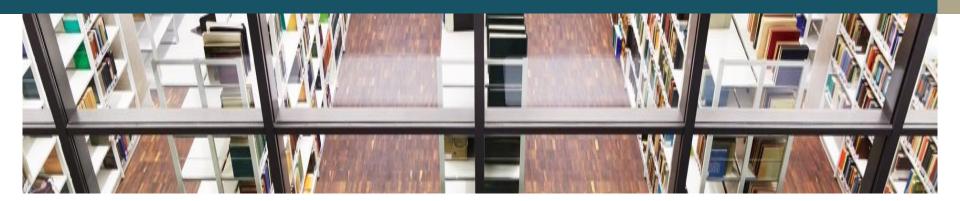


Frankfurt, 20 March 2019

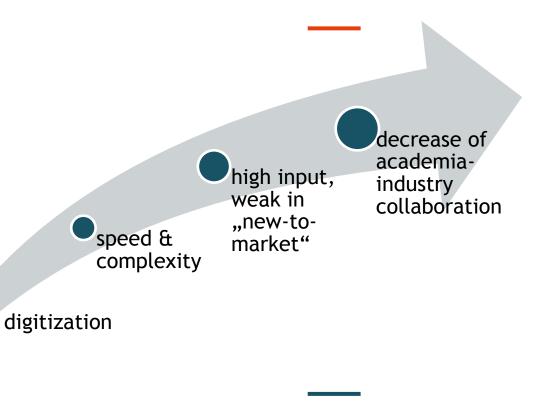
THE FUTURE OF KNOWLEDGE TRANSFER IN OPEN SCIENCE AND INNOVATION SETTINGS

Dr. Volker Meyer-Guckel





THE CHALLENGE - GERMANY

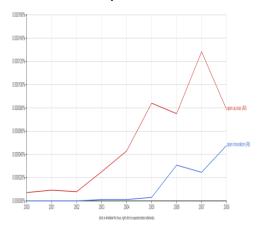




OPENNESS - THE RISING STAR IN SCIENCE AND INNOVATION?

In Science

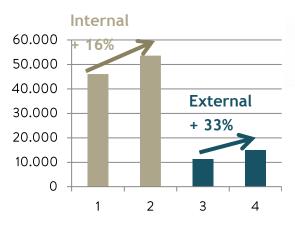
More publications on open access and open innovation



Source: google ngram viewer

In Business

More cooperation in R&D, 2008 - 2013



Source: Wissenschaftsstatistik

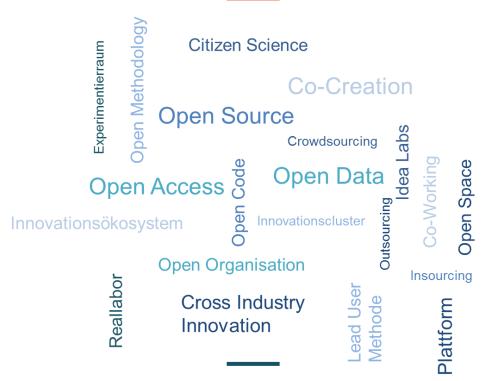
In Politics

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

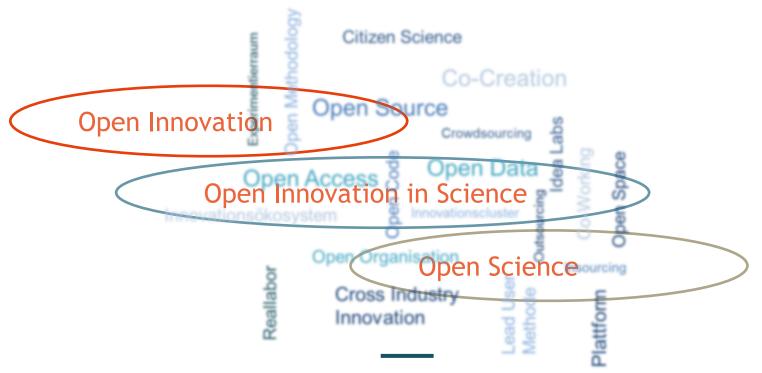




BUT MANY STARS IN THE SKY...

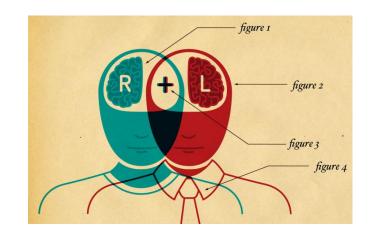


SEPARATE DISCOURSES NO FOCUS ON THE POTENTIAL OF OPENNESS FOR INNOVATION





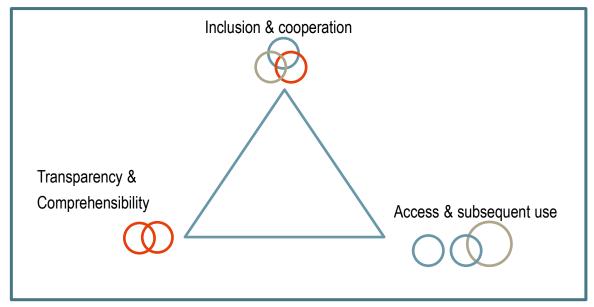
- Open Innovation: How can my business (administration) create economic (social) added value: fast, flexible and in line with demand?
- » Open Innovation in Science: How does science create new research questions and topics? How are stakeholders involved?
- » Open Science: How can the values of reproducibility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





THESES: STRATEGIC OPENNESS CAN ACCELERATE INNOVATION

The triangle of strategic openness



Source: Fecher, Blümel, Leimüller, 2018



INCLUSION & COOPERATION

Idea

 the willingness in principle to involve new types of knowledge and knowledge providers and to make targeted use of collaboration

Impact Potential

- Acceleration of knowledge production
- Increase of problem solving capacity
- Intensification of the exchange of knowledge



ACCESS & SUBSEQUENT USE

Idea

 disclosure of knowledge (data, products, processes, IP, etc.) that was previously only accessible to a limited extent, with the aim of making its subsequent use possible to increase economic and scientific efficiency.

Impact Potential

- Increase of the utilization potential
- Increase process efficiency
- Increase visibility of actors



TRANSPARENCY & COMPREHENSIBILITY

Idea

 the willingness to make the process of knowledge production transparent and thus increase credibility of actors and knowledge

Impact Potential

- Increase of confidence
- Improvement of quality assurance in research



WHAT DOES THAT MEAN FOR POLITICS?

Recommendation for Politics:

- (1) Develop a national political framework for strategic openness: in the process of strategy formation, business, science and society should jointly define potentials and fields of action.
- (2) Extend national research and innovation monitoring to better measure and assess the impact of open research and innovation.



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WHAT DOES THAT MEAN FOR ACADEMIA & INDUSTRY?

Recommendation for industry & academia

- (1) Involve unusual actors in research and innovation projects, in particular at the interface between industry and academia. There is a great opportunity here to create new solutions and findings that take greater account of social values and benefits.
- (2) Further development of the Knowledge and Technology
 Transfer structures into cooperation centres in order to
 transfer scientific findings to industry and society as well
 as generate new research questions from industry &
 society.



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OPENESS WILL CHANGE UNIVERSITIES & RESEARCH ORGANISATIONS

Technology Transfer

- Transfer of knowledge from academia to industry
- focus mainly on patents, private third party funding,

Cooperative Universities

- Bidirectional collaborative activities in research and teaching
- focus on economic an scoietal output and impact

Innovation Hubs

- divers perspectives and expertise work jointly on solutions
- characterized by flexible, experimental, open, cooperative and dynamic ways of working



FOCUS: KNOWLEDGE CO-CREATION RATHER THAN TRANSFER

Cocreation in research &

Openness as value for more reputation

teaching

Joint research labs

HEI & Business & Society

More focus on societal impact Innovation outside of research institution

Unusual sources of knowledge

Higher Education &
Research Institutions as
drivers of innovation
ecosystems



IMPLICATIONS FOR HEI AND RESEARCH ORGANISATIONS

Institutions must

- (1) be agile, i.e. in particular anticipative, reflexive, responsive and adaptive,
- (2) efficiently design search and matching processes for problems and solutions,
- (3) explore creative solutions at the boundaries of disciplines and at the interfaces of subsystems,
- (4) rethink their IP Policies.

Openness in innovation processes shifts the focus from technology development to finding solutions that are open to technology. In the future, innovation will therefore be much more a business development than an F&I process.



IMPLICATIONS FOR KTT PROFESSIONALS

KTT professionals as KNOWLEDGE BROKER and NETWORKER

- (1) Need less technology focus but cross-sectoral competences
- (2) Are networker and facilitators
- (3) Interact with industry, society and the public sector
- (4) Focus on "What is needed to solve a problem" rather than "What can we offer"

THANK YOU



Bildung. Wissenschaft. Innovation.