

20 September 2018, Berlin

Emporio I Room

Openness and transparency in academic-industrial collaboration

Dr. Volker Meyer-Guckel (chair)

Dr. Susanne Müller-Knapp

Dr. Max Riedel

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Dr. Volker Meyer-Guckel

*Deputy Secretary-General of the Stifterverband für
die Deutsche Wissenschaft, Germany*

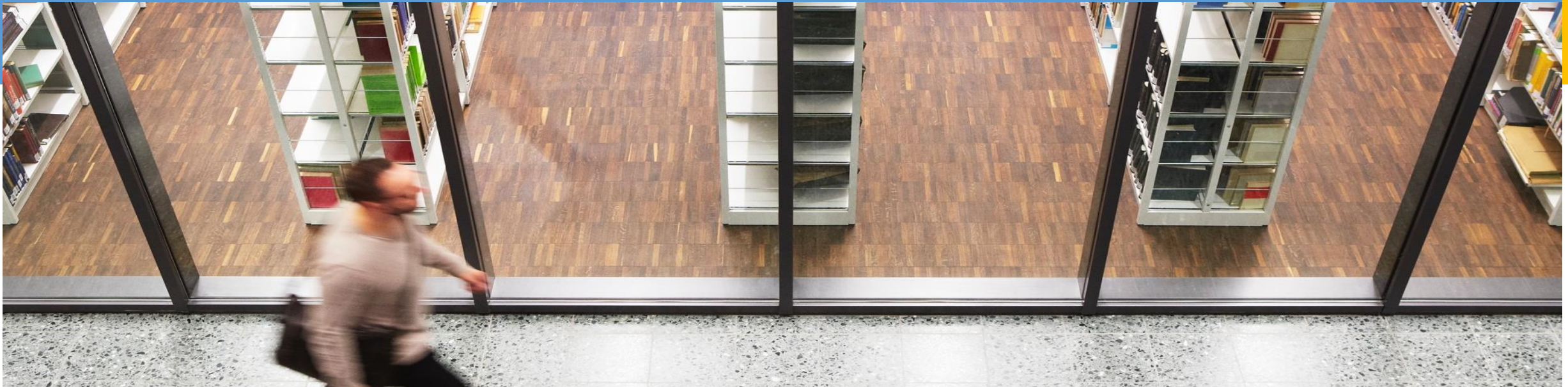


STIFTERVERBAND

Bildung. Wissenschaft. Innovation.

Berlin 20. September 2018

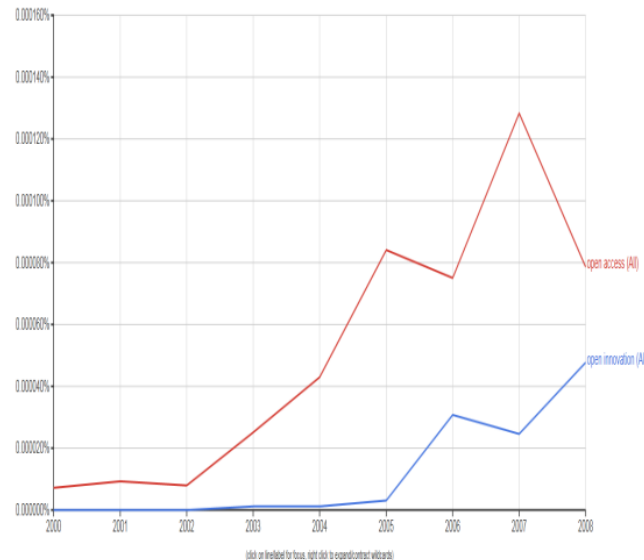
Openness and transparency in academic-industrial collaboration



Openness – the rising star in science and innovation?

In Science

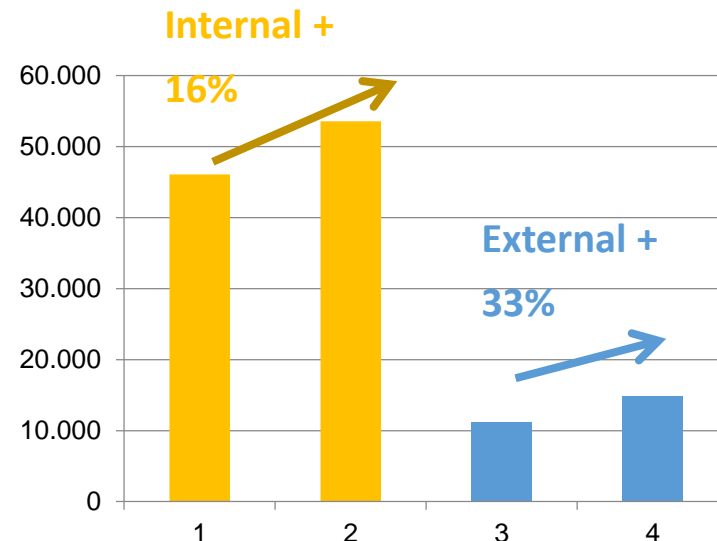
More publications on open access and open innovation



Source: google ngram viewer

In Business

More cooperation in R&D, 2008 - 2013



Source: Wissenschaftsstatistik

In Politics

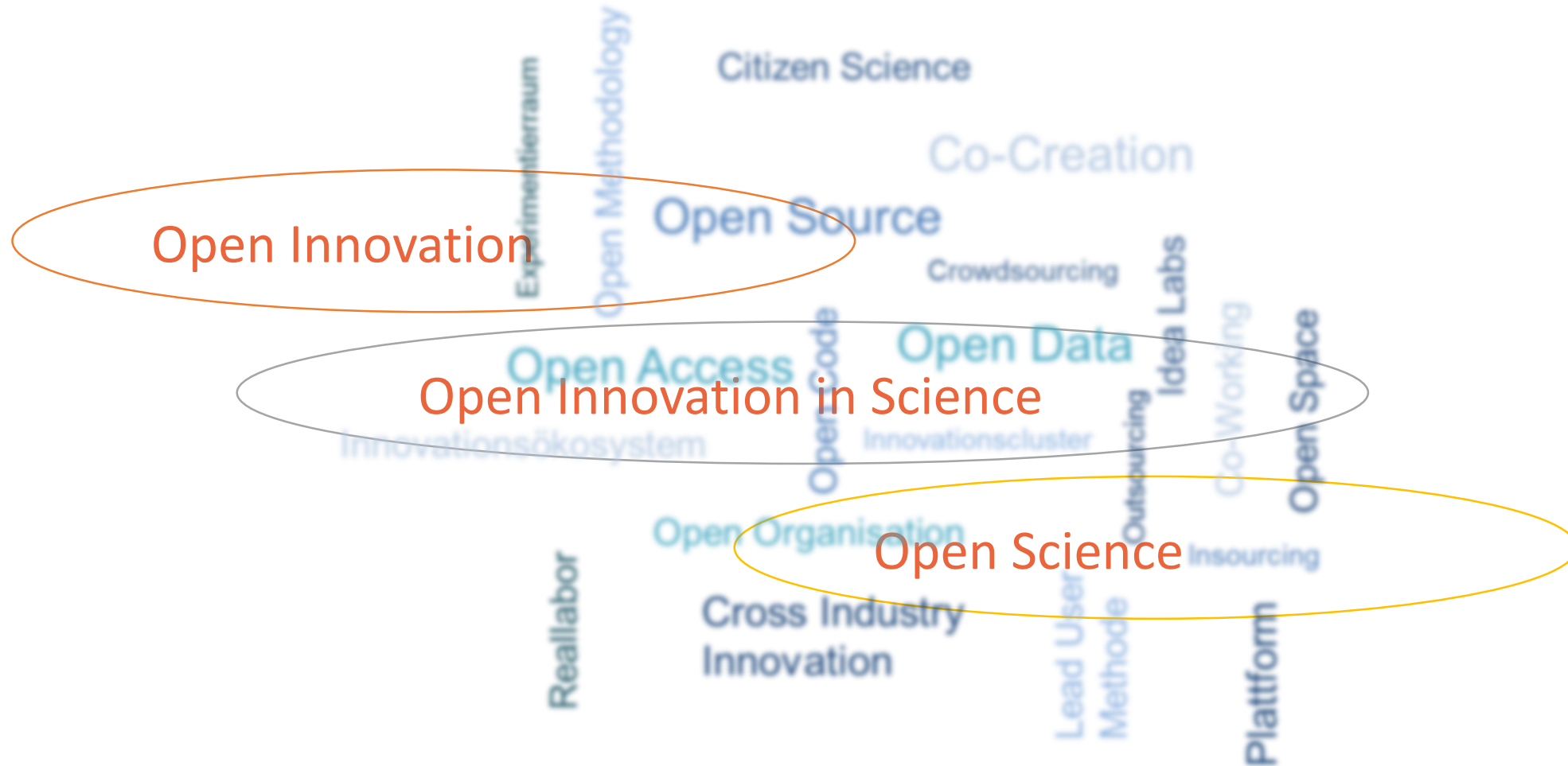
New strategies by EU-Commission, France, Austria, the Netherlands



But many Stars in the sky...

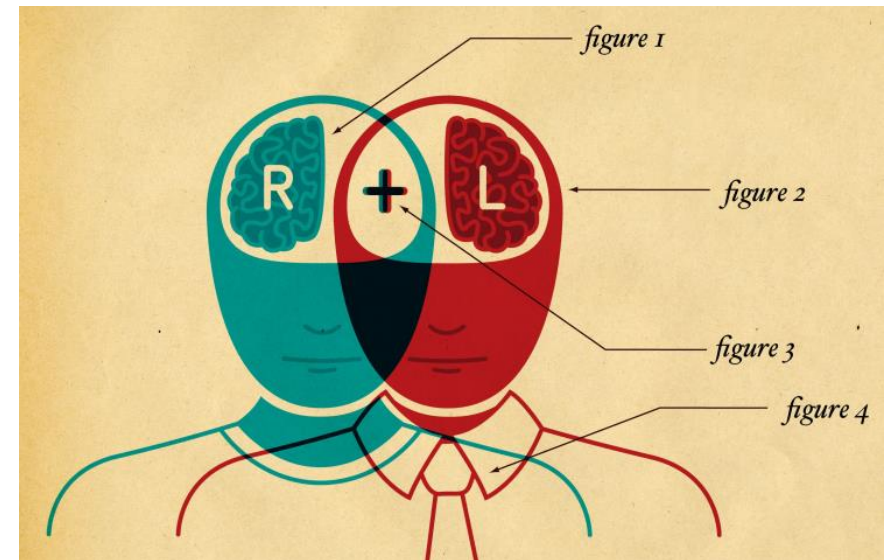


...Make discourses separate



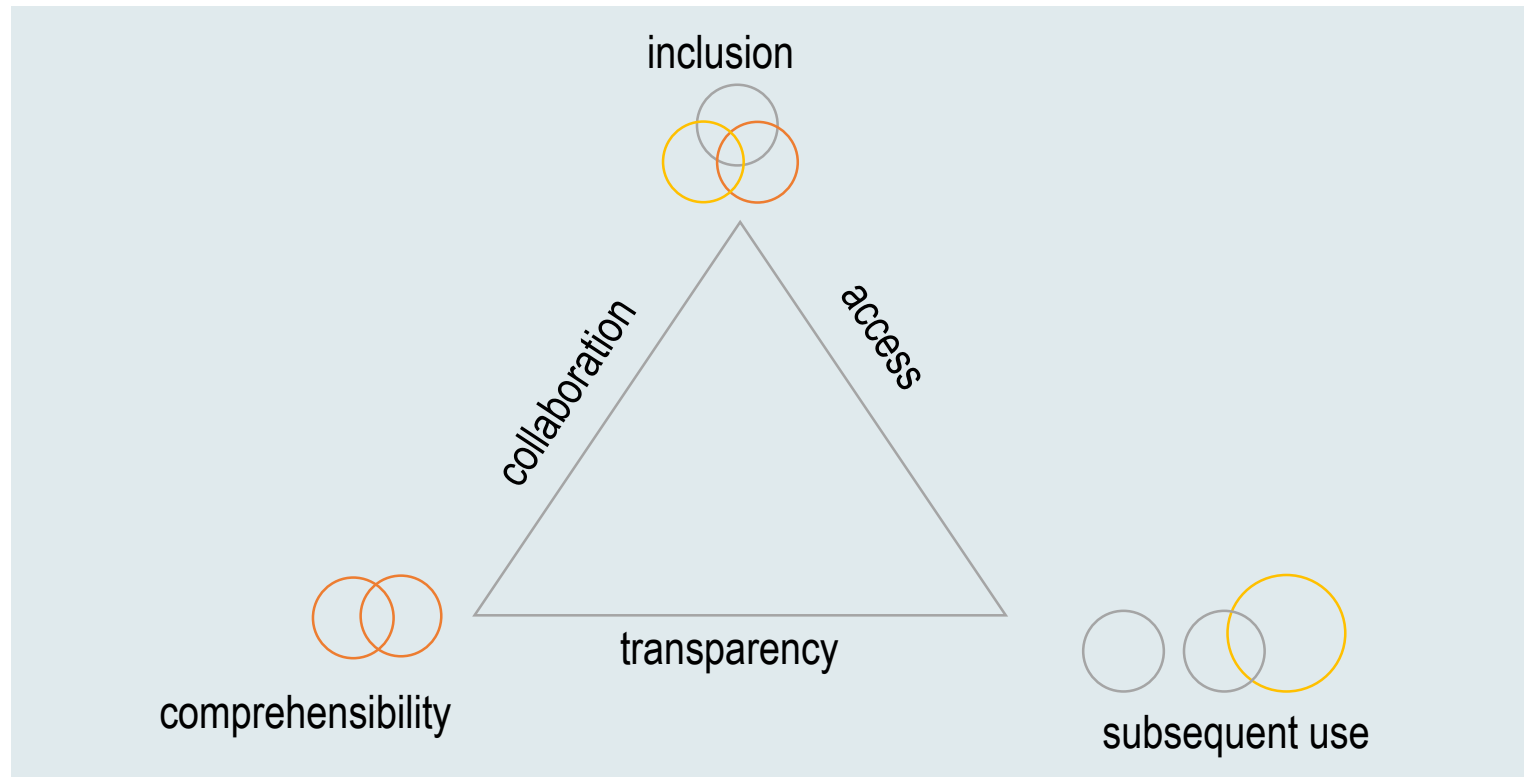
Main challenges

- **O**pen Innovation: How can my business (administration) create economic (social) added value: fast, flexible and in line with demand?
- **O**pen Innovation in Science: How does science come to new research questions and topics? How are stakeholders optimally involved?
- **O**pen Science: How can the values of reproducibility and sharing be strengthened (through digitalisation)?



However, there are common goals

The triangle of strategic openness



Source: Fecher, Blümel, Leimüller

For discussion

1. Openness is not an end in itself. How can we raise potentials (e.g. motivation, disruption, identification, scaling of science, ...) ?
2. Can open innovation /open science lead to new dynamics in academic-industrial collaboration?
3. How can universities develop into innovation hubs (knowledge transfer 4.0, from double to quadruple helix)?
4. How should a political agenda for openness look like (e.g. validating societal impacts, reviewing options for funding)?



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THANK YOU



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Dr. Susanne Müller-Knapp

*Structural Genomics Consortium, Senior Project Manager
Buchmann Institute for Molecular Life Sciences, Germany*

SGC AT A GLANCE



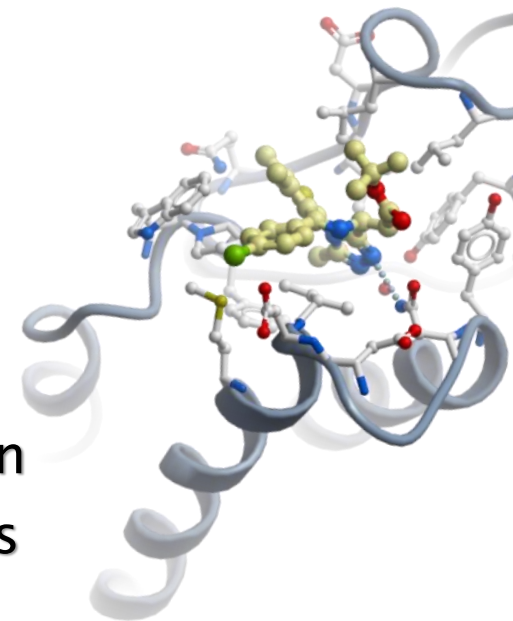
- Operations started in June 2004
- PPP: Government agencies, Wellcome Trust, charities & leading pharma companies
- +300-strong team in Oxford, Toronto, Campinas, UNC, KI and Frankfurt; Mc Gill (assoc.)

Core outputs:

- High Throughput Structural Biology
- Chemical biology
- Renewable Antibodies/ Binders
- Patient-Cell Derived Assays

Our Ethos: Open Science

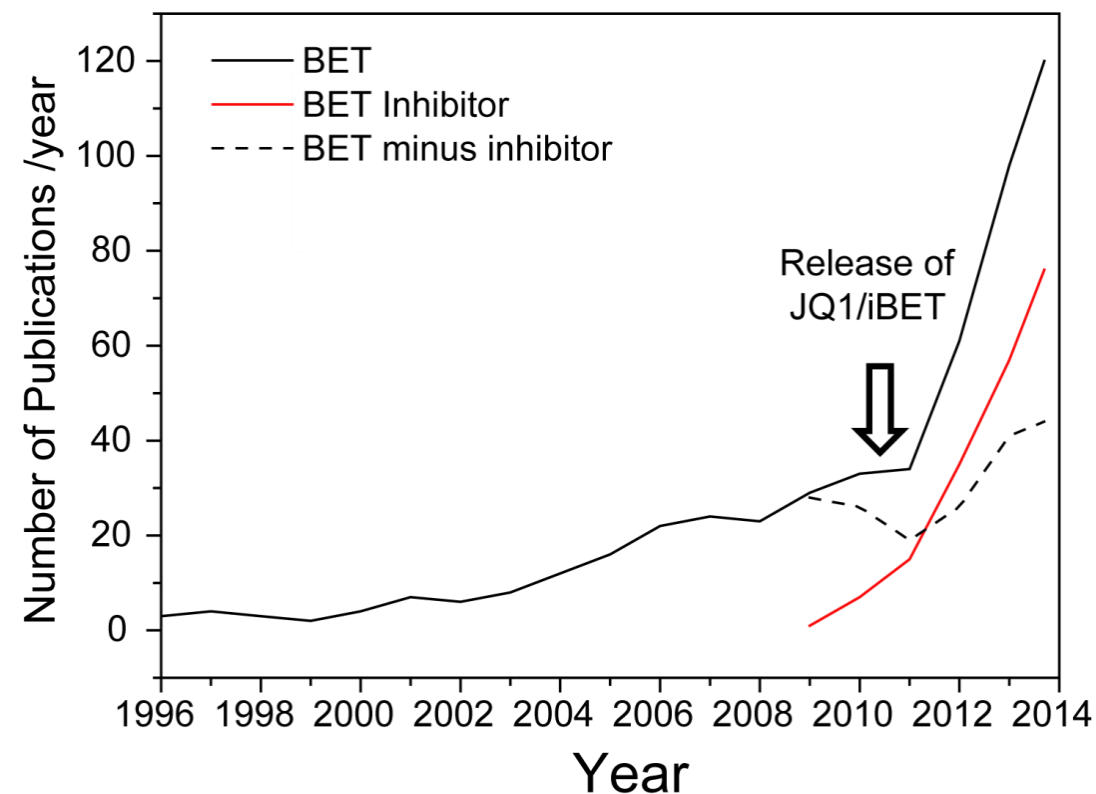
- We promptly place results, reagents and know-how in the public domain
- We agree **not** to file for patent protection on any of our research outputs (and encourage our collaborators to do the same)



IMPACT OF OPEN SCIENCE

Probes are selective and comprehensively characterized chemical tools

- Highly specific and selective
- Pharmacologically active in cells
- Target validation and establishing a biological role
- Reviewed within a rigorous and independent quality process from academic scientists and pharmaceutical organizations.



Epigenetic BET Inhibitor: JQ1

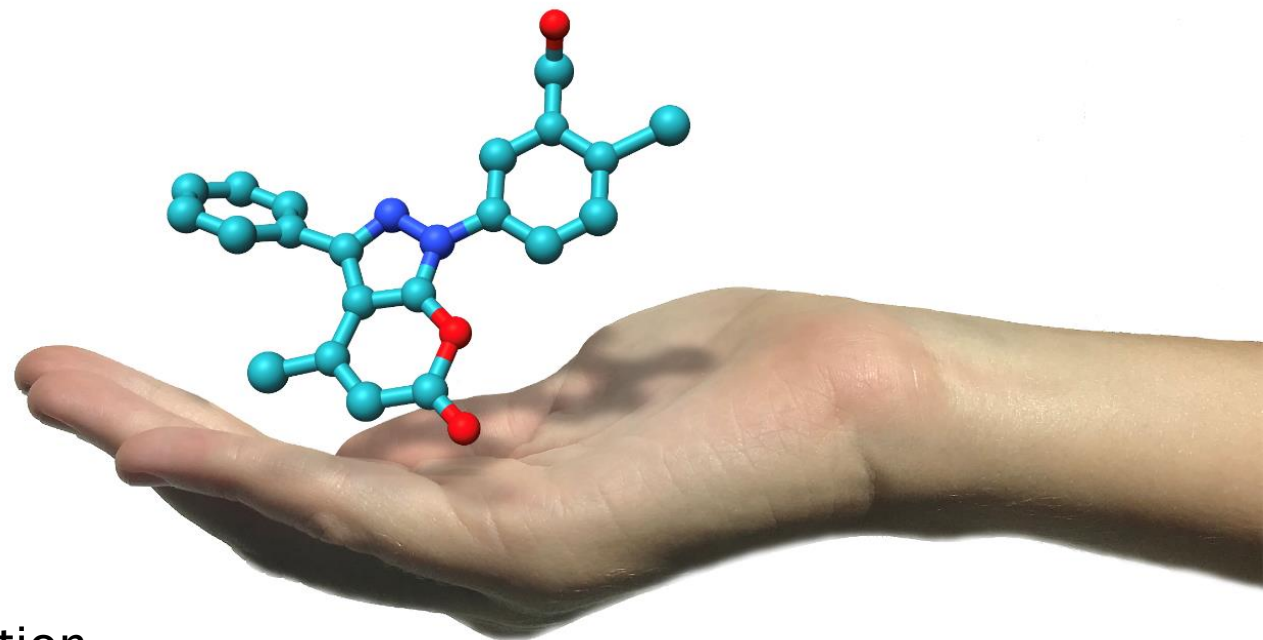
ACADEMIA

- JQ1 Published Dec 2010 collab with Dana Faber
- cited >1000 times
- Distributed to > 3000 labs → new biology
- Broad validation in different diseases/tissue types

INDUSTRY

- Led to creation of biotechs
- Facilitated proprietary programmes in pharma
- First clinical trials in 2012 – 2 years after publication!
- catalysed >30 clinical studies (cancer, inflammation, heart disease)

- Many probes have been created by scientists within **pharma**, but have been inaccessible to the scientific community.
- In a new project, a growing collection of ‘**donated chemical probes**’ is provided by the pharmaceutical industry to the global scientific community.
- Available to research community without restriction on use via the **Open Science Trust Agreement**



Müller et al. [Donated chemical probes for open science.](#)
Elife. 2018 pii: e34311. doi: 10.7554/eLife.34311

Probes probes including recommendations for use available at
www.sgc-ffm.uni-frankfurt.de/

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Dr. Max Riedel

*Senior Consultant University Relations at Siemens AG and author of
"Strategic Industry-University Partnerships", Germany*

Open Innovation at Siemens

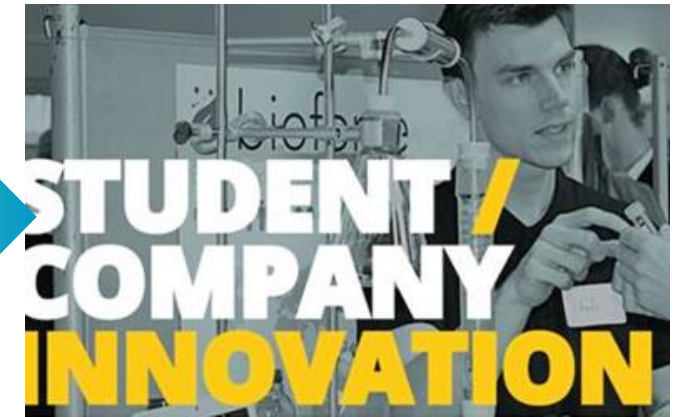


Global University
Challenge “Automation
meets Edge”

May 2018

Hardtech
Entrepreneurship
Course at DTU
Copenhagen

February 2018



Quickstarter – the
Siemens-internal
crowd-funding platform

Since 2016

Industrial Cyber
Security Hackathon at
RWTH Aachen

October 2017



Open benchmarking of Industry-University Partnerships

Select the **FOCUS AREAS** of your university partnerships in alignment with your business goals **BMW**

Regularly **EVALUATE** your university partnerships, using suitable key performance indicators **Schlumberger & Ferrovial**

Select your primary university **PARTNERS** in a systematic way **DuPont**

Have dedicated **PEOPLE, PROCESSES AND ORGANIZATION** to support your university partnerships **Siemens & Rolls-Royce**

Select collaboration **FORMATS** that match your focus areas and business goals **Novo Nordisk & IBM**



Open Quantum Science and Technology

Open career paths between academia and

SIEMENS
Ingenuity for life

The future is Quantum.

The Second Quantum Revolution is unfolding now, exploiting the enormous advancements in our ability to detect and manipulate single quantum objects. The Quantum Flagship is driving this revolution in Europe.



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Panel discussion

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Dr. Susanne Müller-Knapp

Dr. Max Riedel

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Chaired by: Dr. Volker Meyer-Guckel

Recommendation

Next up:

12.45-13.45	Lunch	Elements Restaurant
13.45-15.00	Measuring outcome of academic industrial collaborations	Emporio I Room
	Conditions for effective collaboration with industry	Embassy Room