



DTU Master F-2012 e'ship class  
7. lecture, Monday 22 October 2012

## Financing Technology Ventures

13:00 – 15:00	Financing	JH
15:00 – 15:45	SEED Capital	Niels Vejrup Carlsen Investment director

<sup>1</sup> DTU Management Engineering,  
Technical University of Denmark



## FINANCING Technology Ventures

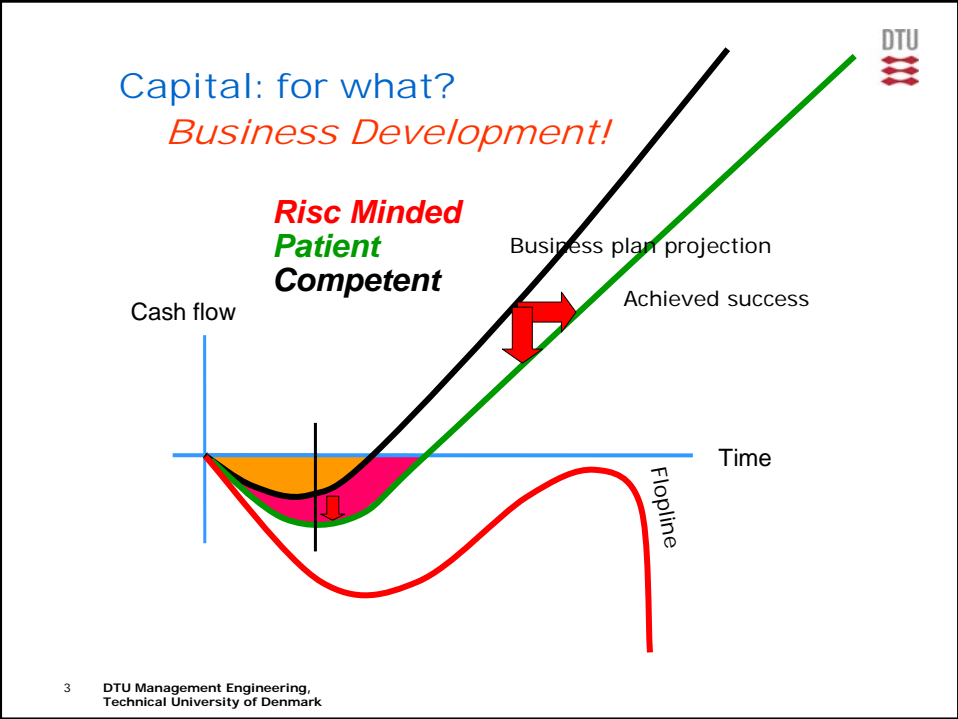
### Agenda

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

<sup>2</sup> DTU Management Engineering,  
Technical University of Denmark



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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, realization depends on speed and money – and there is a Return on Investment - ROI (an exit opportunity).*

**↑**  
**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](http://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. Eg.: 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

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

## Capital types in Business Development

- **Before Kick-off**

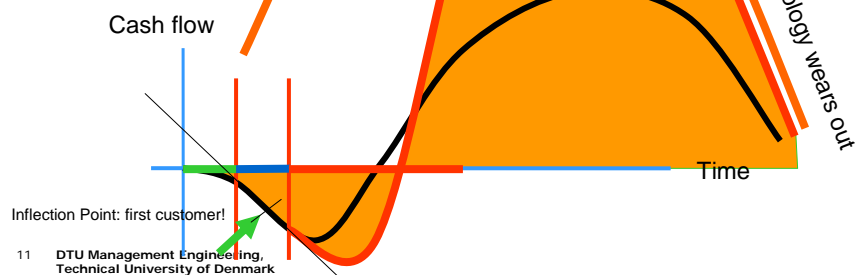
Pre-seed investment: own resources, FFF, in-kind, first customer  
 Venture Cases: also special share capital (pre-seed)

- **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)

### Seed – Early Stage

SEEDCapital 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*

Venture cases become even more rare

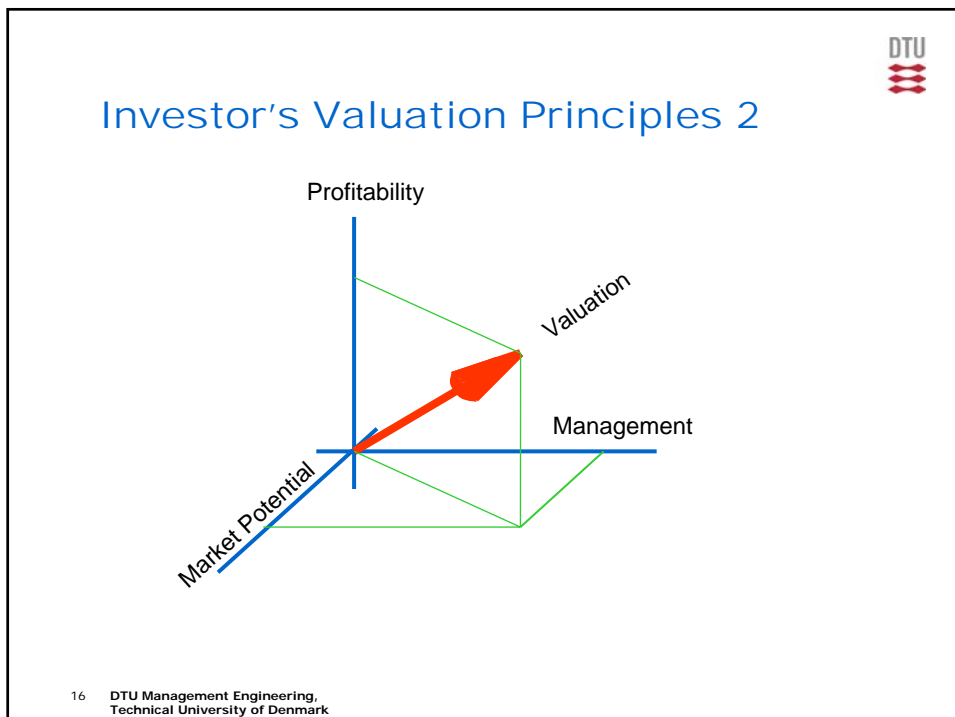
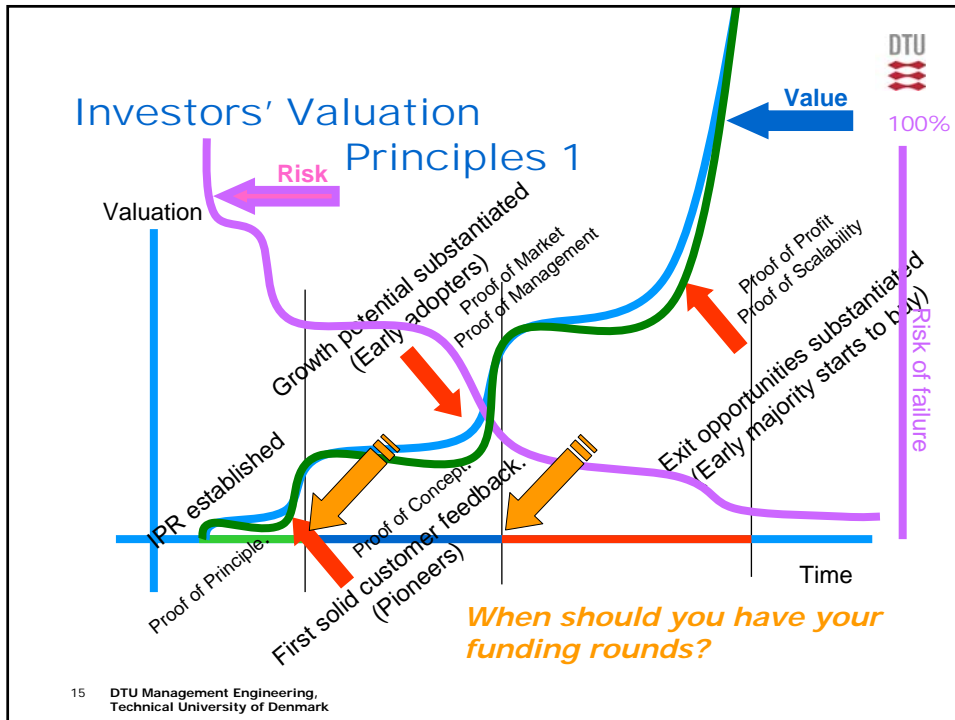
## Investor's Criteria for Interest

### *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





## Negotiating with VC Investors

### Or how to dance with wolves

- **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**

## 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

<b>Founding</b>							
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				
<b>Total</b>	<b>80.000</b>	<b>1.055.000</b>	<b>100,00%</b>				
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

<b>Funding round 1.</b>							
Investment goal: DKK		1.500.000		Valuation pre-money		5.000.000 DKK	
	Shares ante	OR ante	Value ante	Contribution	New shares	Value post	Shares post
Founding Team	55.000	68,75%	3.437.500	0,00	0,00	3.437.500	55.000,00
Investor A	25.000	31,25%	1.562.500	1.500.000,00	24.000,00	3.062.500	49.000,00
<b>Total</b>	<b>80.000</b>	<b>100,00%</b>	<b>5.000.000</b>	<b>1.500.000,00</b>	<b>24.000,00</b>	<b>6.500.000</b>	<b>104.000,00</b>
		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.

<b>Funding round 2.</b>		<b>Valuation pre-money</b>		<b>10.000.000 DKK</b>					
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%	
<b>Total</b>	<b>104.000</b>	<b>100,00%</b>	<b>10.000.000</b>	<b>15.000.000,00</b>	<b>156.000,00</b>	<b>25.000.000</b>	<b>260.000,00</b>	<b>100,00%</b>	
<b>Capital expansion: from</b>				<b>104.000,00 DKK</b>	<b>- to -</b>	<b>260.000,00 DKK</b>			

## 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**

<b>Exit</b>		<b>Valuation :</b>		<b>250.000.000 DKK</b>					
	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				
<b>Total</b>	<b>260.000</b>	<b>100,00%</b>	<b>250.000.000</b>	<b>17.530.000</b>					

# The End of the Game

