Why valuating Patents and how?

Economic Aspects

IPR SYSTEMS

INTELLECTUAL PROPERTY RIGHTS
SOFTWARE SOLUTIONS CONSULTING

Overview

- Motivation for filing a patent
- Cost side of a patent
- The patent asset side – hidden intangible assets
- Motivation for valuating patents
- Valuation cost and benefit
- Economic ways for valuation
- Summary

About us

IPR Systems is a software and consulting firm, specializing in Intellectual Property (Patents) and experience of 15 years.

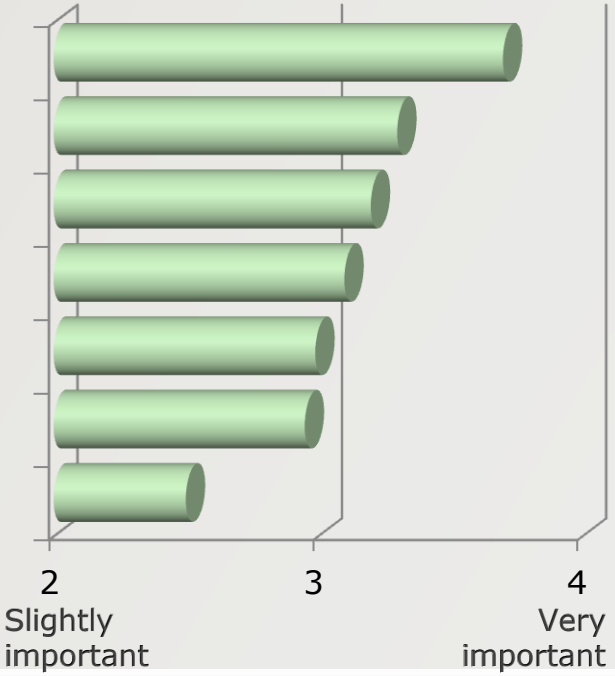
Core activities are focusing in the development of software solutions in Intellectual Property in 2 main areas:

- Patent Search & Analysis: **Patent*Explorer***
- Patent Valuation: **Patent*Evaluator***

IPR-Systems also offers services in the fields of Research, Analyze, Valuation of patents

Reasons for filing patents – US Companies

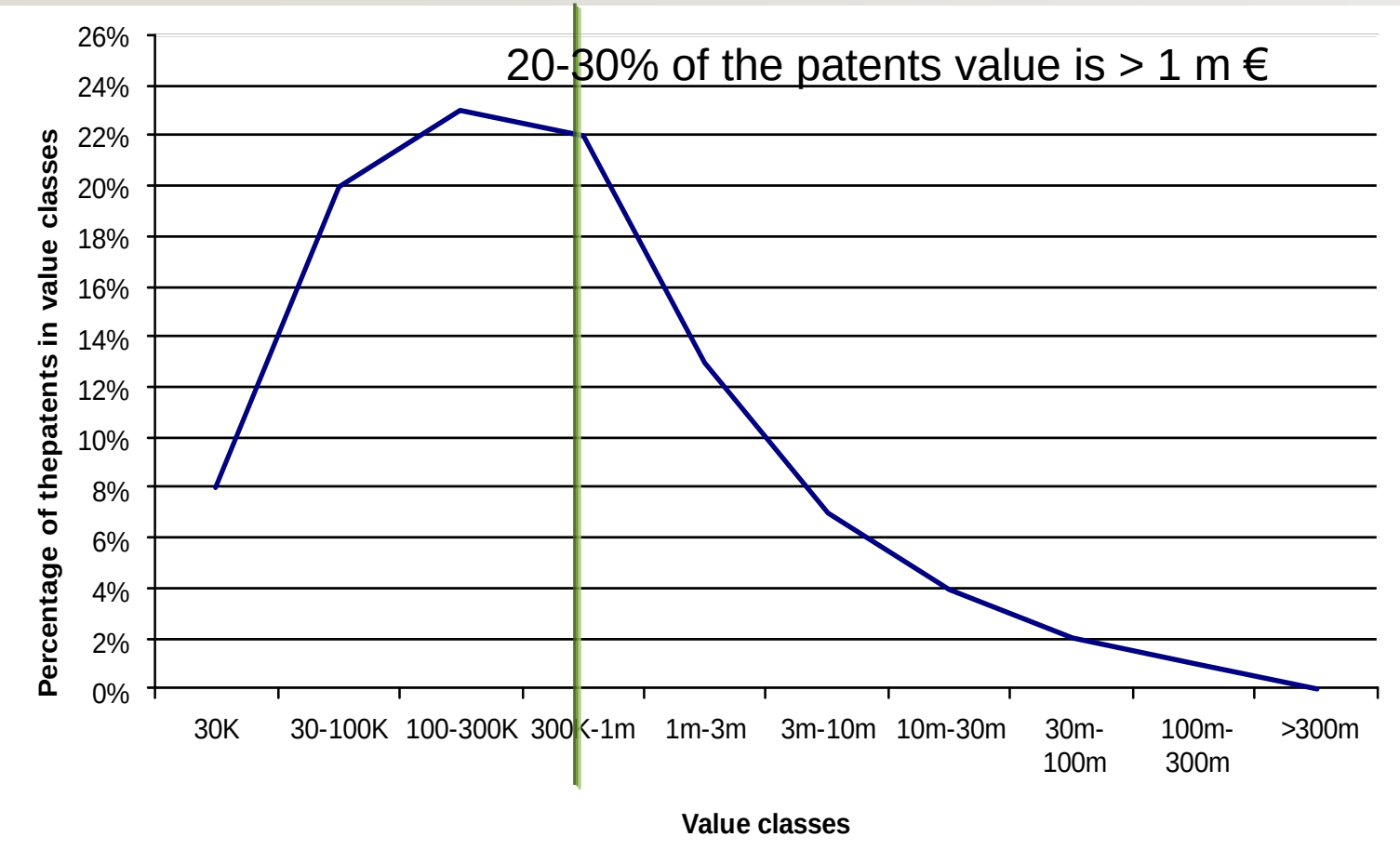
1. Having a monopol by law
2. Securing investments
3. Improve chances/quality of liquidity
4. Company reputation
5. Improve negotiation position
6. Prevent infringement actions against us
7. Licensing revenues



Source: The Berkeley Patent Survey

The value side

Values of EP Patents of european companies



Source: European Patent Office, 2005

Intangible assets determine the company asset

Nortels 5 year average Book Value:

$ 1,2 b

MERGERS & ACQUISITIONS | JULY 1, 2011, 4:58 AM | 15 Comments

Apple and Microsoft Beat Google for Nortel Patents

BY CHRIS V. NICHOLSON

8:31 p.m. | Updated

Nortel Networks, the defunct Canadian telecommunications equipment maker, says it has agreed to sell more than 6,000 patent assets to an alliance made up of Apple, Microsoft and other technology giants for $4.5 billion in cash.

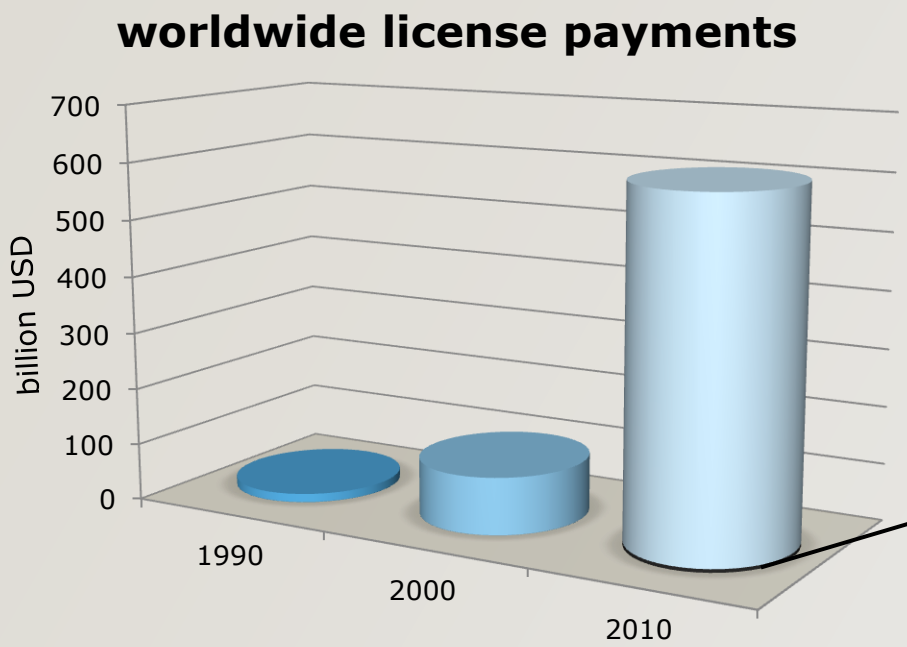
Blair Gable/Reuters

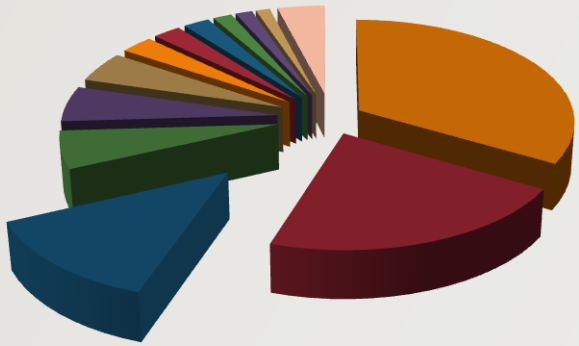
George Riedel, chief strategy officer of Nortel, after testifying to a House of Commons committee in August 2009.

The group of companies, which also includes Research in Motion, Sony, Ericsson and EMC, beat out Google and Intel for the patents and patent applications that Nortel had accumulated when it was still one of the largest telecommunications equipment makers in North America.

Nortel, which filed for bankruptcy in 2009, said in a statement late Thursday that it had sold its last remaining patents, covering businesses including wireless and networking technology and semiconductors, in an auction that it called "very robust."

The value side





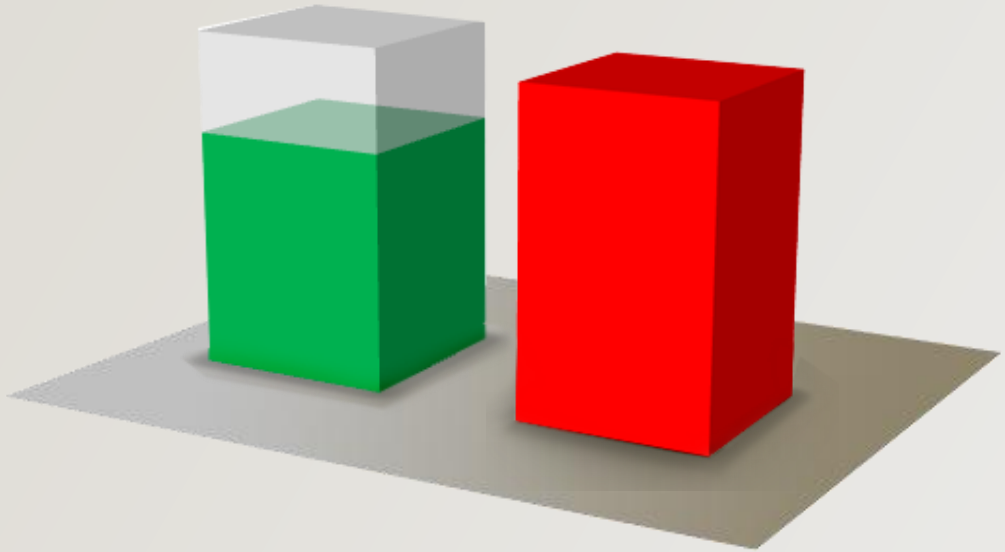
USA
Japan
Deutschland
China
Frankreich
UK
Niederlande
Italien
Schweden
Spanien
Finnland
Indien
andere

International patent applications 2008

Source: European Patent Office, OECD

Economic effect of patents

Germany: at best 75% of the granted patents are in use.



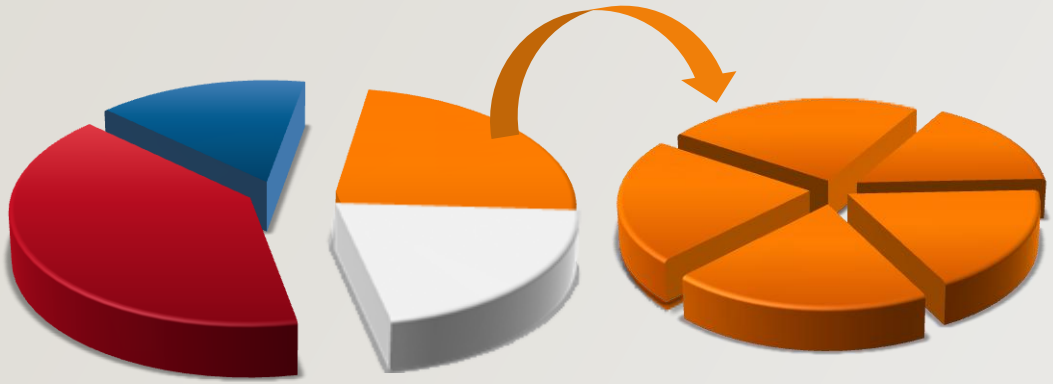
…but the costs are paid for all 100%

Source: Bundesverband deutscher Banken

Economic effect of patents

What about the 25% „unused“?

- not yet realizable Patents
- maybe realizable for future products
- maybe realizable for new processes



- employee motivation
- CEO invented it
- marketing reasons
- no money for investments
- may bother competitors

→ A big percentage has no direct benefit

→ What would be the saving effect, if only 5-10% were dropped?

Source: Institut der Deutschen Wirtschaft (IW) 2006

The cost-side

An average cost scheme of a patent

Example: EP Patent, 6 States, **10 year term**, rounded values

1.	EPO fees		4.600 €
2.	Professional representation before the EPO	10.000 €	
	pre-filing		4.000 €
	processing		5.400 €
	translation of claims		600 €
3.	Validation in the contracting states	7.000 €	
	attorney		3.000 €
	translation cost		3.600 €
	publication fees		400 €
4.	National Renewal fees and related cost	10.000 €	
	renewal fees (year 5-10)		4.700 €
	attorney: payment of renewal fees		5.300 €
	Total **externa**l cost	**32.000 €**	

Source: European Patent Office „Cost of a sample European patent", 18 pages, 10-year term, excl. in-house costs

Economic impact – Scenario 1

Example big sized company: An Incorporation holds e.g. 10.000 patents in 5.000 families. An approximation shows the following potentials:

Increasing assets

Activation of1.000 of the alive patents (20% of the families) as intangible assets
with an average value of 500.000 €

Ca. **500 m €** additional assets

Saving potentials e.g. by identification and dropping of 500 „not relevant“ patents (only 5 %).

Ca. **8 m €** Savings

Reducing Costs

Data based on Gassmann „Praxiswissen Innovationsmanagement: accumulated average patent costs over 20 years: EP: 65.000 €, US: 19.000 €, JP: 29.000 €, Average maintaining costs for an EP over10 years: 25.000 €. Average Application cost for an EP: 30.000 €

Economic impact – Scenario 2

Example SME: The company holds approx. 1.000 patents in 400 families. An approximation shows the following potentials:

Saving potentials e.g. by identification and dropping of 100 „not relevant“ patents (10 %).

approx. **1,6 m €** direct savings

Invention evaluation in order to avoid (economic, technological) pointless applications:

15%-30% additional savings
In the patent department

Reducing Costs

Increasing assets

Activation of 200 of the alive patents (20% of the families) as intangible assets with an average value of 300.000 €

Better credit rating due to increased book value of

Approx. 60 m €

Savings in following costs e.g. due to better financing conditions (improved rating)

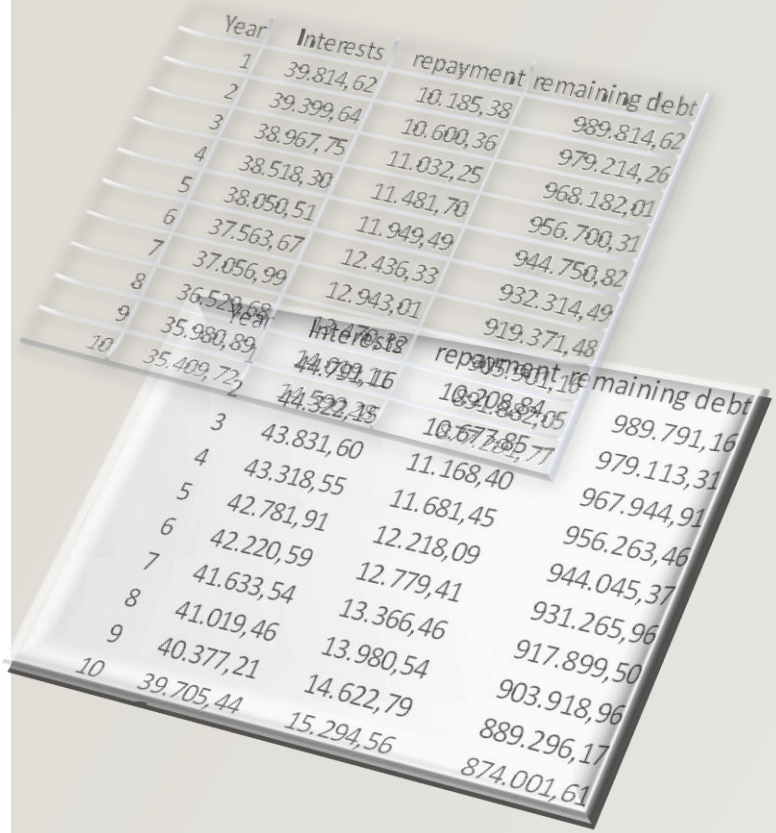
Reducing following costs

Data based on Gassmann „Praxiswissen Innovationsmanagement: accumulated average patent costs over 20 years: EP: 65.000 €, US: 19.000 €, JP: 29.000 €, Average maintaining costs for an EP over10 years: 25.000 €. Average Application cost for an EP: 30.000 €

Economic impact – indirect effects

Example: Impact on a financing project

Valuation improves company rating (intangible assets)



Year	Interests	repayment	remaining debt
1	39.814,62	10.185,38	989.814,62
2	39.399,64	10.600,36	979.214,26
3	38.967,75	11.032,25	968.182,01
4	38.518,30	11.481,70	956.700,31
5	38.050,51	11.949,49	944.750,82
6	37.563,67	12.436,33	932.314,49
7	37.056,99	12.943,01	919.371,48
8	36.529,68		
9	35.980,89		
10	35.409,72		

Year	Interests	repayment	remaining debt
3	43.831,60	11.168,40	989.791,16
4	43.318,55	11.681,45	979.113,31
5	42.781,91	12.218,09	967.944,91
6	42.220,59	12.779,41	956.263,46
7	41.633,54	13.366,46	944.045,37
8	41.019,46	13.980,54	931.265,96
9	40.377,21	14.622,79	917.899,50
10	39.705,44	15.294,56	903.918,96
			889.296,17
			874.001,61

Effect: exemplary 0,5% better financing conditions

In case of a 1 m € credit under typical conditions* this means savings of **at least 50.000 €**

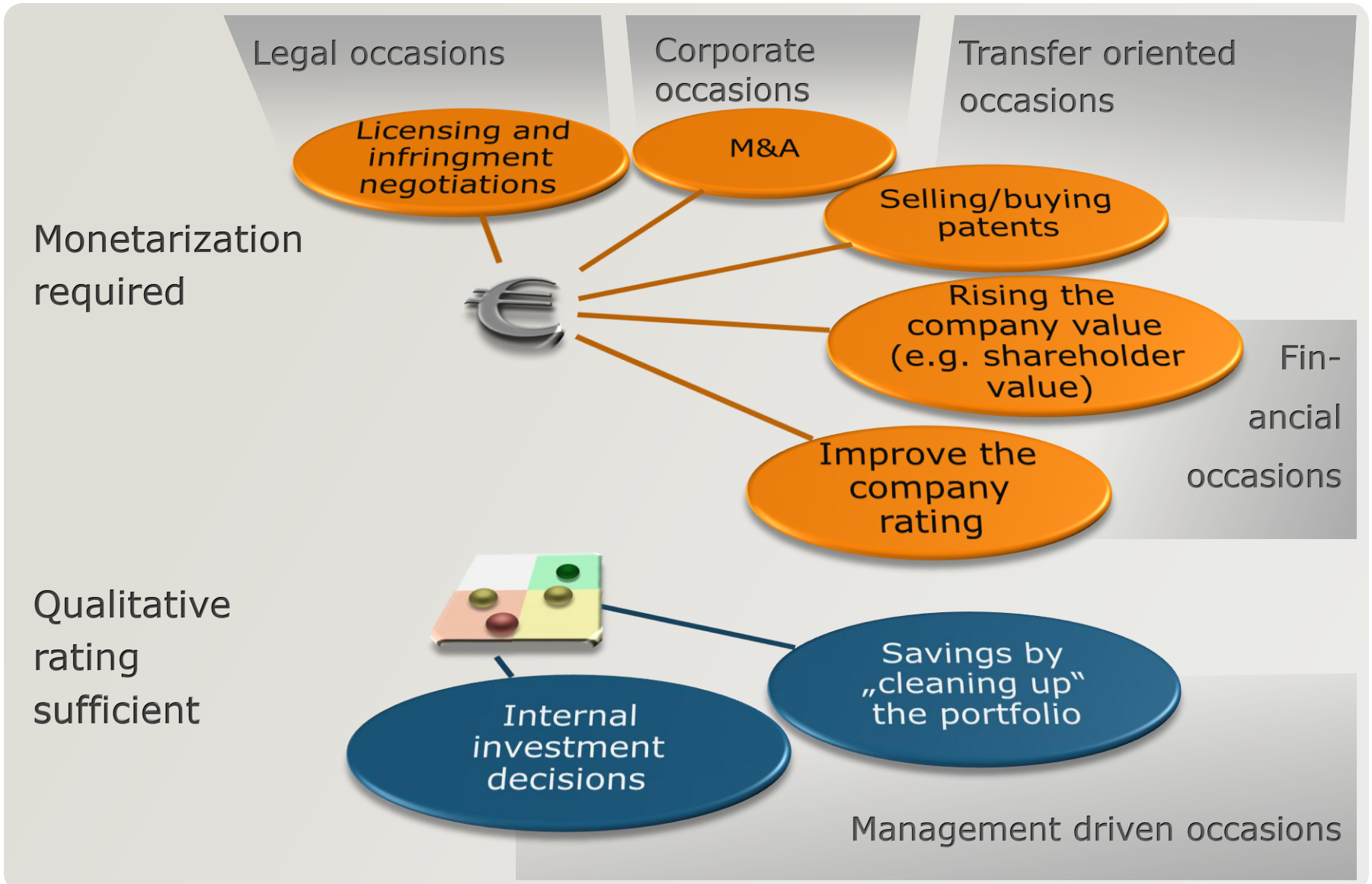
* 10 Years, 1% repayment

But…

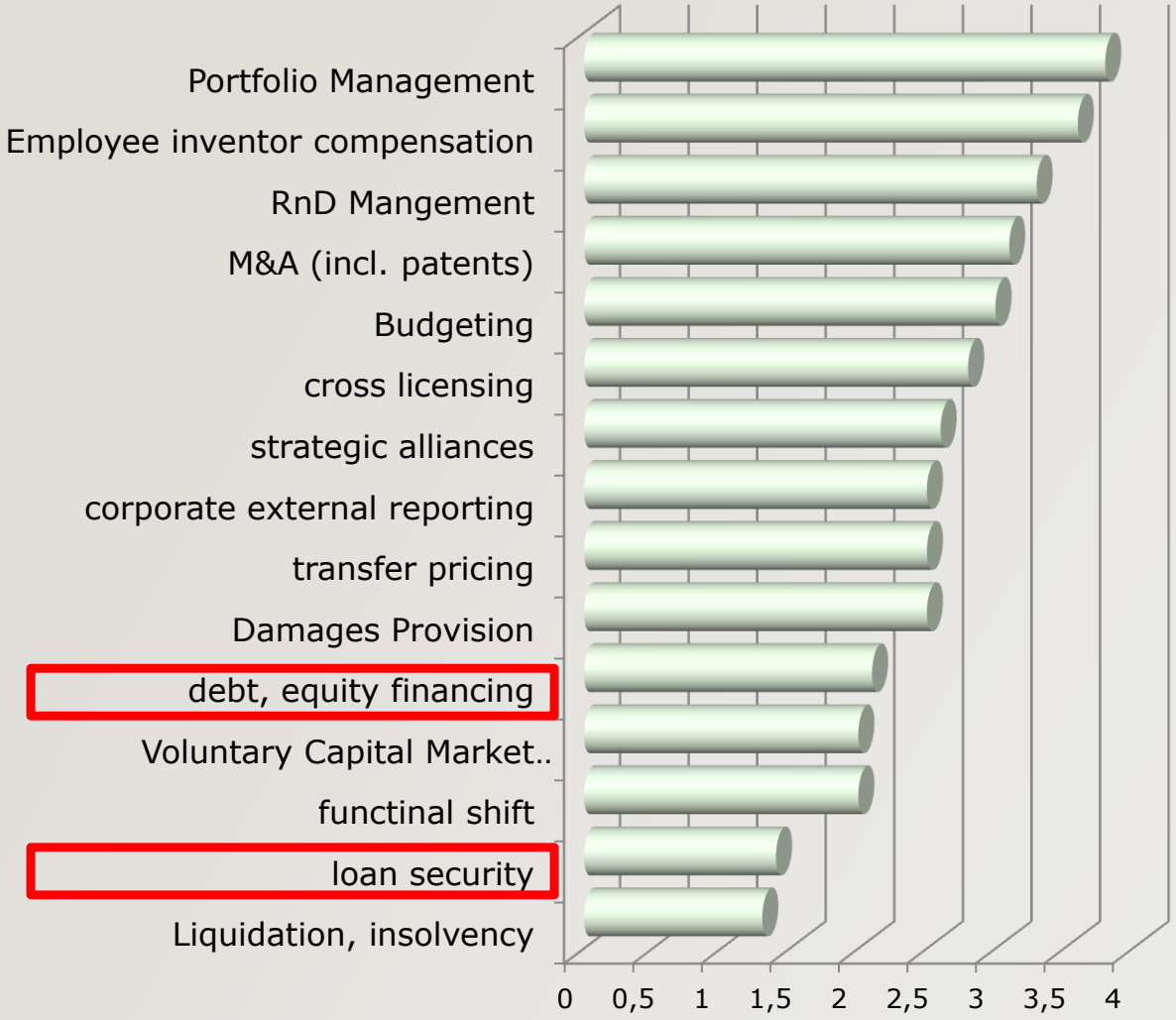
…realizing savings and asset potentials

requires knowledge of patent values

Valuation occasions



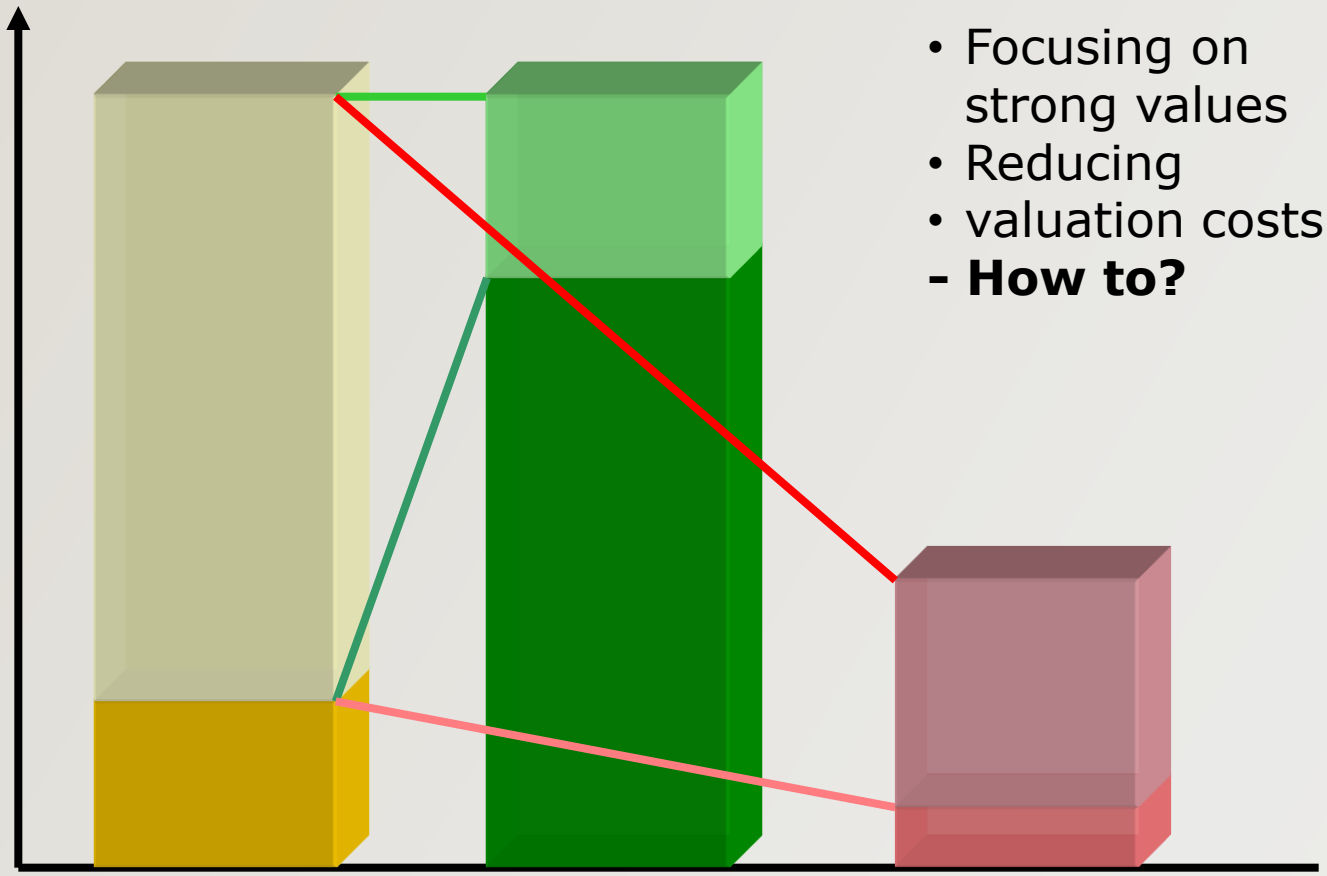
Valuation occasions – German Companies



Source: Study „One Valuation fits all?" PriceWaterhouseCoopers 2008

The cost side of valuating

Pareto principle: Valuation effort beats patent value



- Focusing on strong values
- Reducing
- valuation costs

- How to?

Patent valuation expensive but unprecise?

Market value approach	Estimate the potential market und share Estimate the percentage of the invention of a potential product Estimate potential earnings -> who is doing all these assumptions?
Cost approach	Is the „replacement value" of an IP Adds up all development and external costs -> do the costs really correspond to the value?
Earned value method	Calculate the earnings on a patent that is done by licensing or product sales. -> what if the patent is not yet utilized?

Valuation cost

Average cost for a monetized valuation of a single patent (family*)

Price ranges for an expertise (examples)

Problem: expensive, unprecise and time consuming

*family definition: Equivalents

Economic ways for valuating patents

- Patent valuation based on indicators

traces of a filing process

Typical „footprints“

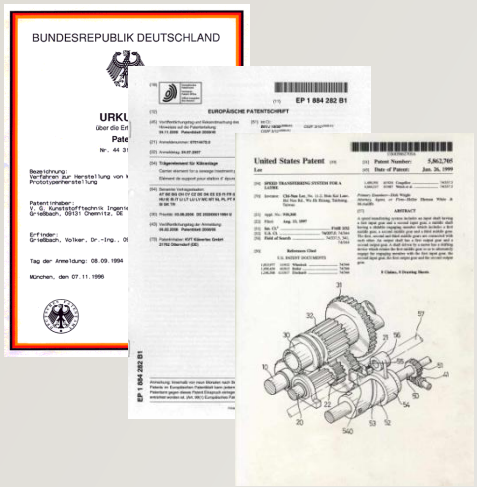
- The amount of inventors and assignees
- The procedure state
- The countries, the patent (-family) is granted
- The IPC classes they are categorized in
- foreign patents citing this patent
- The amount of citations
- Oppositions and their outcome
- Amount of (independent) claims
- ...

Valuating patents like real estates

Comparing indicator based rating <-> real estate rating

indicator based patent rating:

- Indicators
  - Numbers of citations
  - IPC class size
  - Patent family size
  - …



Value ≠ Price!!

real estate rating:

- Indicators
  - Location
  - Squaremeters
  - Year of construction
  - Floor
  - …

Patent Valuation based on indicators

It works:

- Pilot use cases showed a medium failure rate of below 50%
- For comparison: 100% failure is an excellent result (e.g. calculated value was 100.000, patent was sold for 200.000),
- This approach beats other typical failure rates of other methods which were above 1.000 % (magnitude)
- More than 20 Patent valuations (each **15- 500** Patents) done so far with the indicator based System Patent*Evaluator*
- Unbeatable prices and valuation effort

Summary

- Patents are expensive but they offer the most potentials
- We know the value of each screw we have in use in our company but not of what makes 80% of our assets: our IP
- Patent valuation has many impacts
  - Patentmanagement, Invention- and Innovation Management
  - RnD Management
  - Business Development
  - Controlling
  - The C level especially financials (CEO, CTO, CFO)
- Don‘t fear the effort: valuation can be done efficiently with excellent results
- Indicator based methods are a common trend: safe, fast and reasonnable - so „hook up!“