It’s the incentives, stupid!

Let’s use incentives to move research faster towards Open Science

Presentation at the 18th Munin Conference on Scholarly Publishing

Tromsø, 8.-10. November 2023

Leif Longva, Academic librarian, UiT

Bård Smedsrød, Professor emeritus, UiT

Michael Eisen
@mbeisen

"it will help me get tenure"

Oversett innlegg

internet hall of fame @InternetH0F · 19. sep.

✨ Nikki Payne
@NikkiPayne14

Apart from "life is short" what other lines do you use before making bad decisions?

World University Rankings 2024

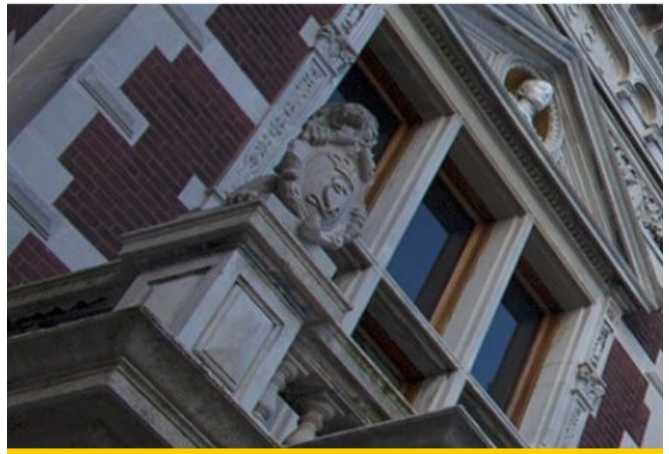
The *Times Higher Education* World University Rankings 2024 include 1,904 universities across 108 countries and regions.

The table is based on our new WUR 3.0 methodology, which includes 18 carefully calibrated performance indicators that measure an institution's performance across five areas: teaching, research environment, research quality, industry, and international outlook.

IN PARTNERSHIP WITH ELSEVIER

2024

1	University of Oxford United Kingdom	21,750	10.9	42%	49 : 51
2	Stanford University United States	14,517	6.4	23%	47 : 53
3	Massachusetts Institute of Technology United States	11,085	8.0	33%	41 : 59
4	Harvard University United States	20,050	9.0	25%	51 : 49
5	University of Cambridge United Kingdom	20,565	11.5	38%	48 : 52
6	Princeton University United States	7,753	7.3	23%	47 : 53
7	California Institute of Technology United States	2,240	6.1	33%	37 : 63
8	Imperial College London United Kingdom	20,275	11.8	61%	42 : 58
9	University of California, Berkeley United States	39,991	17.9	22%	52 : 48
127	University of Oslo Norway	20,967	12.5	15%	66 : 34
251–300	University of Bergen Norway	15,751	13.0	11%	61 : 39
301–350	Norwegian University of Science and Technology Norway	37,865	15.0	9%	49 : 51
501–600	UiT The Arctic University of Norway Norway	15,114	10.6	8%	57 : 43
601–800	Norwegian University of Life Sciences Norway	7,275	8.2	12%	61 : 39
601–800	University of Stavanger Norway	11,428	10.5	13%	58 : 42



News

29 September 2023

Why UU is missing in the THE ranking

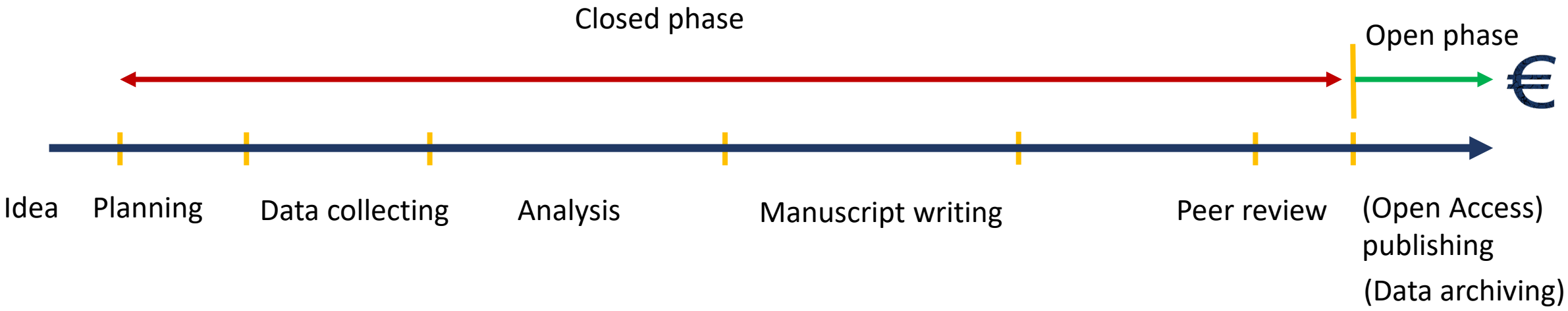
You may have heard: Utrecht University has not been included in the Times Higher Education (THE) World University Ranking 2024.

Too much stress on competition

UU has chosen not to submit data. A conscious choice:

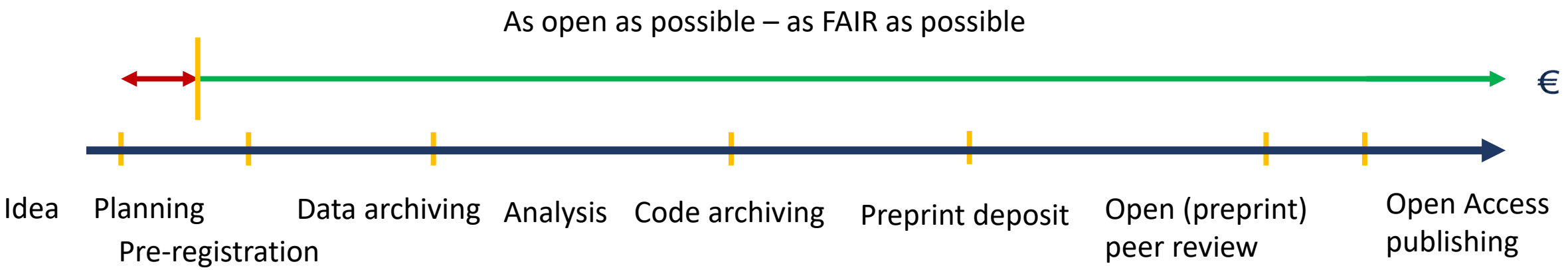
- Rankings put too much stress on scoring and competition, while we want to focus on collaboration and open science.
- In addition, it is almost impossible to capture the quality of an entire university with all the different courses and disciplines in one number.
- Also, the makers of the rankings use data and methods that are highly questionable, research shows. For example, universities have to spend a lot of time providing the right information.

A research project’s timeline



An Open Science research project's timeline

Open science:



OPEN SCIENCE: JUST SCIENCE DONE RIGHT

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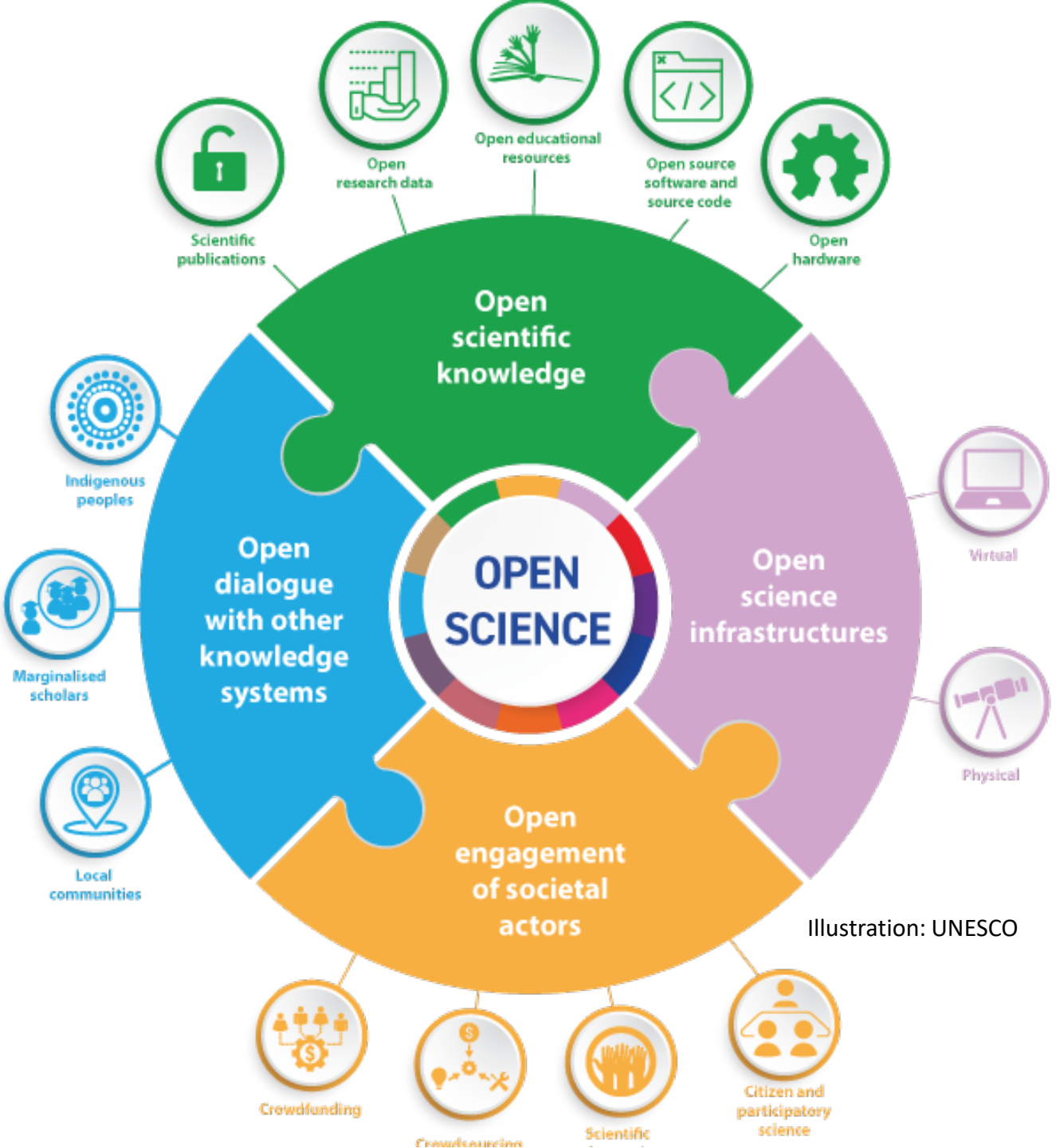


Illustration: UNESCO

Illustration: Ruslan Nesterenko, MostPhotos

A couple Open Science examples:

Publish Openly with ResearchEquals

Publish each step of your journey, wherever your research takes you

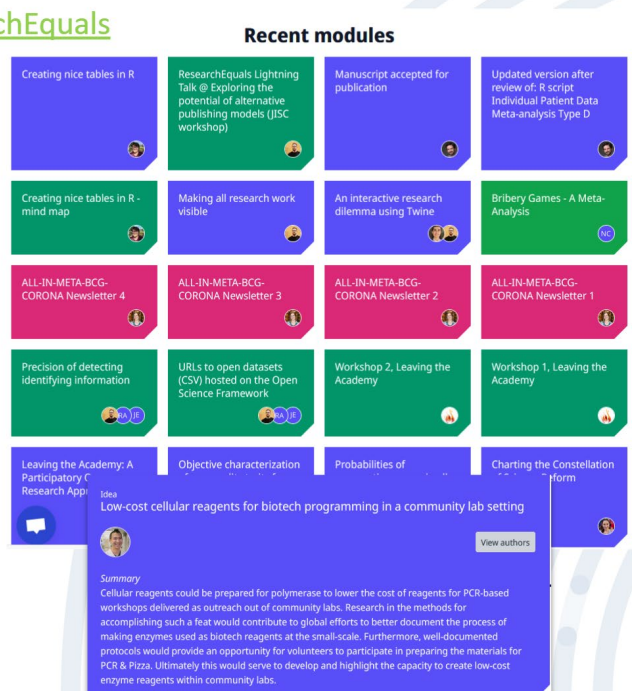
See the whole picture from which your research findings arise. Be able to trace, link, and see the connections between each step of research.

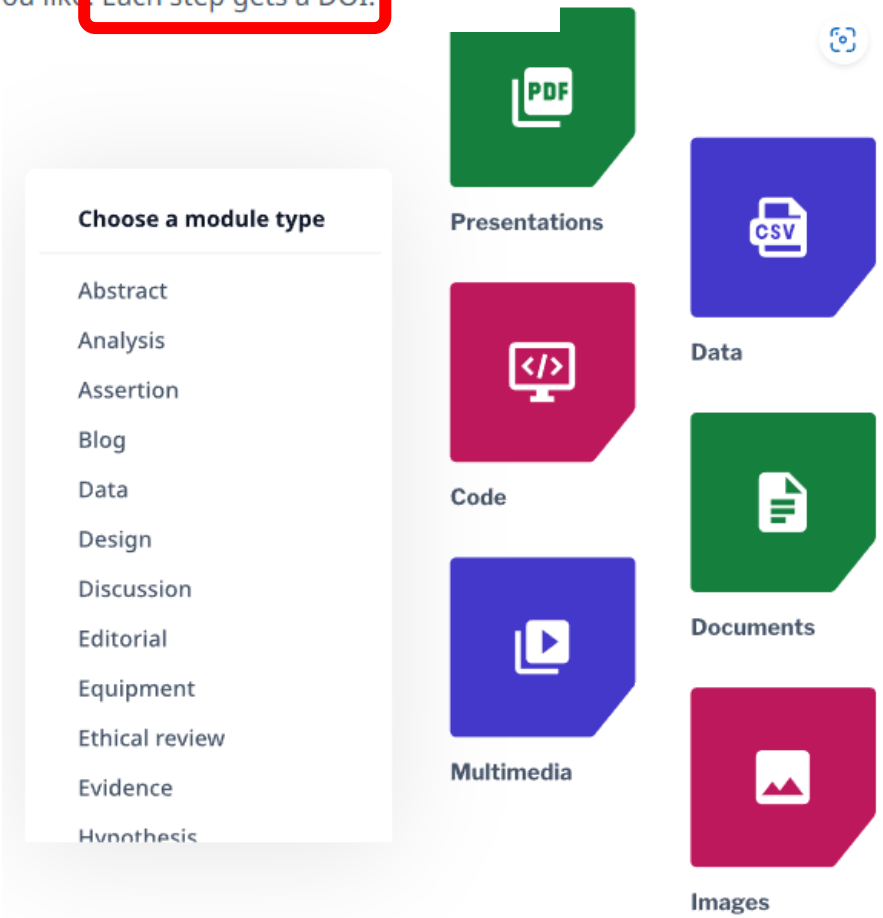
Create a module for all types of research.

Publish any outputs of your research. Text, data, code, media, and anything else that you like. Each step gets a DOI.

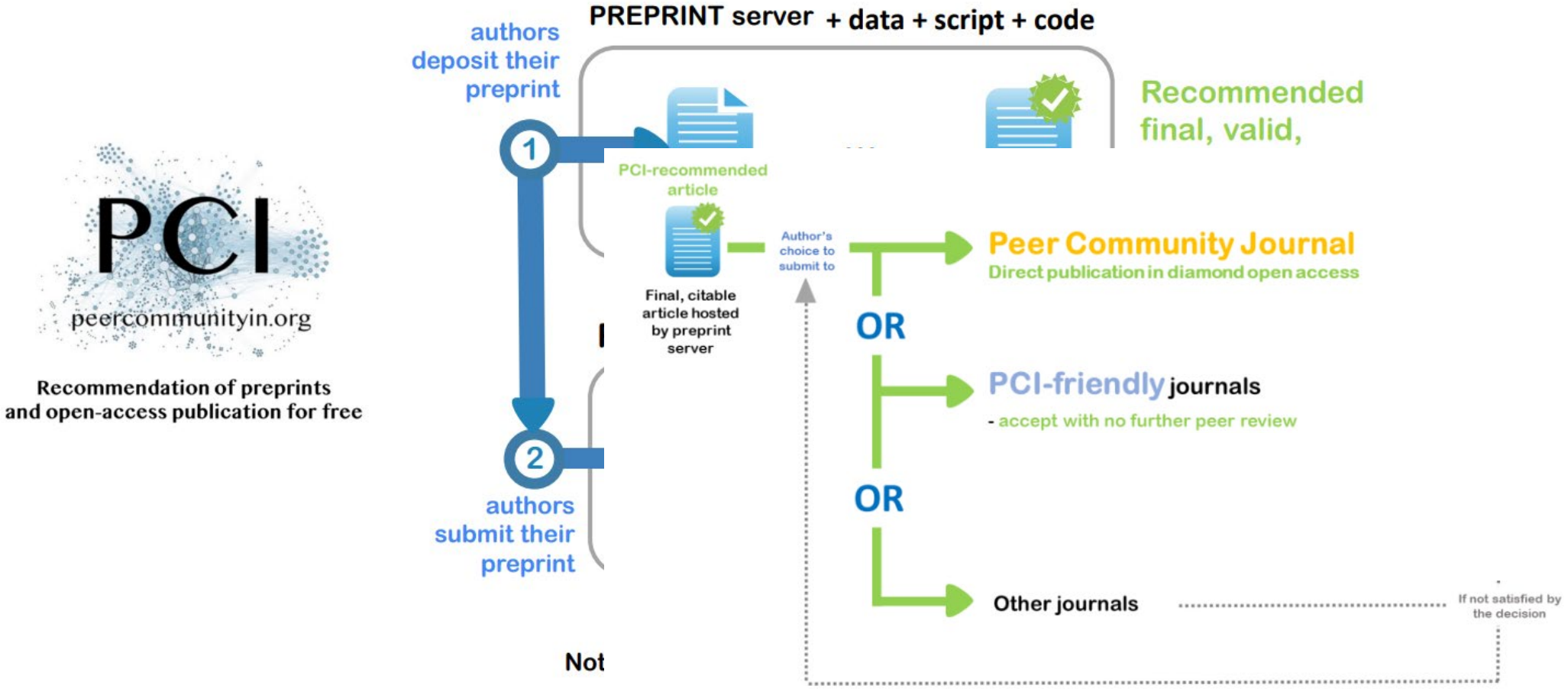
Modular publishing

- Platforms open by default (even "pay-to-close")
- Modular publishing
- ✓ Diversity of outputs (abstract, analysis, research problem, hypothesis, data, method, interpretation, peer review, etc.)
- ✓ Focus on the process (all steps made transparent)
- ✓ Collaborative





How does it work?



https://peercommunityin.org

Preprint peer review

nature

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nature > world view > article

WORLD VIEW | 17 January 2023 | Clarification 10 February 2023

Preprint review should form part of PhD programmes and postdoc training

Institutions owe it to young researchers to prepare them for careers outside academia. Preprint review is a perfect opportunity.

Richard Sever

"… but most of the institutions that grant PhDs don't train people in peer review."

Registered Reports

https://www.cos.io/initiatives/registered-reports

Registered Reports is a publishing format that emphasizes the importance of the research question and the quality of methodology by conducting peer review prior to data collection. High quality protocols are then provisionally accepted for publication if the authors follow through with the registered methodology.

"Registered Reports eliminates the bias against negative results in publishing because the results are not known at the time of review."

"Because the study is accepted in advance, the incentives for authors change from producing the most beautiful story to the most accurate one."

Getting there

Mandates

Photo: Tatiana Chekryzhova, MostPhotos, CC BY 2.0.

Incentives

"Carrot incentive" by Finsec is licensed under CC BY 2.0.

Plan S

Making full & immediate
Open Access a reality

Principle 2

ALL SCHOLARLY OUTPUTS ARE SHARED IMMEDIATELY AND OPENLY.

Principle 4

ALL SCHOLARLY OUTPUTS ARE ELIGIBLE FOR CONSIDERATION IN RESEARCH ASSESSMENT.

Towards responsible publishing: a proposal from cOAlition S

Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for

The Agreeme

Based on 10 commitments, esta
research assessment reform, w
autonomy. The Agreement on R
shared direction for changes in
researchers and research perfo
overarching goal to maximise t

The Agreement includes the pri
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Principles for assessment criteria and processes

Quality and impact

- Focus research assessment criteria on quality. Reward the originality of ideas, the professional research conduct, and results beyond the state-of-the-art. Reward a variety of research missions, ranging from basic and frontier research to applied research. Quality implies that research is carried out through transparent research processes and methodologies and through research management allowing systematic re-use of previous results. Openness of research, and results that are verifiable and reproducible where applicable, strongly contribute to quality. Openness corresponds to early knowledge and data sharing, as well as open collaboration including societal engagement where appropriate. Assessment should rely on qualitative judgement for which peer review is central, supported by responsibly used quantitative indicators where appropriate.

RECOGNITION & REWARDS

ROOM FOR EVERYONE'S TALENT

In the Netherlands ...

more cooperation and a multidisciplinary approach to ensure scientific practice and impact, accompanied by a good practice of recognition and rewards.

Stimulating open science

More room for open science is an issue that needs to be addressed specifically. This new approach to science and academia gives others, in addition to the

"Putting these shared ambitions into practice requires a modernisation of the system of recognition and rewards."

NOR-CAM – A toolbox for recognition and rewards in academic careers

Six principles

- Measure quality and excellence through a better balance between **quantitative and qualitative** goals
- Recognise **several competencies** as merits but not in all areas at the same time or by each employee
- Assess all results, activities and competencies in the light of **Open Science principles**
- Practice **transparency** in the assessment and visibility of what should be recognised as merit
- Promote **gender balance and diversity**
- Assist in the **concrete practice** of job vacancy announcements and assessment processes locally

Search

SEARCH

Recent Posts

The Vitae International Researcher Development Conference 2023 presenting OPUS

A Journey Through the History of Open Access

OpenAire Hosts 4th Open Science Fair:

We support measures to reform the assessment of research

The Open and Universal Science (OPUS) project develops coordination and support measures to reform the assessment of research and researchers at Research Performing Organisations (RPOs) and Research Funding Organisations (RFOs) towards a system that incentivises and rewards researchers to take up Open Science practices.

We understand the term 'Open Science' to refer to practices providing open access to research outputs, early and open sharing of research, participation in open peer-review, measures to ensure reproducibility of results, and involving all stakeholders in co-creation.

https://opusproject.eu/

[Deliverable 3.1: Indicators and Metrics to Test in the Pilots]

4. Open Science Researcher Assessment Framework

4.1.1. Proposals

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This subcatego
There is flexibilit

Table 20: Open S

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4.1.3. Data

This subcategory focuses on research data planning, management, and peer review, which are openly available as in Table 21. There is flexibility in the inclusion or exclusion of a focus on FAIR and how data management plans, data

Table 21: Open Science In

Indicator Group
Data Planning
Data Management
Data Review

4.1.5. Publications

This subcategory focuses on research publications and peer reviews, which are openly available as in Table 23. There is flexibility in how the publications and peer reviews are made 'openly available'. There is also flexibility in the version of the publication, which may be a preprint, Author Accepted Manuscript (AAM), or Version of Record (VoR) as well as the type of open access such as green or gold. There is further flexibility in whether the publications adhere to the principles of Plan S [26].

Table 23: Open Science Indicators and Metrics for Category Research Subcategory Publications

Indicator Group	Indicator Type	Quantitative Metric
Publication Drafting	Process	# of Draft Publications Openly Available
	Output	# of Submitted Publications Openly Available
	Outcome	# of Published Publications Openly Available
		# of Openly Available Publications Accessed
		# of Openly Available Publications Cited
Publication Review	Process	# of Draft Publication Peer Reviews Openly Available
	Output	# of Submitted Publication Peer Reviews Openly Available
	Outcome	# of Accepted Publication Peer Reviews Openly Available

Incentives for the institutions

https://kib.ki.se/en/nyheter/replacing-academic-journals-bjorn-brembs-future-beyond-traditional-journals

Incentives for institutions

- The institution's reputation
  - Rankings
    - Publication outputs
- Attracting the best students
  - Reputation -> Rankings -> publications
- Attracting the best researchers
  - Reputation -> Rankings -> publications
  - Research environment and facilities
  - Research centres of excellence (funding)
    - Research quality -> Publication outputs
- Success rate in funding applications
  - Research quality -> Publication outputs
  - Open access and open science practices ✓
- Research findings
  - The title of the journal where research is published(?)

So institutions need more incentives for Open Science!

Responsibilities

- Incentives for institutions: Authorities' responsibility

  - Is the institution practicing open science?

  -> Budgets (money talks)

- Incentives for researchers: Institutions' responsibility

  Employer -> Employee

  Incentives to:

  - do preprint peer review

  - practice open science

Make it count and make it rewarding

Open Universal Science OPUS

HOME ABOUT

4.1.1. Proposals

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		on Peer Reviews Openly
	Outcome	# of Accepted Publication Peer Reviews Openly Available

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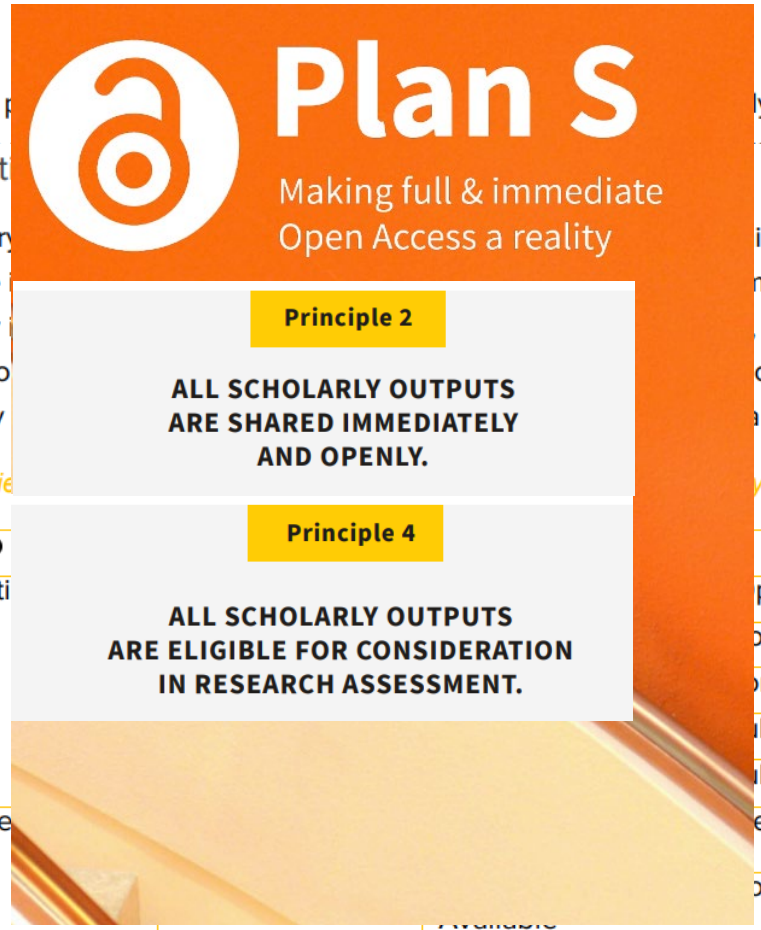


SLOW TRAIN COMING

OPEN SCIENCE: JUST SCIENCE DONE RIGHT

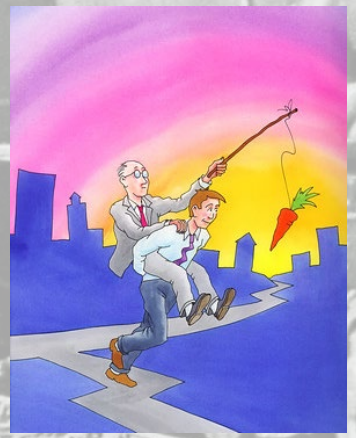
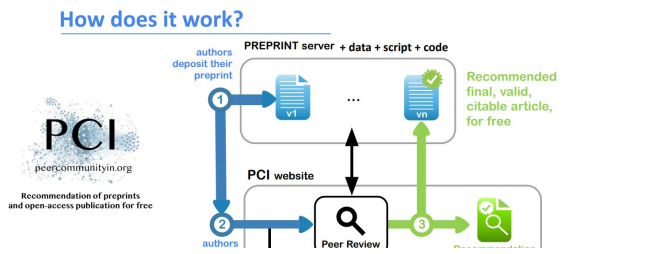
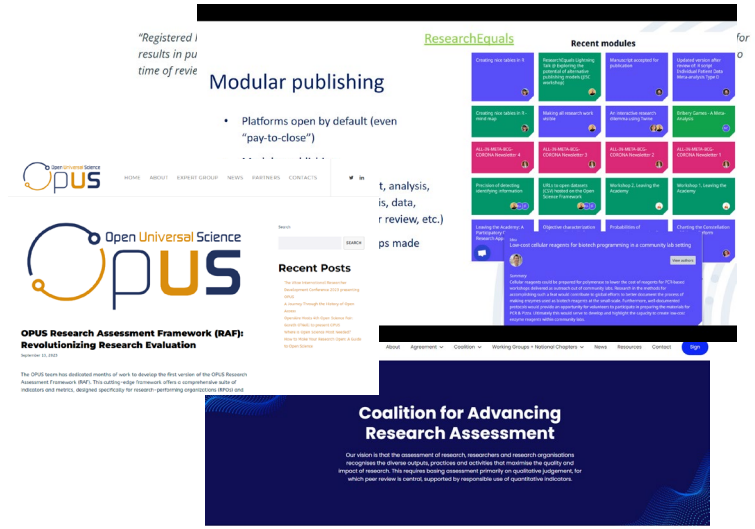
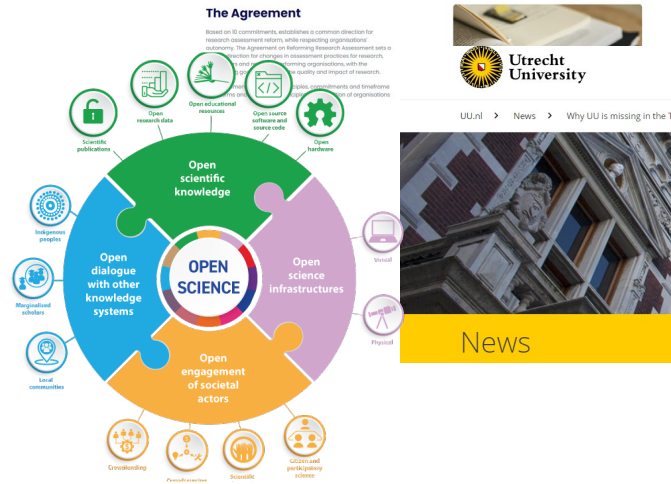
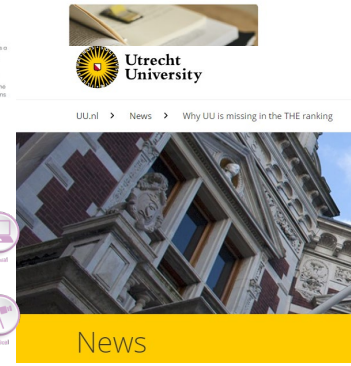


Illustration: Tutti_Frutti, MostPhotos

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