

- » BOOST PERFORMANCE
- » REDUCE COST
- » INCREASE AGILITY
- » ENHANCE CRM
- » SHORTEN TIME TO MARKET
- » DRIVE INNOVATION
- » IMPROVE EFFICIENCY
- » INCREASE ADAPTIVITY
- » ENABLE BUSINESS TRANSFORMING
- » ENSURE REGULATORY COMPLIANCE



Four Challenges for Implementing Open Innovation Preliminary findings

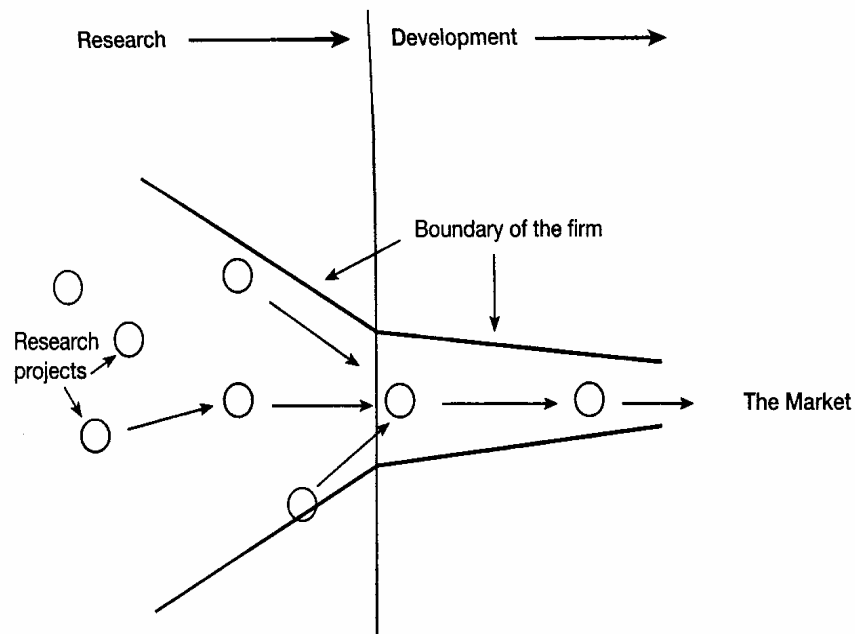
Prof. dr. Ard-Pieter de Man
ICIM, Maastricht
11 December 2008

▪ **Open Innovation**

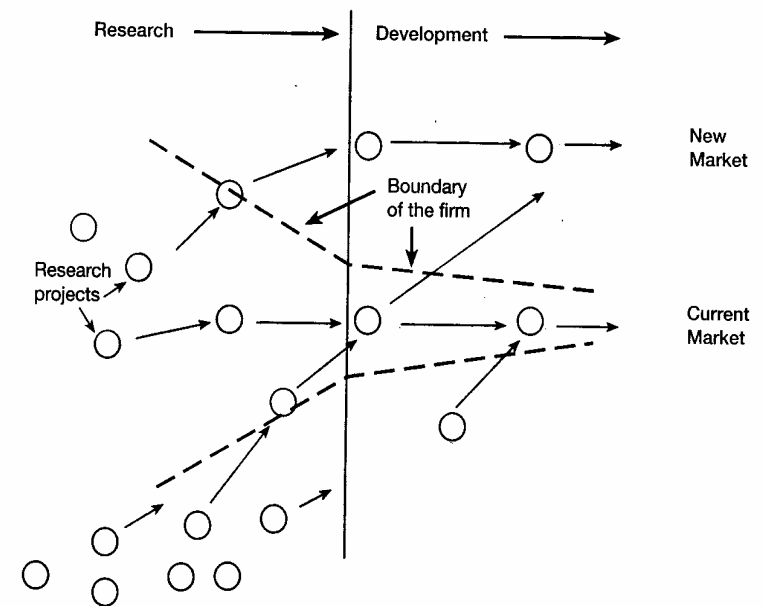
- Research method
- Results: Innovative performance
- Results: Management processes
- Conclusion

From closed to open innovation

Closed innovation



Open innovation



Source: Chesbrough (2003)

“Open Innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively.”

Research method – research questions

What is the state of affairs of Open Innovation?

Research questions

- To what extent is Open Innovation implemented in companies?
- Which management processes support Open Innovation?
- How effective are these management processes?

Research method – research process

Research process

- A literature study revealed five elements to look at:
 - The maturity of the innovation strategy
 - Mechanisms to acquire knowledge from outside the organization (outside in)
 - Mechanisms to commercialize unused knowledge from inside the organization (inside out)
 - The extent to which employees and companies are externally oriented (mindset)
 - The success rate of innovation
- Developing a validated 64 question survey; 1-5 Likert scale
- Gathering data from innovation and R&D managers
 - Online survey
 - Personal interviews
- Analysis of the data

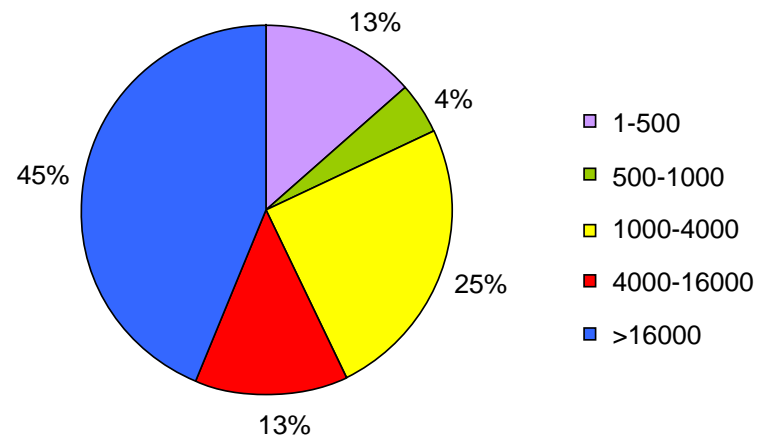
Research method – dataset

The results of our study are based on a sample containing 92 companies.

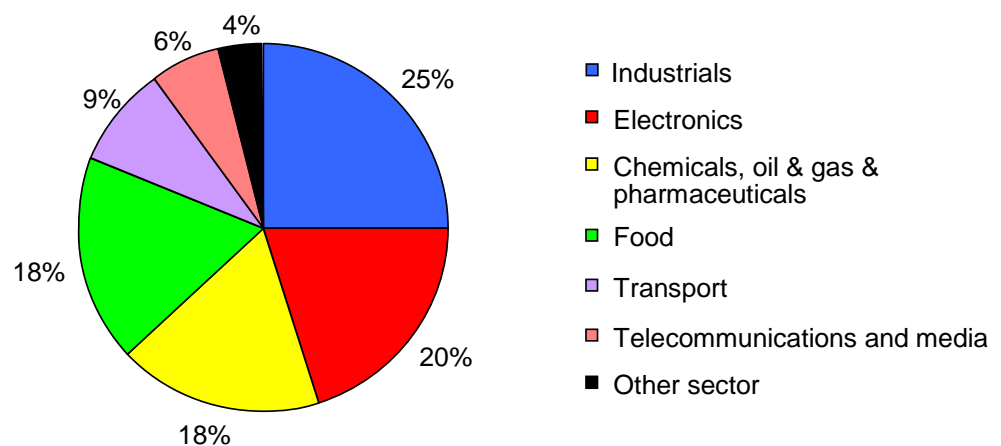
Sample

- Number of respondents: 92; response rate: 29,6%
- Companies: a mix of different company sizes
- Country of origin:
 - About 70% of companies is Dutch
 - 11% USA
 - Other companies mainly from Western Europe
- Six different industries are represented in our dataset

Company size



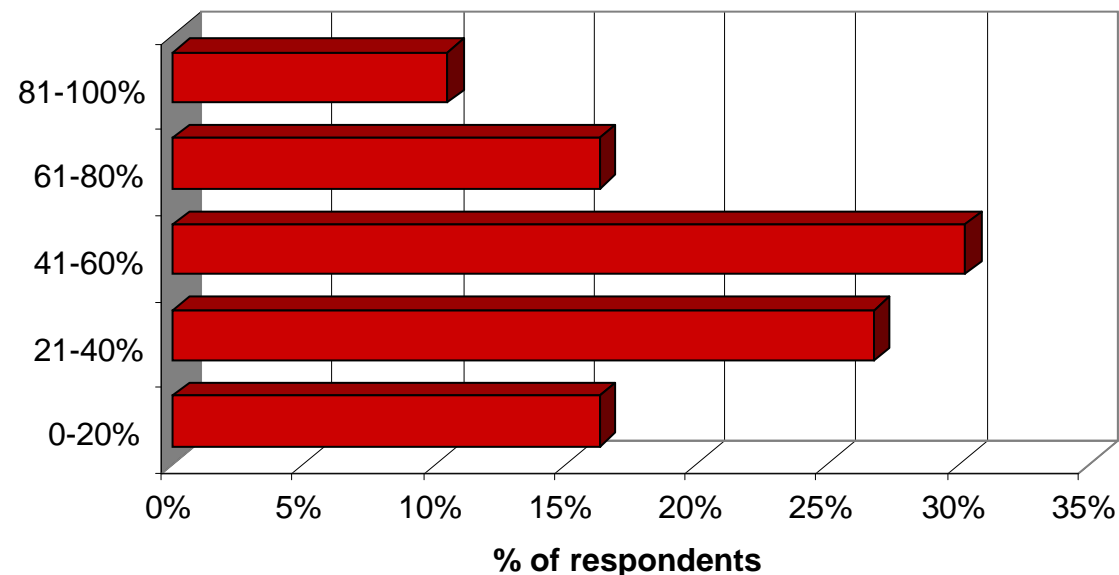
Industry type



Innovative performance – success rate of new products

There is a considerable spread between companies in the success rate of new product introductions.

Success rate of new product/service introductions

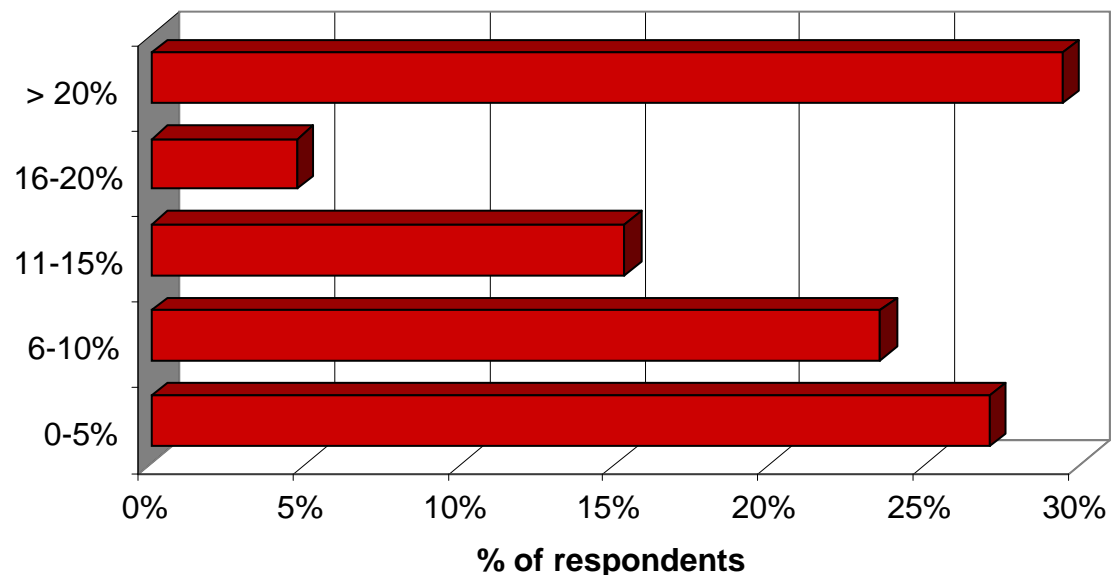


- 31% of respondents indicate that about half of their product introductions becomes a success
- The next processes are particularly helpful in raising the success rate: organization of knowledge management, evaluation of research projects and brainstorms with clients.
- Electronics, chemicals, oil & gas, and pharmaceuticals have higher success rates than other industries.

Innovative performance – revenue from new products

There are remarkable differences in the amount of revenue companies generate from new products.

% of revenues generated by products introduced in the last three years

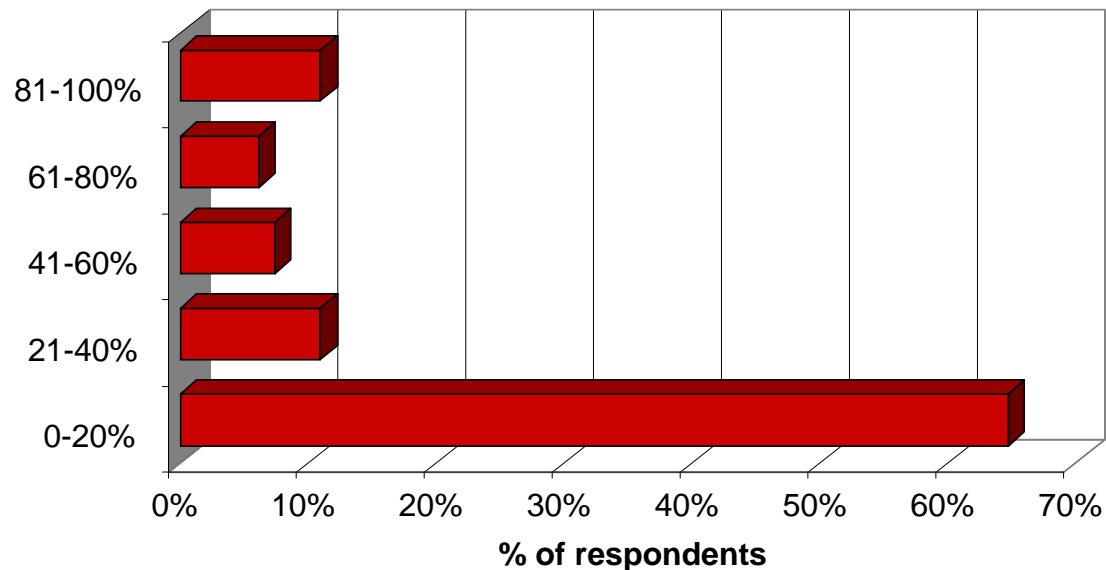


- 30% of respondents generate more than 20% of revenues from new products and services
- This high figure could be expected because the sample focuses on innovative companies. However.....
- 26% of respondents generate only 0 – 5% of revenues from new products and services
- Electronic companies have higher revenues from products introduced in the last three years than other industries.

Innovative performance – use of patents

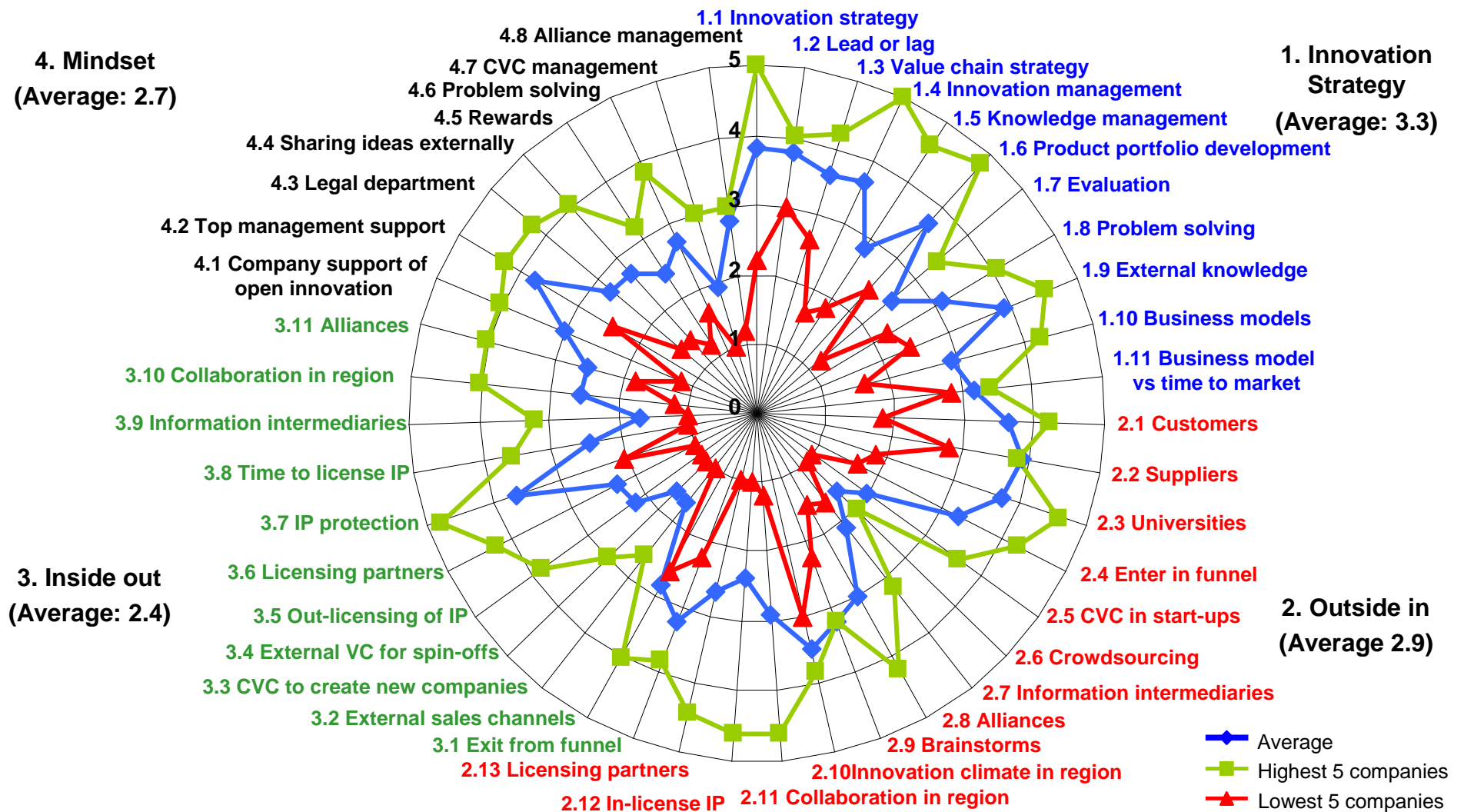
A large amount of patents is not used and remains on the shelf.

% of patents a company uses to create new products/services



- 65% of patents are not used for creating new products/services
- Possible reasons: pre-emptive patents, patents as bargaining chip, patents are connected to tacit knowledge...
- ...but also: strategy to patent everything, strategic refocusing makes certain patents less relevant
- The latter reasons indicate valuable knowledge may be left unused
- This holds for every industry; there is no industry that performs significantly better

Management processes – spider web of overall results



Management processes – benefits of Open Innovation

Does it pay to implement Open Innovation principles?

Companies that have implemented Open Innovation...

- ... successfully combine internal and external knowledge
- ... have a statistically significant higher success rate of new product introductions
- ... generate statistically significant more revenue from recently introduced products
- ... are more satisfied with their innovation performance

Conclusions – Four implementation challenges

Most companies appear to face four difficulties when implementing Open Innovation.

<ul style="list-style-type: none"> ▪ Mindset challenge ▪ IP challenge ▪ Tools challenge ▪ Management challenge 	<ul style="list-style-type: none"> ▪ Formal innovation strategies are well-defined... but they have not yet won the hearts and minds of people. ▪ Companies know how to bring external knowledge inside... but not the other way round. IP is underutilized. ▪ Traditional techniques for Open Innovation have been implemented...but the latest tools have scarcely been applied. ▪ Top managers support the use of external ideas...but have not implemented the supporting management processes.