

A way to optimize IP management in het Printer Business

A Case Study, based on publicly available - non
confidential - materials

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Printing Market

- Internal R&D reorganization (*MarketWatch, March 4*)
- Around 30 projects to be set (*idem*)
- Develop market-driven IP roadmaps (*idem*)
- Emphasis on the printing market
 - One of the three business groups
 - #1 globally in the inkjet, all-in-one and single-function printers (lasers or inkjets), mono and color laser printers, large-format printing, scanners, print servers and ink and laser supplies (Toner & Paper)
 - Vision: Ubiquitous printing and imaging

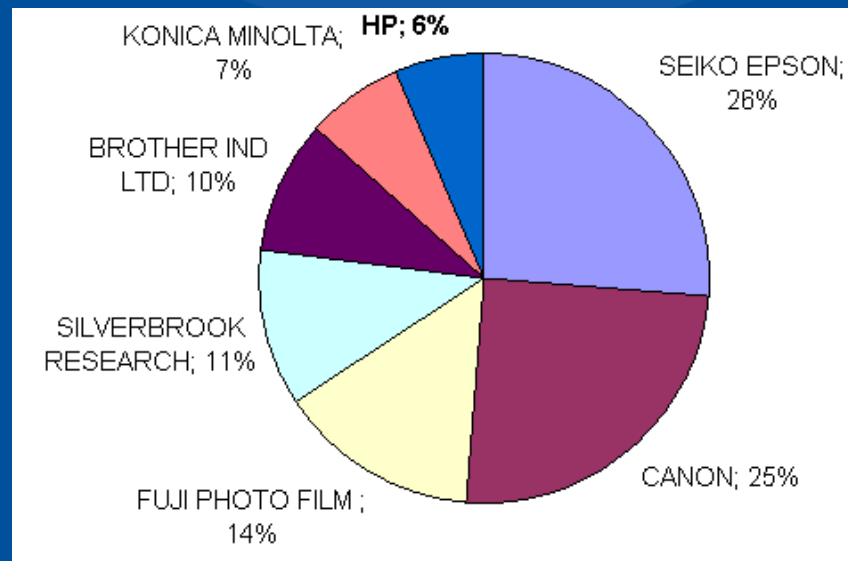
The inkjet segment: IP perspective

One of the Major Players: Printer Co.

- Main patented area in last 5 years
- Focus
 - Ink jet produced with heat
 - Nozzles (production, clogging)
 - Ink supply systems
 - Esp. for multi-colour printing
 - Inks

Competition in 2007

- IP dominated by Seiko and Canon: above 50% of the top-15 total share

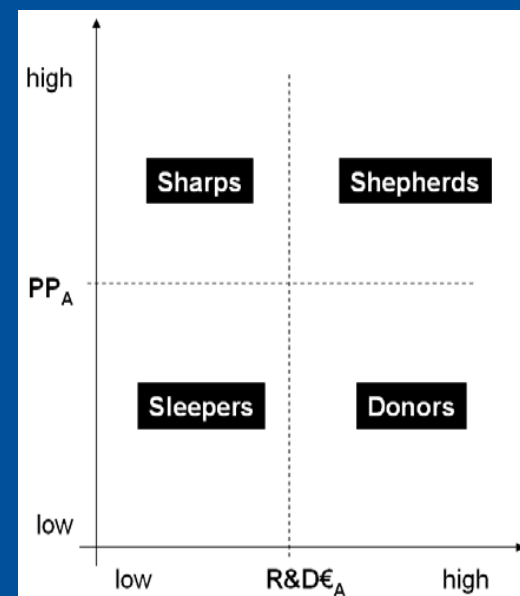
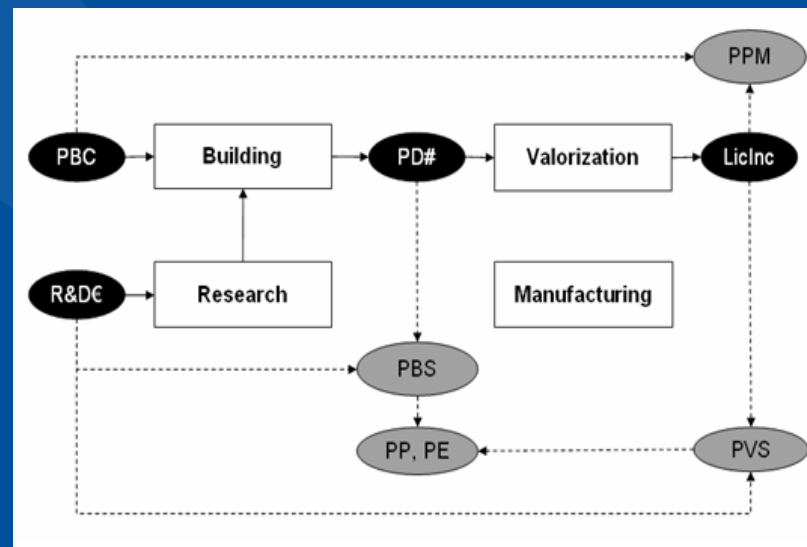


Mainly based on IPC B41J 2/00 (inkjet)
Publication year: 2007

- Brother Industries: +37% growth

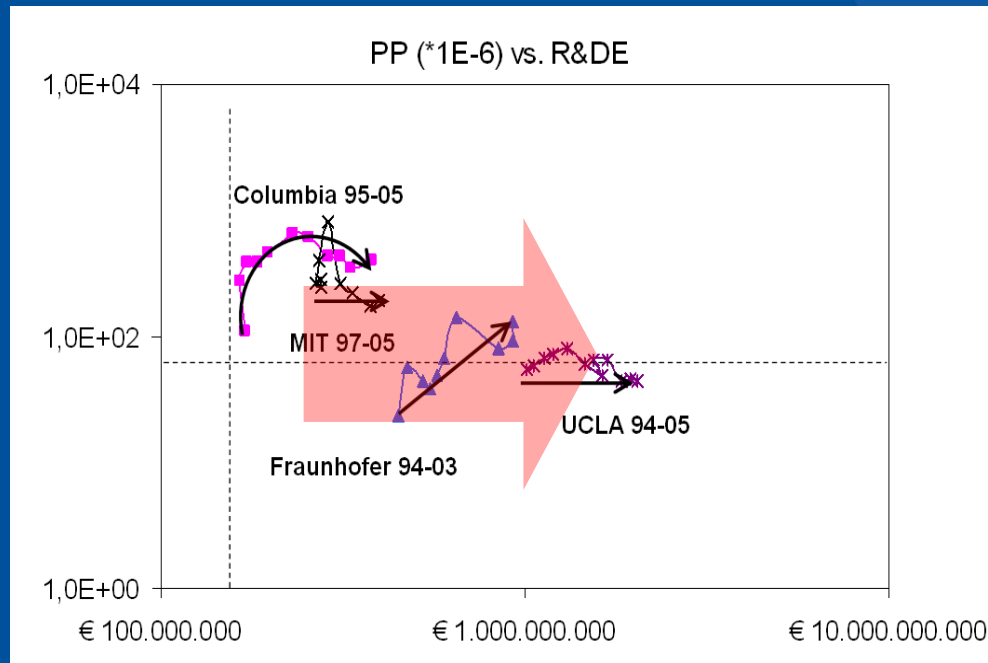
How IPEG sees IP management

- Using a new measurement framework
- Three components
 1. Direct measures ●
 - Number of families per year (PD#)
 - Licensing income per year (LicInc)
 2. Key performance indicators ○
 - Patent Building Strength (PBS)
 - Patent Valorization Strength (PVS)
 - Patent Power (PP)
 3. Two dashboards
 - To compare the firm's effort in patents to R&D investments: PP vs. R&D€
 - To compare patent returns with patenting effort: PVS vs. PBS



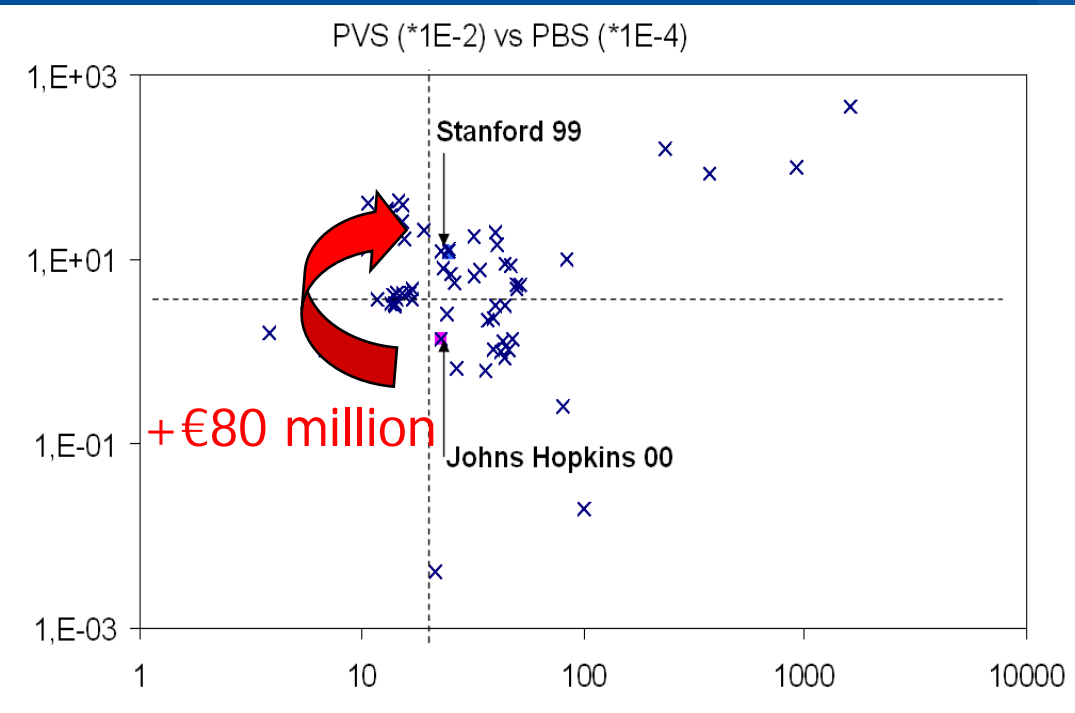
What to learn (1):

Check Printer Company Patent/R&D balance - Dynamics



- All R&D budgets increase over time!
- Europe is in the race (e.g. Fraunhofer) ...
- ... and gains momentum in patent leadership

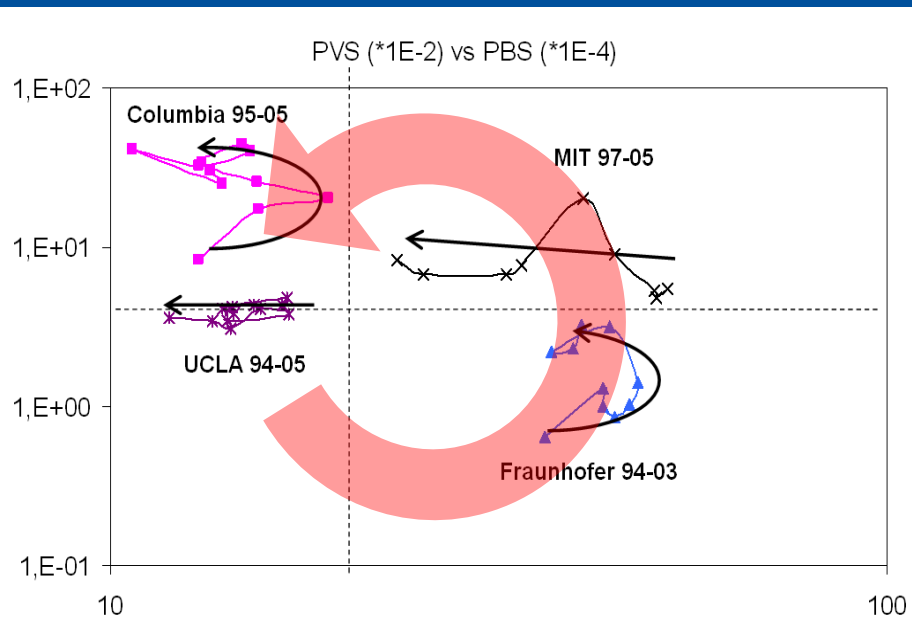
What to learn (2): Patenting - Licensing balance



Here Johns Hopkins benchmarked against Stanford

- Similar R&D budget
- Both at average patent speed
- But Stanford gets higher returns
- Potential gain of Johns Hopkins:
€ 80 million per year

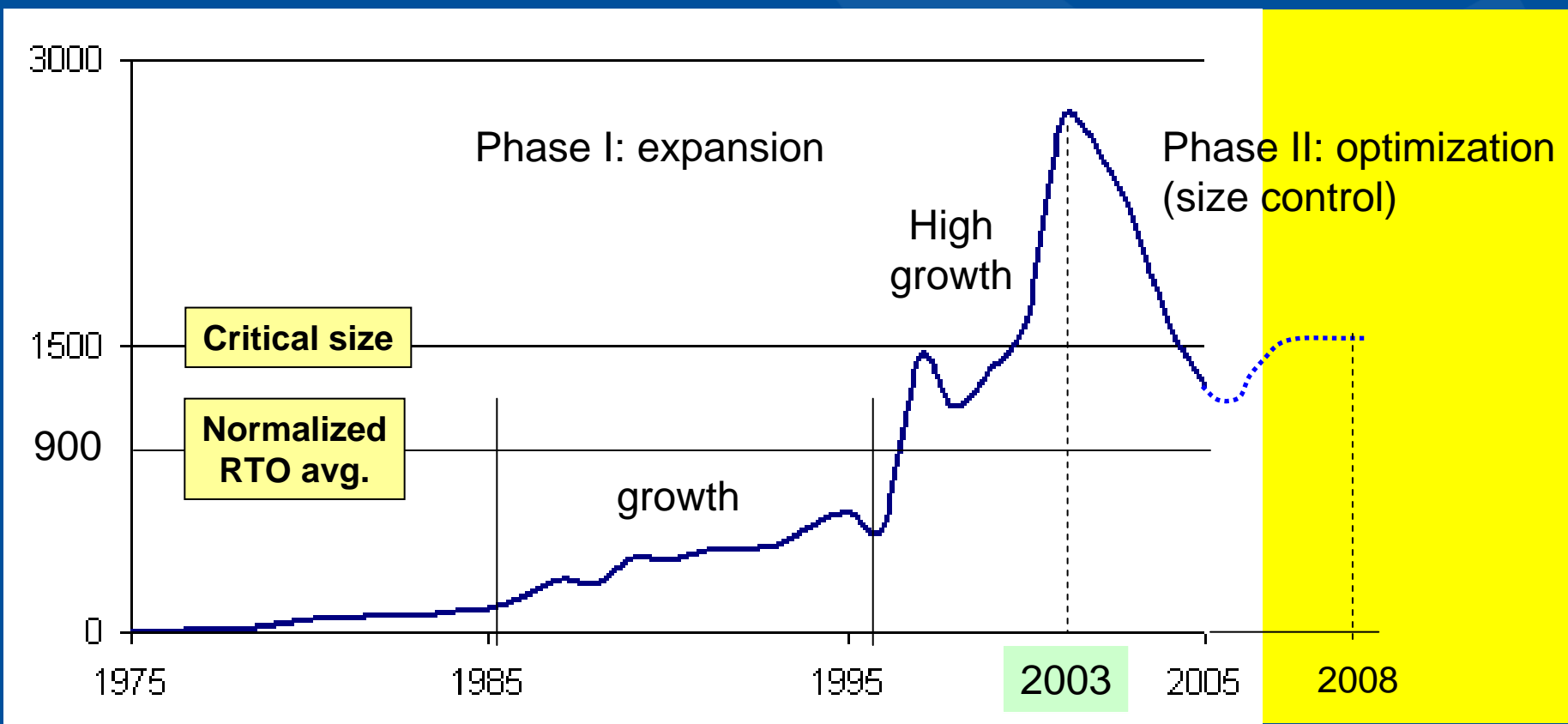
What to learn (3): Patenting/licensing balance - Dynamics



- Invisible learning curve
- With four different phases
 1. Defensive
 2. Portfolio size growth
 3. Licensing increase
 4. Size control
- Here main US RTOs ahead
 - Columbia, UCLA and MIT
- Fraunhofer reduces the gap

Printer Company (total portfolio): which of the 4 phases today?

Patenting pace (number of families filed per year) over the last 30 years



← IP awareness in US media → ← Pro-patent era → ← Recession →

Printer Company (total portfolio): 2007 performance indicators

Measures & indicators	Printer Co	RTO average**	Seiko	Canon
Yr. R&D expenditures	US\$ 3.5 billion	€ 140 million		
# families yr. Patented	1,500	54		
Yr. Licensing income	€ 158 million *	€ 5.7 million		
Patenting strength	3.2 E-3	1.9 E-3		
Licensing strength	6,8 E-2	4.1 E-2		
Patent power	2,2 E-4	0,8 E-4		

* Estimated with maximum RTO returns at Printer Co. R&D exp.

** Based on AUTM annual surveys

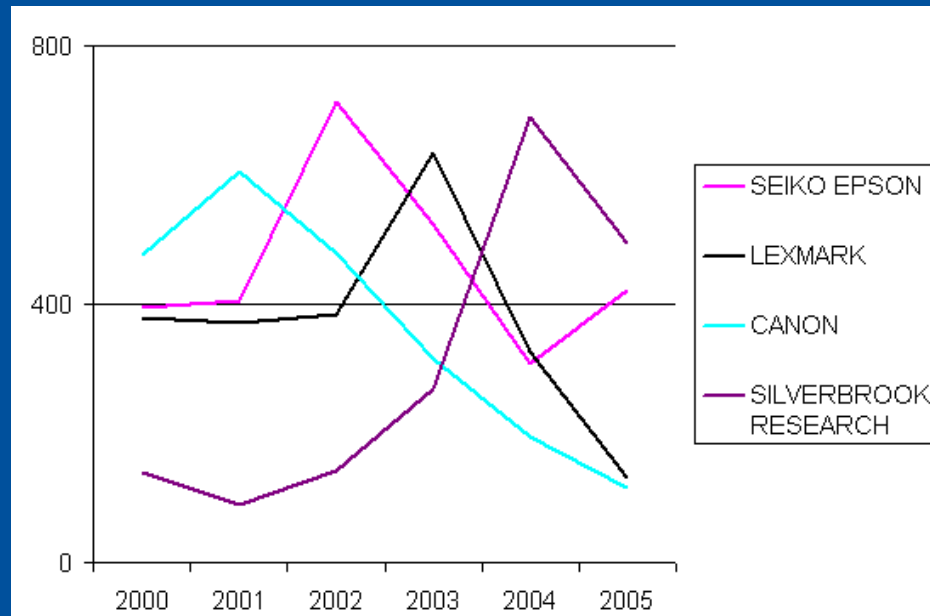
Observations

- Printer Company has a high (above RTO average) potential in terms of IP building and valorization.
- With the same potential, the competition earns **US\$ 160 million per year.**

IPEG can bring alternative thinking

- Benchmark Printer Company Patent Management Performance
 - esp. w.r.t Seiko Epson, Canon and Brother Industries
- Explore and segment current Printer Co. portfolio to increase internal collaboration
- Reconsider strategy toward competition e.g. in the inkjet segment
 - Only defensive? Cross-license? Divesting?
 - E.g. as to Seiko and Silverbrook Research, which regain interest in Printer Co. technology

Citation frequency of Printer Company portfolio in inkjet segment



Citing filing years

- Data-driven approaches
- Also qualitative methods with top expert reviews
- IP strategic management tools
 - Benchmark & positioning
 - Planning & projection
- On today's and/or future Printer Patent portfolio

Two IPEG products

- “IntrosPection” over today’s Printer Co. portfolio
 - Mapping large IP portfolio incl. unpublished
 - Extracting key technologies for directing new R&D
 - Fostering internal collaboration to build new IP
 - Pruning ripe IPs with leads qualified by top experts
- “HolistIP” over future Printer IP position
 - Business vision
 - Benchmark current performance and projections
 - Normalized indicators for comparing IP management
 - Positioning in technology fields. Find new partnerships
 - Scenario making and feasibility assessment (SWOT)
 - Explore alternative IP strategies toward competition
 - Draw and implement IP market-driven roadmap

- For alternative portfolio scenario-making
 - Game as collaborative and risk-free laboratory setting (Arnaud Gasnier - Thesis)
- For raising awareness and internal collaboration
 - Via an online global IP contest esp. among new staff

