



Policy Makers and Open Science: European Commission perspective

*UN Open Science Conference: “From tackling
the pandemic to addressing climate change”*

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Open Science and the pandemic: what did we learn?

- Broad consensus that **Open Science accelerates scientific discovery** and that FAIR and open data can save lives
- But more action will be necessary to **make Open Science the “new normal”**
 - Reforming the research assessment system to provide **incentives and rewards**
 - **Data infrastructures inadequate** for responding to a pandemic
 - **Publishing models** need to become **more transparent and agile**

Transitioning towards open science as the new norm **requires coordinated action** by policy makers, research funding and research performing organizations, at national, regional and international levels

Open Science and climate change

OPINION article

Front. Environ. Sci., 11 October 2018 | <https://doi.org/10.3389/fenvs.2018.00115>

Enhancing Climate Change Research With Open Science

 Travis C. Tai^{1*} and  James P. W. Robinson²

*For climate change scientists, who must respond to evolving environmental changes with research that has considerable societal impact, **the open sharing of data, code, and research outputs could be transformative** (e.g., [Lowndes et al., 2017](#)).*

*Despite the clear benefits of OS in enhancing research output and communication to stakeholders, **considerable barriers to OS uptake persist, including closed publishing, fear of being “scooped,” and clarity of data ownership** ([Nosek et al., 2015](#)).*

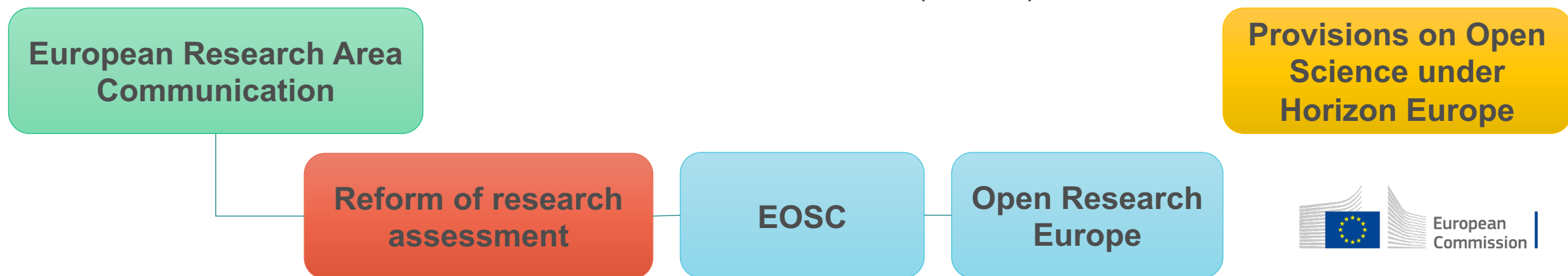
The European Commission commitment to Open Science

Improve *the practice* of R&I

- Openly accessible scholarly publications
- Early sharing of all research outputs
- All data FAIR, RDM
- Reproducible results
- Societal engagement and responsibility

Develop proper *enablers*

- Rewards and incentives to adopt Open Science practices, with appropriate metrics
- Appropriate skills and education, including for research integrity
- Open Research Infrastructures including the European Open Science Cloud (EOSC)



Towards a new 'modus operandi' for Science

The dominant current system

FROM → TO

Open Science

- | | | |
|---|---|--|
| • Rewarding individual competing scientists | → | • Rewarding collaboration and sharing |
| • Publish as much and as fast as possible | → | • Share knowledge/data as early and as openly as possible |
| • Excellence defined largely on the basis of <i>where</i> scientists publish | → | • Composite definition of excellence |
| • Incentivises researchers to <i>produce specific outputs</i> (mainly publications)
- <i>Use of quantitative metrics</i> | → | • Incentivises researchers to share, collaborate, increase quality and impact;
- <i>Use of qualitative and quantitative metrics</i> |
| • Strong influence of commercial players from access to publications | → | • Avoid lock-in of publicly-funded R&I output, ensuring autonomy of RPOs |

Promoting global cooperation in Open Science

- Science is a **global enterprise** and many R&I collaborations are international in nature
 - Need **access** to, and **reuse** of knowledge, data, tools and infrastructure world-wide
 - Need **sharing** and **collaboration** with teams all over the globe
 - **Policies & actions** for open sharing of knowledge are most often at national or institutional level
 - Need **international alignment on values and principles**: open science, research integrity, a level-playing field
 - Need for **international standards and interoperability**
- The Commission is participating and cooperating with the UN, UNESCO, G7, OECD, and other international organisations to enable the transition to open science

Thank you



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