Transition to Open Science
Rethinking Recognition and Rewards

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https://www.uu.nl/en/research/open-science;
‘Open Science: The Very Idea’ Springer 2022. OA.
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The overall aim of Open Science is to increase the quality, progress and scientific & societal impact of research and scholarship.
European Open Science Agenda 2016

- Rewards and Incentives
- Research Indicators and Next-Generation Metric
- OA and the Future of Scholarly Communication
- European Open Science Cloud
- FAIR Data
- Research Integrity
- Skills and Education
- Citizen Science/Public Engagement

Open access
The goal of the open access project is to make substantial progress in order to make open access a natural part of the academic workflow.

FAIR data and software
Making relevant data fully FAIR (Findable, Accessible, Interoperable and Reusable) and also open wherever viable has many advantages.

Public engagement
Increasing public engagement helps to make science and scholarship relate more closely to societal issues and any questions that people might have.

Recognition and rewards
The available system of recognition and rewards is seen as the most important in effecting the change towards open science.
TRANSITION TO OPEN SCIENCE

FACULTY OPEN SCIENCE TEAM COMPOSITION

Dean (chair)

Open Access Fellow

Open Science Community Ambassador

Fair Data & Software Fellow

Platform Member

Public Engagement Fellow

Recognition & Rewards Fellow

Utrecht University
The Scientific Field: Professional Interests, Elites, Stratification, Power Struggle, and Economics

Figure 3. The credibility cycle, adapted from Latour and Woolgar (1986). Points at which organizational devices connect to the cycle are shown.
Problems of the Current Reward System in Science

Society is largely absent from the **credibility cycle**

- Hypercompetition for limited funds
- Too little room for Team-Science, Multidisciplinarity & Diversity

Quality in Quantitative terms:
- number of articles, journal impact factor, citations, H-index
- amount of funding obtained

- Most papers still behind paywalls
- Data not shared
Rethinking Research Evaluation: Metrics shapes Science

- Novelty and quantity are dominant over quality, replication, relevance and impact
- Short-termism and risk aversion because of 4-year funding cycles
- Fields with high societal impact, but low impact in the metrics system suffer (applied vs basic; SSH vs STEM)
- The national and institutional research agenda is thus not properly reflecting societal (clinical) needs (disease burden)
@UMCUTRECHT: Inclusive set of generic indicators for research quality and impact (in use since 2016)

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Open Science Evaluation: Incentives and Rewards

Pluriformity of quality indicators:

- No JIF, no H-index, no numbers of publications (DORA)
- Engage Non-academic Stakeholders
- Diversity and inclusiveness
- Peer review, narratives (supported by data)
- Open Science practices and efforts rewarded
TRIPLE: Team Spirit as the default approach to working in academia
OPEN SCIENCE RECOGNITION AND REWARDS

PAST

- Primary focus
- Individual performance

RESEARCH
EDUCATION
LEADERSHIP
IMPACT
PROFESSIONAL PERFORMANCE

Output
- Quantity
- Closed
- H-index & impact factors
- € Funding received

FUTURE

- Dynamic career paths
- Team effort
- Diversification

EDUCATION
RESEARCH
IMPACT
LEADERSHIP
PROFESSIONAL PERFORMANCE (e.g. patient care)

OPEN SCIENCE PROGRAMME

- OPEN ACCESS
- FAIR DATA & SOFTWARE
- PUBLIC ENGAGEMENT
- RECOGNITION AND REWARDS

Outcome
- Quality
- Open Narratives & meaningful metrics
- Societal relevance
- Individual
- Organization

Utrecht University
Systemic Interventions to improve quality, impact and integrity at all levels

Engagement of societal stakeholders in problem choice, research and evaluation

Inclusive indicators
- Quality (DORA)
- Societal Impact &PE
- Academic Leadership and Culture
- EDI

OPEN PEER REVIEW
POST PUB PEER REVIEW

OA publishing
FAIR data sharing
Room for everyone’s talent
towards a new balance in the recognition and rewards of academics

> Diversifying and vitalising career paths
We enable more diversity in career paths and profiles for academics.

> Patient care
(in university medical centres)

> Education
Research
Impact
Leadership

> Focusing on quality
In our assessments of academic performance, we increasingly focus on quality, content and creativity.

> Achieving balance between individuals and the collective
We assess academics based on both their individual and their team performance.

> Stimulating open science
We encourage academics to share their research outcomes with society.

> Stimulating academic leadership
We stimulate good academic leadership at all levels.
National funders (NWO, ZonMW)

- Narrative CV:
  - Academic profile
  - Key outputs (not limited to publications)

- Indicate the importance of each output, how it is related to the project, and/or how it shows the applicant’s abilities

- No aggregate indicators; provide context for indicators used: why is it a good measure? What does it imply?

https://sfdora.org/2019/11/14/quality-over-quantity-how-the-dutch-research-council-is-giving-researchers-the-opportunity-to-showcase-diverse-types-of-talent/
National Strategic Evaluation Protocol
The Netherlands 2021-2027

The research unit:

- Vision, strategy and aims of the research are outlined
- Narratives (supported by data)*
- Free choice of indicators

*C compatible with DORA
National Strategic Evaluation Protocol
The Netherlands 2021-2027

Evaluation is in relation to the unit’s strategy

Three criteria:
Research Quality, Societal Impact and Viability

Four Aspects:
• Open Science practices and efforts
• PhD policy and Training
• Academic Culture (Openness, Safety, Inclusiveness, Research Integrity)
• Human Resources Policy (Diversity, Talent Management)

The many Initiatives and Actions

- [https://sfdora.org](https://sfdora.org) The San Francisco Declaration on Research Assessment
- 2016 EU adopts Open Science as the standard for Horizon Europe 2021
- Coalition S and Plan S
- [http://www.leidenmanifesto.org](http://www.leidenmanifesto.org)
- [http://responsiblemetrics.org](http://responsiblemetrics.org)
- VSNU, NWO, NFU: [www.vsnu.nl/Room for Everyone’s Talent](http://www.vsnu.nl/Room for Everyone’s Talent);