Evaluation of Research Careers fully acknowledging Open Science Practices

Rewards, incentives and/or recognition for researchers practicing Open Science

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Dr. Irmela BRACH
Senior Policy Officer
DG RTD B.2
Open Science and ERA Policy
REWARDS – INCENTIVES - RECOGNITION

INCENTIVES *(ex-ante)*:
- something that *motivates or encourages* someone to do something
- a *payment or concession* to stimulate greater output

RECOGNITION *(ex-post)*:
- acknowledgement of the existence, *validity, or legality* of something
- *appreciation or acclaim* for an achievement, service or ability

REWARDS *(ex-post)*:
- *return or recompense* for service or merit, *requital* (payment)
Mandate (of the Working Group)

• Promote a **discussion with stakeholders on the current reputation system** in the context of the standing ERAC groups and the Open Science Policy Platform (OSPP);

• Reflect about and propose alternative (**other than metric-based**) methods to recognise contributions to OS, including 'rewards and incentives' taking into account diversity in experience and career paths while guaranteeing fair and equal career development of scientists;

• Propose **new ways/standards of evaluating research proposals** and **research outcome** taking into consideration all Open Science activities of researchers and possibly pilot them (**under certain calls of Horizon 2020**);

• **Identify existing best practices** on how OS issues are already taken up (**target groups = researchers, performers & funders**).
The objective of the experts is two-fold:

1. **Modernisation** of the current researchers' career evaluation system
2. **Creation of incentives and rewards** for researchers engaged in Open Science

**Career advancement currently:**

- relies mostly on the number and quality of publications
- does NOT rely on the reproducibility, availability and re-usability of research results
Open Science practice to become mainstream:
• embedding in the evaluation of all researchers (R1-R4).

This will require changes of mind-set:
• universities to change their approach in career assessment for recruitment and promotion
• funding agencies to reform methods for awarding grants to researchers
• senior researchers to reform the assessment of researchers when employing on funded research projects.

A cultural change is needed in organisations and in the research community for the promotion of and engagement in Open Science.
The approach to 'rewarding practicing OS' is about:

- changing the way research is done,
- who is involved in the process and
- how it is valued.

There is a need for evolving from a (closed) competitive system to a more open and collaborative one.

Evaluating researchers cannot be reduced to a number because their merits, achievements, usefulness are a complex set of different variables, impossible to be summarised by a single figure.
1. It should be made clear that a **multi-dimensional approach to the evaluation** is by far more reliable than the ‘single figure’ one.

2. It provides a more realistic proxy of the **measurement of quality**.

3. It should be done through **multi-dimensional evaluation criteria**.

The **OS Career Assessment Matrix (OS-CAM)** could be used for this purpose, taking into consideration:

- **what is expected** from a researcher and
- **what is relevant** for the specific post, grant or career advancement.
CAREER ASSESSMENT MATRIX (OS-CAM):

RESEARCH OUTPUT
- research activity, publications, datasets and tools, open source, funding

RESEARCH PROCESS
- stakeholder engagement, collaboration & interdisciplinarity, research integrity, risk management

SERVICE & LEADERSHIP
- leadership, academic standing, peer review, networking

RESEARCH IMPACT
- communication & dissemination, IP (patents, licenses), societal impact, knowledge exchange

TEACHING & SUPERVISION
- teaching, mentoring, supervision

PROFESSIONAL EXPERIENCE
- continuing professional development, project management, personal qualities
1. A more comprehensive recognition and reward system must become part of:
   - **recruitment criteria,**
   - **career progression and**
   - **grant assessment procedures**
   for researchers at all levels (R1-R4).

2. A review/update through the lens of Open Science might be needed for:
   - **ERA policies,**
   - **ERA roadmaps and**
   - **National Action Plans**
   to ensure compatibility with Open Science.
3. At European level all means to encourage and incentivise researcher participation in Open Science through support and funding mechanisms should be pursued. This should include:

- The Human Resources Excellence in Research Award (HRS4R) integrating Open Science assessment criteria for researcher recruitment, career progression and grant evaluation;

- Open Science activity by researchers should become a cross cutting theme in all of the Work Programmes of Horizon 2020 and, most importantly, in the future Framework Programme, FP9.

- At national, regional and institutional level, best efforts should be made to integrate the recognition and rewards for researchers engaging in Open Science into existing and future funding mechanisms.
4. The assessment of researchers during:
   - recruitment,
   - career progression and
   - grant evaluation
   should be structured to encompass the full range of their achievements including Open Science.

This multi-dimensional approach could be implemented using the instrument OS-Career Assessment Matrix (CAM) that takes into consideration the full range of achievements to reflect diverse career paths.

There should also be a validation process on the content and feasibility of the OS-Career Assessment Matrix (CAM) in researcher assessment at European, national, regional and organisational level, taking into account the wide spectrum of disciplines, research funding and research performing organisations.
This new approach:
• will take time,
• needs to be well-planned.

The outcome of this change must:
• **improve the quality of science** in its own right in a manner that ensures research integrity and greater peer and public engagement in research
• mainstream the practice of Open Science through **incentivising researchers with recognition and rewards**.

There will be a need for:
• **feasibility studies** and
• **pilot exercises**
to ensure achieving the desired outcome.
**WHAT NEXT?**

**Piloting** the use of the **OS-CAM**
- H2020
- FP9

**European Open Science Cloud**

**Alternative Metric System**

**NEED TO BE IN PLACE / UP AND RUNNING!**
THANK YOU for your attention!

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The full report is available at: https://ec.europa.eu/research/openscience/index.cfm?pg=home