



DTU Ph.D. 2012 e'ship class
3. Lecture B., Tuesday 24 April 2012

Financing Technology Ventures

14:20 – 15:20 Financing JH

15:30 – 16:20 SEED Capital Jakob Steen Jensen

¹ DTU Management Engineering,
Technical University of Denmark



FINANCING Technology Ventures

Agenda

- ***Capital: for what ?***
- ***Capital: from where?***
- ***Capital types related to Business Development***
- ***Investor types***
- ***The Investor's Quality Criteria***
- ***Evaluation of Companies***
- ***Example***

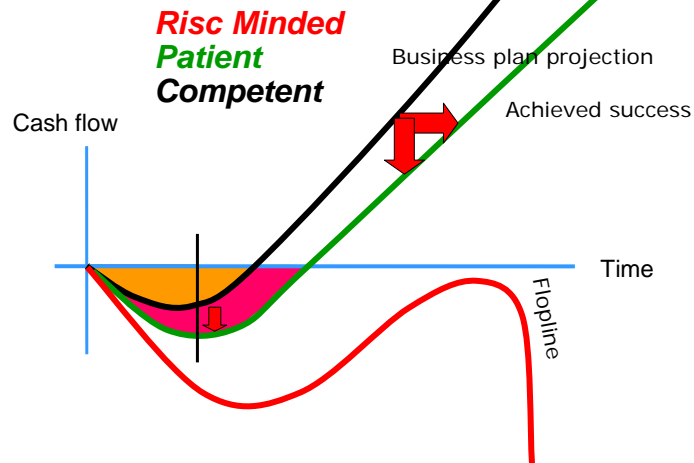
Learning objectives:

- ***To identify your investment opportunities and to design your business model and your business plan accordingly.***
- ***To understand the investors***
- ***To communicate with experts***

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Capital: for what?

Business Development!



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The entrepreneur's most important Capital Sources

- **Your own bloody money**
- **FFF** Family, Friends & Fools
- **In Kind** Other people's resources
- **Your first customer:** The more pain, the better
- **Investors' money** *If your business is scalable, has a significant potential, and realization depends on speed and money.* **VERY IMPORTANT PRECONDITION**

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Origins of Capital

- **You make it unnecessary**
 - Live on a Rock
 - Start selling:
 - In kind
- **You have it:** Savings, personal fortune
- **You get it:** Grants
- **You borrow it:** Loan capital
- **You sell shares:** Share capital
private equity
equity capital

GRANTS

- **Public Industrial Development Programs**
- **Ministerial focus area**
- **Private Foundations**

Comments:

- Dream-capital for start-ups
- Hard to find but it happens

Note 1: EU limit: 200.000 EUR in public grants

Note 2: Grants are taxable income, but expenditures are tax deductible.

LOAN CAPITAL

- **Banks**
- **Credit Institutions like FIH**
- **Private debt providers – the loaners**
- **Special products like Vækstkaution, Mezzanine capital etc.** See www.vf.dk

Comments:

- **Cheap for the entrepreneur – Expensive for the Company**
Paid back by the company. The entrepreneur preserves ownership
- **Personal collateral mandatory in the start-up phase.**
If business flops: repayment after personal tax. No tax-deduction!
- **Investor runs a business**
Never let this fact be forgotten during the moments of joy and enthusiasm

LOAN CAPITAL - 2

The Convertible Loan

- **Normal interest and repayment profile**
- **Can be converted into share capital on specific conditions and at specific milestones**

Comments:

- **Some advantages in the start-up phase**
Less initial dilution of the founders.
Investor may convert to preserve ownership at new funding rounds.
- **Check the conditions**
Investor gets a strong handle bar on business development
Conversion right linked to milestone specifications. E.g.: conversion rate linked to quantified performance.

SHARE CAPITAL – private equity

Investor buys shares in the company

- **At kick-off with the founders**
- **Later: at capital increase (Funding rounds)**

Comments:

- **Expensive for the entrepreneur – Cheap for the Company**
Nothing to pay back - but founders get diluted. Think about that, when company valuation passes a gazillion and you own 1%.
- **Possible mismatch in long-term objectives**
The investor wants a rapidly expanding business – to be sold at the right time, whereas the founders may have completely different personal goals and they are probably also more risk adverse

EXIT

The inherent consequence of equity financing

Investor converts assets to cash and pull out

- | | |
|---------------------------------------|------------------------|
| • IPO: Initial Public Offering | Rare but rewarding |
| • Trade Sale | Acquisition |
| • Management buy-out/buy-in | Not best but ROI > 0 |
| • Earn-outs | Even worse but ROI > 0 |
| • Repayment of loans | Not sustainable for VC |
| • Enforcing preferences | Cutting the loss |

Capital types in Business Development

- **Before Kick-off**

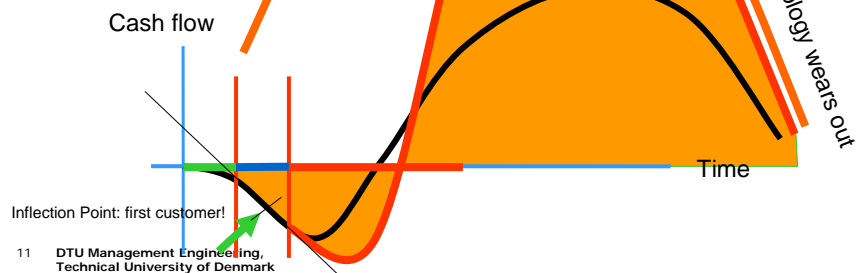
Pre-seed investment: own resources, FFF, in-kind, first customer
 Venture Cases: also special share capital (pre-seed)

- **Start-up**

Seed investment: share capital, special loans, own money

- **Growth and commercial development**

Early stage, 2. round etc.: share capital, ordinary + special loans



Investors

Pre-seed

FFF: the Business Angels
 DK: Innovation environments (financial incubators)
 US: Small Business Agency (SBA) (depending on the climate)

Seed – Early Stage

SEED Capital Denmark
 Business Angels
 Venture Capital companies (VC)
 Vækstfonden

Second round, follow-on

VC and Corporate Venture Capital
 Credit Institutions
 Banks
 Vækstfonden
 Some stock exchanges like First North

Impact of the economical crisis:

Increased risk and scarce capital force the investors to avoid loss and protect their portfolio – so –

Investors move up in the market =>


No money in the seed – early stage segment =>

Business start-up strategies adopt to

- *FFF*
- *First Customer opportunities and*
- *Slow self-financed sustainable growth*

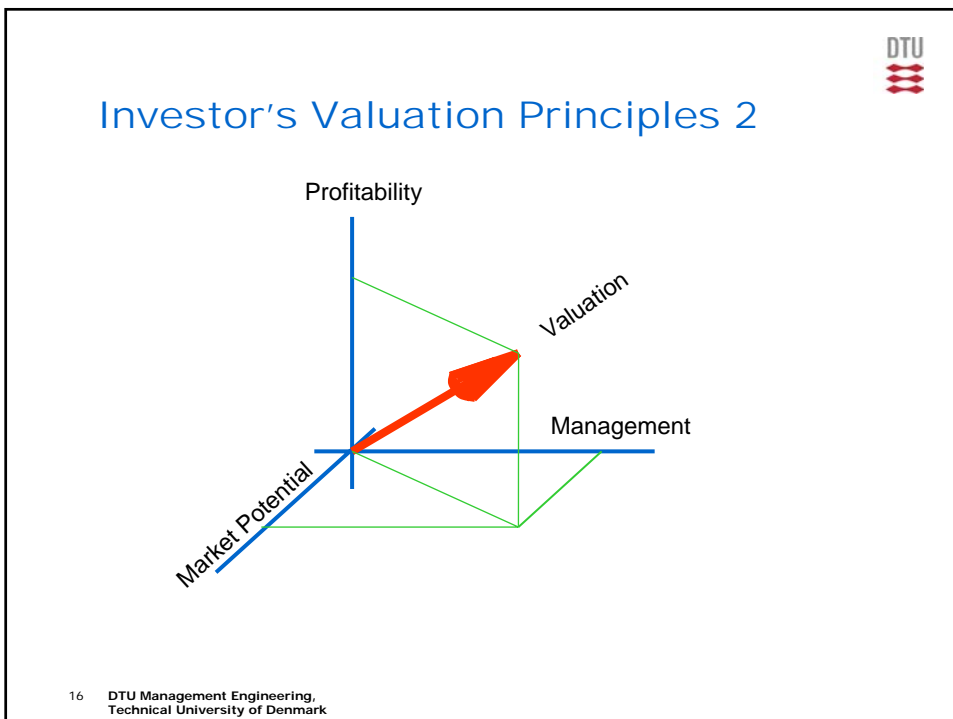
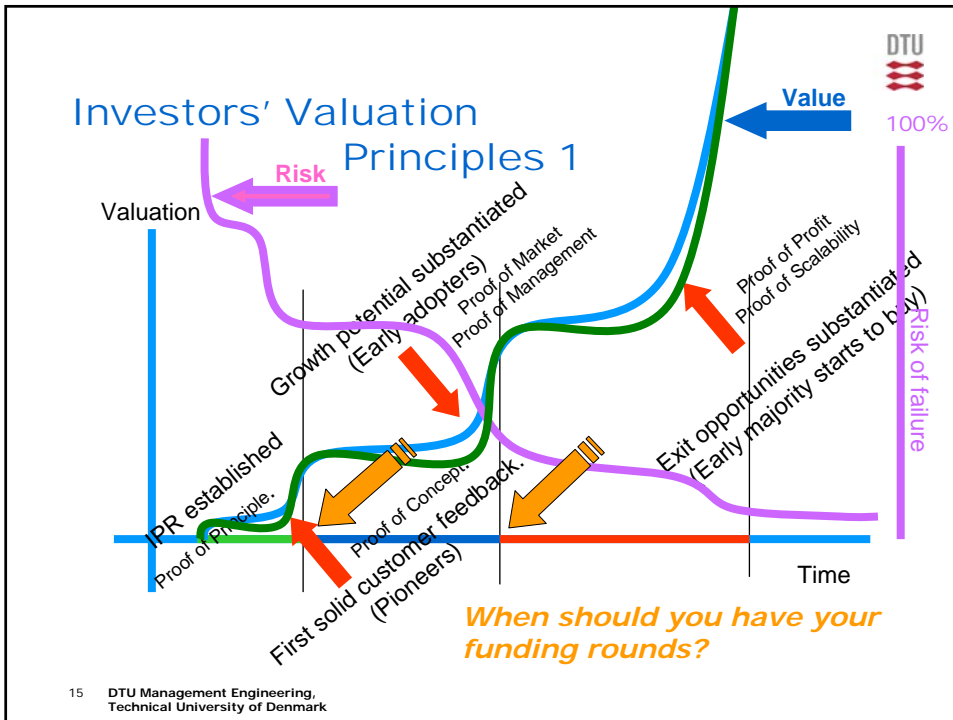
Investor's Criteria for Interest

4P

- **Perspectives** *Pain, market size/share exit-op.* 
- **Persons** *Track records, competencies, ambition*
- **Platform** *Proof of principle, concept, value, pull, profit*
- **Process** *The project acc. to the Business Plan*

Comments:

- Must be a Venture Case: ROI > 10 in less than 5 years.
(126 rule applies too: 100 mio in T/O, 20% profit in less than 6 yrs)
- The team is the single most important precondition
- Platform: the more commercial proofs, the better.
Commercial proofs reflect risk and competence



Dancing with Wolves

Or how to deal with investors

- **Capital always Wins**
- **Your opponent has done this many times**
- **Your opponent is not depending on you**
- **Your opponent has lots of time**

Negotiating tactics:

- **Freedom of Maneuvering**
Never enter negotiations without having fall-back positions.
- **No major payments that jeopardize your project**
Your investor will find out at "due diligence"
- **Don't go for money unless you can do without**
Make it clear from the beginning that you actually don't need it
- **If you are asked for exclusivity: it costs (all claims cost)**
Exclusivity reduces your freedom of maneuvering
- **Consider to get more investors into the game – transparently**
- **The more proofs before investment – the better**
- **Strategic partners also an asset**
- **Get yourself a management team and battle-proven advisors before opening the game**

Coming up Next:
The End
Budgetting & Business Law
of the Game
Room 99, building 306



EXAMPLE: GBQ Ltd.

Capital need: DKK 2.5 mio -> Proof of Business
 DKK 15 mio -> Proof of Profitability

Kick-off: DKK 1.000.000 to reach Proof of Concept
 Founders + pre-seed investor
 Private equity

First Milestone: DKK 1.500.000 to reach Proof of Pull
 Pre-seed investor: private equity

Second Milestone: DKK 15.000.000 to reach Proof of Profit
 Venture Capital Company: private equity

Exit: Profits (EBITDA) > 25 mio. DKK/yr.
 (Earnings Before Interest, Tax, Depreciation and Amortization)
 Valuation based on Price/Earnings (P/E) ~ 10

Kick-off

DKK 80.000 shares

Shares: founders: cash contribution
 founders: non cash contribution (patent)
 pre-seed investor: class b shares with
 liquidation preferences

Founding						
Investment goal: DKK	1.055.000					
		Share Price:	1,00 DKK per share class A			
			40,00 DKK per share class B			
	Shares	Contribution	Ownership Ratio			
Founding Team, cash	30.000	30.000	37,50%	Class A	Class A total:	55.000
Founding Team, non-cash	25.000	25.000	31,25%	Class A	Class B total:	25.000
Investor A	25.000	1.000.000	31,25%	Class B = liquidation preference		
Total	80.000	1.055.000	100,00%			
Total cash contribution at kick-off:		1.030.000				

1. Milestone

Contribution through capital expansion
 New shares are sold by cash contribution
 Increased valuation accepted by investor due to commercial results

	Valuation pre-money		5.000.000 DKK					
Funding round 1.	Valuation pre-money		5.000.000 DKK					
Investment goal: DKK	1.500.000		Share Price: 62,50 DKK per share					
	Shares ante	OR ante	Value ante	Contribution	New shares	Value post	Shares post	OR Post
Founding Team	55.000	66,75%	3.437.500	0,00	0,00	3.437.500	55.000,00	52,88%
Investor A	25.000	31,25%	1.562.500	1.500.000,00	24.000,00	3.062.500	49.000,00	47,12%
Total	80.000	100,00%	5.000.000	1.500.000,00	24.000,00	6.500.000	104.000,00	100,00%
	Capital expansion: from		80.000,00 DKK		- to -	104.000,00 DKK		

2. Round

Contribution through capital expansion
 New VC investor enters
 Funding goal: DKK 15 mio.
 Achieved pre-money valuation: DKK 10 mio.

	Valuation pre-money		10.000.000 DKK					
Funding round 2.	Valuation pre-money		10.000.000 DKK					
Funding goal: DKK	15.000.000		Share Price: 96,15 DKK per share					
	Shares ante	OR ante	Value ante	Contribution	New shares	Value post	Shares post	OR Post
Founding Team	55.000	52,88%	5.288.462	0,00	0,00	5.288.462	55.000,00	21,15%
Investor A	49.000	47,12%	4.711.538	0,00	0,00	4.711.538	49.000,00	18,85%
Investor B	0	0,00%	0	15.000.000,00	156.000,00	15.000.000	156.000,00	60,00%
Total	104.000	100,00%	10.000.000	15.000.000,00	156.000,00	25.000.000	260.000,00	100,00%
	Capital expansion: from		104.000,00 DKK		- to -	260.000,00 DKK		

EXIT

Venture-case criterion: Valuation principle: Price/earnings

With profits (EBITDA) = 25 mio. DKK and P/E ~ 10 (Solid and perspective company):

Price: 10 X 25 mio. DKK = 250 mio. DKK

Exit		Valuation :		250.000.000 DKK	
		Share Price:		961,54 DKK per share	
	Shares ante	Ownership	Share value	Cash invested	Return on cash investment
Founding Team	55.000	21,15%	52.884.615	30.000	Obscene
Investor A	49.000	18,85%	47.115.385	2.500.000	19
Investor B	156.000	60,00%	150.000.000	15.000.000	10
Total	260.000	100,00%	250.000.000	17.530.000	