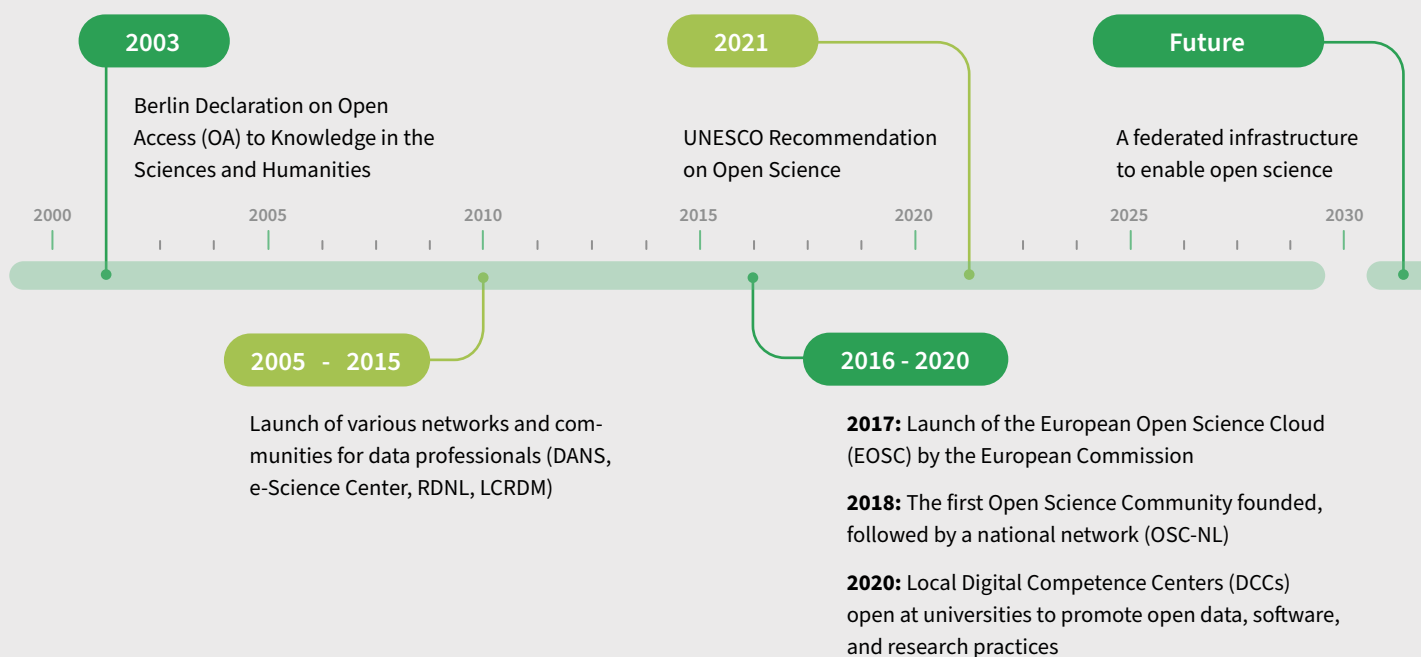# OPEN SCIENCE

Open science is a movement that advocates for a more open and participatory approach to research. It encourages sharing methods, data, software, and publications as open as possible at the earliest possible stage in the research lifecycle and making them available for reuse. This transparency and collaboration are vital for accelerating discoveries and maximizing the impact of research on both science and society.

Timeline

2003

Berlin Declaration on Open Access (OA) to Knowledge in the Sciences and Humanities

2021

UNESCO Recommendation on Open Science

Future

A federated infrastructure to enable open science

2000   2005   2010   2015   2020   2025   2030

2005 - 2015

Launch of various networks and communities for data professionals (DANS, e-Science Center, RDNL, LCRDM)

2016 - 2020

2017: Launch of the European Open Science Cloud (EOSC) by the European Commission

2018: The first Open Science Community founded, followed by a national network (OSC-NL)

2020: Local Digital Competence Centers (DCCs) open at universities to promote open data, software, and research practices

SURF

4 pillars of open science

- Open access: the first global movement in open science that provides free, unrestricted access to academic publications and data, allowing anyone to read, download, copy, distribute, and use the information, thereby increasing the visibility and reuse of research while ensuring quality.

- FAIR data: four principles (Findable, Accessible, Interoperable, Reusable) for data management and stewardship, to maximize its usability and accessibility.

- Open research software focuses on creating open source en well-documented research software to promote transparency and reproducibility.

- Citizen science: involves the active participation of the general public in scientific research, enhancing public engagement and collaborative data collection and analysis. Imperative to this is to ensure that all forms of research output are recognised and rewarded.

5 inspiring developments

Foundation of LCRDM: this national coordination point for Research Data Management established an expert network to facilitate training and collective action

Launch of Publinova to make all practice-based research accessible and visible

Realization of Yoda, a platform to securely store and add metadata in the whole research lifecycle

Start of the ORCID consortium, emphasizing the importance of global PID standards

Launch of Research Cloud, a portal where users can build a virtual research environment

More about open science

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