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# Valuation of high-growth companies

IMD Lausanne

Dr. Patrik Frei

November 2006

Venture Valuation, Switzerland  
[www.venturevaluation.com](http://www.venturevaluation.com)

# Content



1. **Starting an enterprise: Venture Valuation**
2. Company Assessment
3. Example
4. Conclusion

# Own experience

- 1998: Master Thesis at University St. Gallen
- Goal: to do something useful
- Topic: Valuation of high growth companies
- Contact to industry (Novartis Venture Fund)
- Feeling for market requirements, demand

=> Start Venture Valuation in 1999

# History

- Spring 1999: Foundation Venture Valuation, contract from Novartis Venture Fund
- Fall 1999: Finished University, 100% operational
- Fall 2001: Cooperation with Germany / Canada
- 2001: Foundation of Corporation (AG)
- 2002: Foundation of Canadian company
- 2003: Swiss Life Sciences Database
- 2004: Cooperation in Asia (Korea)
- 2005: Collaboration with EBD Group

# Venture Valuation Today

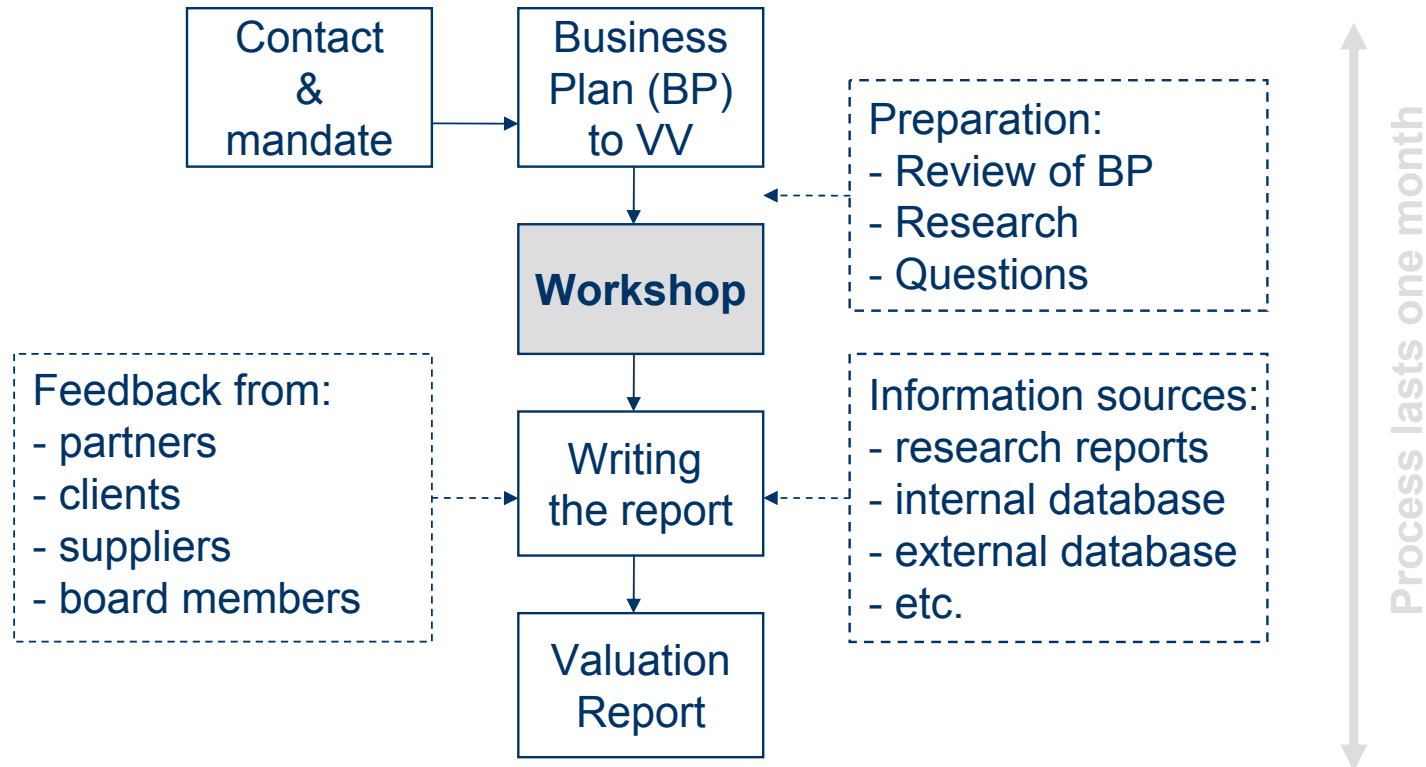
- 1. Independent, third party Valuations
- 2. Biotechgate Database / partneringgate.com
- Experts Finance / High-tech industries
- Not a venture capitalist
- International experience
- Systematic / Validated Approach
- Track record of over 100 valued companies
- Clients such as NVF, Fraunhofer Gesellschaft, European Investment Bank
- 7 people in Zurich; 2 people in India; Representatives: 3 Canada; 2 Germany; 1 Korea; 1 France

# Product portfolio



|                                               |                |                |                |  |  |
|-----------------------------------------------|----------------|----------------|----------------|--|--|
| <b>Economic Development</b>                   | main customers |                |                |  |  |
| <b>Business Angels</b>                        | main customers |                |                |  |  |
| <b>Non-Profit Organizations / Foundations</b> | main customers |                |                |  |  |
| <b>Investors (VC, Corporate)</b>              |                | main customers | main customers |  |  |
| <b>Pension funds</b>                          |                |                |                |  |  |
| <b>Companies</b>                              |                | main customers |                |  |  |

# Process for a valuation



# Services



## Valuation Report™

Assessment based on soft factors such as:

- Management track record
  - Market Trends
  - Science and Technology
- ⇒ Risk analysis

- In-depth financial valuation based on risk analysis
- Calculation of a value range



# Services



## Valuation Report (cont.)

- On-site workshop with company
- Feedback on how to increase long-term value of company (value based management)
- Valuation Report as independent analyst report
- Basis for negotiations and investment decision

# Methods



## **Valuation Fundamentals**

- Value = future earnings potential / risk
- Valuation methods:
  - Discounted Cash Flow
  - Venture Capital
  - Decision Tree / Real Options
  - Comparable Transactions
  - Market Comparable

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26.09.06
  - **SaKa Ragis Pflanzenzucht GbR**  
26.09.06



General

Financing

Management

Products

## Affectis Pharmaceuticals AG



### General Description

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company Name              | <b>Affectis Pharmaceuticals AG</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Street                    | Kraepelinstrasse 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| P.O. Box                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ZIP/Place                 | 80804 München                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Country                   | Germany                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Contact Person, Function  | Ms. Sabina van den Brandt, Office Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Contact Phone             | +49 (89) 30622591                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Contact Fax               | +49 (89) 30622370                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Contact E-Mail            | info@affectis.com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Website                   | www.affectis.com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Founded                   | 2002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Source of Foundation      | spin-off from the renowned Max-Planck Institute of Psychiatry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Number of Employees       | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Ph.D.s          | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description of Activities | Affectis AG is a biopharmaceutical company implementing novel concepts for the treatment of depression and anxiety.<br><br>Affectis is in a very advantageous position, having identified and validated several innovative target genes that play an important role in depression and anxiety. These targets are directly drugable and can lead to the discovery of entirely new classes of antidepressant and anxiolytic drugs which do not only suppress the symptoms but address the underlying mechanisms of the disease. These drugs aim to address the increasing need for more comprehensive and faster-acting treatments with fewer side effects. |

### Next Events

- Sep 2006 - Milan: **Bioforum 2006**
- Sep 2006 - Geneva: **BioBusiness Network 2006**
- Sep 2006 - to St. John's: **National Biotechnology Week 2006**

[Add an Event >>](#)

### Featured company



# Partners: Biotechgate.com



**BIOTECCanada**

Canada's Voice for Biotechnology  
Le porte-parole canadien de la biotechnologie



**Invest in Italy**

SI SviluppoItalia Italian Institute for Foreign Trade



**ASSOBIOTEC**  
FEDERCHIMICA

Associazione Nazionale per lo sviluppo delle biotecnologie



**ERD GROUP**

CONFERENCES & CONSULTING FOR THE LIFE SCIENCES



**SWISS EXCHANGE**



**BiotechNet**



**BIOVALLEY**  
The Life Sciences Network



Secoursökonomien für Wirtschaft  
Secretariat of State of L'Espresso  
Segreteria dello Stato dell'Espresso  
Seco Secretariat for Economic Affairs

**seco**











**Greater Zurich Area**  
Expanding business horizons  
Zurich MedNet



**bioalps**  
GENÈVE - LAUSANNE - SWITZERLAND

# Biotechgate.com

|                                                                                     | Country                        | Biotech    | Biotech Instr. & Services | Biotech related | Med Tech   | Investor   |
|-------------------------------------------------------------------------------------|--------------------------------|------------|---------------------------|-----------------|------------|------------|
|    | Austrianbiotech.com            | 16         | 32                        | 13              | 11         | 3          |
|    | Canadianlifesciences.com       | 142        | 62                        | 162             | 23         | 12         |
|    | Frenchbiotech.com              | 70         | 136                       | 19              | 12         | 28         |
|    | Germanbiotech.com              | 117        | 288                       | 77              | 69         | 2          |
|    | Indianbiotech.com              | 13         | 117                       | 202             | 5          | 45         |
|    | Italianbiotech.com             | 42         | 75                        | 126             | 35         | 6          |
|                                                                                     | Sweden                         | 24         | 50                        | 13              | 27         | 4          |
|   | Swisslifesciences.com          | 49         | 145                       | 99              | 326        | 43         |
|  | <b>Total (biotechgate.com)</b> | <b>532</b> | <b>953</b>                | <b>725</b>      | <b>514</b> | <b>146</b> |

In total there are over **5'000 companies** in the database.

# Partneringgate.com



**BioTrinity**  
Oxfordshire  
Wed 28.03.2007



**BIO-Europe Spring 2007**  
Milan  
Mon 05.03.2007 - Wed 07.03.2007



**BIOCOM Investor Conference**  
San Diego  
Tue 14.11.2006 - Wed 15.11.2006



**Bench 2 Boardroom 2006**  
Cambridge  
Wed 18.10.2006



**Swiss-Scandinavian Bio-Business Seminar**  
Zurich  
Fri 13.10.2006



**JETRO BIOLINK FORUM 2006**  
Osaka  
Wed 13.09.2006 - Fri 15.09.2006

**BioDevice Partnering**  
Edinburgh (June 2006)

# Lesson learned

- Believe in success, with optimistic-realistic attitude
- Networking is an important instrument
- Use innovative, new approaches
- As an entrepreneur you have much freedom, but also a lot of responsibility
- Implementation is the most important issue
- Innovation & Collaboration
- Focus, Focus, Focus

# Content



1. Starting an enterprise: Venture Valuation
2. **Company Assessment**
3. Example
4. Conclusion



# Definitions

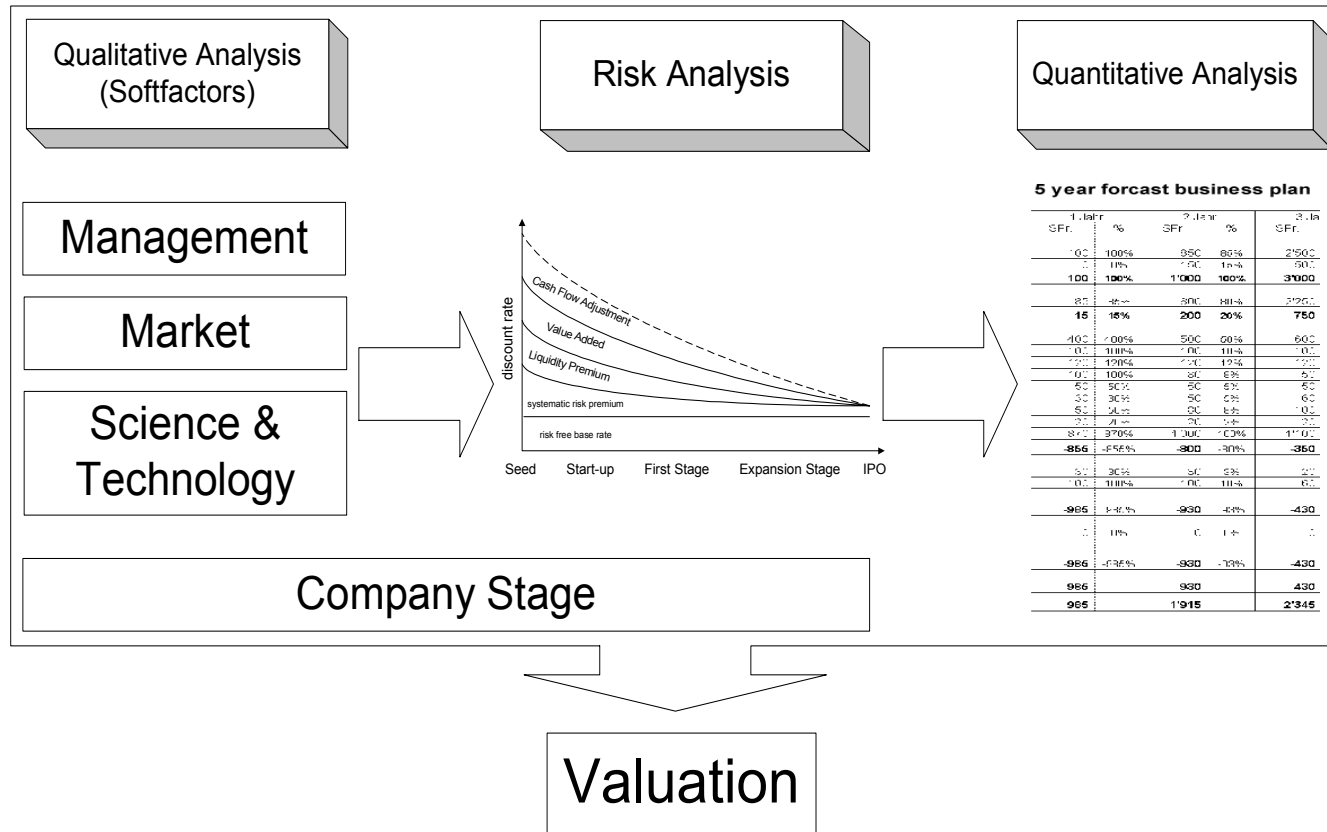


- **Value:** implies the inherent worth of a specific thing
- **Price:** depending on the market (supply / demand); whatever somebody is prepared to pay

“Price is what you pay. Value is what you get.”

By Warren Buffett

# Valuation Framework

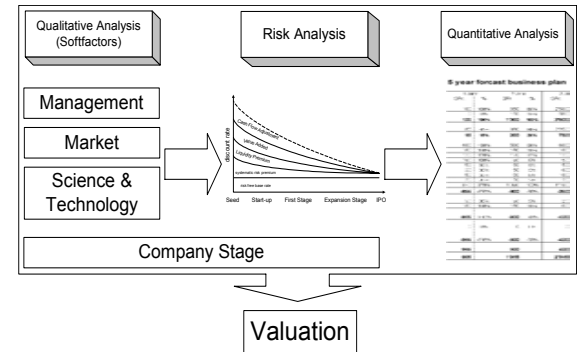


# Factors to influence value

Soft factors are essential ...

- Management
  - Market
  - Science & Technology
- ... and the company stage

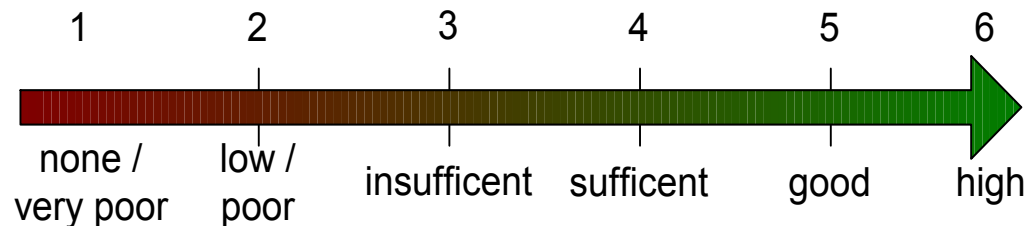
to define the risk profile of company



# Management



1. Completeness skills
2. Track record / experience
3. Motivation / Incentive structure
4. Organization
5. Emotional intelligence / social competence
6. Composition and involvement of boards

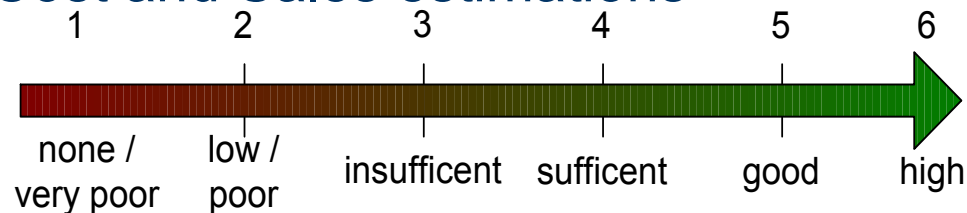


# Market environment



## Industry Structure: (Five forces by Michael Porter)

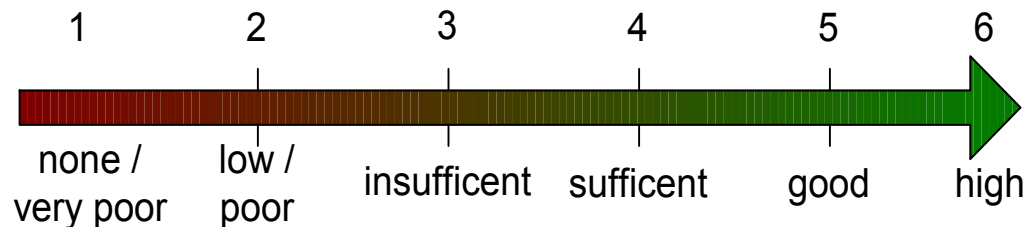
1. Threat of new Entry
2. Rivalry among existing competitors
3. Pressure from substitute products
4. Dependencies on customers
5. Dependencies on suppliers
6. Current and future market potential
7. Customers
8. Political / legal dependencies
9. Cost and Sales estimations



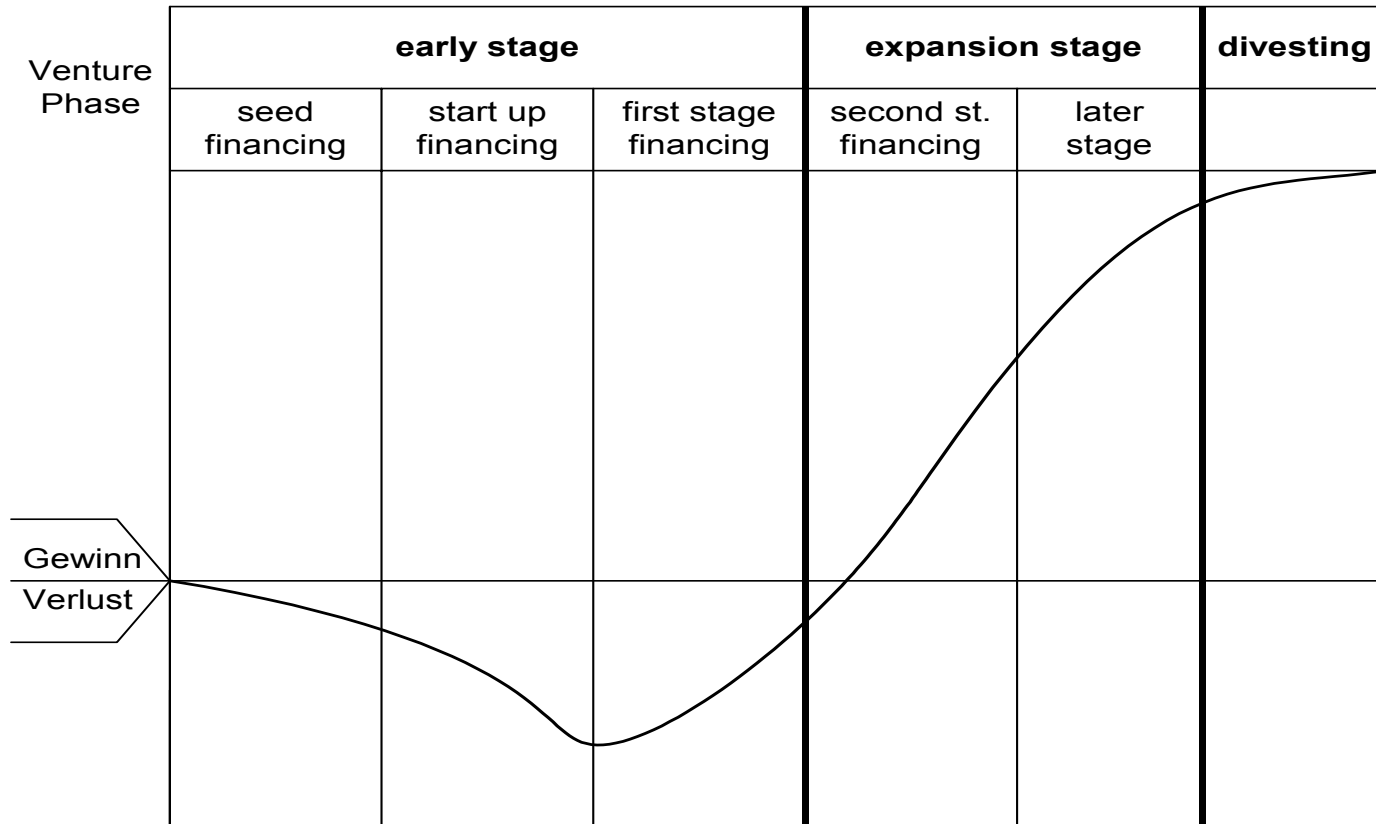
# Product, Sciences & Technology



1. Intellectual Property (IP)
2. Unique selling proposition
3. Alliances/partnerships
4. Management of future discoveries
5. Time to market



# Company stages



Quelle: Schmidtke.

# Content



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- 3. Example**
4. Conclusion



# Example Company Valuation

**GLYCART**  
*biotechnology*

- Glycart acquired by Roche in July 2005

- For USD 180 m



- Swiss company; founded in 2000 spin-off from ETH in Zurich

- Technology platform to enhance the activity of therapeutic antibodies (cancer / autoimmune diseases)

- Pre-clinical products

- Existing collaboration with Roche (1 year)

- 30 employees

# Example Company Valuation

- GLYCART** *biotechnology*
- Raise USD 31 m in the past
  - Planned to raise another USD 35 m => valuation too low
  - Acquisition offer by mid-sized Pharma
- ⇒ auction process / parallel fund raising

# Example Company Valuation



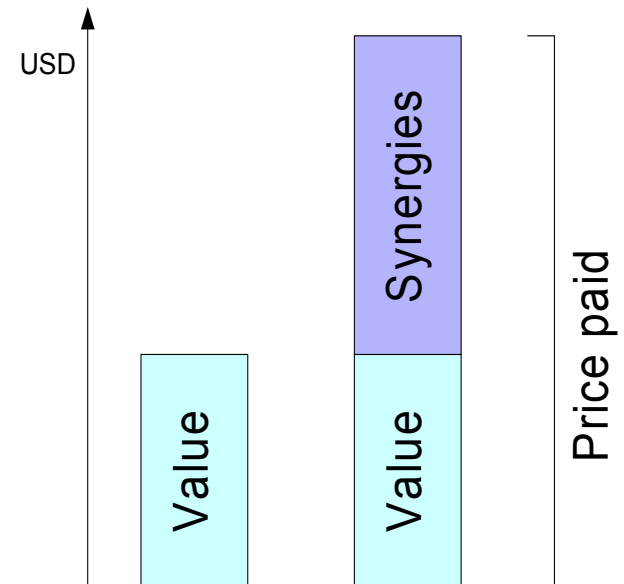
Valuation:

⇒ Pre-clinical compounds USD 180 m?

⇒ Technology Platform?

⇒ Keeping control?

⇒ Value enhancement  
for own products?



# Common Pitfalls



- Management team not balanced
  - Overestimation of company value
  - Value creating milestones unknown
  - Fundraising too late
  - Lack of funding options
  - Overestimation of time to market
- => Common rule: it takes double the time and double the financial resources.

# Content



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# Conclusions



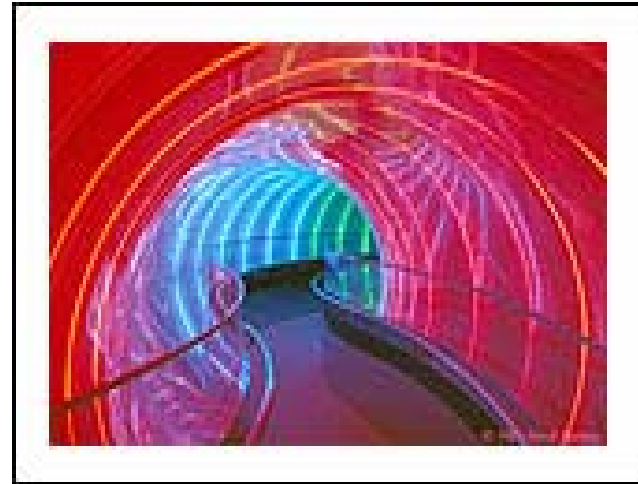
- Valuation is a process
- Assumptions are key
- Solid assumptions => assessment
- Assessment:
  - 1) management
  - 2) market environment and
  - 3) products, science and technology
- Main determinants of valuation:  
potential / risk

# Conclusions



- Different valuation methods should be used
- Result is a value-range
- Price is not the same as value
- Even though valuations are very difficult, they have to be done
- High growth companies are more difficult to value than traditional companies, due to its less predictable future and higher risks

# Thank you



**Bring some light  
into the art of valuation**



# Scientific Basis

EPFL, Lausanne Dissertation on “Assessment and Valuation of high growth companies”



University St. Gallen, Master thesis

Valuation of Venture Projects, Prof. Scheuenstuhl

**Several published articles and papers**

Nature Biotechnology, Volume 22, August 2004,

*Valuation – what you need to know*

**=> Available at [www.venturevaluation.com](http://www.venturevaluation.com)**