



Research Data Alliance (RDA) roundtable during the Science Summit at the United Nations General Assembly

Local challenges, Global solutions: achieving Open Science goals through international collaboration and cooperation.

Roundtable overview & esteemed speakers

Many countries and nations across the globe are closely engaged with the Research Data Alliance (RDA), leveraging on the open solutions and global forum to effectively implement and support their national open science and open data strategies and policies. However, there is a large discrepancy in the geographical representation between the Northern and Southern hemisphere. Many nations in the South are not taking advantage of RDA and the benefits for the researchers and data professionals on the ground. Through this session, different stakeholders will outline the importance of international cooperation to achieve local goals, demonstrate the value and importance of globally agreed and recognised research data management and open science practices and solutions in achieving the UN Sustainable Development Goals (SDGs) and illustrate why and how research data good practices and standards can support national open science and open data strategies across the globe and assist in achieving the SDGs, with a particular focus on the Global South.

The roundtable took place on Friday 15 September 2023 within the framework of the UNGA78 Science Summit. It was organised and moderated by Hilary Hanahoe, Secretary General, Research Data Alliance and the speakers were Josh Greenberg, Program Director, Technology and New York City, Federico Cetrangolo, Administrative Manager, La Referencia and Connie Clare, Community Development Manager, Research Data Alliance. The roundtable was kindly hosted by the Alfred P. Sloan Foundation at their offices in New York City and virtual participants attended via Zoom.

Contribution to a greater understanding of science and innovation within the context of achieving the SDGs, the UN Summit of the Future in September 2024 and the post-SDG Agenda more generally

Different stakeholders outlined the importance of international cooperation to achieve local goals, demonstrated the value and importance of globally-agreed and -recognised research data management and open science practices and solutions, and illustrated why and how research data good practices and standards can support national open science and open data strategies across the globe to assist in achieving the UN Sustainable Development Goals (SDGs).

There are a plethora of definitions of 'Open Science' and while they focus on similar aspects and have similar definitions, this in itself is confusing for stakeholders.

To provide context for the RDA roundtable and the key takeaways messages, the Science.gov (US Federal Agencies) definition that "Open Science is the principle and practice of making research products and processes available to all, while respecting diverse cultures, maintaining security and privacy, and fostering collaborations, reproducibility, and equity," is used. Note that all official definitions are valued.



Key messages from the “Local challenges, Global solutions: achieving Open Science goals through international collaboration and cooperation” roundtable organised by the Research Data Alliance were:

1. Multi-stakeholder collaboration is fundamental. For effective and successful partnerships to be established, core beliefs and incentives must be aligned, and goals, outcomes and success metrics clearly agreed from the outset.
2. Open Science goals and targets are very ambitious but not impossible. Building and implementing flexible frameworks will help. All stakeholders must be involved and the benefits, values and risks clearly defined and identified for all.
3. There are significant costs to achieving Open Science and they cannot be borne by one stakeholder, specifically industry / private sector. Policy makers and funders should communicate, synchronise and understand their investments made to reduce financial waste, avoid duplication of efforts and funding, and to share knowledge, experiences and lessons learnt.
4. Multilingualism is a priority. To achieve global goals and involve international stakeholders and communities, multilingual and multicultural approaches, processes and services must be a key part of Open Science frameworks.
5. Many challenges to research data management, a fundamental piece of the Open Science puzzle, persist. The FAIR and CARE principles for research outputs must become a centrepiece and mainstay of all data management policies and practices. With the advent and increasing focus on Artificial Intelligence (AI), the availability of high quality, trusted data is very important.

Funder and policy maker recommendations

As a global organisation, the Research Data Alliance (RDA) session recommendations are global and address funders and policy makers across the world:

1. The paradigm for Open Science must change if it is to be inclusive and ensure everyone can participate in it. Ultimately, we should leave no one behind. We run the risk of developed countries having the resources to push their Open Science vision and practices while less developed countries will be beneficiaries and not active participants. Therefore, investment in infrastructure, resources and skills for Open Science are imperative.
2. Prioritisation of data standards and application of new technologies to harmonise research data so it can be more easily shared and used. This continues to be a huge barrier to achieving Open Science and accelerating data driven innovation. The development of data standards and technical infrastructure will improve data quality and trust in data. Furthermore, it enables researchers to concentrate on undertaking research without having to become experts in ‘Open Science’ and research data management practices.
3. Invest in team science. Investment in data support staff, such as, data stewards, data managers research software engineers, community managers, data scientists, and recognise their role and contribution to the Open Science agenda. As technology advances, research performing organisations need multidisciplinary teams to support research projects and deal with the increasing complexity of data.
4. Inclusion of the scientific community in the definition of the Open Access and Open Science visions, agendas and policies by decision makers and policy makers. The



scientific community has direct, first-hand experience, and a clear understanding of the challenges and barriers to be addressed.

5. Reward, recognise and support the diversity of roles and responsibilities, and their importance in the overall academic research ecosystem.
6. Proactive Consortia funding of infrastructure with an understanding that developed countries and scientific communities should subsidise some of the cost for less developed countries and communities.
7. Funders should align their policies and investments to reduce financial waste and duplication of efforts.