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Accelerating Business Success

How to Value “Priceless”

VALUATIONS of
INTELLECTUAL PROPERTY,
BUSINESS START-UPS
and who is INVESTING

CHRIS DROUSSIOTIS
SENIOR MANAGING DIRECTOR



Speaker's Biography



Chris Droussiotis
Senior Managing Partner
Kinisis Venture Limited

Training and expertise is in the area of Investment Banking. Possessing over 30 years of experience by working for numerous corporations in various executive management positions at Bank of America Merrill Lynch, CIBC Oppenheimer, Mizuho Financial Group, Bank of Tokyo-Mitsubishi Trust UFJ, Sumitomo Mitsui Banking Corporation.

Former Managing Director, General Manager and the Head of the Leverage Finance, Private Equity Sponsor Group & Structured Finance Department at Sumitomo Mitsui Banking Corporation (SMBC) managing an investment portfolio of over \$20 billion

On April 2018, left SMBC and join Kinisis Ventures Limited (KV), as a Senior Managing Partner. At KV - responsible with the financial analysis and valuation of start-ups. **KV was established in 2018 to invest in Cypriot Companies and help them enter the US Market. Since 2018 we invested in 9 companies (CleanTech, BioTech, SaaS, VR/MR, EdTech, FashionTech) and raised a couple of funds (F&F SPV and RAIF CySEC Startup Fund I). We are in the process of raising Fund II in the US)**

Adjunct Finance Professor for the last 20 years teaching at various college and universities including at Columbia University, Fordham University, Baruch College and Seton Hall University.

Published three books ("**Credit Analyst's Survival Manual**", "**The Analytical Approach to Finance, Investments and Credit**" and "**Credit Risk Management and Analysis**")

Written various articles for start-up companies ("**How to Value Priceless**", "**Use of Blockchain for non-financial applications**", "**Investing in Cyprus Start-ups from US Investor Prospective**", "**IP and Startup Valuations**")



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Accelerating Business Success

10 STAGES OF A START-UP



#1 YOU GET THE GREAT IDEA



Source of Video:
Castle Placement

AGENDA

1. Personal Notes
2. Business Valuations 101
3. Valuation – Lucky or Good or Both?
4. Basic Cash Flow Valuation of an established company – Case Study I – **Alexandria Hotel**
5. IP and Start-up Valuation Specific Methods – Connecting the story to Numbers
6. Probability Theory 101
7. Case Study II - **SaaS Fintech Start-Up Company**
8. Case Study III – Summary – **Pharma Startup – Phase I clinical studies**
9. KV's 30,000 feet Valuation Approach – Helping a start-up company that owns IP with their initial valuation
10. Review and Q&A

PERSONAL NOTE

THIS IS WHAT I LEARNED OVER 34 YEARS VALUING COMPANIES

- *Valuing a company is highly subjective*
- *There is a lot of interpretation of the data used for the valuation methods*
- *Although there are several methods to value a company, the valuation is both art and science.*
- *There is some judgement that goes in choosing the data*
- *All the successful start-ups started with convincing storytelling. A good story is simple, credible and persuasive.*
- *Naturally, the buyer has a different perspective than the seller and therefore the valuation assessment could be derived differently*
- *Final Thought: We can spend hours and days analyzing the value of the company but at the end of the day **the value of anything is what someone is willing to pay.***

kv

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Accelerating Business Success

Anyone knows
this guy?



Anyone knows
this guy?

Laszlo Hanyecz
Crypto Developer /Code
writer / Early bitcoin
miner



May 22, 2010,
he bought 2
Pizza pies with
10,000 bitcoins

May 22, 2010: 1 Bitcoin=\$0.004
2 pizzas cost \$40

May 22, 2024: 1 Bitcoin = \$70,000
2 pizzas cost **\$700,000,000**



BUSINESS VALUATIONS 101

- **Established Companies (Public and Private)**

- Method #1 – Using the stock price (public) – MARKET METHOD
- Method #2 – Intrinsic Value (using CAPM as the expected return) – MARKET METHOD
- Method #3 – Dividend Discount Model (DDM) (public) – MARKET METHOD
- Method #4 – Trading EBITDA Comparable (Public and Private) - MARKET METHOD
- Method #5 – Acquisition EBITDA Comparable (Public and Private) – MARKET METHOD
- Method #6 – Discount Cash Flow (DCF) (Public and Private) – INCOME METHOD
- Method #7 – Leveraged Buyout (LBO) (Public and Private) – INCOME METHOD

- **Newly Established Companies/Intellectual Property (Private)**

- Method #8 – Cost Replacement – Seed & Angel Investor – COST BASIS METHOD
- Method #9 – Option Pricing Method – Angel Investor – OPTION/PROBABILITY METHOD
- Methods #4-7 (Adjusted) for Market and Income methods based on VC and PE Equity – MARKET/INCOME METHODS

- **Other Valuation Techniques for Intangibles (Trademarks, Brands, Goodwill) and Distress Companies**

Categories

MARKET METHOD

INCOME METHOD

COST BASIS METHOD

OPTION / PROBABILITY METHOD



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Valuation 101 – introducing DCF Methodology

To value the company using the DCF method the analyst needs to derive the following four items:

- Setting up a stream of cash flows
- Identifying an exit year
- Calculating the value at exit year (terminal value)
- Using the appropriate discount rate to value the present value of the firm

Valuation 101 – introducing DCF Methodology

TRANSACTION:

KW Ltd, a Private Equity firm, is interested in buying Alexandria Hotel, a 300-room hotel in South Beach, Miami, Florida. The asking price is \$120 million. After few due diligence visits, KW Ltd will need \$15 million of renovation to bring the hotel up to today's modern standards. The purchase of the hotel, the renovation and transaction fees (calculated as 3.0% of total debt raised) will be financed by combination of traditional bank loan (\$60 million), private mezzanine note (\$40 million), and the balance with equity provide by KW Ltd.'s Fund II. The Company reported \$40 million of Revenues and \$20 million of EBITDA (Year 0). For KW Ltd to proceed they need to value the cash flows assuming a minimum return of 25% per year.

BANK LOAN	
Amount:	60 million
Interest	SOFR + 4.0% (Assume LIBOR is 1.0% increasing 0.5% year 2, 0.5% year 3 and 1.0% year 4)
Term	7 years
Scheduled Principal Payments	Yr 1: \$3mm, Yr 2: \$4mm, Yr3: \$5mm, Yr4: \$5mm. Yr5: \$6mm, Yr 6: \$7mm. Yr 7: The balance (balloon payment)

MEZZANINE NOTE	
Amount:	40 million
Interest	FIXED 8.0%
Term	8 years
Scheduled Principal Payments	Yr 1- Yr 9= \$0, Yr 10: the balance (100% redemption)

OPERATING ASSUMPTIONS (Yr 1-7)	
Revenue	5% growth
Cost of Revenue	35% of Revenues
Operating Expenses	15% of Revenue
Depreciation	3.0% of Revenues
Amort of Fees	Use 7 years
Tax Rate	22.0%
Working Capital Exp	1.0% of Revenues
Capex	3.0% of Revenue

Valuation 101 – introducing DCF Methodology

ALEXANDRIA HOTEL PROPERTY

DCF & LBO Equity Analysis using CAPM

TRANSACTION SOURCES & USES

	Years (Maturity)	Amount \$	% Capital	Interest / Expected Return	Interest / Exp. Return (After Tax)	WACC (After Tax)	EBITDA Multiple (x)
Sources:							
Bank Loan	7	60,000,000	43.5%	6.126%	4.778%	2.08%	3.0x
Mezzanine Note	10	40,000,000	29.0%	8.000%	6.240%	1.81%	2.0x
Total Debt		100,000,000	72.5%			3.89%	5.0x
Equity		38,000,000	27.5%	25.00%	25.00%	6.88%	1.9x
Total Sources		138,000,000	100.0%			10.77%	6.9x
Uses:							
Purchase Price of Property	6.0x	120,000,000	87.0%			Tax Rate= 22.00%	
Property Renovation		15,000,000	10.9%				
Transaction Fees & Expenses (based on Total Debt)	3.0%	3,000,000	2.2%			ZERO YEAR'S EBITDA=	20,000,000
Total Uses	6.9x	138,000,000	100.0%				

Valuation 101 – introducing DCF Methodology

CASH FLOW & EQUITY RETURN ANALYSIS										
Company Projections		Operating Assumptions	Entry Year	Year 1	Year 2	Year 3	Year 4	Year 5	Exit Year	Year 7
			0	1	2	3	4	5	6	7
Revenues	5.00%	growth rate	40,000,000	42,000,000	44,100,000	46,305,000	48,620,250	51,051,263	53,603,826	56,284,017
Cost of Revenues	35.0%	% of Revenue		(14,700,000)	(15,435,000)	(16,206,750)	(17,017,088)	(17,867,942)	(18,761,339)	(19,699,406)
Operating Costs	15.0%	% of Revenue		(6,300,000)	(6,615,000)	(6,945,750)	(7,293,038)	(7,657,689)	(8,040,574)	(8,442,603)
EBITDA			20,000,000	21,000,000	22,050,000	23,152,500	24,310,125	25,525,631	26,801,913	28,142,008
Less Depreciation	3.00%	% of Revenue		(1,260,000)	(1,323,000)	(1,389,150)	(1,458,608)	(1,531,538)	(1,608,115)	(1,688,521)
Less Amortization of Transaction Fees		7 years		(428,571)	(428,571)	(428,571)	(428,571)	(428,571)	(857,143)	
EBIT				19,311,429	20,298,429	21,334,779	22,422,946	23,565,522	24,336,655	26,453,488
Less Interest (Unlevered for DCF Analysis)				-	-	-	-	-	-	-
EBT				19,311,429	20,298,429	21,334,779	22,422,946	23,565,522	24,336,655	26,453,488
Less Taxes (adj out Interest Exp)	22.0%	% of EBT		(4,248,514)	(4,465,654)	(4,693,651)	(4,933,048)	(5,184,415)	(5,354,064)	(5,819,767)
Plus Depreciation & Amortization of Transaction Fees				1,688,571	1,751,571	1,817,721	1,887,179	1,960,109	2,465,258	1,688,521
Less Working Capital Expense	1.00%	% of Revenue		(420,000)	(441,000)	(463,050)	(486,203)	(510,513)	(536,038)	(562,840)
Less Capex	3.00%	% of Revenue		(1,260,000)	(1,323,000)	(1,389,150)	(1,458,608)	(1,531,538)	(1,608,115)	(1,688,521)
Cash Flow Before Financing (CFBF) (unlevered)				15,071,486	15,820,346	16,606,649	17,432,267	18,299,166	19,303,696	20,070,880
Less Financing (P + I)				(9,200,000)	(10,335,000)	(11,380,000)	(11,560,000)	(12,210,000)	(12,790,000)	(35,300,000)
Equity Cash Flows (Levered)				5,871,486	5,485,346	5,226,649	5,872,267	6,089,166	6,513,696	(15,229,120)
EQUITY VALUATION & RETURN ANALYSIS										
			Entry Year	Year 1	Year 2	Year 3	Year 4	Year 5	Exit Year	Year 7
			0	1	2	3	4	5	6	7
Terminal Value (EV at Exit Year)										
EV using EBITDA Multiple Method (initial purch. multiple)	Growth	6.9x					EBITDA x EBITDA Multiple =		184,933,198	
EV using Perpetuity Method (using WACC + growth)	0.00%	10.77%					Next Year's CFBF / (WACC - Growth Rate) =		186,354,767	
Average Terminal Value							Average Terminal Value =		185,643,983	
Debt Outstanding									70,000,000	
Equity Value (Terminal Value - Debt)									115,643,983	
Equity Cash Flows			(38,000,000)	5,871,486	5,485,346	5,226,649	5,872,267	6,089,166	122,157,679	
PV Table (Expected Equity Rate)			Using Discount Rate=	25.00%	4,697,189	3,510,621	2,676,044	2,405,281	1,995,298	32,022,902
Sum of PV (Value of the Equity)			PV =	47,307,335						
Initial Investment				(38,000,000)						
Net Present Value (NPV)				NPV=	9,307,335					
Equity Return				IRR =	30.82%					

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IP AND START-UPS VALUATION METHODS

METHOD	DESCRIPTION	PROS	CONS	WHEN USED
Market	Based on comparable market transactions of intangibles	Market driven – based on what someone is willing to pay (reflecting market prices based on demand and supply equilibrium)	Comparable transactions are sometimes not available	Most desirable but rarely used since a lot of the intangible products (IP) are new and unique
Income	Based on future cash flows (Royalties, Licensing or other Incremental profits)	Top-down approach, based on expected economic returns on initial cost	Input information can be very challenging since the info deals with future projections	Most used – building future benefits helps pricing the royalties, licensing fees based on return expectation
Cost/Replacement	Based on estimated cost of replacing or reproducing the intangible	Easier to calculate – calculate labor, materials and overhead (LMO)	The cost representing the book value does not always represent the market value	Not very common. Used as the basis before spending the money for the specific intangible.
Option Pricing	Based on option pricing models such as Black-Scholes measuring the current “out-of-money” to future “in-the-money” values	Using probability of success and sensitize to get a range.	Input variables to determine future value can be very challenging	Used when there is an obvious cash outflow before the cash inflow kicks in to value the specific intangible asset

Venture Capital Investing

- Venture capital is a form of private equity that investors provide to startup companies (Phase I, II, III), as well as late-stage businesses that have long-term growth potential.
 - Phase I – Discovery & Proof of Concept (**Research Stage**)
 - Phase II – Testing & Third-Party verification (Certifications /Pilot Program)
 - Phase III – Pilot & Commercialization (New Customers/Revenue – **Start of Commercializing the product**)
- It does not always take a monetary form it can also be provided in the form of technical or managerial expertise.
- Venture Capital (both early and late stage) investing in the U.S. reached \$136.5 billion in 2019, second only to 2018's \$140 billion raised. Through September 2020 saw \$110 billion raised.
- The impact of the pandemic on the VC market has been limited. It has shifted and accelerated given the importance of digital business models and solutions, such as B2B solutions and edtech.

Valuing Intellectual Property and Star-ups

Converting the Story to Numbers – First Step

- **Basic Questions an Investor will ask for valuing IP**

- What's the market size? **Determining the Revenue opportunity**
- What are the competitive advantages? **Determining probability of success (achieving the revenue and acceleration (growth))**
- How much will it cost to implement? **Cash Needs for Phase I, II and III**
- How long before competitors crowd in? **Determining the length of the acceleration until maturity**

- **Factoring the Risks:**

- How much would it cost to develop this idea yourself – **Look for funding support (Government agency and FF) – bootstrap approach**
- How long might it take to get off the ground **Determining the upfront cost and length (“death valley”) of Phase I and II**
- Any unexpected challenges or problems that may arise **Determining probability of success (on achieving the revenue and acceleration (growth))**

Probability Theory 101

THREE FACTORS THAT NEEDED TO MEASURE BEFORE AN INVESTOR WILL INVEST:

- Measure Expected Return
- Quantify Risk
- Set Time (Exit)



Game: Tossing a Coin to win \$6 (Payoff):

- Measure Expected Return: **\$6**
- Quantify Risk: **50/50 win/loss**
- Time: **in 2 seconds**
- How much to Invest?
 - \$3 - mathematically using probability theory is $(50\% \times \$6) + (50\% \times \$0) = \$3 + 0 = \3



Game: Tossing one dice to win \$6 (Payoff):

- Measure Expected Return: **\$6**
- Quantify Risk: **1/6 to win, 5/6 to lose**
- Time: **in 2 seconds**
- How much to Invest?
 - \$1 - mathematically using probability theory is $(1/6 \times \$6) + (5/6 \times \$0) = \$1 + 0 = \1

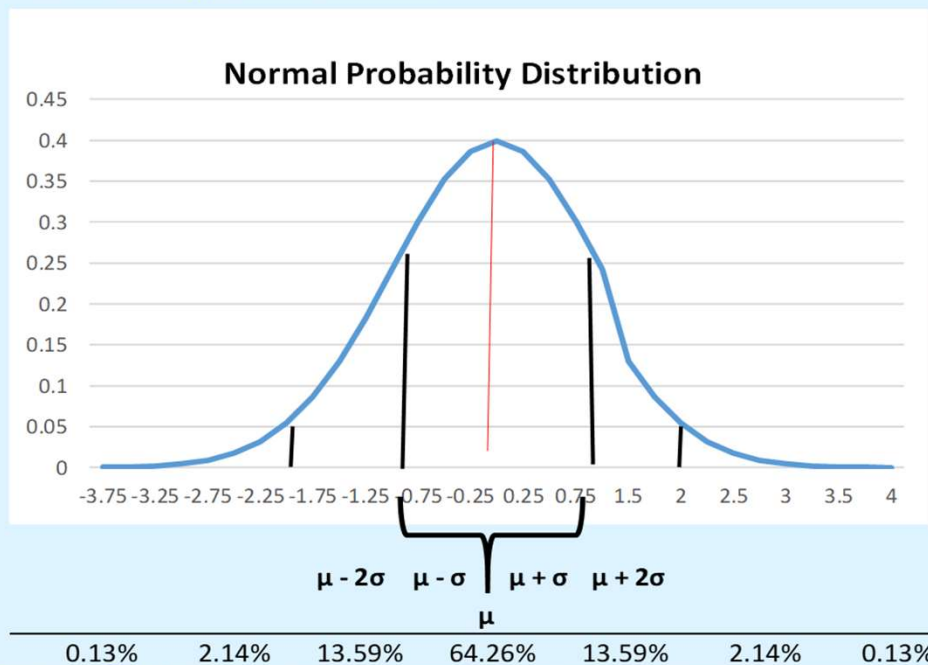


Using Black-Scholes Option Pricing Model as the probability methodology

$$C = Se^{-\delta t} [N(d1)] - Xe^{-it} N(d1)$$

$$d1 = \frac{\ln\left(\frac{S}{X}\right) + \left(i - \delta + \frac{\sigma^2}{2}\right) t}{\sigma\sqrt{t}}$$

$$d2 = d1 - \sigma\sqrt{t}$$



NORMAL DISTRIBUTION TABLE									
d	N(d)	d	N(d)	d	N(d)	d	N(d)	d	N(d)
3.200	0.999	1.900	0.971	0.600	0.726	-0.700	0.242	-2.000	0.023
3.100	0.999	1.800	0.964	0.500	0.691	-0.800	0.212	-2.100	0.018
3.000	0.999	1.700	0.955	0.400	0.655	-0.900	0.184	-2.200	0.014
2.900	0.998	1.600	0.945	0.300	0.618	-1.000	0.159	-2.300	0.011
2.800	0.997	1.500	0.933	0.200	0.579	-1.100	0.136	-2.400	0.008
2.700	0.997	1.400	0.919	0.100	0.540	-1.200	0.115	-2.500	0.006
2.600	0.995	1.300	0.903	0.000	0.500	-1.300	0.097	-2.600	0.005
2.500	0.994	1.200	0.885	-0.100	0.460	-1.400	0.081	-2.700	0.003
2.400	0.992	1.100	0.864	-0.200	0.421	-1.500	0.067	-2.800	0.003
2.300	0.989	1.000	0.841	-0.300	0.382	-1.600	0.055	-2.900	0.002
2.200	0.986	0.900	0.816	-0.400	0.345	-1.700	0.045	-3.000	0.001
2.100	0.982	0.800	0.788	-0.500	0.309	-1.800	0.036	-3.100	0.001
2.000	0.977	0.700	0.758	-0.600	0.274	-1.900	0.029	-3.200	0.001

Using Black-Scholes Option Pricing Methodology as a Measurement of IP Valuation 3 Questions

- Is there a real option embedded in a decision or an asset? **YES**
 - Call price as the investment (Premium), Strike Price (X) as the Cost and Value of the firm as the underline Asset (S)
- Does that real option have significant economic value? **YES**
 - No restriction on competition / exclusivity and the time until no value added
- Can that value be estimated using option pricing model? **YES**
 - Leading to $S - X > \text{Minimum Return Expectation}$

Point worth noting why Options vs DCF:

- Delay/ Negative NPV constant pivoting

Case Study

Using both Income Method (DCF Analysis) and Option Pricing methods for valuating IP

- The Value of a firm's new innovative products that will be put to commercialization can be derived using the option pricing model
- Value of the Firm = Value of products after it is commercialized or licensed (DCF Analysis)
- Measuring the efficiency of the firm for converting its Development Cost into a commercial product and revenue.

Case Study I

Using both Income Method (DCF Analysis) and Option Pricing methods for valuating IP

- **The Company:** FinTech SaaS based start-up company that developed an innovative transaction platform that allows small businesses to manage with ease and security (using the facial recognition and other security verification software) on daily transactions between their vendors, customers and banks .
- **The Opportunity:** Estimated total subscription market opportunity of 10 million subscribers. Assuming initial market penetration of 0.10% (10,000 subscribers) growing to 400,000 (4.0% market penetration) by the 3rd year. These subscribers are willing to sign up and pay \$4.0 per month. The ongoing cost of revenue is estimated at \$2 per subscriber and operating expenses, including marketing, is estimated at \$1 per subscriber.



Case Study I

Using both Income Method (DCF Analysis) and Option Pricing methods for valuating IP

- Revenue Growth and Ongoing Expense Assumptions:

Assumptions	Years 1-10
Monthly Subscription Price increase per year	0%
Number of Subscribers increase per year	2.0%
Monthly Cost of revenue per subscriber increase per year	2.0%
Monthly Operating Cost per subscriber increase per year	2.0%
No Tax Assumed	
IP Terminal Value (year 10) – Multiple of EBIT (x)	6x
IP Expected Return	25%

Case Study I

Using both Income Method (DCF Analysis) and Option Pricing methods for valuating IP

- **IP Assumptions:** The present value of the development cost is initial estimated \$10 per subscription (cost per customer acquisition). The firm has the IP patent to exploit for the next 10 years. The 10-year riskless rate is 3.0%, and the variance is 0.10 based on stock variance of similar SaaS Fintech companies' stock price.

Case Study II

SECOND STEP: Identifying the Assumptions for applying Option Pricing method

ASSUMPTIONS		BLACK-SCHOLES OPTION PRICING ASSUMPTIONS	
Market Size =	10,000,000 subscribers	Standard Deviation (σ) =	31.62%
Target Market Share (3year) =	4.0%	Expiration (in years) (T) =	8 Years
Total Subscriptions (3-year Expenditure) =	400,000 subscribers	Risk-Free Rate (Annual) (i) =	3% 10 year Treasury
Monthly Subscription =	\$4.00 per month per subscriber	Stock Price (S) =	24,344,608 Enterprise Value
Initial Acquisition Cost per Customer =	\$10.00 per subscriber	Exercise Price (X) =	4,000,000 Cost of Acquisition (3 years)
IP Patent life =	10 years	Dividend Yield (annual) (δ) =	20% Phase III years / IP Life
Cost of Delay + Product Replacement =	20% 1/5 years		
Risk Free Rate =	3%		
Variance =	10.00%		
Probability of Success =	20.24%		

Case Study II

OUTPUT: Using Option Pricing method

<u>USING BLACK-SCHOLES OPTION MODEL</u>			
INPUT		OUTPUT	
Standard Deviation (σ) =	31.62%	d1 =	0.9459
Expiration (in years) (T) =	8	d2 =	0.0514
Risk-Free Rate (Annual) (i) =	3%	N(d1) =	0.8279
Stock Price (S) =	24,344,608	N(d2) =	0.5205
Exercise Price (X) =	4,000,000		
Dividend Yield (annual) (δ) =	20%	Value=	2,431,366

KV Approach: Why do Business Start-up need Financial Analysis?

- **Step 1:** Determine the cash needs (building the sources and uses) for Phases I,II,III
- **Step 2:** Determine the valuation (Cost basis, options, market and income on many exit opportunity scenarios)
- **Step 3:** Used as a tool to sensitize (pivot, probability of success, cash needs)

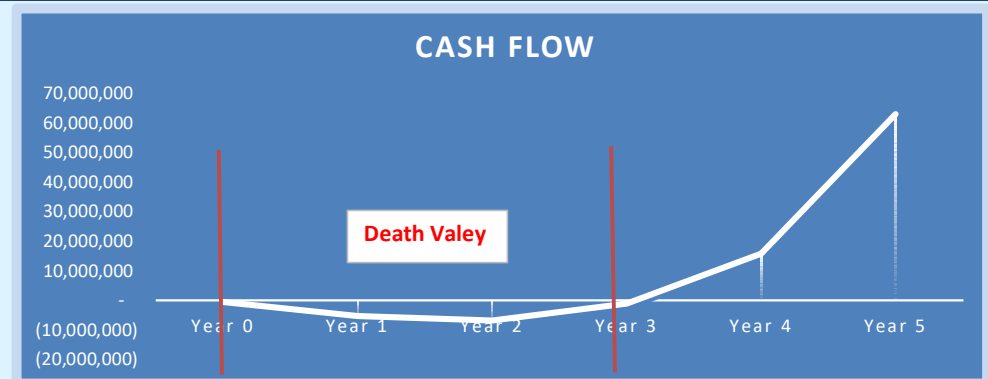
Cost Basis Valuation – Building Transaction Sources & Uses

Project Z-Solar

Scenario Valuation Analysis

2020-06-04

Source of Capital (€)	Phase I	Phase II	Phase III
Government Grands	350,000	150,000	-
Equity Investment		134,000	6,126,000
Total Sources of Capital	350,000	284,000	6,126,000
Uses of Capital	Phase I	Phase II	Phase III
Equipment Build & Installation	162,000		
Equipment Testing Equip.	150,000		
Equipment Testing and ISO		240,000	
Labor	35,000	35,000	140,000
Warehouse Rental	9,000	9,000	36,000
Pilot Tests & Fuel	45,000		
Cash Reserve / Working Capital			5,950,000
Total Use of Capital	401,000	284,000	6,126,000
Total Use of Capital Commulative	401,000	685,000	6,811,000



	Historical	
	Year -1	Year 0
REVENUES		
Cost of Revenue & Oper. Expenses		(328,000)
EBITDA		(328,000)
Less Capex		(357,000)
Less Working Capital		
Cash Flow from Operations and after Capex and WC		(685,000)
Less Cash Reserve		
Cash Needs		(685,000)
Cash Needs (Cumulative)		(685,000)

Projected					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-	1,800,000	18,030,000	54,330,000	109,230,000	183,030,000
(4,800,000)	(2,976,000)	(8,667,000)	(30,095,400)	(50,666,363)	(84,495,091)
(4,800,000)	(1,176,000)	9,363,000	24,234,600	58,563,637	98,534,909
(60,000)	(90,000)	(901,500)	(2,716,500)	(5,461,500)	(9,151,500)
		(2,975,410)	(4,500,000)	(6,049,180)	(15,000,000)
(4,860,000)	(1,266,000)	5,486,090	17,018,100	47,052,957	74,383,409
(4,860,000)	(1,266,000)	5,486,090	17,018,100	47,052,957	74,383,409
(5,545,000)	(6,811,000)	(1,324,910)	15,693,190	62,746,147	137,129,556

Private Equity (PE) Financing Level

Cost Basis, Option Pricing and Income Methodology

PRIVATE EQUITY LEVEL								
SIX YEAR PRODUCT COMMERCIALIZATION - CASH FLOWS BASED ON PROJECTIONS								
	Year -1	Year 0	Year 1	Year 2	Year 3	Year 4	Exit Year	
							Year 5	
							Year 6	
Units Equipment Sold			0	1	10	30	60	100
Revenues			-	1,800,000	18,030,000	54,330,000	109,230,000	183,030,000
COST OF SALES (excl. Deprec.)			-	795,000	7,950,000	23,850,000	47,950,221	80,347,239
Research & Development			4,584,000	1,935,000	225,000	828,724	1,666,142	2,791,852
Operating Expenses			216,000	246,000	492,000	684,000	1,050,000	1,356,000
EBITDA			(4,800,000)	(1,176,000)	9,363,000	28,967,276	58,563,637	98,534,909
Less Capex			(60,000)	(90,000)	(901,500)	(2,716,500)	(5,461,500)	(9,151,500)
Less Working Capital			-	-	(2,975,410)	(4,500,000)	(6,049,180)	(15,000,000)
Less Cash Taxes			-	-	-	-	-	-
Less Cash Interest			-	-	-	-	-	-
Free Cash Flow			(4,860,000)	(1,266,000)	5,486,090	21,750,776	47,052,957	74,383,409
Terminal Value using Cap Rate		10.0%					470,529,567	
Terminal Value using EBITDA - Technology levels		10.0x					585,636,370	
Average Terminal Value							528,082,969	
Equity Cash Flow		Exp. IRR (PE Level)	(4,860,000)	(1,266,000)	5,486,090	21,750,776	575,135,925	
Present Value OF Cash Flows		25%	(3,888,000)	(810,240)	2,808,878	8,909,118	188,460,540	
Present Value of Enterprise Value								195,480,296

REVIEW:

- Think from the VC and PE point of view: They look at the following 3 factors before they invest
 - Measure Expected Return
 - Quantify Risk
 - Set Time (Exit)
- Convert your story to value
- Basic Questions a Buyer will ask for valuing IP
 - What's the market size? **Determining the Revenue opportunity**
 - What are the competitive advantages? **Determining probability of success (achieving the revenue and acceleration (growth))**
 - How much will it cost to implement? **Cash Needs for Phase I, II and III**
 - How long before competitors crowd in? **Determining the length of the acceleration until maturity**
- Factoring the Risks:
 - How much would it cost to develop this idea yourself – **Look for funding support (Government agency and FF) – bootstrap approach**
 - How long might it take to get off the ground **Determining the upfront cost and length ("death valley") of Phase I and II**
 - Any unexpected challenges or problems that may arise **Determining probability of success (on achieving the revenue and acceleration (growth))**



FACTORS THAT START-UPS SUCCEED (WHAT MATTER THE MOST FOR START-UP according to Bill Gross)



IDEA



MANAGEMENT/TEAM



BUSINESS MODEL

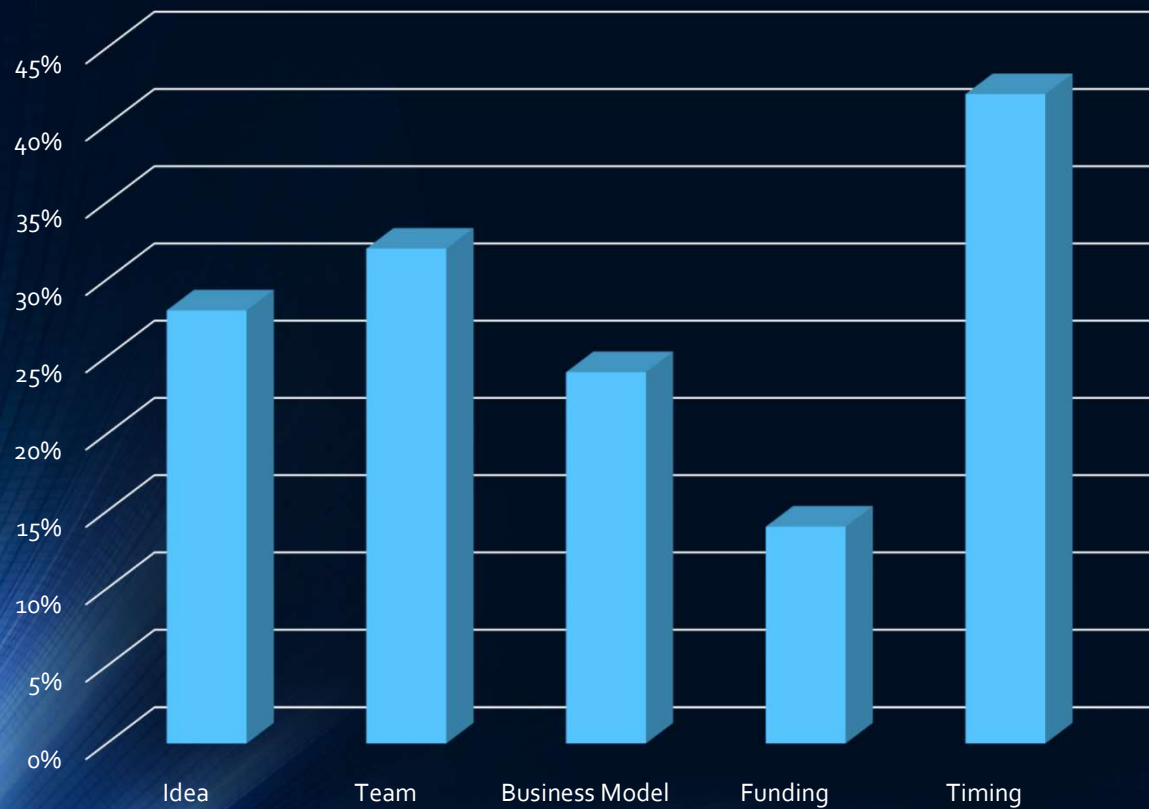


FUNDING



TIMING

Top 5 Factors in Success Across More than 200 Companies



FACTORS
THAT
START-UPS
SUCCEED