



University of  
Applied Sciences

# Chancen und Herausforderungen von Open Innovation

Vortrag

Workshop „Vorsprung durch Innovationsschutz – IP-Management in der Praxis“

St. Pölten, 8. Oktober 2025

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Institut Business and Innovation (IBUS)

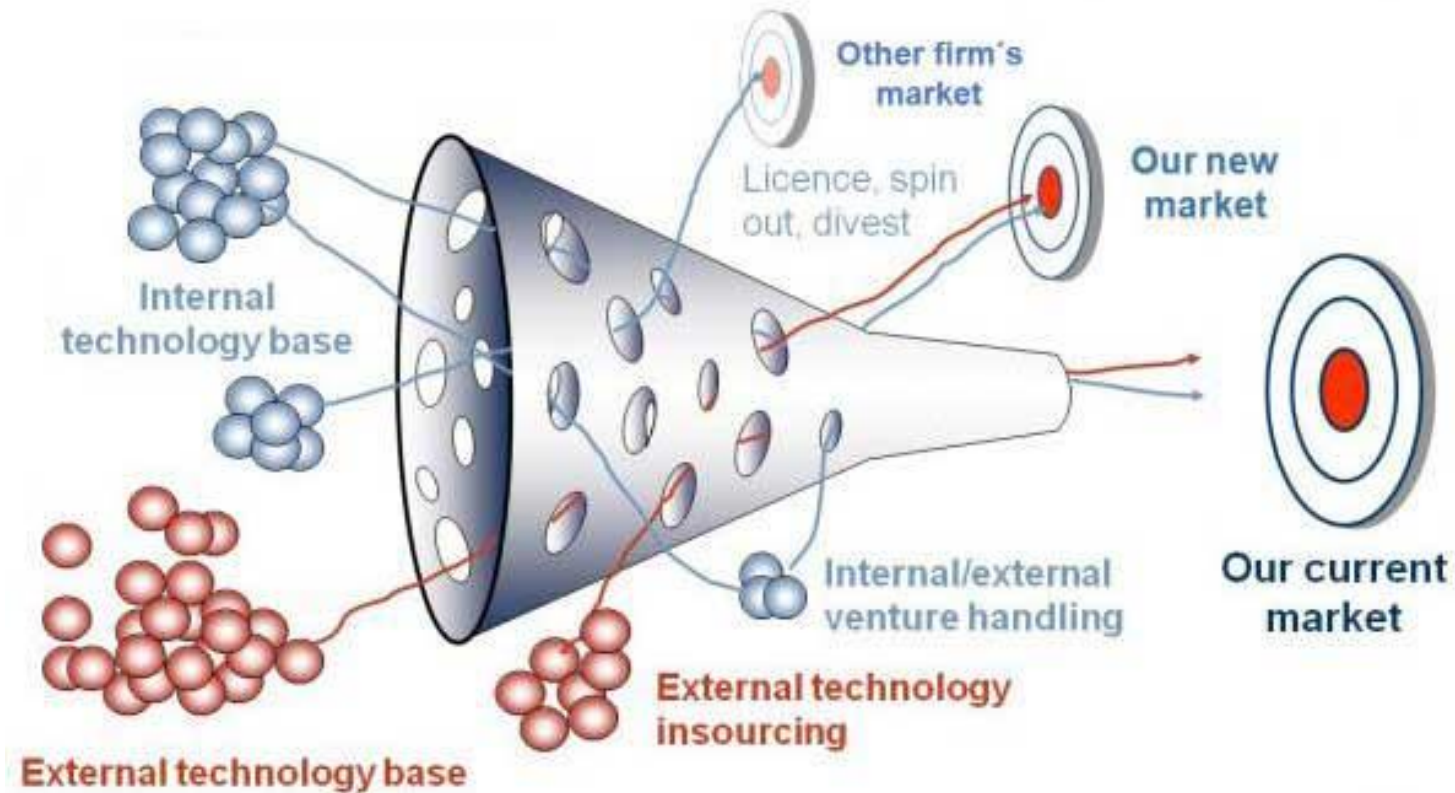
# Open Innovation - Definition

- Open Innovation...
  - *„... is the use of purpose inflows and outflows of knowledge to accelerate innovation. With knowledge now widely distributed, companies cannot rely entirely on their own research, but should acquire inventions or intellectual property from other companies when it advances the business model.“*
  - Öffnung des geschlossenen internen Innovationsprozesses
  - Begriff eingeführt von Chesbrough 2003

# Prozesse in der OI

- **Inside-out**
  - Externalisierung von internem Know-how
  - Beispiel: Patent-Auslizenzierung
- **Outside-in**
  - Integration von externem Know-how in Innovationsprozesse
  - Beispiel: Patent-Einlizenzierung
- **Gekoppelte Prozesse**

# Der OI Innovationstunnel



*Stolen with pride from Prof Henry Chesbrough UC Berkeley, Open Innovation: Renewing Growth from Industrial R&D, 10th Annual Innovation Convergence, Minneapolis Sept 27, 2004*

# Warum macht man OI?

Die Gründe für das Auftreten von OI sind

- Kurze Produktlebenszyklen
- Hohe F&E-Aufwendungen
- Preisdruck



ODER ?



# Ist Open Innovation wirklich neu?



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No Access

## WHY 'OPEN INNOVATION' IS OLD WINE IN NEW BOTTLES

PAUL TROTT and DAP HARTMANN

<https://doi.org/10.1142/S1363919609002509>

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### Abstract

The concept of 'open innovation' has received a considerable amount of coverage within the academic literature and beyond. Much of this seems to have been without much critical analysis of the evidence. In this paper, we show how Chesbrough creates a false dichotomy by arguing that open innovation is the only alternative to a closed innovation model. We systematically examine the six principles of the open innovation concept and show how the Open Innovation paradigm has created a partial perception by describing something which is undoubtedly true in itself (the limitations of closed innovation principles), but false in conveying the wrong impression that firms today follow these principles. We hope that our examination and scrutiny of the 'open innovation' concept contributes to the debate on innovation management and helps enrich our understanding.

**Keywords:** [Open innovation](#) - [technology transfer](#) - [innovation](#)

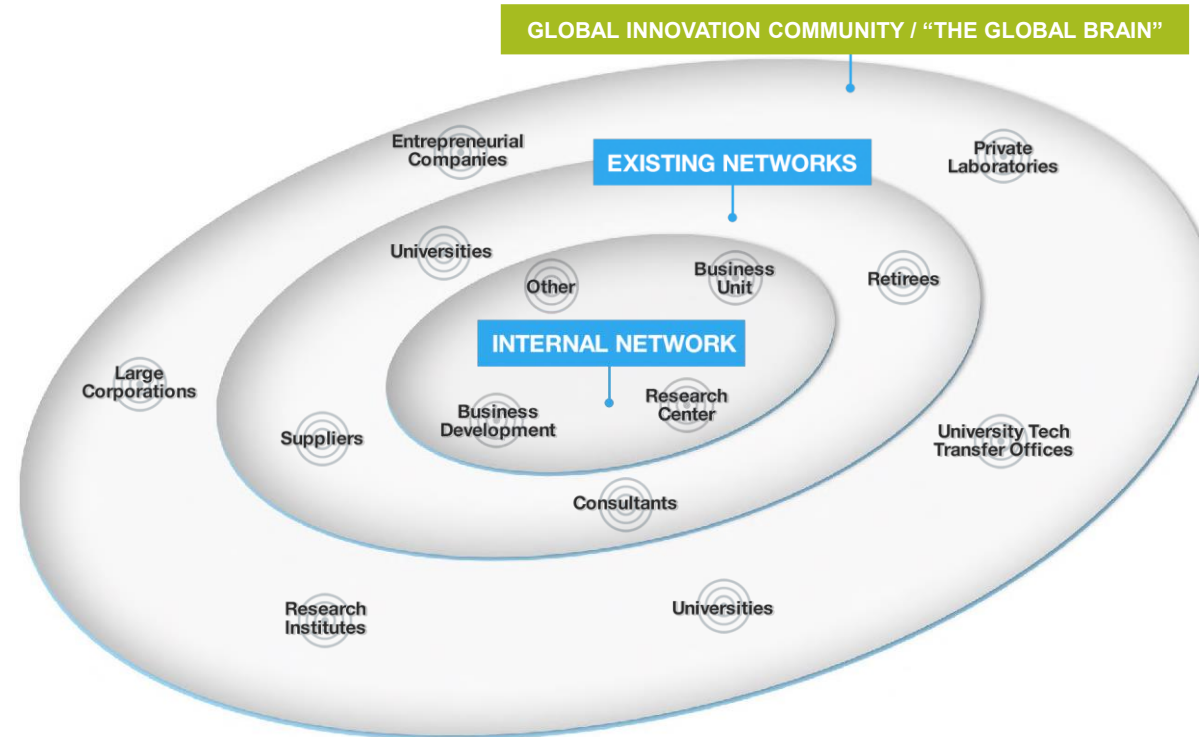
# Konzeptuell nicht unbedingt...

Aber in der Praxis gibt es einige interessante Anhaltspunkte für Neues

- Was ist eigentlich der Unterschied zwischen "Open Innovation" und "normaler Kollaboration"? Eine Kombination aus...
  - Neuen Formen des Matchmakings mit Personen/Firmen, die nicht im unmittelbaren/standardmäßigen Netzwerk sind
  - Massen-Kollaboration
  - Neuen Formen der Verwertung von Know-how (ersten Grades/zweiten Grades), die es ohne OI nicht gegeben hätte
  - Nutzung mehrerer Möglichkeiten, um mit Partnern in Kontakt zu treten

Quelle: Radauer et al., 2016

# Beispiele: Open Innovation Accelerators



Technology Search

Technology Landscape

Technology Push

Grand Challenge

Start-up Search

Partner Search

Quelle: NineSigma



# Inducement Preise

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## How we work with our clients

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Keep Plastics out of the Ocean

[VIEW PROJECT](#)

Help Robots Live Longer in Space

[VIEW PROJECT](#)

Innovation for Siemens Can Come from Unexpected Channels

[VIEW PROJECT](#)

# OI Set-Ups



Dimension	Possible types/ classifications		
<b>Direction of transfer</b>	Inbound-Open Innovation (outside-in)	Outbound OI (inside-out)	Coupled OI (both, exchange of knowledge back- and forwards)
<b>Type of knowledge</b>	Need Information	Solution information	
<b>Type of search</b>	Direct search (open search)	Indirect / delegated search (crowdsourcing)	
<b>Participant pool</b>	External participants	Internal participants (employees)	
<b>Restrictions to participation</b>	None (open call)	Given (qualification requirements, i.e. expertise, socio demographics ...)	Exclusion (participants from specific industries / organisations are not allowed to participate)
<b>Openness of IP</b>	No, i.e. classical IP model of ownership	Hybrid, i.e. shared IP, public licenses, community- owned IP	Fully, i.e. true knowledge commons
<b>Participant collaboration</b>	Dyadic, i.e. only individual actors are allowed to participate and interact with seeker (mainly to prevent IP problems later!!)	Network, i.e. collaboration among participants is allowed (better for higher degrees of problems solving, but unclear IP situation of results)	
<b>Intermediation</b>	None, i.e. seeker is interacting directly with solvers/contributors	Yes, OI via OI platform (third party) intermediary	
<b>Stage of innovation process where OI is applied in the value chain</b>	Frontend of OI (opportunity recognition market insight, technology scouting)	Development stage (design & engineering)	Nurture (launch, scale-up, lifecycle mgmt., continuous improvement)
<b>Role of OI for business model</b>	Tool to increase productivity of R&D process (conventional understanding)	Part of business model (e.g. co-design based consumer startups)	Center of business model (i.e. orchestrators of platform-ecosystems)
<b>Industry-specificity according to end product characteristics</b>	Main end-products consist of multitude of different innovations	Main end-products consist of few different innovation	
<b>Industry-specificity according to types of IP used</b>	Industries with high patent usage	Industries with high copyright usage	Industries with strong usages of other IP (e.g., designs, trade secrets, etc.)
<b>SME and/or university/PRO participation</b>	High (potential for) SME participation	Medium (potential for) SME participation	Low (potential for) SME participation
<b>Central management</b>	By large firm	By non-corporate organisation	By SME

Quelle: Piller, own compilation

# Versuche großer Unternehmen, über OI ihre eigenen "Förderagenturen" zu gründen

Open Innovation at Bayer  
Initiatives complement Bayer's innovation strategy



Grants4Targets	Bayer allocates grants for the exploration of attractive, <a href="#">novel drug targets and biomarkers</a> .
Grants4Leads	Bayer offers financial support to assess and to promote the <a href="#">exploration of small-molecule leads</a> .
Grants4Apps	Bayer funds projects for <a href="#">novel software, hardware or technologies</a> contributing to <a href="#">improve health outcomes or pharmaceutical processes</a> . In addition, the "Grants4Apps Accelerator" in Berlin supports 5 digital health startups each year.
Grants4Indications	Bayer promotes the exploration of <a href="#">new indications for Bayer compounds</a> and offers grants and further financial support for promising proposals.
PartnerYourAntibodies	Bayer offers financial support to evaluate <a href="#">antibodies or derivatives</a> and to promote its exploration for a potential new drug development.
CoLaborator	Bayer offers <a href="#">attractive laboratory and office spaces</a> for young life-sciences companies at its premises in Berlin and San Francisco.

# Das Beispiel fortgeführt...



## Bayer is committed to Open Innovation

The screenshot shows the Bayer Open Innovation website. The header includes the text "OPEN INNOVATION" and a navigation menu with links: HOME, WHAT WE OFFER, OUR COMMITMENT (which is underlined), INNOVATION STORIES, and NEWS & EVENTS. On the right side of the header, there is a "Bayer Global" logo and a "CONTACT US" button. The main content area features a large image of a man in a suit, with the text "OUR COMMITMENT" and a quote: "We invite partners from academic research institutes, startups and companies to join us and drive innovation together!". Below the quote, it says "Kamel Malik, Board of Management - Uayer AG" and a green button labeled "Interview with Kamel Malik" with a right arrow. The bottom section is titled "WE HAVE YOU COVERED" and contains three columns of text, each with an icon and a heading: "We are reliable partners", "We treat your ideas fairly", and "Responsive and open dialogue".

OPEN INNOVATION

HOME WHAT WE OFFER OUR COMMITMENT INNOVATION STORIES NEWS & EVENTS

Bayer Global CONTACT US

OUR COMMITMENT

**"We invite partners from academic research institutes, startups and companies to join us and drive innovation together!"**

Kamel Malik  
Board of Management - Uayer AG

[Interview with Kamel Malik](#)

WE HAVE YOU COVERED

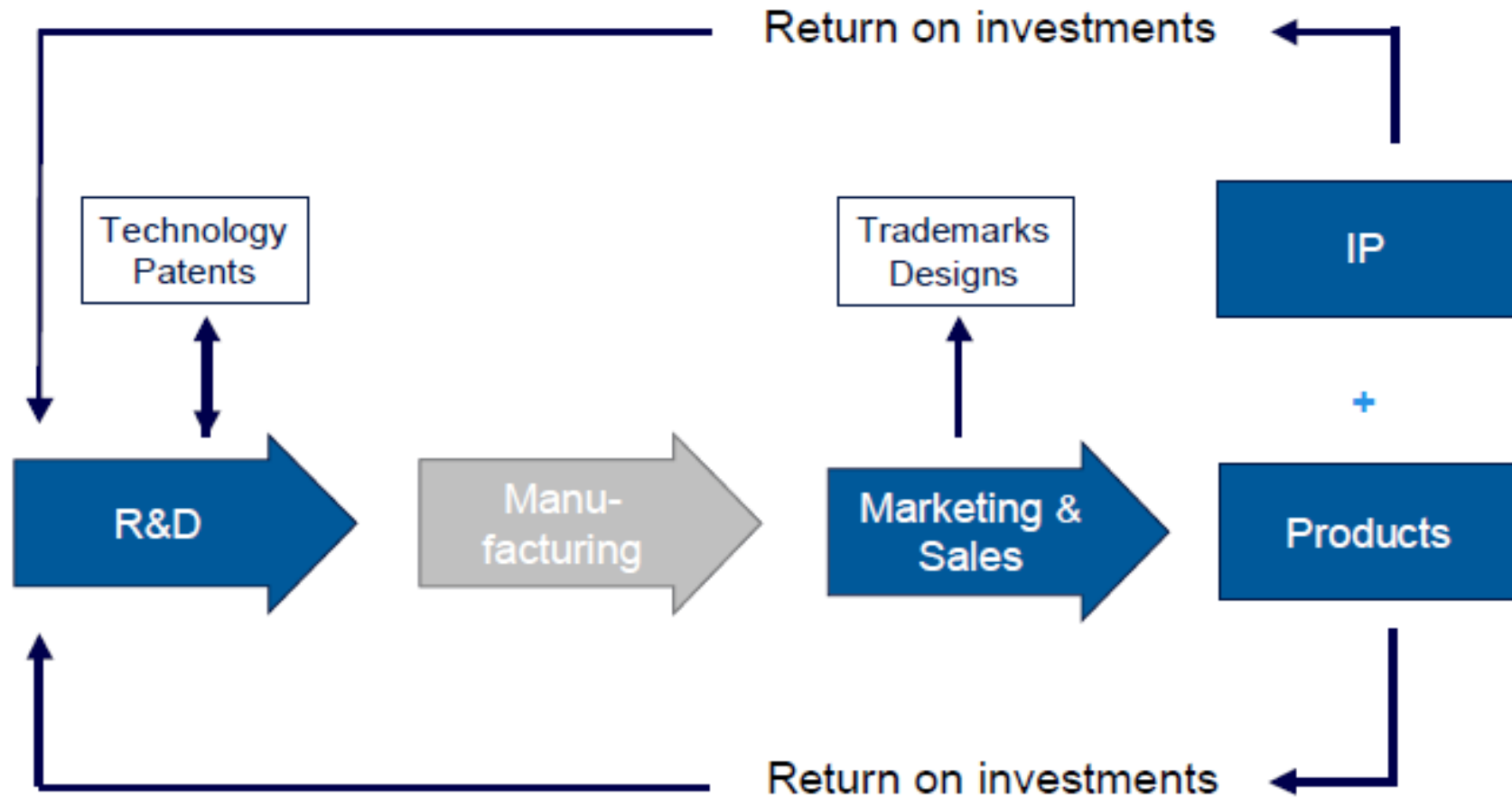
We believe in level playing fields.  
Working with you in an equal partnership is very important to us.

**We are reliable partners**  
Our overall goal is a true partnership which allows both sides to develop and prosper. We will be a committed partner for the entire duration of our collaboration.

**We treat your ideas fairly**  
We are big enough to deliver, but passionate enough to care about every project! We stand by our commitments and treat our partners with respect.

**Responsive and open dialogue**  
We are flexible and strive for tailored solutions that will fit both parties' expectations. We'll give you a direct contact to help solve any questions that arise.

# Und wo ist die IP?



Source: Marchant et al., 2007

# Conclusio: Herausforderungen der Open Innovation

- **Risiken und Herausforderungen**

- Möglichkeit der Offenlegung von Informationen und geistigem Eigentum, die nicht für die Weitergabe bestimmt sind
- Erhöhte Komplexität bei der Steuerung von Innovationen und der Regulierung, wie Mitwirkende ein Projekt beeinflussen
- Entwicklung eines Instruments zur richtigen Identifizierung und Einbeziehung neuer externer und “artfremder” Innovator/innen und Innovationen
- Neuausrichtung von Innovationsstrategien, die über das Unternehmen hinausgehen, um den Ertrag externer Innovationen zu maximieren

→ **Konsequenz:** Open Innovation kann eine sehr herausfordernde Sache sein

# Status Quo: Hype oder weitergehender Trend?

Erste Welle ungezügelter Enthusiasmus traf auf Realität



Konzerne täuschen oft nur Modernität vor

## Das Scheitern der Berliner Digitallabore

Mit digitalen Labs, Inkubatoren und viel Risikokapital versuchen deutsche Konzerne und Mittelständler einen eigenen Weg in die Zukunft zu finden. Gern in Berlin. Die Zwischenbilanz der Innovationseinheiten ist niederschmetternd.

Von **Christina Kyriasoglou**  
23.01.2020, 12.00 Uhr

When comparing our current sample with those in 2010 and 2013, we find a strong wave of acquisitions and mergers, which has taken place in the past years. **Compared to five years ago, more than 40 percent of the OIAs have either been acquired by other players or do not exist any longer.** At the same time, a new variation of OIAs enter the market, with a focus on exploiting the opportunities of artificial intelligence and machine learning.



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**Vielen Dank!**

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