

# SIERRA LEONE RESEARCH & EDUCATION NETWORK



## DEVELOPING AND IMPLEMENTING INFRASTRUCTURE FOR OPEN SCIENCE: LESSONS FROM SIERRA LEONE

UBUNTUNET-CONNECT 2023 CONFERENCE, KAMPALA, UGANDA

26-27 October 2023

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**SLREN – Connecting Higher Education and Research Communities in Sierra Leone**



# Presentation Outline

- 1) INTRODUCTION
- 2) STATE OF NATIONAL SCHOLARLY PUBLICATIONS
- 3) EXISTING NATIONAL OPEN SCIENCE POLICIES AND STRATEGIES
- 4) ONGOING NATIONAL OPEN SCIENCE INITIATIVES
- 5) LESSONS LEARNT FROM OPEN SCIENCE IMPLEMENTATION



# INTRODUCTION

- ❖ Like many countries, higher education institutions in Sierra Leone were closed during COVID-19 pandemic
- ❖ In post covid era, all universities are required to upscale teaching mode towards Open Distance Learning and Online course delivery
- ❖ Faculties are expected to *partially teach using digital learning tools and* keep supervising research activities online
- ❖ Information and Communication Technology recognised as a strategic priority for universities
- ❖ Open Science is an integral part of the National Science, Technology and Innovation Strategy



# OBJECTIVES

To provide thorough insight of:

- The state of scholarly publishing in Sierra Leone
- Existing national policies and strategies for Science Technology and innovation
- Ongoing National Open Science initiatives
- Lessons learnt from developing infrastructure for Open Science



# STATE OF SCHOLARLY PUBLISHING

- **Research and knowledge systems** – like most post independent Africa countries, the higher education landscape is controlled, funded and supervised by the government through the Ministry of Education.
- **Research Publication and Communication** – Scientific research and publications are serious challenges. It is almost impossible to quantify research outputs. Limited functional in-campus journals and low evidence of subscription to journals. We are grateful to Research4Life for providing online resources - e-books, e-journals, etc.
- **Poor Infrastructure** –University campuses operate on low or unreliable internet bandwidth. CT facilities are inadequate
- **Mentorship** – Limited mentoring and network building for early career researchers
- **Gender and Research** – Equitable participation and full realisation of women's potentials very low



# EXISTING NATIONAL STI POLICIES AND STRATEGIES

The following core national policies and strategies established and fully operational:

- National ICT Policy
- National Innovation and Digital Strategy
- National Science, Technology and Innovation strategy, and
- National Open Distance Learning policy
- National Science, Technology and Innovation Council (NSTIC) to promote research, development and innovation

## ONGOING OPEN SCIENCE INITIATIVES

- National Open Science Policy development
- National and institutional repository (**Open Data**) - [DSPACE](#)
- **Open Access** – [Africa Journals Online](#) , [RUFORUM](#), [Research4Life](#)
- Implementation of e-learning platforms – [Moodle](#) LMS, [Canvas](#) LMS
- Upgrade campus networks and support for AfricaConnect-3 participation
- Pilot WACREN's Identity & Access Management (**eduroam, eduID**)
- Technical capacity building for ICT, Library and faculty staff

# LESSONS LEARNT

- Stakeholder sensitisation and outreach on Open Science
- Develop Open Science policies at national and institutional levels
- Shared open science infrastructures will support the long-term sustainability
- Capacity building for Open Science actors - ICT, Librarians and academics
- Promoting innovative approaches for Open Science - Open Access, Open Data, Public Engagement and Citizen Science
- Tackling the role of publishers, including ownership of published materials and Challenges of Intellectual Property Right (IRP)
- Monitoring the transition to Open Science and its implications

# Thank You For Your Attention

## Q&A

