AOSP - Towards a continental Open Science Vision

Nokuthula Mchunu (Dr)
Deputy Director

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20 October 2022

Open Science

- "as an inclusive construct that combines various movements and practices **aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society,** and to open the processes of scientific knowledge creation, evaluation and communication to societal actors **beyond the traditional scientific** community"

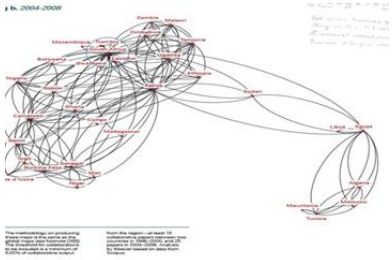
Making science more:

- Accessible
- Inclusive

and,

- Equitable

for the benefit of all



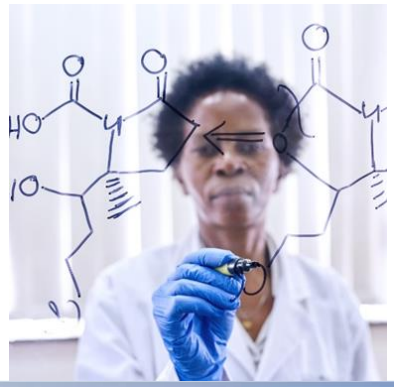
Open Science Imperatives for Africa

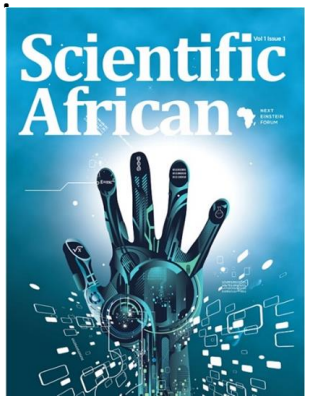
- ✓ Development of Commons to solve continental and global Challenges
- ✓ Promotion of best practices of open science and Impact of Science in society
- ✓ Data
- ✓ Open Access/communication and incentives

African Open Science Platform (AOSP) - Vision and Strands

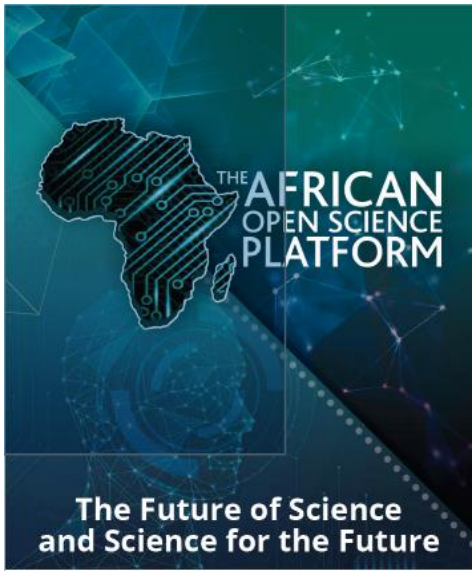
"African scientists are at the cutting edge of contemporary, data-intensive science as a fundamental resource for a modern society. They are innovative global exponents and advocates of Open Science and leaders in addressing African and Global Challenges."

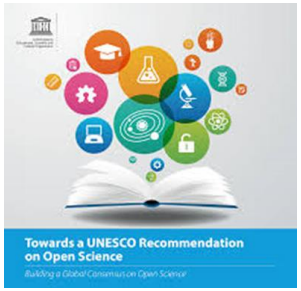
- ✓ Develop a federated network of computational facilities and services, software tools and advice on policies and practices of research data management,
- ✓ Develop Data Science and AI Institute spanning and embedded at African institutions,
- ✓ Promote collaboration on African priority application programmes – ranging from health, biodiversity, disaster risk reduction, agriculture and open innovation resilient cities etc.,
- ✓ Create a Network for Education and Skills in data and information,
- ✓ Create a Network for Open Science Access and Dialogue.



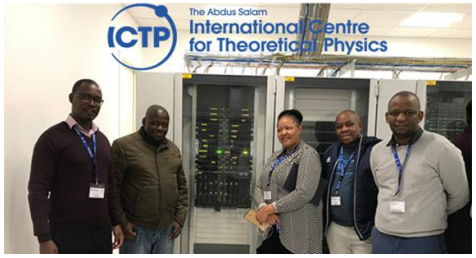


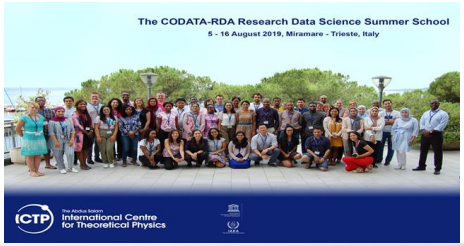
AOSP Strategy & Implementation Imperatives





- Governance
- Platform Management
- Stakeholder Engagement
- Resource Mobilisation
- Operations
- Enabling Activities
- Application Activities
- Monitoring & Evaluation Framework





Repositioning of NREN Services and E-infrastructure

- **LIBSENSE:** Led by the West and Central African Research and Education Network **(WACREN)**
  - Participation from key organisations in Africa including
    - ✓ Sister regional research networks, the **Ubuntunet Alliance** and **ASREN**,
    - ✓ Conseil Africain et Malgache pour l'Enseignement Supérieur (**CAMES**),
    - ✓ The Digital Science and Technology Network (**DSTN**) - a network of African Centres of Excellence,
  - Participation internationally with
    - ✓ The Confederation of Open Access Repositories (COAR) and
    - ✓ EIFL (Electronic Information for Libraries)
- Funded through the AfricaConnect3 project and other partners

LIBSENSE Activities

LIBSENSE

❑Infrastructure;

- ✓Framework for REN-based Federated High Performance Computing Service,
- ✓Pan-African Identity Management Federation program (eduID.africa) for secure access,
- ✓National shared open access repository and publishing platforms - Côte d'Ivoire, Nigeria and Uganda.

❑Policy, governance and leadership;

- ✓National Open Science Roadmaps - Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania and Uganda
- ✓Institutional Open Science Policy Development Workshops
- ✓Compendium of Open Access/Open Science Policy Case Studies from African Higher Education Institutions
- ✓Model for Open Science Communities on Campus

❑Capacity building - communities of practice and training;

- ✓Continental Shared Agricultural Data and Publications Platform with RUFORUM (regional, multi-institutional level,
- ✓Capacity-building workshops – skills profiles webinars, open access publishing, research data repositories and repository interoperability, persistent identifiers,
- ✓Early Career Researcher training - practical guidance and upskilling.

Slide Courtesy of LIBSENSE

UbuntNet CONNECT 2022

SAVE THE DATE

HOST CITY: Gaborone, Botswana

DATE: 23-25 November 2022

THEME:

Redesigning the Digitalized African College and University

The UbuntuNet-Connect 2022 conference theme looks broadly at the issues surrounding the redesign of digitalised colleges and universities in Africa.

23 November 2022 – 1 day Open Science training for Librarians: Open Data Repository.

For more information: https://ubuntunet.net/uc2022/

THE AFRICAN OPEN SCIENCE PLATFORM

UbuntuNet Alliance

science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

unesco

NRF National Research Foundation

ACTIVITIES

- **Supporting Open Science Policy Development in the Continent**
  - ✓ Ivory Cost
  - ✓ South Africa
  - ✓ Tanzania
  - ✓ EASTCO (Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda)
  - ✓ North Africa
- **Open Access**
  - ✓ AOSP aligning with ISC task team (Open Access) on **"Opening the record Project**
  - ✓ Dialogue with publishers
  - ✓ Support development of national databases of peer reviewers,
- **Open Data**
  - ✓ Formulating AOSP Data Institute and dialogue on development of open data platforms
  - **Capacity Building and Training**
    - ✓ Training on Institutional Data repositories
    - ✓ Emerging Researchers-

AOSP Upcoming Events

Open Science Imperatives for Africa

❑ Open Access and Publishing

- ✓ Aims to create value through open knowledge access strategies e.g. policies, scientific publications.
- ✓ Development of Open Access platforms, journals, infrastructure, processes e.g. in research and its data
- ✓ Make knowledge more of a public good than a business enterprise.
- ✓ Enable access i.e. leave no one behind in the knowledge transfer – thus break barriers of gender, economic status, innovations etc.
- ✓ Ensuring adequate protection of IPR, privacy, security and scientific integrity and ethics.

Challenges :

- Closed and APC publishing
- Fear of being scooped
- Clarity of data ownership
- Impact vs Research outputs (personal Incentives)
- Etc…..

Requirements for Success of Open Science

- New Models/systems of publishing?
- General democratization of science?
- For the developing world, what are key benefits of Open Access?

Research Assessment/incentives

Impact

Academic impact :

- impact that scientific research has within the academic sphere.
- measured through author metrics (citation, IF, H-index etc)
- they are inherently flawed in that they provide only a limited picture of scholarly production

Comprehensive impact:

- the broad impact of scientific research upon **human society** (including cultural and economic impact) and the natural environment
- Complex and new design
- Alternative metrics

Reward/Incentives

- Crucial that researchers are adequately equipped to navigate an open science
- Transition to open science practices requires a holistic approach and **behavioral change** that considers multiple individual, institutional and sociocultural level factors.
- **New promotional and incentive policies**

"Wall of Metric" by Dasapta Erwin Irawan

If knowledge producers refuse or are reluctant to adopt open science it will FAIL

Conclusion

Open Science needs to be the **default** with:

- No cost for participants and **no cost** for beneficiaries – the case of open access.
- International, regional, and **national collaboration** is essential to address complex scientific challenges.
- Fundamental **shift in thinking** to ensure that openness is integral to how science is done in future.
- High-level political will.
- The current evaluation and incentive system for research must be updated to support open science practices.

AOSP CALLS

International Science Council

ABOUT US | WHAT WE DO | OUR MEMBERS | PUBLICATIONS | CURRENT | EVENTS | SIGN UP | LANGUAGE

Current

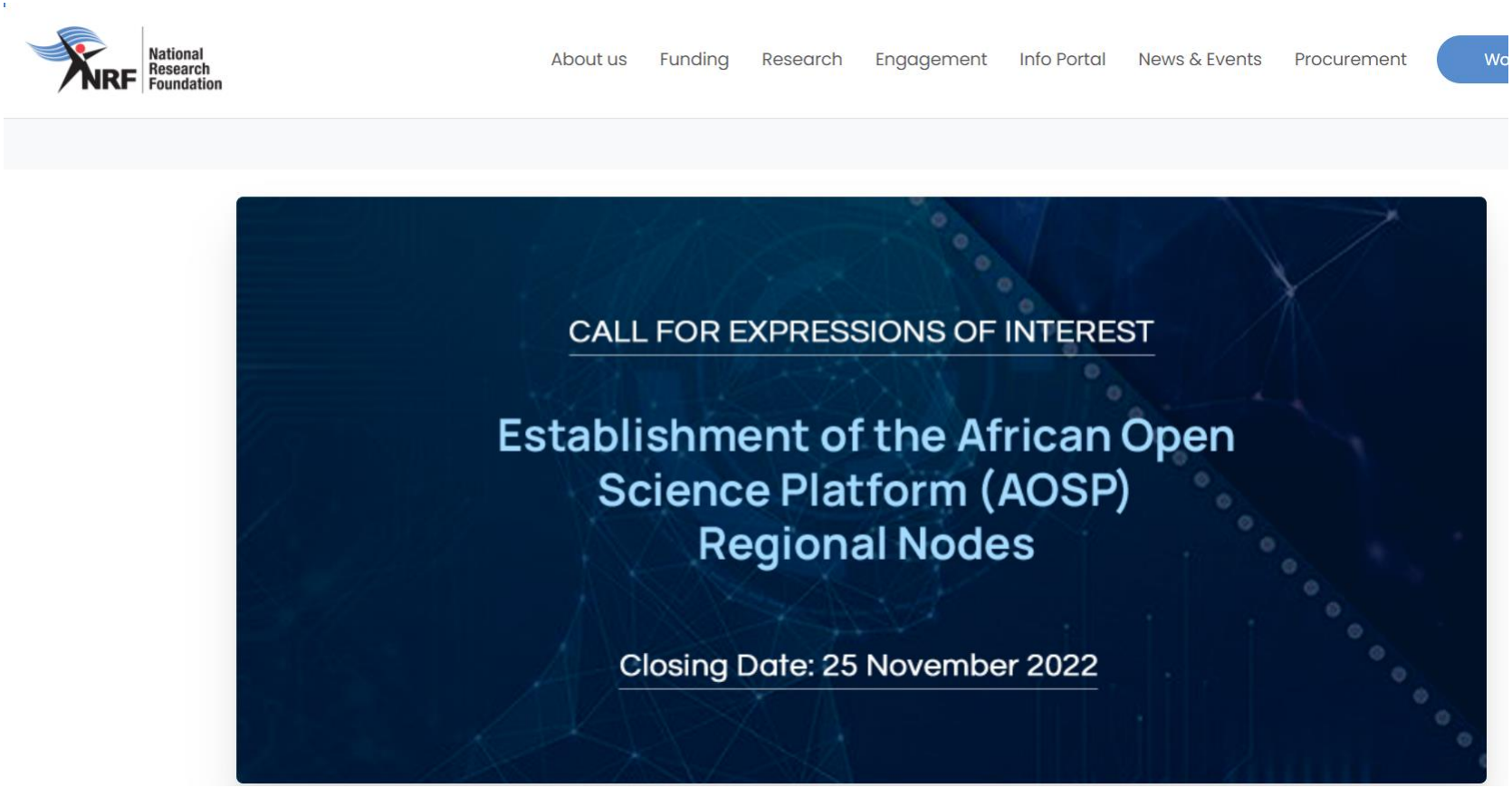
NEWS

Call for nominations for Members of the Governing Council of the African Open Science Platform

The African Open Science Platform (AOSP) is now receiving nominations for its first Governing Council.

[Call for nominations for Members of the Governing Council of the African Open Science Platform - International Science Council]

AOSP CALLS



https://www.nrf.ac.za/call-for-expression-of-interest-establishment-of-the-african-open-science-platform-aosp-regional-nodes/

LET'S WORK TOGETHER FOR AFRICA – AND THE WORLD

National Research Foundation

science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

International Science Council
Regional Office for Africa

IGAD

ECOWAS

EAC

CEN SAD

African Union

Union du Maghreb Arabe

SADC

COMESA

CEEAC-ECCAS

THE AFRICAN OPEN SCIENCE PLATFORM

SCIENCE GRANTING COUNCILS INITIATIVE SGCI

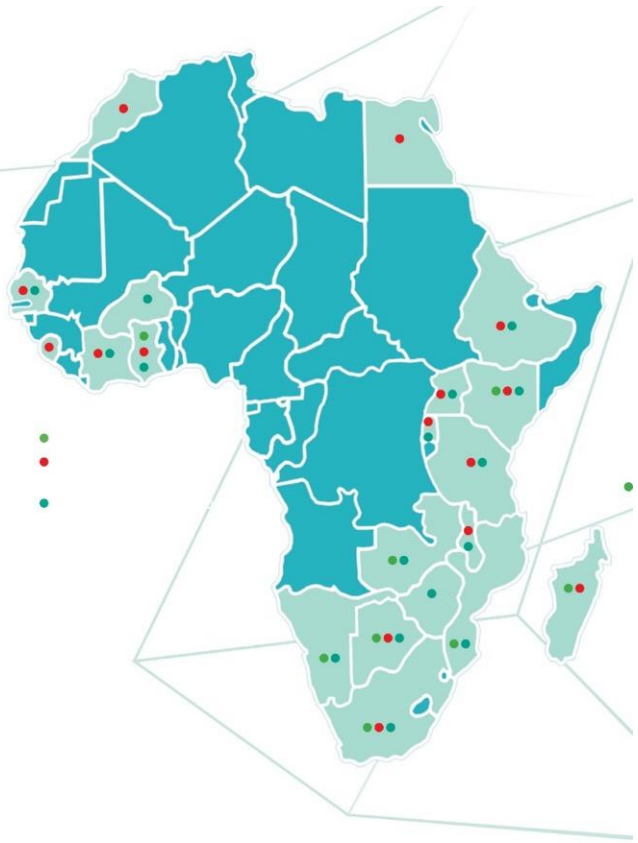
IOSRS INITIATIVE DES ORGANISMES SUBVENTIONNAIRES DE LA RECHERCHE SCIENTIFIQUE

CODATA

ASSAf
ACADEMY OF SCIENCE OF SOUTH AFRICA

Current Participants of Key Initiatives on the African continent

Country	AVN	AOSP	SGCI
Botswana	●	●	●
Burkina Faso			●
Cote d'Ivoire		●	●
Egypt		●	
Ethiopia		●	●
Ghana	●	●	●
Ivory Coast		●	
Kenya	●	●	●
Madagascar	●	●	
Malawi		●	●
Mauritius	●		
Morocco		●	
Mozambique	●		●
Namibia	●		●
Rwanda		●	●
Senegal		●	●
Sierra Leone		●	
Tanzania		●	●
Uganda		●	●
Zambia	●		●
Zimbabwe			●
South Africa	●	●	●



Thank you

Enquiries Contacts

Dr Nokuthula Mchunu,
Deputy Director, AOSP
Strategy, Planning and Partnerships (SPP)
National Research Foundation
South Africa
np.mchunu@nrf.ac.za

Website: https://aosp.org.za/

https://www.nrf.ac.za/african-open-science-platform-aosp-new-nrf-appointments/