

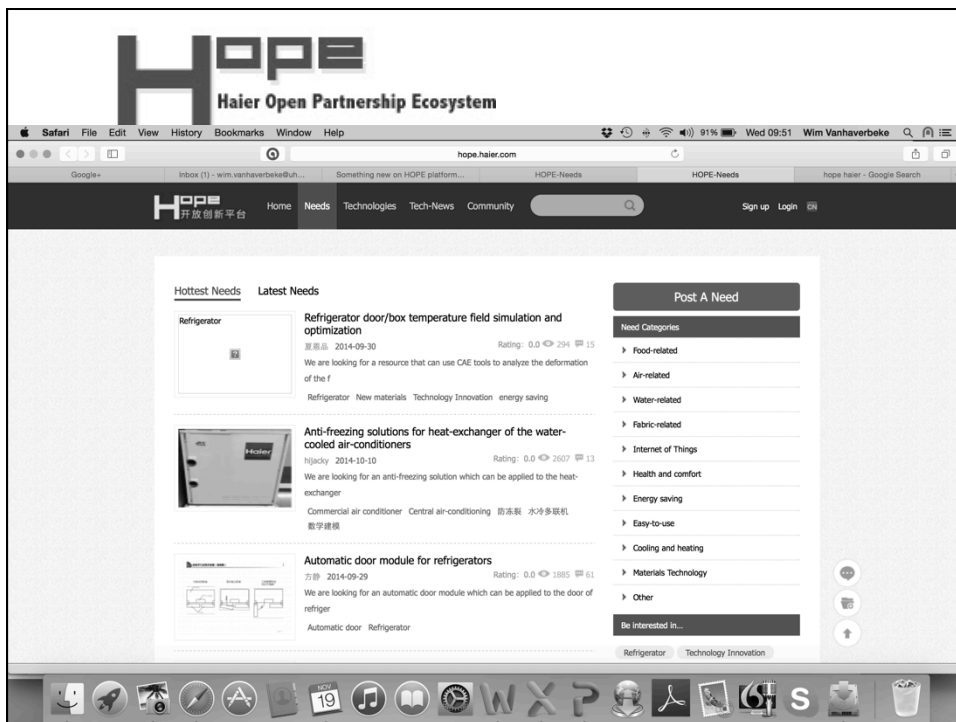
Guidance to action:
**How to effectively implement
“open innovation” in the corporation?**



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Major points to discuss

- Is OI too restrictive – should we broaden the concept?
- Structure your innovation partnerships: example of CV
- OI and Strategy
- OI and IP
- OI and culture, org structure, org processes
- OI and implementation maturity frameworks
- (OI-implementation team)
- (OI and measurement)

EXPANDING THE SCOPE OF OI

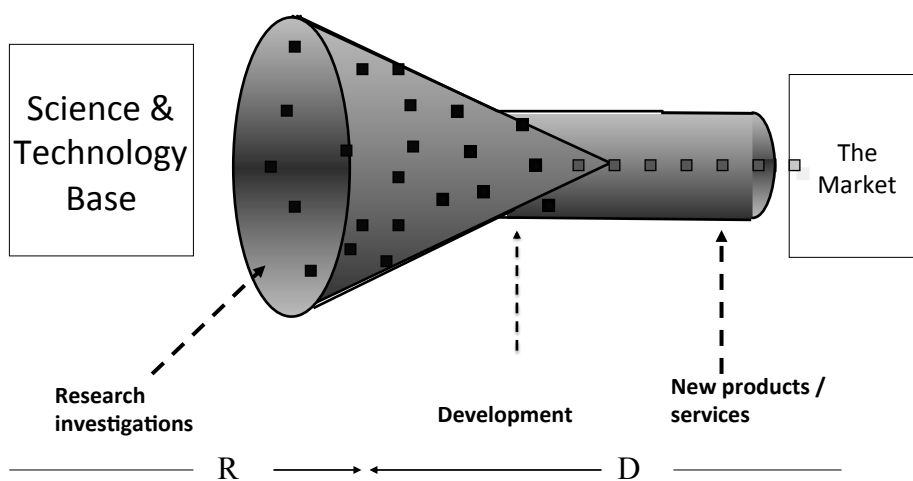
What is Open Innovation?

“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.”

Chesbrough, Vanhaverbeke, West
Open Innovation: Researching a New Paradigm
 (OUP, 2006)

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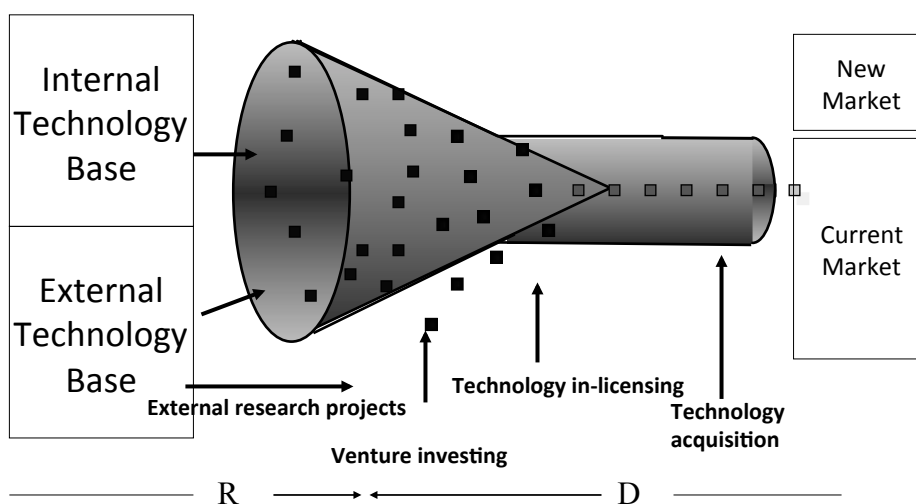
A closed Innovation System?

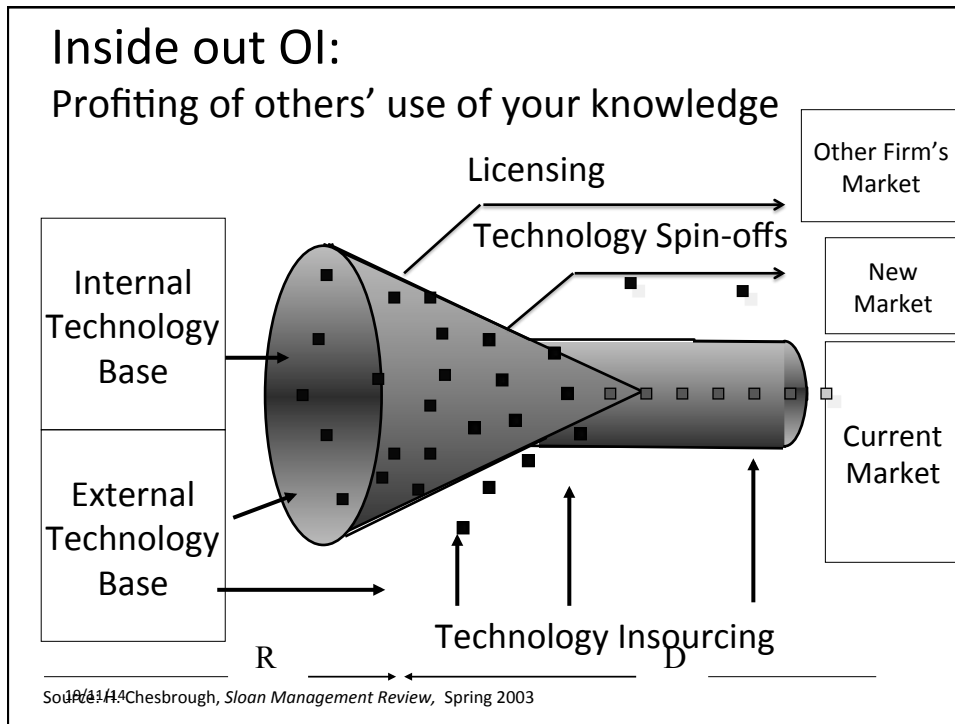


What changed? New Division of Innovation Labor

- Increasingly mobile trained workers
- More capable universities
- Knowledge distributed more widely throughout the world
- Diminished US hegemony in many leading technology fields
- Erosion of oligopoly market positions
- Deregulation (EU-liberalization)
- Enormous increase in Venture Capital

Outside in OI: Filling the gaps with external technology





What is open innovation?



“Open innovation is a *distributed innovation process* based on purposively managed knowledge flows across organizational boundaries, using *pecuniary and non-pecuniary mechanisms* in line with the organization’s business model. These flows of knowledge may involve knowledge inflows to the focal organization (leveraging external knowledge sources through internal processes), knowledge outflows from a focal organization (leveraging internal knowledge through external commercialization processes) or both (coupling external knowledge sources and commercialization activities).” (p. 17)

The new definition

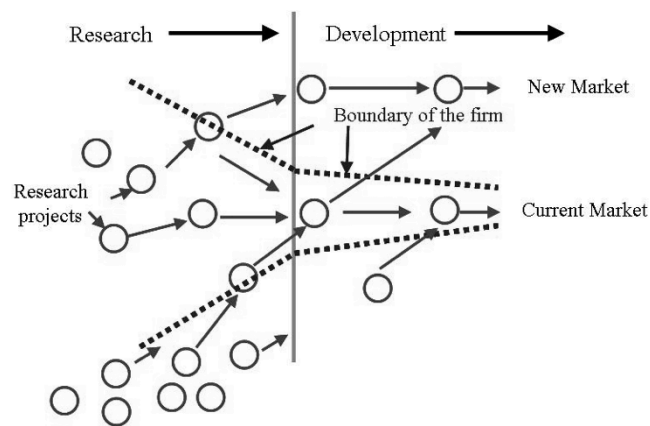
- **New elements in the definition** (compared to the earlier works on OI)
 - distributed innovation
 - purposively managed
 - business model
- Chesbrough (2003) emphasizes erosion factors of Closed Innovation? Should we rather talk about drivers of OI?

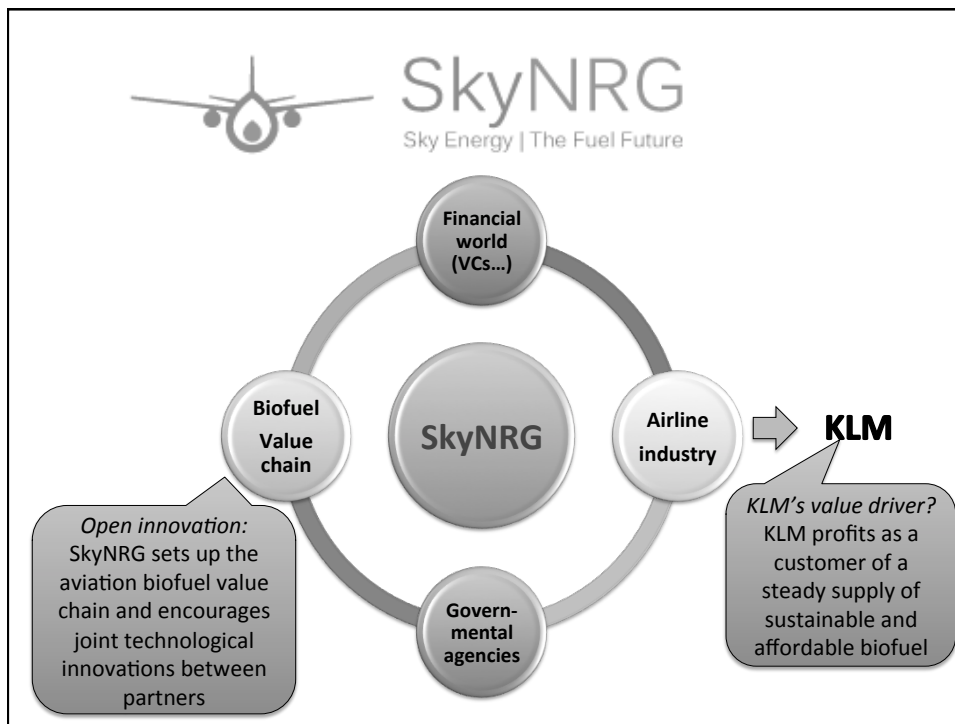
Broadening the scope

- OI when it is not related to your NPD:
 - You are a service company with no technical expertise
 - SME with insufficient technological expertise
 - Government agency:
 - Nasa: new technologies may help you a lot in your mission as space agency
- ***OI of others are introduced indirectly through your open business model (OBM)***



- KLM Royal Dutch Airlines, the North Sea Group and Spring Associates joined forces and founded **SkyNRG** in Nov 2009.
- Goal: to help create and accelerate development of a market for sustainable jet fuel (safe, sustainable and affordable) & avoid large price swings in petro-based kerosene
- Creating a viable market for sustainable jet fuels for aviation can only be achieved *by combining expertise and experience in the fields of air transport, product knowledge, R & D, regulation and effective sustainability criteria*
- *SkyNRG is the hub firm in the ecosystem*

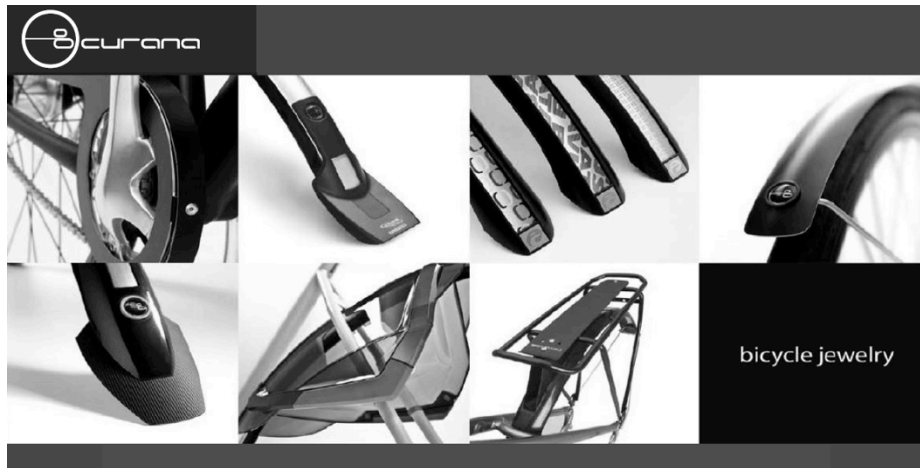




Only for large companies?

- Is innovation ecosystem building only for large companies such as KLM?
- No, **Curana** does it nicely and has only 25 employees

Curana



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Curana: B"Lite : Mudguard of Curana

This advertisement features a large, high-quality image of the B"Lite mudguard. In the top left, there is a technical diagram of the mudguard with the following specifications:
- 0.2 mm - 65L
- 0.2 mm - 3P
- 0.2 mm - 65L
Below the diagram is a small video player showing a bicycle with the mudguard installed. The text 'Klik op de afbeelding om het filmpje te bekijken' is positioned below the video player. The main image of the mudguard includes the text 'the ultralight strong mudguard' and the 'B"lite' logo. A small inset image shows the mudguard's attachment mechanism with the text 'Over het wiel en de voorlamp'. The date '19/11/14' is in the bottom left, and the Philips logo is in the bottom center.

19/11/14



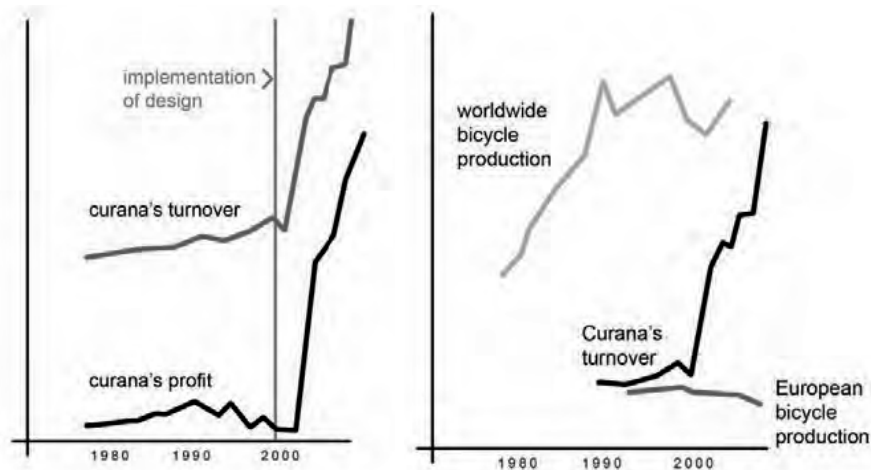
B"lite the ultralight strong mudguard

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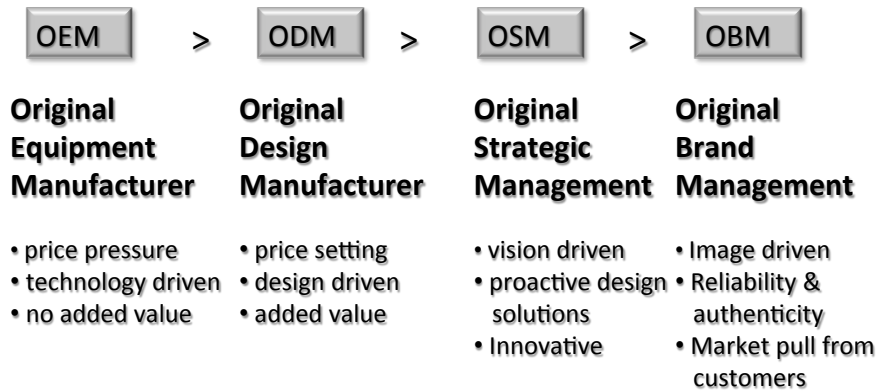
Curana: innovation combined with industrial design in low-tech markets

- **Advantages:**
 - Lighter mudguard (25% less weight than plastic mudguards).
 - Production cost are low enough to be competitive with standard mudguards
 - Installation of the mudguard is easier
 - Nice design
 - Aluminum separated by plastic can be used as a conductor for electricity (no more wires required for lights)
- **Innovation:**
 - combination of internal and external knowledge (external design company and polymer extrusion manufacturer)
 - Lead-users (bicycle manufacturers) promised to buy B" Lite via an exclusive deal which is limited in time (Batavus and Sparta)

Curana: Spectacular results



Curana: a small company in transformation

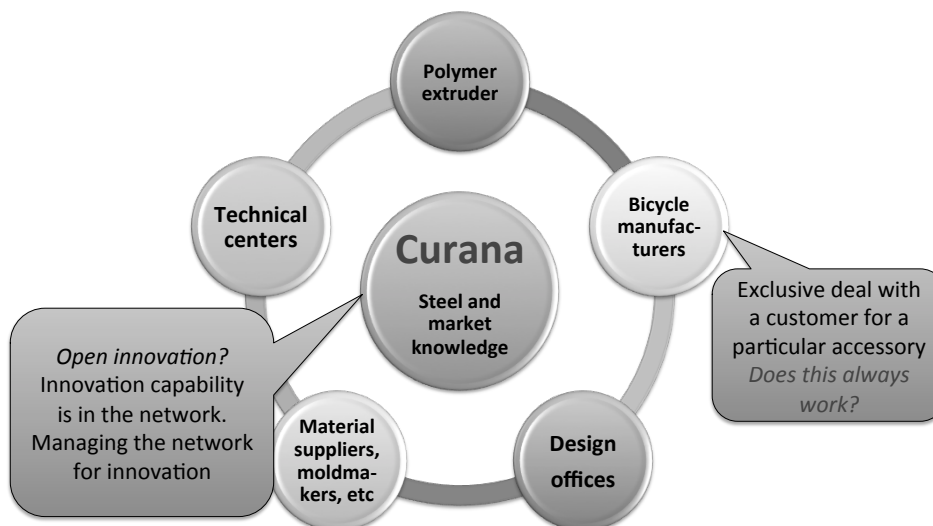


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Wim Vanhaverbeke

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Curana's innovation ecosystem



Broadening open innovation

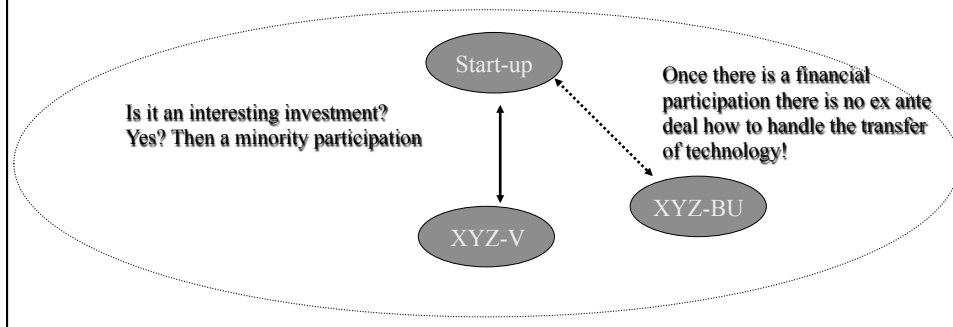
- **Past**
 - NDP / NBD as application of OI
 - The firm is an innovating company (only high-tech)
 - One on one (inside out and outside in)
 - OI is not related to a business model
 - Manage individual relations
- **Future**
 - All value drivers can be a reason to develop OI
 - The firm should not be an innovator, any company can be an instigator of collaboration
 - Involve a network of partners in an ecosystem
 - OI comes in indirectly through OBM
 - New role of ecosystem orchestrator
 - New management processes to make a ecosystem successful (N & S, 2010)
 - Co-innovator risk & technology adoption risk (Adner, 2012)

How CV should be organized to be successful?

An example of early stage venture investment

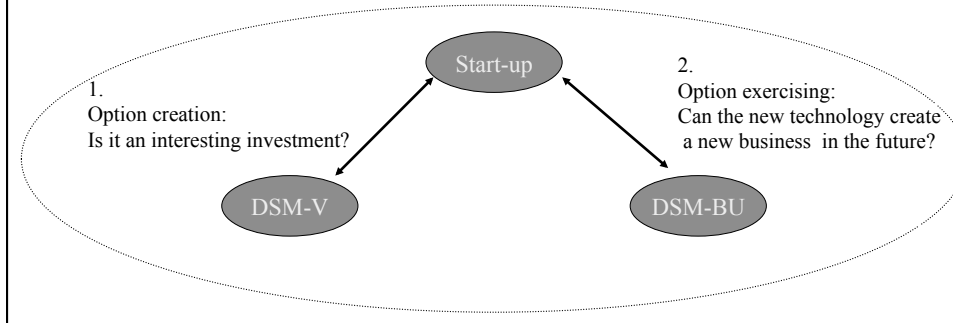
How to organize for OI? External Venturing at XYZ

- **Pitfall** : Large firm invests in a start-up and uses its financial participation as a power tool to enforce cooperation on terms of the investing company



How to organize for OI? External Venturing at DSM

- **Rationale:**
 - Strategic return, not a financial return
 - One of the BU should benefit from it
- Therefore: Negotiation is a *three way negotiation*
There are *two deals* packaged into *one overall deal*



How to organize for OI? External Venturing at DSM in FS

- Result: negotiate to get a maximal win-win situation
 - Both firms can offer each other a lot
- **The large firm:**
 - business and market intelligence
 - application technology
 - marketing know-how
 - large scale manufacturing
 - credibility among large potential clients
 - patent writing skills
 - ...
- **Start-up:**
 - new technology, business model, etc..
 - entrepreneurial risk taking and decision making
 - ...

Tensions and debates: The following conflicting interests

DSM Food Specialties	Sanus
<ul style="list-style-type: none"> • No upfront investment • Exclusivity • Quick results • No risk for DSM • Technology to be used in strategic areas of DSM • Full access to IP of Sanus 	<ul style="list-style-type: none"> • High upfront investment • Opportunity to work with other parties • Time to develop products/ markets • No risk for Sanus • Limited, more focused approach on other applications • Access to DSM resources

How to organize for OI? External Venturing at DSM

Six reasons not to start a power play with external ventures:

1. *Bad reputation*: when the large, investing firm is looking for interesting start-ups as a recurrent practice
2. Pushing *too hard for a particular application* (based on the business model and proposed application of the large, investing firm)
 - Market potential of start-up technologies is still very uncertain because of the early stage technology. *Keep options open* for unintended but interesting applications.
 - limits business potential of start-up (and thereby shareholders value)

....

How to organize for OI? External Venturing at DSM

Six reasons not to start a power play with external ventures:

3. Might *kill the spirit of good cooperation*.
4. *Kill entrepreneurial spirit by creating another "corporate puppet on a string"*
5. Could *limit exit possibilities and exit value* for other shareholders (by lock-in to/dependency on corporate)
6. *Could result in litigation* if perceived as abuse of economic power

Embed OI always in a firm's strategy!

3 examples

- Printed Pringles at P&G
- P&G wrote a public brief describing the technical problem to be solved and sent it out worldwide. A professor in Bologna had inherited a bakery. He had dabbled with the equipment and created an edible food dye that could be printed on cakes and cookies. P&G licensed the IP from him and launched Pringles Prints in eight months (compared to spending one year just discussing IP with the large company). Within one year, the new product grew P&G's revenues 14%. (Larry Huston - P&G)



3 examples

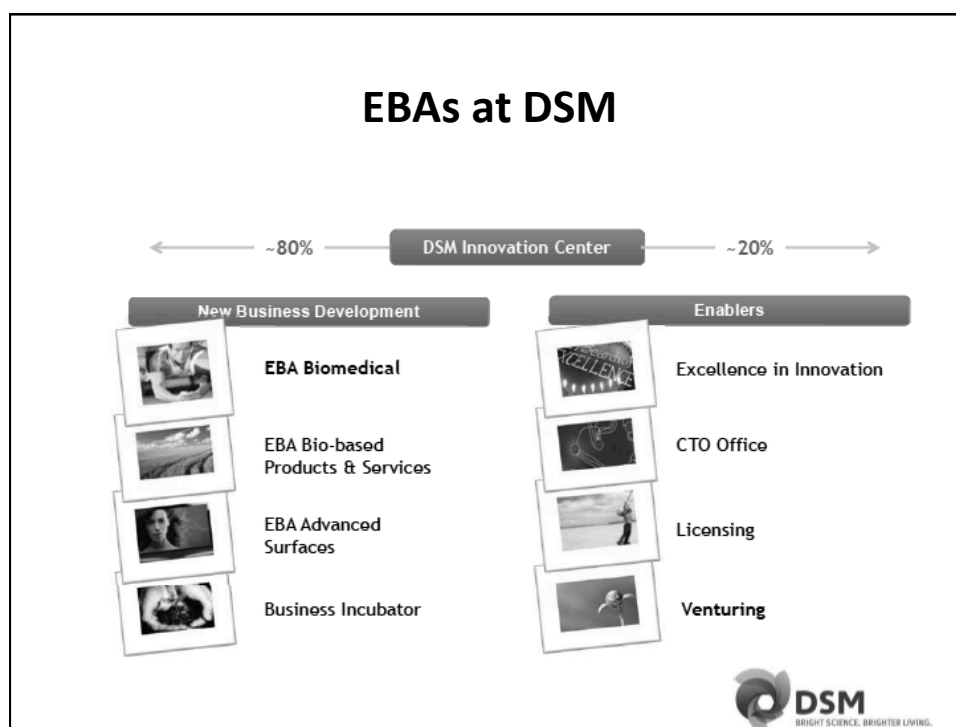
- Swiffer duster
 - UniCharm (Japan) had the technology and product but not the distribution power to sell the product worldwide
 - P&G had the distribution power
 - Licensing deal to sell the Swiffer duster outside Japan



3 examples



- DSM
 - Dutch performance chemicals company (8 bill euro)
 - Open innovation also in long term development via growth platforms
 - Bio-based Products & Services
 - Biomedical Materials
 - Advanced Surfaces



Integration of OI with business and corporate strategy

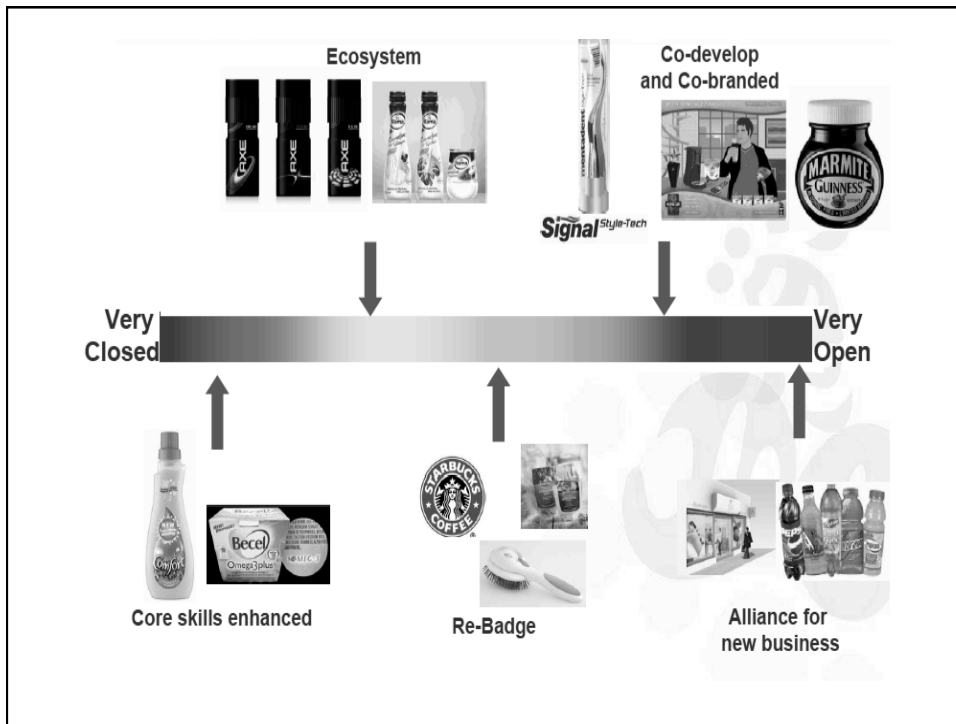
- What is the value of OI examples?
- Start from a corporate growth strategy
- What are the long term growth areas?
- Which technologies do you need and which are no longer crucial?
- How to get these new technologies / competencies. Who to partner with?
- Define open innovation partners targets and build the relationship
 - Different for LT growth through NBD or ST product improvements
 - Different types of partners
 - Different types of involvement and risk taking
 - Different teams and team members

Open innovation as part of the overall strategy execution



The case of a FMCG company

DIFFERENTIATE OPEN INNOVATION IN LINE WITH DIFFERENT STRATEGIC TARGETS



OI applied to different strategic objectives

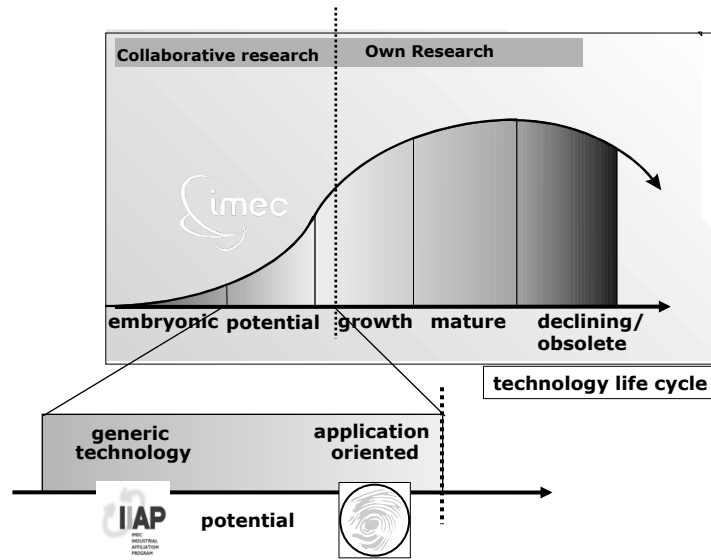
- Core skills enhanced
- Eco
- Reb
- Co-
- Alli



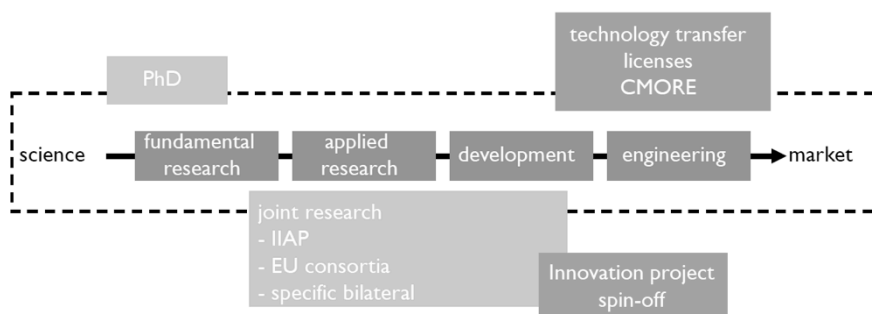
**OPEN INNOVATION AND IP
MANAGEMENT**

IMEC's IP-enabled
business models

IP policy: IMEC's position in the technology life cycle



Ecosystem interactions



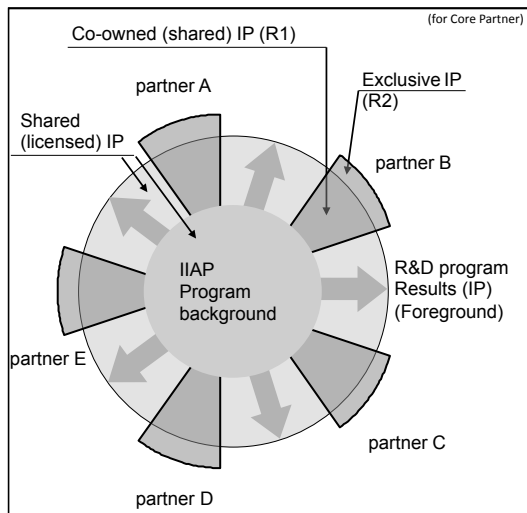
Imec works together with different partners, the type of cooperation and of partner depending on the time-to-market position.

Business plan imec 2007-2011

IP policy: IMEC Industrial Affiliation Program

- What
 - R&D cooperation in generic technologies
 - Strategic program develop by IMEC and executed in IMEC
 - IIAP partners send guest researcher(s) to IMEC
- Advantages
 - Sharing costs, risks, research infrastructure, IP
 - IIAP partners get access to:
 - IMEC's background knowledge
 - selected results of other partners in IIAP
 - bilateral contract within the framework of IIAP
- Leverages
 - resources
 - knowledge
 - cross-fertilization of research of different partners
 - shortening time to market

IMEC's IIAP IP Model



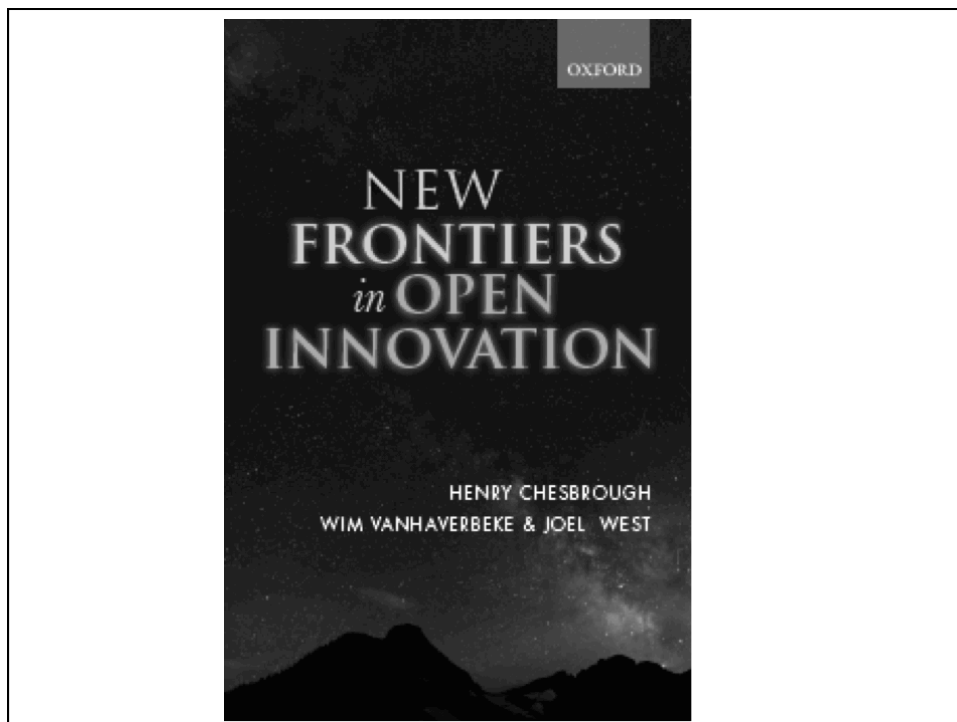
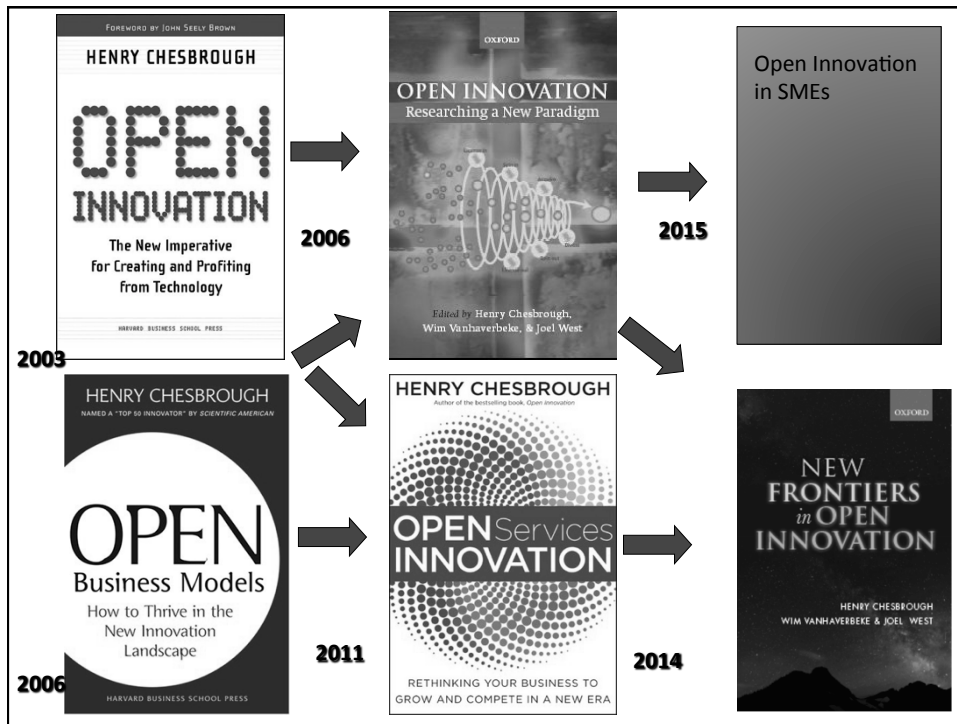
Partner obtains co-ownership (with IMEC) on results to which partner has contributed* (R1);

Partner gets a royalty free, non-exclusive, non-transferable license on results generated by IMEC or other partners in the program;

Partner gets a free, non-exclusive, non-transferable license on IMEC's background, necessary for exploitation of the results of the program;

For each partner there is possibility to generate limited proprietary results (R2);
(type of results should be agreed upfront)

* Contributed result means a result to which there is a clear contribution from the partner's assignee



Exnovate as a network of excellence for OI-practitioners and scholars?

- www.exnovate.org
 - An international network for excellence in managing Open and Collaborative Innovation
- Projects
 - CE and OI Masterclass (10 times Philips / ESADE) – May 2014, Barcelona
 - PhD course open innovation at ESADE (6th time in January 2015)
 - Open innovation metrics
 - Using best practices to improve OI in SMEs
- Open Innovation Community on Facebook and LinkedIn
- MOOI-project

MOOI
October 30, 2013
Taking Open Innovation Management One Level Up

Prof. Henry Chesbrough,
UC Berkeley & ESADE
Prof. Dr. Wim Vanhaverbeke,
UHasselt, ESADE & NUS
Prof. Dr. Nadine Roijackers,
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