

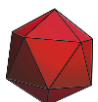
# Transforming European universities

## Towards new understandings and practices of engagement and responsibility

Ulrike Felt

Department of Science and Technology Studies &  
**Research Platform “Responsible Research and Innovation in Academic Practice”**  
University of Vienna

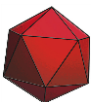
EUA, April 5, 2018



Department of Science and Technology Studies



# Transforming European universities



# What society are we living in?

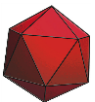
## Innovation society

supporting „the new“ and emerging technosciences are at the core how we imagine future developments

## (Self)Experimental society

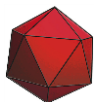
willingness to remain open to and even embrace new forms of experience is expected from all members of society

How does all this actually shape contemporary academic cultures?



# What is special about universities?

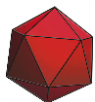
- Universities are key institutions in contemporary knowledge societies
    - train/form the next generation of knowledge workers for research and for a broad variety of tasks in society
    - create important parts of the knowledge base for contemporary societies (multi-disciplinary space)
    - develop a long-term vision through an engagement in basic research in a rather broad manner (thinking with and against the contemporary moment)
    - curating and caring for knowledge across times
- => “being a university” (Barnett) might mean very different things



# High expectations towards universities and the resulting tensions

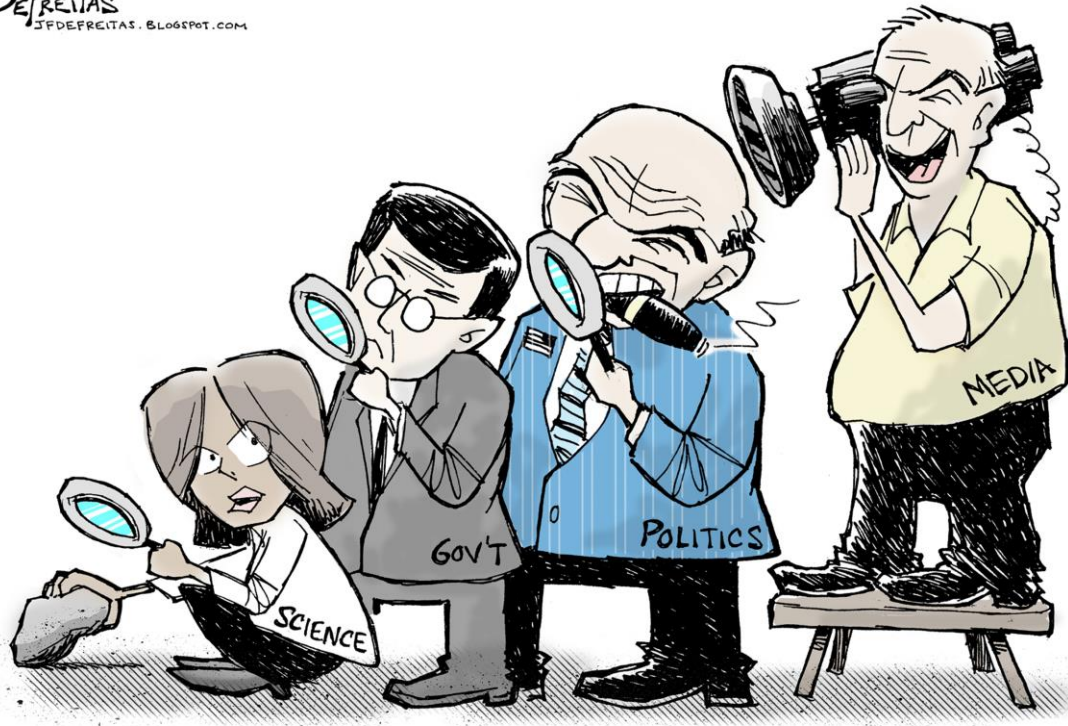
They should

- be engines for economic growth while championing for the importance of academic values and a certain degree of freedom in doing research;
- train a highly specialized skilled labour force, while educating the next generation of academic citizens capable of reimagining the societies they live in on many different levels ranging from the social to the political, from the economic to the cultural
- be highly competitive and efficient, while being open and cooperative on many different levels (within research and beyond)
- moving to the top in the ranking and being an institution open to equal opportunities

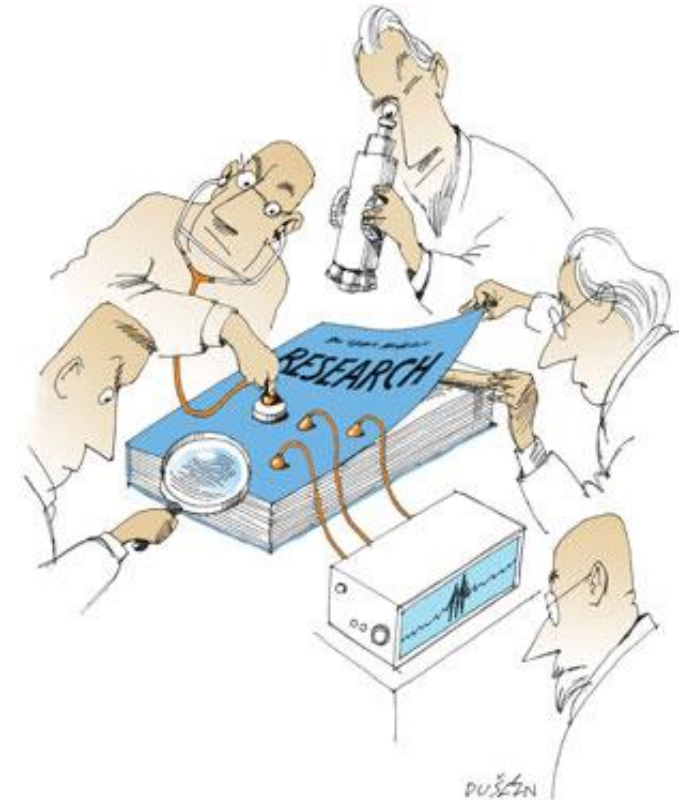


# Science is seen as being under (societal) scrutiny

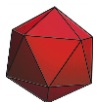
DeFREITAS  
JFDEFREITAS.BLOGSPOT.COM



Union of Concerned Scientists  
<http://blog.ucsusa.org/wp-content/uploads/2013/05/UCS2013Cal-Jan-Justin-DeFreitas-science-watchers.jpg>



Dusan Petric  
<https://www.the-scientist.com/?articles.view/articleNo/35676/title/Misconduct-Around-the-Globe/>



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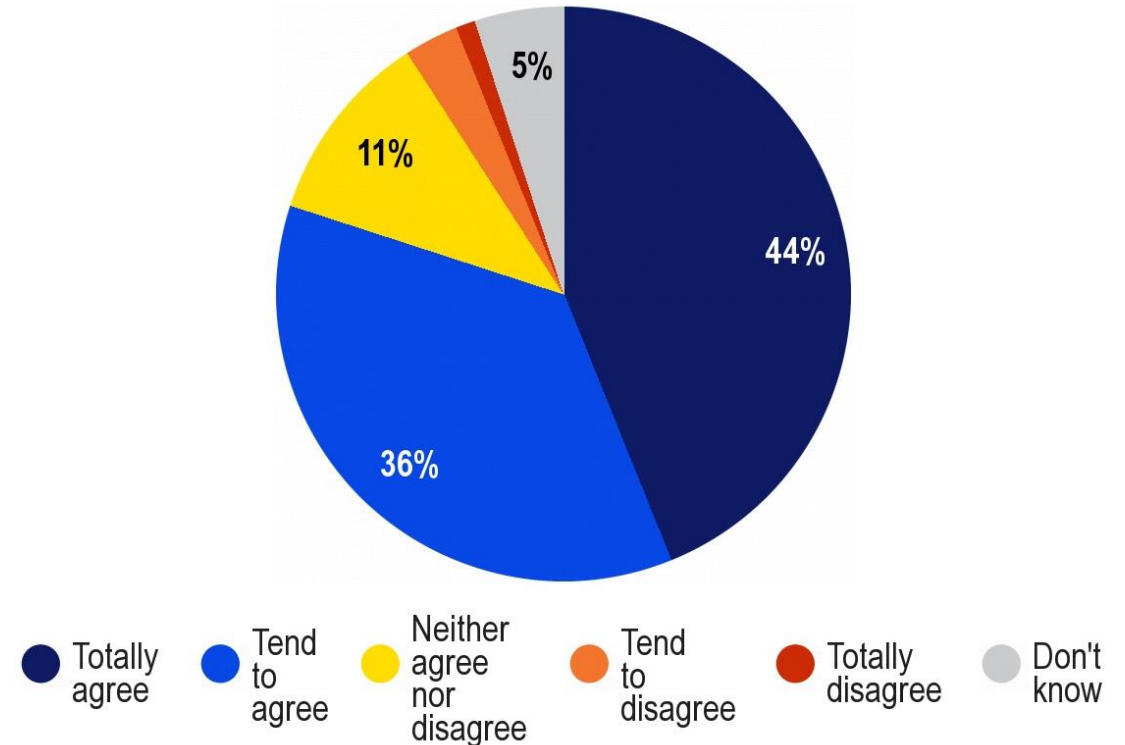
# Call for Engaged and Responsible Research

Horizon 2020 — „Responsible Research and Innovation“

„Responsible research and innovation is an approach that **anticipates and assesses potential implications and societal expectations with regard to research and innovation**, with the aim to foster the design of **inclusive and sustainable** research and innovation“.

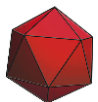
(<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation>)

The EU should actively promote that European ethical principles for conducting scientific research are respected all over the world



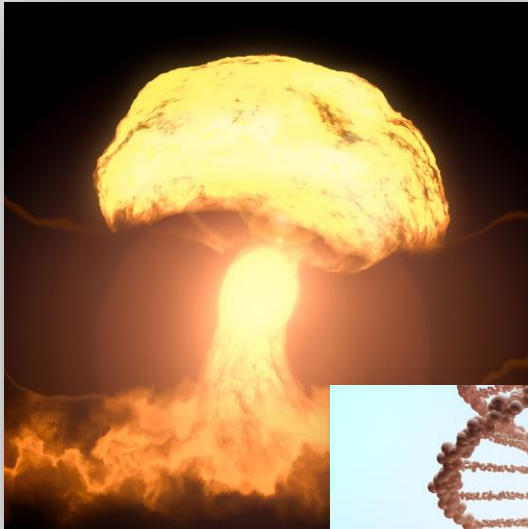
 EU27

[http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs\\_401\\_en.pdf](http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_401_en.pdf)



# Thinking about responsibility as a challenge (RRI)

RESPONSIBILITY ... as a question to scientific applications



123rf; Markus Gann



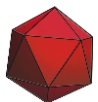
123rf; vchalup

&

*responsibilities* ... as practiced in research

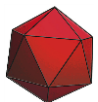
many different moments in academic lives where choices are made

- How is research done in practice?
- What kinds of questions are asked and which ones not?
- What kind of responsibilities do we see for the next generation?
- How do we relate to different societal actors and their concerns?

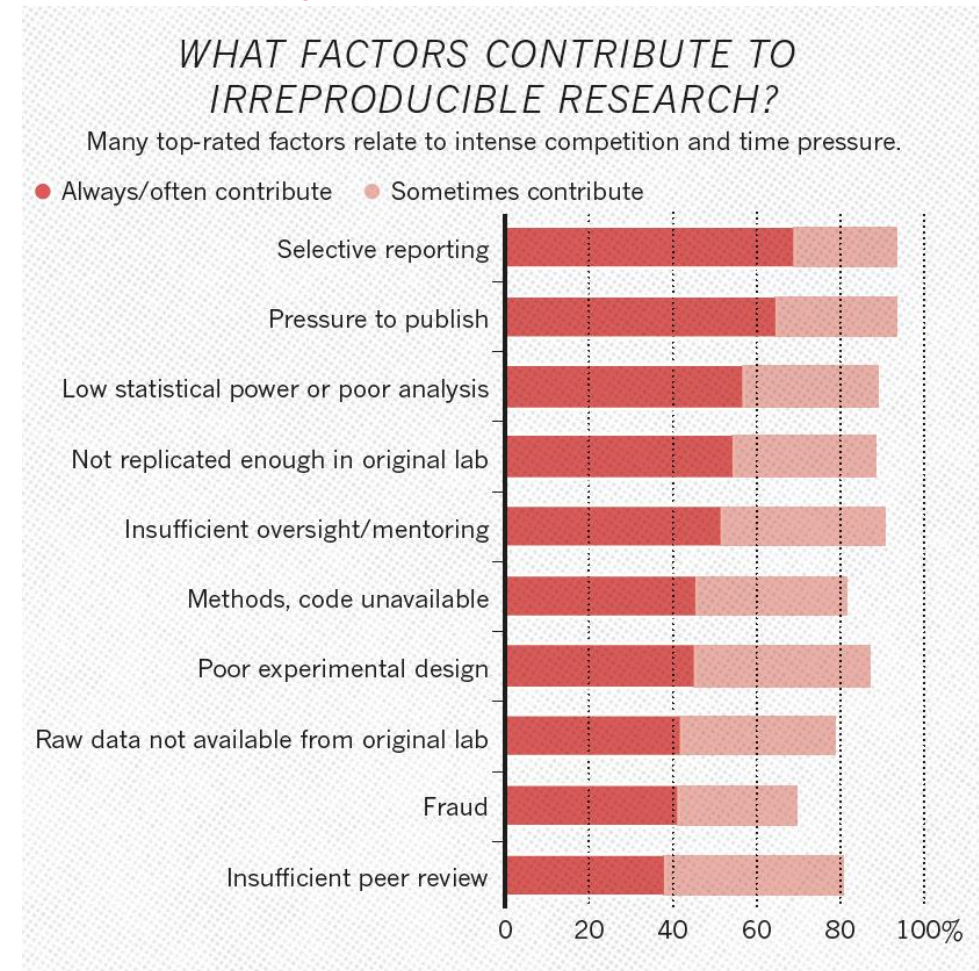
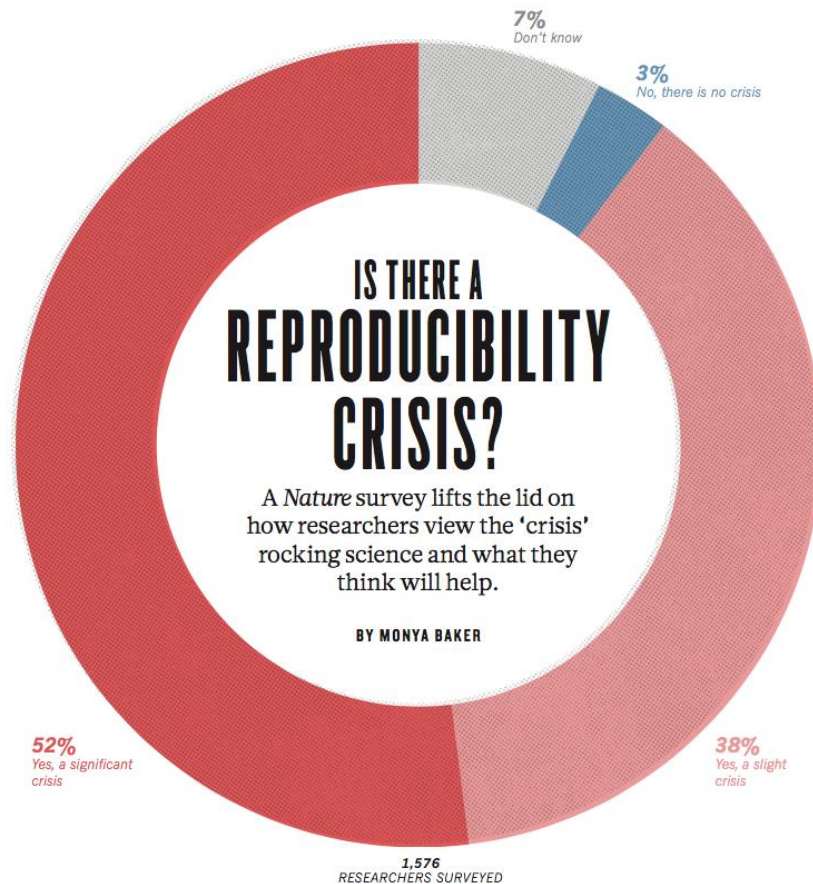




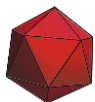
# Producing reliable knowledge, publishing and quality assessment



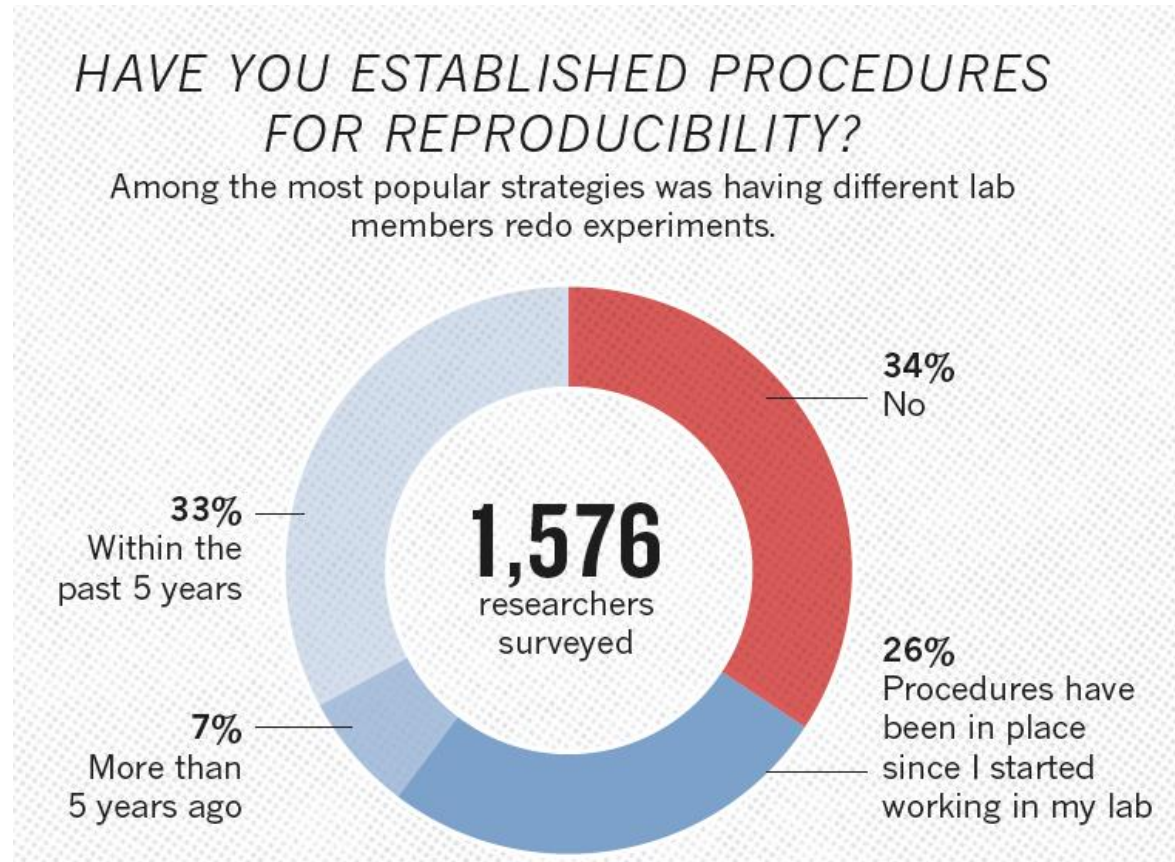
# The „reproducibility crisis“ as a case study to think with



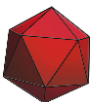
26 MAY 2016 | VOL 533 | NATURE



# Struggling with reproducibility



26 MAY 2016 | VOL 533 | NATURE





Is science really facing a reproducibility crisis, and do we need it to?

Daniele Fanelli<sup>a,1</sup>

Efforts to improve the reproducibility and integrity of science are typically justified by a narrative of crisis, according to which most published results are unreliable due to growing problems with research and publication practices. This article provides an overview of recent evidence suggesting that this narrative is mistaken, and argues that a narrative of epochal changes and empowerment of scientists would be more accurate, inspiring, and compelling.

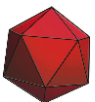
PNAS | March 13, 2018 | vol. 115 | no. 11

# Debates on reproducibility

## Crisis or self-correction: Rethinking media narratives about the well-being of science

Kathleen Hall Jamieson<sup>a,b,1</sup>

After documenting the existence and exploring some implications of three alternative news narratives about science and its challenges, this essay outlines ways in which those who communicate science can more accurately convey its investigatory process, self-correcting norms, and remedial actions, without in the process legitimizing an unwarranted “science is broken/in crisis” narrative. The three storylines



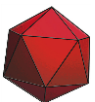
# Struggling with the publication system



## THE DARK SIDE OF PUBLISHING

28 MARCH 2013 | NATURE

- Co-authorship and responsibility
- Publication bias
- Misrepresentation of findings
- Peer review systems (debate about reforming the system; open peer review; ...)



# Measuring quality



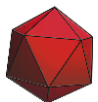
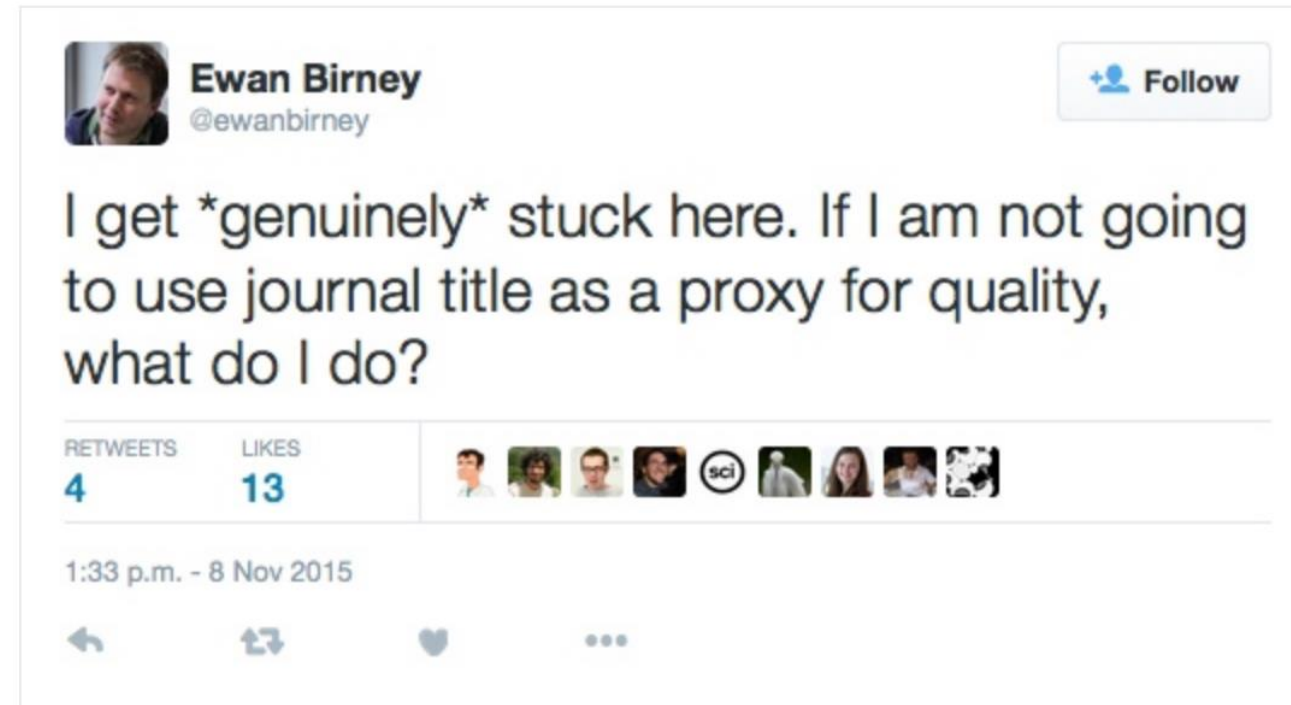
NATURE | RESEARCH HIGHLIGHTS: SOCIAL SELECTION

## How to judge scientists' strengths

Institute director's struggle with hundreds of applications triggers online discussion and assessment of researchers.

**Dalmeet Singh Chawla**

11 November 2015



Department of Science and Technology Studies



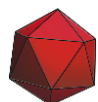




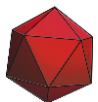
<https://responsiblemetrics.org/>

„Drawing on discussions over RRI, we propose the notion of responsible metrics as a way of framing appropriate uses of quantitative indicators in the governance, management and assessment of research“ ... Its core values are:  
Robustness, humility, transparency, diversity and reflexivity as core values

“research metrics can provide crucial information that would be difficult to gather or understand by means of individual expertise. But this quantitative information must not be allowed to morph from an instrument into the goal.”

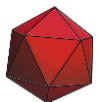


# Living in academic research, values and evaluations, ethics and research integrity



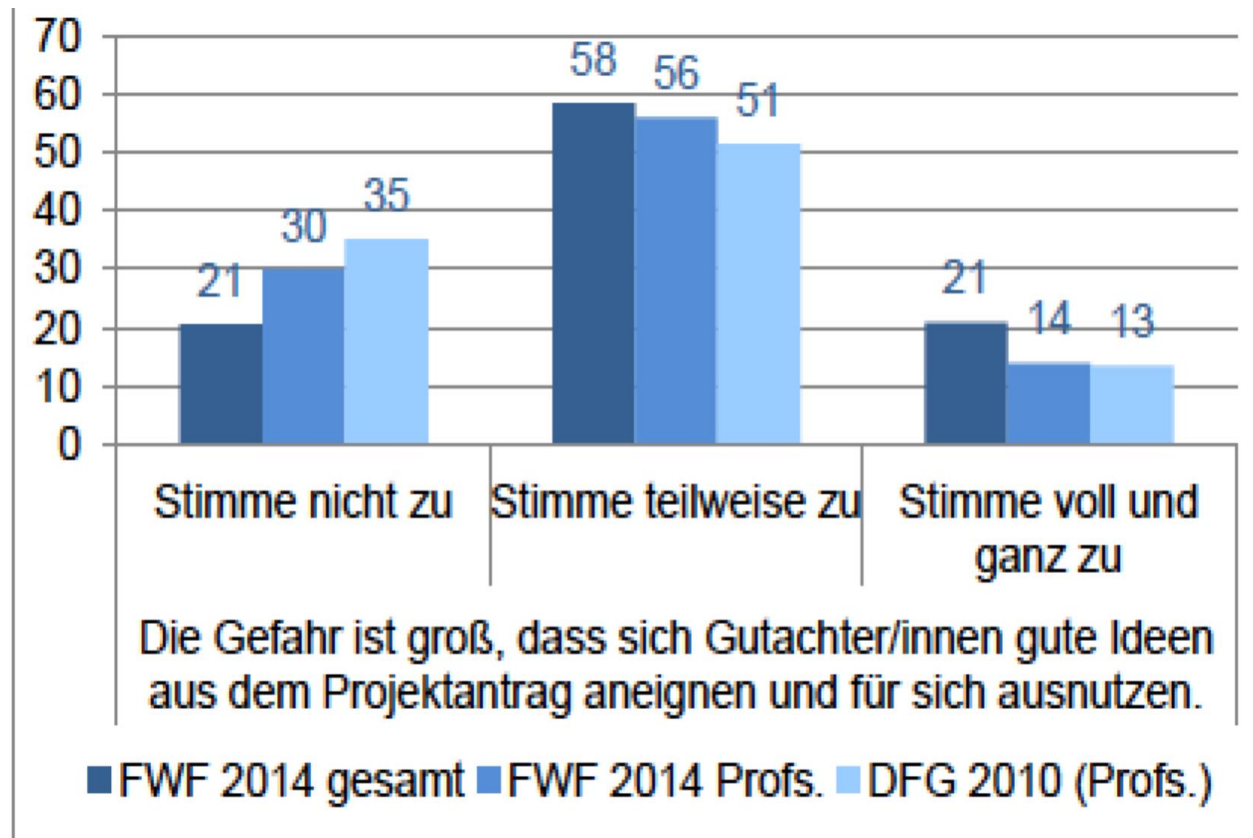
# Competition and social cohesion

- „Projectification“ of research – new equivalences (time/knowledge/Person months/investment)
  - emergence of a whole new category of researchers, who temporarily join the academic institutions as project collaborators and “sell their labour” (Ylijoki 2015, 95) through the tool of “project time”
  - Temporalisation of academic work — strong presence of an efficiency ideal
  - Academic careers – timing?
- => Challenge in socialising young researchers: learning the values that should guide research, while living up to other kinds of expectations



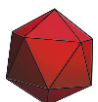
# Centrality of trust and shared value systems

An example

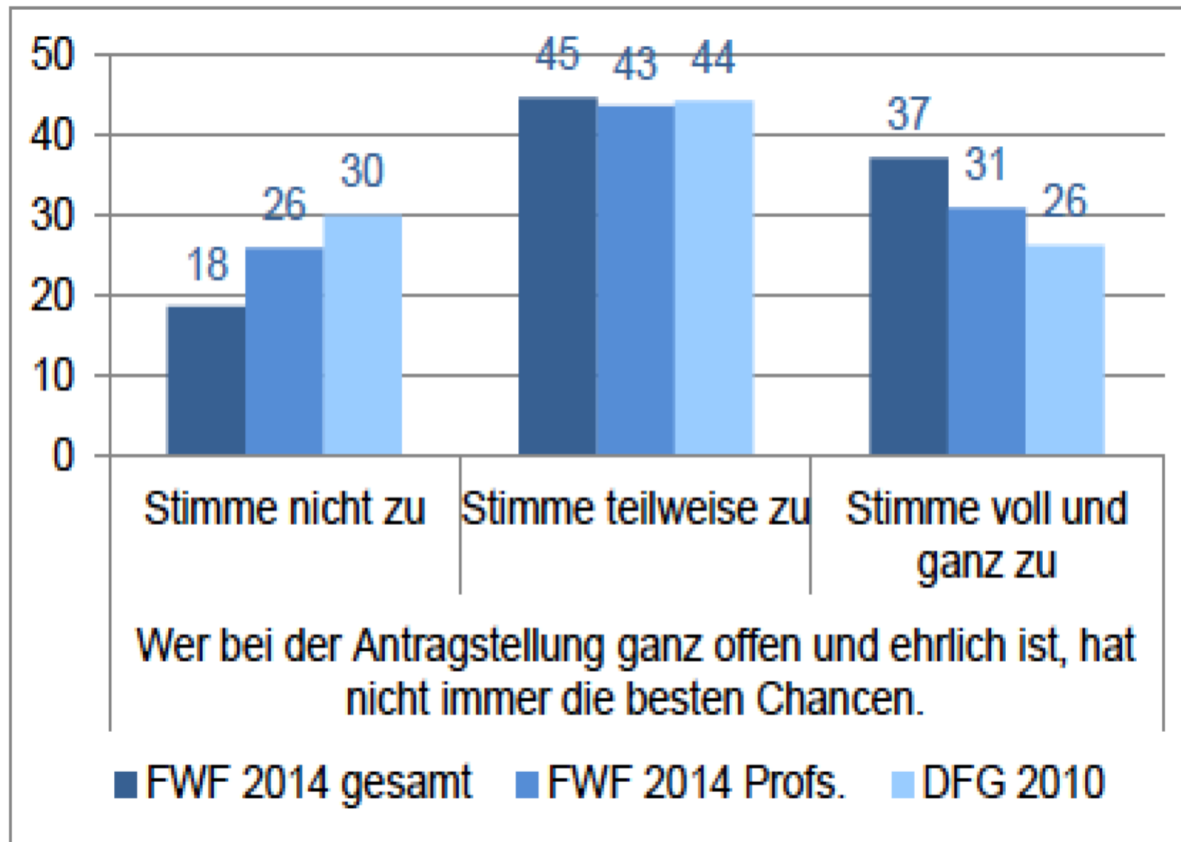


The danger is high that reviewers appropriate an idea from the proposal and use it for their own purposes

(Scale: don't agree – partly agree – completely agree)  
(Neufeld et al. 2014)

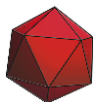


# Openness as a value?



A researcher who is completely open and honest in their application will not always have the best chances

(scale: don't agree – partly agree – completely agree)  
(Neufeld et al. 2014)





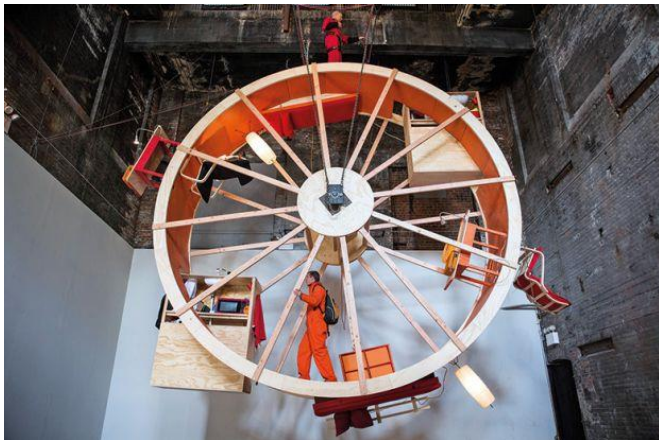
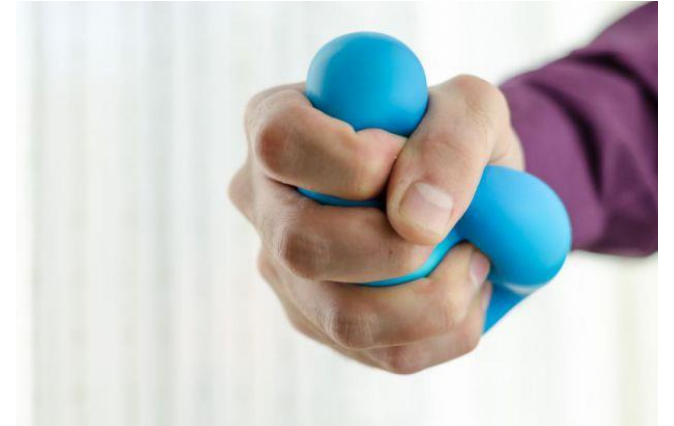
# Pressure and creativity?

## High-achieving PhD candidates 'experience greatest stress'

Symptoms of depression, anxiety and stress are more acute for PhD candidates classified as exceeding their schedule

February 16, 2018

<https://www.timeshighereducation.com/news/high-achieving-phd-candidates-experience-greatest-stress>

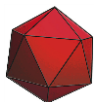


## Smart people problems: we need to talk about PhD mental health

The stressful postgraduate environment often leads not to solidarity but to the impoverishment of research, says Alfredo Cumerma

January 20, 2018

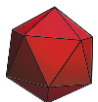
<https://www.timeshighereducation.com/blog/smart-people-problems-we-need-talk-about-phd-mental-health>



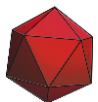


# How to engage with issues of research integrity?

- Institutions answers is to develop codes of conduct, which are important
- Yet, ...
  - How do/can they effectively enter research practice?
  - How to make more explicit what kinds of values matter in research and reward them accordingly?
  - How to make time and space for ethics and value related questions in everyday research environments?



# Engaging within and beyond academia

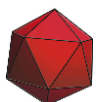


# Is 'academic citizenship' under strain?

A wide range of essential under-the-radar tasks sustain academic culture, but who will perform them in an increasingly careerist academy?

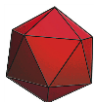
January 29, 2015

<https://www.timeshighereducation.com/features/is-academic-citizenship-under-strain/2018134.article>



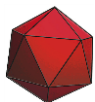
# Engaging with society

- Multiplicity of returns in social, cultural and economic terms from knowledge and corresponding innovations
- They take different forms: products, processes, understandings, ...
- do not feed “the economy of promises”
- reflect societal expectations and concerns in the first place
- Create awareness that time needs to be invested into engagement with other actors across disciplines and outside academia

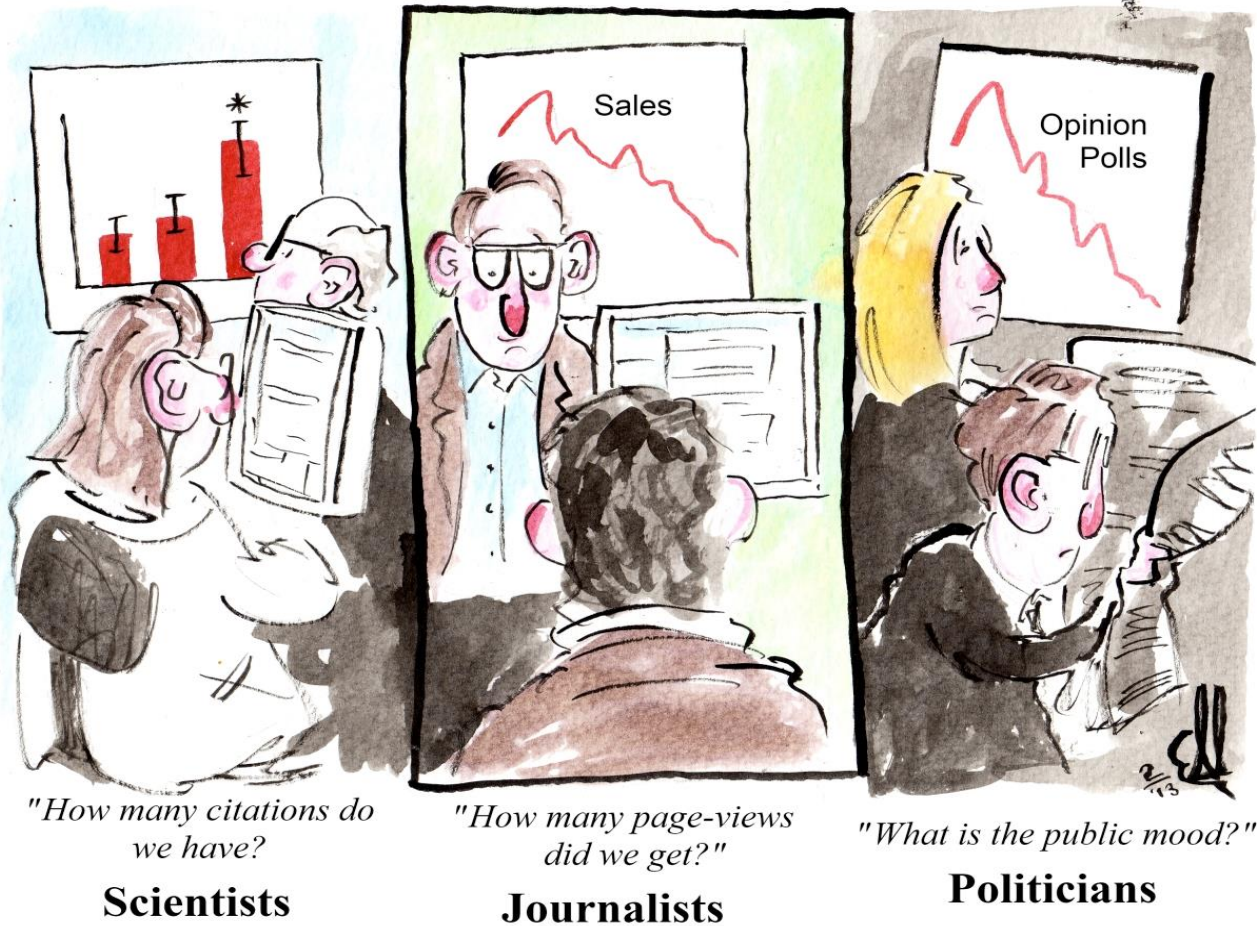


# How to value returns from academic research?

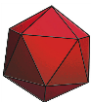
- Low correlation between scientific impact & societal impact (Bornemann 2013)
- Returns are fuzzy, come with considerable delay and are often not easily identifiable
- Challenge: direct impact measures alone will not do it; important to consider the boundary conditions as well as the efforts of an institution/individuals to achieve impact (Godin & Doré, 2005).



## Assessing the impact of research:



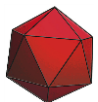
Challenge: How to account for societal impact/ „third mission“ in a highly competitive and tightly-timed environment?





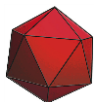
# Lines of challenges

- integrity/academic values and the challenges to socialisation/researching under pressure
- Openness/trust and a narrow idea of competition/narrow ideal of quality (indicator debate)
- engagement (with society but also across disciplines) and a quite narrow ideal of efficiency



# Transforming university

Caring for the living spaces of researchers and the knowledge ecology



## ACCOUNT-ABILITY

NPM, projectification, indicator  
driven evaluation practices,  
efficiency, audit culture  
value *of* research and innovation  
⇒ auditable work  
“academic capitalism”

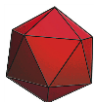
## RESPONSE-ABILITY

demands for more engagement  
within academia and with societal  
actors, attention to societal values  
and concerns  
values *in* research and innovation  
⇒ engagement work  
“academic citizenship”

**SPACE**  
of academic  
researchers

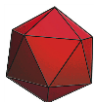
## RESPONSIBILITY CONDITIONS

the tension between mainly managing universities (doing things  
right) and caring (doing the right things) for universities in society



# Knowledge ecology and the role of universities

- The way research is organised in universities, the lives it has to offer to researchers as well the way how the next generation gets socialized matters for the kind of knowledge that gets/can get generated
- Attention to the sustainability of the knowledge system
  - Create environments in which different kinds of knowledges, with different time horizons of development can grow
  - Educate the next generation to engage with different ways of knowing (different disciplines, different parts of society)
  - Move away from too short term appraisals of impact



Transforming universities & embracing research ethics  
and integrity as well as engagement  
means  
to continuously rethink the conditions of educational  
knowledge production in order to remain/become an  
engaged and responsible institutions

