

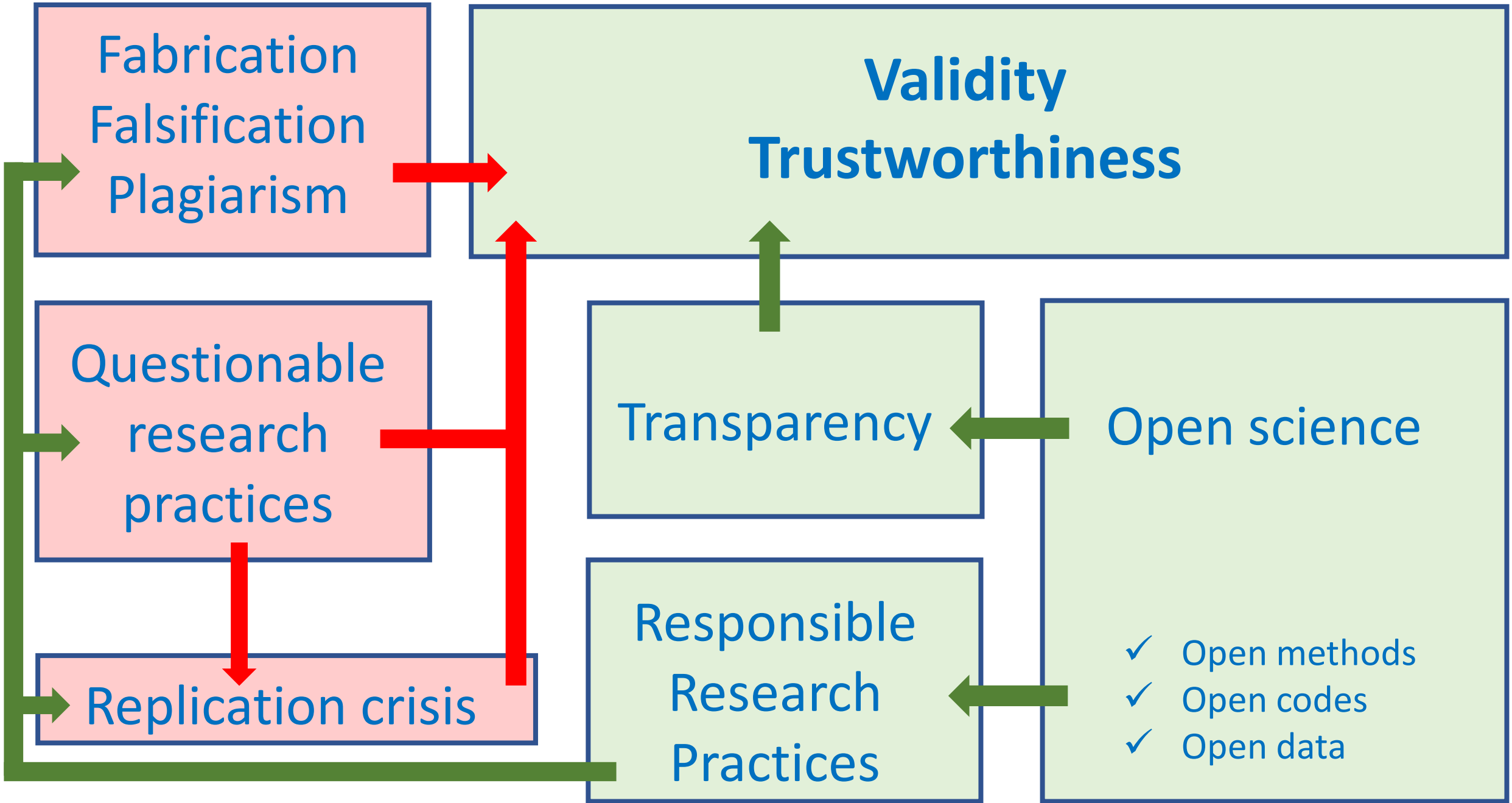


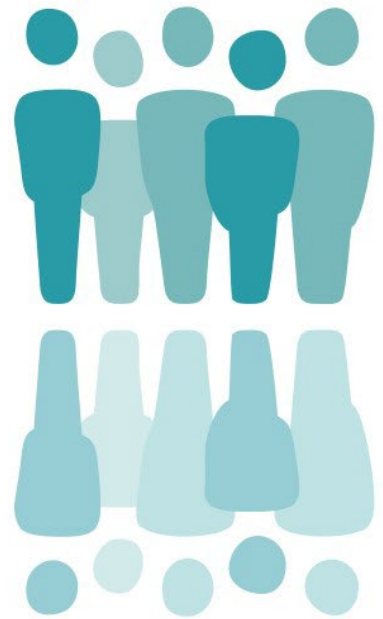
# How can we foster research integrity

*Lex Bouter*

# Content

- **How research integrity and open science hang together**
- **National Survey on Research Integrity**
- **Drivers of research integrity**
- **What can research institutes do?**





# National Survey on **Research Integrity**



Gowri Gopalakrishna

**[www.nsri.nl](http://www.nsri.nl)**

**@SurveyIntegrity**



## Most prevalent (5/11) QRPs (score 5,6,7)

Prevalence  
(%)

Not submitting or resubmitting a valid  
**negative publication**

**17.5**

Insufficient mentioning of study  
**flaws and limitations** in publications

**17.0**

Insufficiently **supervised or mentored**  
junior co-workers

**15.0**

Insufficient attention to  
**equipment, skills or expertise**

**14.7**

Inadequate **notes** of research proces

**14.5**



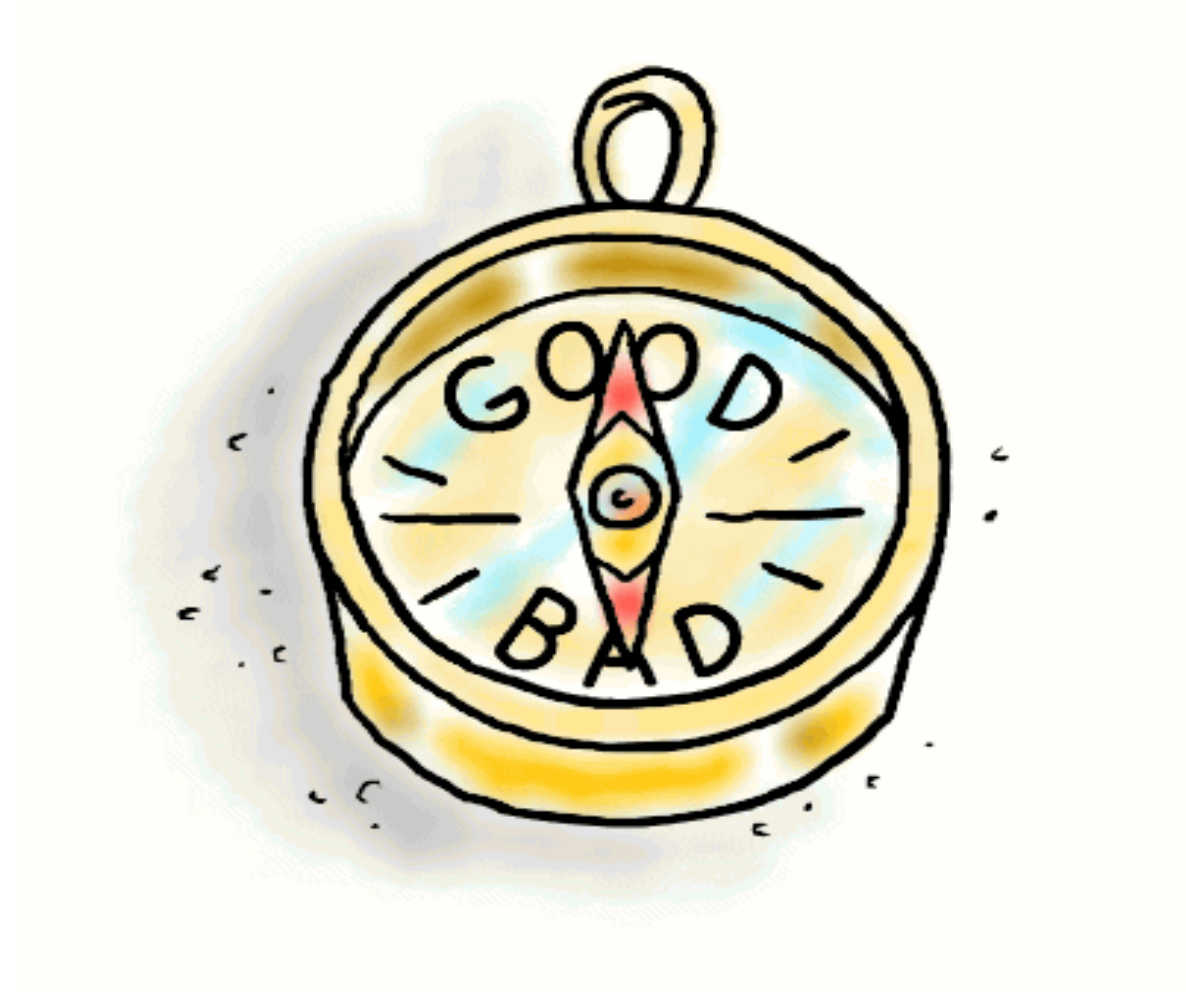
QRP/FF	Prevalence (%)
<b>Any Frequent QRP</b> (at least 1/11 QRPs with a score of 5,6,7)	<b>51.3</b>
<b>Fabrication</b> (making up data or results)	<b>4.3</b>
<b>Falsification</b> (manipulating research materials, data or results)	<b>4.2</b>



National  
Survey on  
**Research  
Integrity**

# Functioning of moral compass depends on:

- **Individual factors:**  
*virtuousness of the individual*
- **Institutional factors:**  
*research climate in the lab*
- **Systemic factors:**  
*adequate incentives*





Explanatory Factors	QRP	FF	RRP
Likelihood of detection by reviewers		↓	
Support of research integrity norms	↓	↓	↑
Supervision for survival	↑		
Responsible supervision	↓		↑
Publication pressure	↑		↓



National  
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Integrity**





# Mertonian norms



**C**ommunism (scientific knowledge is not private property. Scientists must share it with the scientific community, otherwise knowledge cannot grow.)

**U**niversalism (whether scientific knowledge is judged as true or false is judged by universal, objective criteria)

**D**isinterestedness (being committed to discovering knowledge for its own sake)

**O**rganised scepticism (no knowledge claim is regarded as 'sacred'. Every idea open to questioning, criticism and objective investigation.)



Research integrity: nine ways  
to move from talk to walk



Research environment	Ensure fair assessment procedures and prevent hypercompetition and excessive publication pressure.
Supervision and mentoring	Create clear guidelines for PhD supervision (such as on meeting frequency); set up skills training and mentoring.
Integrity training	Establish training and confidential counselling for all researchers.
Ethics structures	Establish review procedures that accommodate different types of research and disciplines.
Integrity breaches	Formalize procedures that protect both whistle-blowers and those accused of misconduct.
Data practices and management	Provide training, incentives and infrastructure to curate and share data according to FAIR principles.
Research collaboration	Establish sound rules for transparent working with industry and international partners.
Declaration of interests	State conflicts (financial and personal) in research, review and other professional activities.
Publication and communication	Respect guidelines for authorship and ensure openness and clarity in public engagement.



**[www.sops4ri.e](http://www.sops4ri.eu)**  
**[u](http://www.sops4ri.eu)**

**[@sops4ri](https://twitter.com/sops4ri)**



Guidelines for research institutions on the **research integrity education of bachelor, master and PhD students**

Guidelines for research institutions on the **research integrity education of institutional research integrity stakeholders**



Guidelines for research institutions on the **research integrity education of post-doctorate and senior researchers**

Guidelines for research institutions on **continuous research integrity education**





Educatie

Research

Info corona





Amsterdam UMC  
Universitair Medische Centra

Over ons

Mijn Dossier

← Onze opleidingen



Superb supervision junior - mentoring your  
PhD candidate towards responsible conduct  
of research

## Superb supervision: A pilot study on training supervisors to convey responsible research practices onto their PhD candidates

Tamarinde Haven, Lex Bouter, Louise Mennen & Joeri Tijdink



## Assessment of researchers

- Grant applications
- Vacancies
- Promotion
- Tenure
- Awards



# Incentives works well

For *intended* effects:

- More publications and citations

But also for *unintended* effects:

- Focus on quantity, not quality
- More plagiarism and duplicate publication
- More 'salami slicing', gift authorship and use of predatory OA journals
- Citation cartels and fake papers and fake peer reviewers
- Stronger 'Matthew effect', less equity
- Less time-consuming responsible research practices

All incentives can and will be gamed if stakes are high <sup>15</sup>



ESSAY

# The Hong Kong Principles for assessing researchers: Fostering research integrity

**PLoS Biology 2020; 18: e3000737**



Sign DORA

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## San Francisco Declaration on Research Assessment

Research assessments should recognize responsible research practices

Narrative review of a lively debate and promising developments



Noémie AUBERT BONN<sup>1</sup> and Lex BOUTER<sup>2</sup>



# **How research institutes can foster Research Integrity better**

- Learn from neighbours on the campus and (inter)nationally
- Get inspiration from available guidelines and materials
- Make a Research Integrity Promotion Plan
- Have an active and diverse Research Integrity Committee
- Ensure coherence and continuity of efforts



# WORLD CONFERENCES ON RESEARCH INTEGRITY

*Website: [www.wcrif.org](http://www.wcrif.org)*

*Twitter: [@WCRIFoundation](https://twitter.com/WCRIFoundation)*

*Vimeo: <https://vimeo.com/user175668074>*