

- **NATIONAL OPEN SCIENCE SYMPOSIUM (1 & 2 SEP 2021) REPORT: CALL TO ACTION**

The National Open Science Symposium in Nigeria promoted by [Eko-Konnect](#) brought stakeholders in the development of education and research in Nigeria together to discuss how the adoption of Open Science can improve research.

Stakeholders included:

- a) Higher Education Institutions including universities, polytechnics, colleges of education, and research institutes.
- b) Ministries Departments and Agencies of the Federal Government including FME, NUC, NBTE, NCCE, and NITDA
- c) Funders - TETFund
- d) International Open Science Stakeholders – LIBSENSE, UNESCO
- e) National Research and Education Network (NREN) Providers – Eko-Konnect, Zik-Konnect, SokREN, NgREN, and other supporting regional RENs including WACREN.

BACKGROUND

As summarised by Ana Persic of UNESCO in the opening presentation of the symposium, Open Science has become vitally important in the advancement of research for human impact and benefit. The need was put into stark relief by the coronavirus crisis and how global sharing of open research data and collaboration became critical to combat the disease. Science research and development must be inclusive and Open Science (Open Research) offers the best opportunity for researchers in the global South to participate, produce and benefit from research output.

[LIBSENSE](#) is the pan-African collaboration of librarians, researchers, and NREN operators strengthening Open Science across the continent which in recent years has engaged in advocacy, infrastructure modelling, capacity building, and policy development. In partnership with UNESCO and regional university associations, LIBSENSE is convening regional policy development workshops and providing guidance for the development of national Open Science action plans in several pilot countries. As part of this, the Eko-Konnect Research and Education Initiative and TETFund convened stakeholders to discuss the opportunities and collectively plan how Open Science practices can be adopted and implemented in Nigeria.

Presentations and discussions from the 2-day symposium can be obtained at:

<https://bit.ly/2XERRZr>.

Video recordings of the event are available at:

<https://youtube.com/playlist?list=PLnq72eJFCGXaYvjnspWQBUIR6cRq>.

The symposium ended with a **“Call to Action”** for the promotion and adoption of Open Science.

The deliberations were synthesised to include the following actions as next steps:

1. Develop Open Science advocacy and capacity building plan for Nigeria
2. Define a National Open Science Policy (to be included in the NRDF Bill if possible)
3. Establish infrastructure collaboration between TETFund, service providers and the REN Community

These steps are expanded and aligned with the UNESCO and LIBSENSE activities as represented below:

AN OPEN SCIENCE ADVOCACY AND CAPACITY BUILDING PLAN FOR NIGERIA

- Continuation of webinars to increase Open Science and Open Research advocacy and capacity building of specific communities of practice within the higher education institutions and research institutions.
- Conduct regional Face to Face train the trainer workshops on Open Science practices on campuses across the geopolitical zones of the country to build capacity in Open Research Open Science.
- Leverage the trainees and campus libraries to develop "Open Science Communities" in Higher Education and Research Institutes with an initial focus on Early Career Researchers.

TETFund to assist in funding the training effort.

A NATIONAL OPEN SCIENCE POLICY TO BE INCLUDED IN THE NATIONAL RESEARCH AND DEVELOPMENT FOUNDATION BILL

- Develop a national policy to promote Open Science principles and practice and have and include in the NRDF Bill if possible.

Leverage the LIBSENSE Open Science Policy templates.

INFRASTRUCTURE COLLABORATION BETWEEN TETFUND, AND THE REN COMMUNITY

- Support the development of the community-driven [Nigerian Open Science Cloud platform](#). This ensures that some of the open infrastructure and digital tools - *scholarly communication publishing and research data management platforms* - necessary for the capacity building and required by researchers, librarians and students to engage in open research are available, lowering the barriers to entry to showcasing their research on structures that are globally visible and interoperable.
- Foster closer collaboration with TETFund and other national agencies for other required infrastructure, including electronic theses and dissertation (ETD) repositories for greater exposure to and availability of graduate research, funding and monitoring systems for transparency into research funding and its outcomes, and a national

persistent identifier (PID) framework to support the implementation of policy and ensure that the digitized research is findable and saves researchers time and effort.

- Convene stakeholders (government agencies, ATCON, telecoms, infracos, REN providers, tertiary education leaders, and funders) to devise a communications network and access development plan that can be used to access open science-based research and education infrastructure and services along with interim solutions that can be offered by telecommunications providers.

The table below outlines the steps that have been taken and scheduled in the Call to Action on Open Science.

DESCRIPTION	TASK	RESOURCES	OUTCOMES	DATE
Preparation Open Science Policy templates	A draft document of Open Science goals for Nigeria derived from existing LIBSENSE documents and other Open Science related documents	https://spaces.wacren.net/display/LIBSENSE/Open+Science+Africa%3A+Principles+and+Actions+for+Global+Participation	High-level document for purpose of Shared understanding among intended stakeholders	March
Open Science Presentation at WACREN 2021 Conference	Presentation of Nigerian National Policy on Open Access plans	WACREN Conference	Awareness of intended Nigerian roadmap	March
Engagement & sensitisation with key funders & National Policy influencers National Open Science Symposium	Online consultation meeting toward a shared understanding of open science. Assess any available policies. Identify other relevant organisations to approach. Seed governance Initial targets: RDSC, FME, TETFund, CPN, NITDA, UNESCO Nigeria,	Online Zoom Webinar Presenters	Shared view of Open Science goals for Nigeria. Stakeholder map prepared	Sept
Open Science Policy Meeting National Open Science Symposium	Online meeting with all major national stakeholders, University Librarians, and ICT Directors to discuss policy, governance	Online Zoom Webinar Presenters	Working Groups established Policy ratified Mandate Defined	Sept
Engagement & sensitisation with HEI Chief Executives and ICT Directors	Organise online advocacy meeting with AVCNU, AVCSEU, University Librarians, ICT Directors for institutional support of Open Science	Online Zoom Meeting	National Open Science and LIBSENSE awareness established	Sept
Consultation with known stakeholders on Open Science roadmap	Calls and/or online discussions with known stakeholders to create awareness and participation in a national open science	Online Zoom Meetings	Commitment from closely related organisations to Eko-Konnnect to engage in	Oct - Dec

	roadmap - NiCLOR, RDSC, UNESCO, Nigeria		and promote Open Science	
Engagement & sensitisation with stakeholders in R&E and library communities	Webinar with members of NiCLOR NLA, AULNU, Zik-Konnect, SokREN, NgREN, librarians, researchers as participants	Online Zoom Meeting	Open Science principles from previous webinars and conferences reinforced. Sensitisation for Open Research Training & Open Communities Development	Oct - Dec
meeting of stakeholders (government agencies, ATCON, telecoms & infracos NREN providers, & tertiary education staff	Discuss the development of communications network to access research & education infrastructure and services -	Online Zoom Meeting	Infrastructure development and investment plan. Interim telecoms solutions for access to R&E infrastructure	Nov - Dec
Methods and Best practice Webinar Open Science Policy Webinar	Webinars with the community of librarians and researchers on Open science methods and best practices.	Online Zoom Meetings	Open Science Policy Draft. Persistent Identifiers Policy Draft.	Nov - Dec
Digital Literacy Workshop	Available tools and platforms for publishing and delivering scholarly and research outputs for librarians, repository managers and researchers		Introduction to infrastructure. platforms and open source software that can be used	Nov
ICT4Girls and CTIP Citizen Science Programme	Online Training Courses for Student Interns of CTIP and ICT4Girls on programming related courses using raspberry pi's followed by a hackfest		Citizen Science project defined and started (raspberry pi related)	Dec
Planning toward an inaugural Open Science Day (initial event to be co-located with the Eko-Konnect 2022 User Conference	Meeting to determine theme and establish program committee for the "Open Science Day".		Working Groups provide the theme, agenda and identify local & international speakers	Dec
Annual Eko-Konnect 2022 User Conference	Establish a dedicated Open Science Theme and confirmation of working groups at the next Annual Eko-Konnect Users Conference	The R&E community at the Annual Eko-Konnect Users Conference	Ratification of open science policy and institution of a National Open Science Day	Jan 2022