (PERs) of 18. (This is a benchmark!)

At the end of Year Five, the investor will come calling
and will most likely cash out their stock.

HOW DO WE GET TO THE VALUATION?

Additionally, the venture capital firm requires a
70% projected internal rate of return (IRR)
on a project of this risk.

In sum, the higher the IRR, the riskier the investment.

REQUIRED FUTURE VALUE TO THE VC FIRM

REQUIRED IRR:
INVESTMENT:
TERM:
YEAR 5 NET INCOME:
YEAR 5 PER:

70%
\$5.5 MILLION
5 YEARS
\$3.5 MILLION
18

future value = $(1 + \text{IRR})^{\text{year}}$ x investment

future value = (1.70^5) x investment

future value = 8.5 x \$5.5 million

VC REALIZED INVESTMENT: \$46.75 MILLION

Note on equation: not power, just multiplier.

FUTURE VALUE OF THE COMPANY

REQUIRED IRR:	70%
INVESTMENT:	\$5.5 MILLION
TERM:	5 YEARS
YEAR 5 NET INCOME:	\$3.5 MILLION
YEAR 5 PER:	18

Total terminal value = PER x terminal net income

Investment = 18 x \$3.5 million

COMPANY VALUATION: \$63 MILLION

A COMPARISON TO WEIGH OPTIONS

**VC REALIZED INVESTMENT:
\$46.75 MILLION**

**COMPANY VALUATION:
\$63 MILLION**

EXERCISE NO. 1
UNDERSTANDING VALUE
INVESTMENT: \$4 million

STEPS

Set the IRR.

Find the potential investor realized value.

Find the potential startup value.

Make an investment choice.

EQUITY

EQUITY

The degree of ownership stakeholders have of a company. This typically refers to the value of shares that founders, investors, and employees are issued.

TWO EXAMPLES

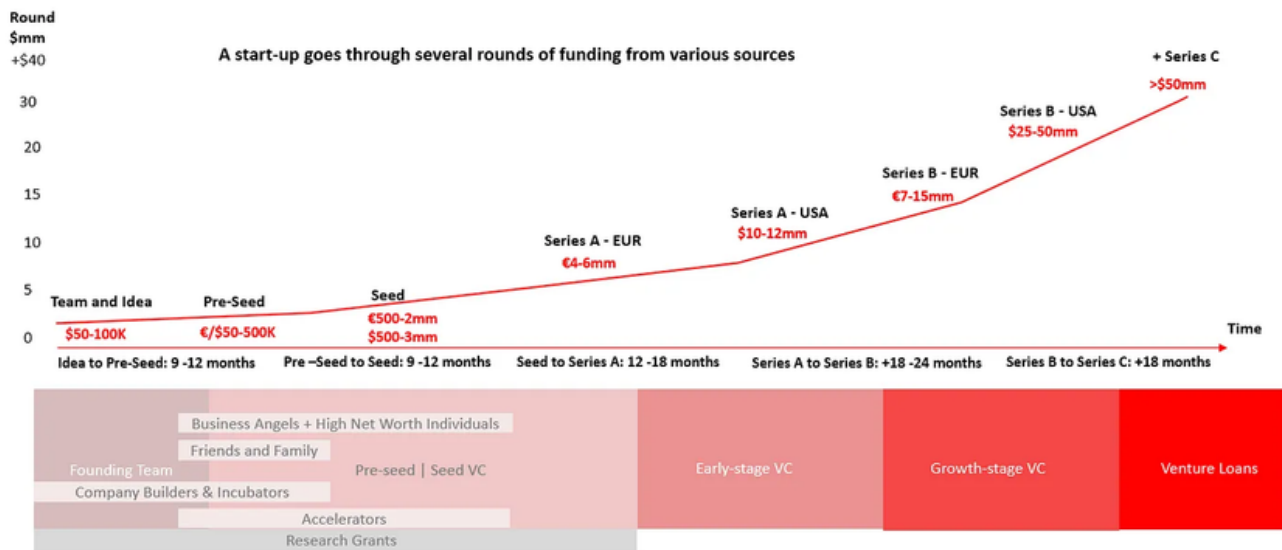
BY FOUNDERS

Shareholders Name	Pre Investment		Post Investment	
	No. of Shares	% of holding	No. of Shares	% of holding
Founder A	5250	50%	5250	37.5%
Founder B	5250	50%	5250	37.5%
Founder C	-	-	3500	25%
Total	10,500	100%	14000	100%

BY ROUNDS

Stage	Investor stake	Founder stake	Allocated to employees
Seed	23%	65%	12%
A	45%	45%	10%
B	60%	35%	5%
C	65%	32%	3%
D	75%	23%	2%
E+	80%	19%	1%

Early-Stage Funding Cycle

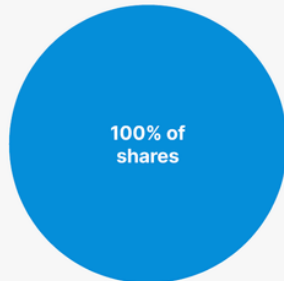


SHARES

Founder equity dilution with *Pre Money Valuation*

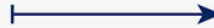
10,000,000 shares

Startup valued at
us\$ 1,000,000 pre-money,
or us\$ 0.10/share



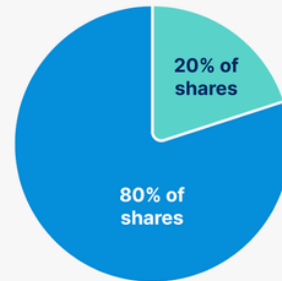
us\$250,000
angel investment

Angels get
2,500,000 shares



● Founders ● Angels

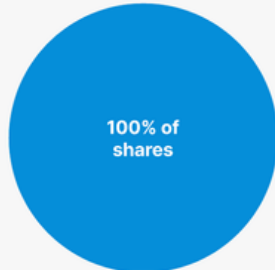
12,500,000 shares



Founder equity dilution with *Post Money Valuation*

10,000,000 shares

Startup valued at
us\$ 750,000 pre-money,
or us\$ 0.075/share



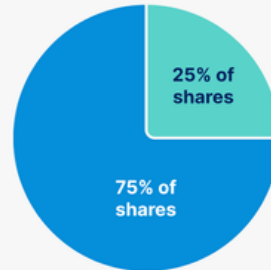
us\$250,000
angel investment

Angels get
3,333,333 shares

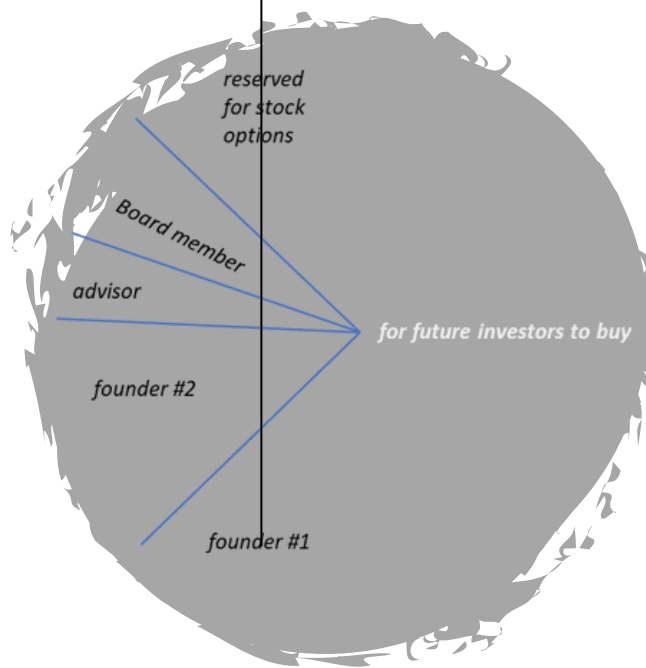


● Founders ● Angels

13,333,333 shares



Shares Issued



Shares authorized

EXERCISE NO. 2

SPLITTING THE PIE

STEPS

Find the share price.
Designate allocation to founders.
Designate allocation to employees.

Find the following:
Pre-Money Shares, Pre-Money Shares Distribution, Post-Money Shares, Post-Money Shares Distribution, New Valuation, New Total Shares

CAVEATS AND RULES OF THUMB

KEY DIFFERENCE

Dilutive funding is also referred to as equity funding.
Non-dilutive funding, does not include selling a portion of ownership for your company.

Loans and grants are examples of this type of funding.

EXPECT

The investors will look to get a $\pm 15\%$ ownership stake, with many accelerators asking between **5 to 10%** of the company and the balance between Friends and Family round and Early-Stage Angels.

TARGET

Big funds typically have target ownerships, and that's why they negotiate **pro-rata rights**. These rights give investors the power to maintain their initial level of ownership during future funding rounds.

(Psst. Your future self will thank you.)

TARGET

Investors will typically ask for an ESOP (Employee Stock Ownership Plan) pool as part of the terms. That's because setting aside more stock options for future employees grants you access to better-skilled C-suite executives.

DIFFERENCE + EXPECTATIONS

A VC firm will look to receive 10%-20%.

A group of angel investors/pre-seed
will look to receive 5-10%.

FINAL RULE OF THUMB

Aim for a dilution of between 15%-20% per round.

THE EMPLOYEES

CONTRACTUAL CLAUSES

2. **Cash Compensation.** The Company will pay you a starting salary at the rate of ¹\$32,472 per year, payable in accordance with the Company's standard payroll schedule. This salary will be subject to adjustment pursuant to the Company's employee compensation policies in effect from time to time. Specifically, once [REDACTED] achieves \$1M of booked annual recurring revenue, the salary compensation will increase to a rate of \$175,000.

**SLIDING
SCALE
(HIGH SALARY,
LOW EQUITY)**

Cash	Equity (Gross \$ Value)	Equity (% Ownership)
\$200,000	\$85,000	0.85%
\$195,000	\$95,000	0.95%
\$190,000	\$105,000	1.05%
\$185,000	\$115,000	1.15%
\$180,000	\$125,000	1.25%
\$175,000	\$135,000	1.35%
\$170,000	\$145,000	1.45%
\$165,000	\$155,000	1.55%
\$160,000	\$165,000	1.65%
\$155,000	\$175,000	1.75%
\$150,000	\$185,000	1.85%
\$145,000	\$195,000	1.95%
\$140,000	\$205,000	2.05%
\$135,000	\$215,000	2.15%
\$130,000	\$225,000	2.25%
\$125,000	\$235,000	2.35%
\$120,000	\$245,000	2.45%
\$115,000	\$255,000	2.55%
\$110,000	\$265,000	2.65%
\$105,000	\$275,000	2.75%
\$100,000	\$285,000	2.85%

← initial offer

**SLIDING
SCALE**
(LOW SALARY,
HIGH EQUITY)



\$150,000	\$185,000	1.85%
\$145,000	\$195,000	1.95%
\$140,000	\$205,000	2.05%
\$135,000	\$215,000	2.15%
\$130,000	\$225,000	2.25%
\$125,000	\$235,000	2.35%
\$120,000	\$245,000	2.45%
\$115,000	\$255,000	2.55%
\$110,000	\$265,000	2.65%
\$105,000	\$275,000	2.75%
\$100,000	\$285,000	2.85%
\$95,000	\$295,000	2.95%
\$90,000	\$305,000	3.05%
\$85,000	\$315,000	3.15%
\$80,000	\$325,000	3.25%
\$75,000	\$335,000	3.35%
\$70,000	\$345,000	3.45%
\$65,000	\$355,000	3.55%
\$60,000	\$365,000	3.65%
\$55,000	\$375,000	3.75%
\$50,000	\$385,000	3.85%
\$45,000	\$395,000	3.95%
\$40,000	\$405,000	4.05%
\$35,000	\$415,000	4.15%

← most equity rich offer

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THE EXIT

Company	Founder	Year	Shares Owned	Shares Outstanding	Percent	IPO Price	Payday
Fastly	Artur Bergman	2019	24,942,428	157,865,413	16%	\$16.00	\$399,078,848
Slack	Cal Henderson	2019	16,604,503	504,144,027	3%	\$38.50	\$639,273,366
CrowdStrike	George Kurtz	2019	19,049,344	182,108,291	10%	\$34.00	\$647,677,696
Livongo	Glen Tullman	2019	9,893,453	94,482,000	10%	\$28.00	\$277,016,684
Health Catalyst	Steven Barlow	2019	2,852,961	56,362,798	5%	\$26.00	\$74,176,986
Health Catalyst	Thomas Burton	2019	2,998,720	56,362,798	5%	\$26.00	\$77,966,720
Ping Identity	Andre Durand	2019	1,301,871	65,069,635	2%	\$15.00	\$19,528,065
DataDog	Olivier Pomel	2019	39,642,354	266,327,196	15%	\$27.00	\$1,070,343,558
DataDog	Alexis Le-Quoc	2019	25,081,164	266,327,196	9%	\$27.00	\$677,191,428
Cloudflare	Matthew Prince	2019	37,716,999	258,343,687	15%	\$15.00	\$565,754,985
Cloudflare	Michelle Zatlyn	2019	14,574,974	258,343,687	6%	\$15.00	\$218,624,610
Sprout Social	Justyn Howard	2019	4,920,657	39,065,870	13%	\$17.00	\$83,651,169
Sprout Social	Aaron Rankin	2019	4,065,678	39,065,870	10%	\$17.00	\$69,116,526
Casper	Philip Krim	2019	2,392,973	31,280,010	8%	\$12.00	\$28,715,676
Casper	Neil Parikh	2019	1,960,255	31,280,010	6%	\$12.00	\$23,523,060
Bill.com	René Lacerte	2019	3,784,687	60,730,863	6%	\$22.00	\$83,263,114
Fiverr	Shai Wininger	2019	1,759,246	25,871,265	7%	\$21.00	\$36,944,166
Fiverr	Micha Kaufman	2019	2,399,778	25,871,265	9%	\$21.00	\$50,395,338
Real Real	Julie Wainwright	2019	6,102,093	67,882,529	9%	\$20.00	\$122,041,860
Revolve	Mike Karanikolas, Mi	2019	39,857,706	65,488,053	61%	\$18.00	\$717,438,708
Peloton	John Foley	2019	15,169,568	236,129,142	6%	\$29.00	\$439,917,472
PagerDuty	Alex Solomon	2019	4,556,689	64,463,266	7%	\$24.00	\$109,360,536
Zoom Video	Eric Yuan	2019	47,265,849	249,364,915	19%	\$36.00	\$1,701,570,564
SurveyMonkey	Ryan Finley	2019	8,984,746	104,023,677	9%	\$12.00	\$107,816,952
Uber	Travis Kalanick	2019	117,505,000	1,362,500,000	9%	\$45.00	\$5,287,725,000
Lyft	Logan Green	2019	8,373,773	253,377,300	3%	\$72.00	\$602,911,656
Lyft	John Zimmer	2019	5,775,118	253,377,300	2%	\$72.00	\$415,808,496
Pinterest	Benjamin Silberman	2019	51,631,716	454,416,781	11%	\$19.00	\$981,002,604
Pinterest	Paul Sciarra	2019	42,407,697	454,416,781	9%	\$19.00	\$805,746,243

Company	Founder	Year	Shares Owned	Shares Outstanding	Percent	IPO Price	Payday
Uber	Travis Kalanick	2019	117,505,000	1,362,500,000	9%	\$45.00	\$5,287,725,000
Lyft	Logan Green	2019	8,373,773	253,377,300	3%	\$72.00	\$602,911,656
Lyft	John Zimmer	2019	5,775,118	253,377,300	2%	\$72.00	\$415,808,496
Pinterest	Benjamin Silbermann	2019	51,631,716	454,416,781	11%	\$19.00	\$981,002,604
Pinterest	Paul Sciarra	2019	42,407,697	454,416,781	9%	\$19.00	\$805,746,243
Pinterest	Evan Sharp	2019	9,500,724	454,416,781	2%	\$19.00	\$180,513,756
EventBrite	Julia Hartz	2019	11,677,776	65,564,076	18%	\$23.00	\$268,588,848
EventBrite	Kevin Hartz	2019	11,677,776	65,564,076	18%	\$23.00	\$268,588,848
Sonos	John MacFarlane	2019	9,246,650	92,750,636	10%	\$15.00	\$138,699,750
Zscaler	Jay Chaudry	2018	26,848,704	105,331,507	25%	\$16.00	\$429,579,264
Spotify	Daniel Elk	2018	49,594,360	178,112,840	28%	\$132.00	\$6,546,455,520
Spotify	Martin Lorentzon	2018	23,612,720	178,112,840	13%	\$132.00	\$3,116,879,040
Docusign	Thomas Gonser	2018	2,169,229	156,808,569	1%	\$29.00	\$62,907,641
SmartSheet	Brent Frei	2018	7,919,560	89,490,264	9%	\$18.40	\$145,719,904
Zuora	Tien Tzuo	2018	9,643,636	92,508,222	10%	\$14.00	\$135,010,904
					Median	9%	\$268,588,848
					Average	11%	\$708,372,450