



WACREN ANNUAL REPORT 2025

Resilience, Consolidation, and New Horizons



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Executive Summary

The year 2025 marked a pivotal moment in the evolution of WACREN. As the organisation concluded the implementation of its 2022–2025 Strategic Plan, it demonstrated resilience in navigating a transition between major programme funding cycles while continuing to expand regional digital infrastructure and strengthen services supporting the research and education community.

One of the most significant developments of the year was the continued expansion of the WACREN regional backbone network. Through the AfricaConnect3 programme and its extension period, six additional countries were connected to the network: The Gambia, Guinea, Guinea-Bissau, Mauritania, Sierra Leone, and Senegal. This expansion extended advanced research and education connectivity to hundreds of thousands of additional researchers, educators, and students across West and Central Africa.

Another historic milestone was achieved through the establishment of a direct interconnection between Africa's regional research and education networks. Through the deployment of the Lagos Global Exchange Point (GXP) and its interconnection with the ZAOXI Global Exchange Point in Cape Town, WACREN established the first direct interconnection between Africa's regional research and education networks on African soil. The 10 Gbps Lagos–Cape Town link connects WACREN with SANReN and TENET in South Africa and strengthens collaboration with the broader UbuntuNet Alliance community.

This development significantly improves network resilience and reduces reliance on intercontinental routing for African research traffic. It also establishes the foundation for deeper collaboration between African research communities and supports emerging initiatives such as federated high-performance computing infrastructure and cross-border scientific collaboration.

In parallel, WACREN continued to strengthen its role as a regional platform for digital research infrastructure and open science. Through initiatives such as LIBSENSE and partnerships with organisations including EIFL, AJOL, ORCID, and Crossref, WACREN supported the development of Diamond Open Access publishing ecosystems and persistent identifier infrastructure to improve the visibility and

discoverability of African research.

The year also saw the continued development of cybersecurity capabilities across the research and education community. Through collaboration with the Shadowserver Foundation and support from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), WACREN began deploying infrastructure to support threat intelligence sharing and strengthen operational cybersecurity capabilities among member NRENs.

Despite delays in the start of the AfricaConnect4 programme, WACREN successfully maintained service continuity and organisational stability, temporarily financing key operational activities internally while preparing for the next phase of regional infrastructure development.

Looking ahead, WACREN will focus on the implementation of AfricaConnect4, the expansion of regional digital research infrastructure, and the continued strengthening of services supporting open science, cybersecurity, and research collaboration across Africa.

WACREN in 2025 at a Glance

| INDICATOR | 2025 |
|--------------------------------------|-----------------------------|
| NREN Members | 19 |
| Premium Associate Members | 5 |
| Countries Connected to Backbone | 12 |
| New Countries Connected in 2025 | 6 |
| Connected Institutions | 140 |
| Estimated Academic Users | 1,000,000+ |
| Virtual Machines Supporting Services | 176 |
| Pan-African RREN Interconnection | Lagos – Cape Town (10 Gbps) |

Board Foreword

On behalf of the WACREN Board of Directors, I present the 2025 Annual Report, which marks a watershed moment in our organisation's evolution from a regional connectivity initiative to a strategic enabler of the knowledge economy in our region and beyond. The year under review represents the successful culmination of our 2022-2025 Strategic Plan and the careful orchestration of institutional continuity during a critical transition between major funding cycles. As stewards of WACREN's long-term vision, the Board has remained steadfast in its commitment to ensuring that our region's research and education communities are not merely consumers of global digital infrastructure but active architects of an African-led model for digital transformation in higher education and research.

This strategic inflection point compels us to reflect on WACREN's evolving role within the broader landscape of Africa's development agenda. The Board recognises that sustainable research and education networks are fundamental infrastructure for national competitiveness, innovation ecosystems, and the advancement of the Sustainable Development Goals. Our strategic positioning transcends technical connectivity; we are building the institutional frameworks, governance structures, and collaborative partnerships that will enable West and Central Africa to participate meaningfully in the global knowledge economy. The successful completion of our strategic plan has demonstrated that with appropriate governance, sustained investment, and regional solidarity, African institutions can own and operate world-class digital infrastructure that serves continental priorities while maintaining global interoperability.

The challenges encountered in 2025 - financial constraints from delayed project funding, geopolitical instability, and complex multilateral procurement environments - tested the resilience of both our organisation and our governance model. The Board is deeply grateful for the resilient leadership of Dr. Eyouleki T. G. Palanga and the WACREN Secretariat, whose strategic agility and unwavering commitment ensured institutional continuity and sustained progress despite significant resource constraints. During the year, the Board was also pleased to confirm Dr. Palanga's appointment as the substantive

Chief Executive Officer of WACREN, marking an important milestone in the organisation's leadership and institutional development. These experiences have reinforced the Board's conviction that WACREN's future sustainability requires a fundamental shift toward diversified revenue streams, strengthened member engagement, and deeper integration with national digital transformation strategies. The Board remains committed to providing the governance oversight necessary to guide this transition while preserving WACREN's core mission and values.



As we enter a new strategic cycle, the Board envisions WACREN not simply as a network provider, but as a catalyst for systemic transformation in how our region produces, shares, and leverages knowledge for development. The opportunities ahead align directly with Africa's most pressing development imperatives. The Board extends its profound appreciation to the European Commission, our NREN members, and all stakeholders who share our vision of an empowered, digitally connected Africa. Together, we are laying the foundation for generations of African scholars, innovators, and leaders to shape our continent's future on our own terms.

Mr. Pierre C.B. Bakoroba
Chair, WACREN Board of Directors

CEO Remarks



2025 was a significant year for WACREN. It was a year characterised by the successful consolidation of our infrastructure under the AfricaConnect3 (AC3) project and the beginning of a new era with the fourth phase of the AfricaConnect project alongside several new initiatives and programmes. As we look back, we celebrate a

network that is not only physically expanding but is becoming increasingly resilient and more service-oriented.

Our aspiration to expand the footprint of our network backbone in the region saw remarkable progress. In the final phase of the project, WACREN successfully established points of presence to connect to six new countries. These include The Gambia, Guinea, Guinea-Bissau, Mauritania, Sierra Leone, and Senegal. WACREN also established a historic 10 Gbps direct network connection between Lagos and Cape Town, linking West/Central African research networks with Southern/Eastern Africa via the ZAOXI Global Exchange Point. This link allows research traffic to flow directly within Africa, reducing latency and reliance on European routing.

Beyond the immediate improvements in connectivity, this interconnection opens the door to new forms of scientific collaboration across the continent. WACREN is already working with partner networks to explore federated computing and data-sharing environments that allow researchers to access distributed computational resources across national boundaries. Building on the GPU-enabled infrastructure upgrades completed in recent years, these developments will enable African researchers to collaborate more effectively on data-intensive challenges such as climate modelling, environmental monitoring, and health research.

Complementing this connectivity was the full equipping of our Network Operations Centre (NOC) in Accra. We also strengthened our digital foundation by migrating our cluster infrastructure to a more robust, modernised environment, ensuring our services are scalable and secure.

Strategically, we navigated the complex transition between major funding cycles. While we secured a necessary extension for AC3 to December 31, 2025, to finalise our infrastructure goals, we simultaneously laid the groundwork for the commencement of AfricaConnect4 (AC4) in November 2025. This transition ensured that our momentum was maintained as we moved into 2026.

WACREN, through the LIBSENSE programme, continued to be a strong pan-African driver of open science. LIBSENSE remained a beacon of collaboration and advancing open science and scholarly communication in the WACREN

region and beyond.

In the year under review, our service portfolio expanded significantly. The deployment of our suite of open infrastructure and digital services demonstrates our commitment to providing the tools and capabilities African researchers need to make their work discoverable and useful to the global knowledge community.

As our infrastructure matures, WACREN is increasingly focused on the adoption and impact of above-the-net services across the region. These services, ranging from identity and trust infrastructure to open science platforms and collaborative research tools, are essential to ensuring that connectivity translates into meaningful capabilities for universities and research institutions. Strengthening the uptake and long-term sustainability of these services will remain a core priority for WACREN in the coming years.

Our community remained our greatest asset. In 2025, WACREN focused on building the capacities of our communities, strengthening their technical capabilities, and integrating them into the global research ecosystem. We leveraged our flagship community event - the WACREN Conference - to nurture and, in some cases, enhance global and regional collaborations and advocacy engagements to demonstrate the value of research and education networks in our region.

I am pleased to report on the successful completion of WACREN's 2022-2025 Strategic Plan, which has fundamentally transformed our organisation and strengthened our position as a catalyst for advancement in research and education in our region.

Over the past four years, we have made significant strides across all four strategic priorities - Governance and Organisational Development, Community Development, Financial Sustainability, and Infrastructure and Services. While some initiatives required timeline adjustments to ensure quality delivery, the strategic plan successfully positioned WACREN as a robust, service-oriented, community-centred organisation. We have high hopes that the next strategic plan (2026-2029 plan) will consolidate the gains made over the years and drive WACREN towards financial sustainability.

Despite challenges ranging from political instability in our region to financial constraints,

and complex procurement landscapes, WACREN weathered the storms and proved resilient, thanks to the full support of the Board led by Mr. Pierre C.B. Bakoroba, the WACREN secretariat and our broader community.

In 2026, we are poised to fully implement AC4 with emphasis on climate, women's empowerment, connectivity and the increase in the up-take of the above-the-net services provided by WACREN.

I wish to extend my deepest gratitude to the Board of WACREN, our primary funders - the European Commission and other development partners for their unwavering support. To my colleagues at the WACREN Secretariat, I say thank you for your dedication to transforming the research and education landscape of West and Central Africa.

Dr. Venant Eyouleki Palanga
CEO, WACREN

Governance and Administration




| | |
|----------------------------|----------------------------------|
| Mr Pierre C.B. Bakoroba | Interim Chair, WACREN Board |
| Dr Ousmane Moussa Tessa | CEO, NigerREN - Board Member |
| Prof. Souleymane Oumtanaga | Researcher, INPHB - Board Member |
| Dr Joshua Atah | CEO, NgREN - Board Member |
| Mr Lucas Chigabatia | CEO, GARNET - Board Member |
| Dr Eyouleki T. G. Palanga | CEO, WACREN -Secretary |

WACREN Secretariat

1. Dr. Eyouleki T. G. Palanga (Togo) – Chief Executive Officer
2. Omo Oaiya (Nigeria) – Chief Strategy Officer
3. Edward Banjo (Nigeria) – Senior Network & Infrastructure Engineer
4. Ivan Yeboah (Ghana) - Finance and Administration Officer
5. Eric Attou (Benin) - SysOps Engineer
6. Tiguidanke Bah (Guinea) - Executive Assistant
7. Sefakor Ankora (Ghana) – DevOps Engineer
8. Donald Seanedzu (Ghana) - DevOps Engineer
9. Abigail Essel (Ghana) - Project Manager
10. Koudoussou Ouattara (Burkina Faso) – SysOps Engineer

11. Juliet Ahiagbede (Ghana) - Accountant
12. Brahim Nagi (Senegal) - NetOps Engineer
13. Nobel Fiwornu (Ghana) - DevOps Fellow
14. Kwaku Effah Amponsah (Ghana) - Communications and Marketing Officer

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Accra -North

Bankers

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The WACREN Community

In 2025, WACREN's community expanded in diversity and reach. Our community encompasses NREN members and their national networks including academic and research institutions, researchers, students, libraries, and librarians alongside partners, service beneficiaries, and participants in our programs and initiatives. While no new NRENs joined this year, we welcomed significant new stakeholder groups in open science and public health, broadening our impact into critical emerging sectors.

By year-end, WACREN's membership stood at 19 NRENs and five Premium Associate Members (full details available at <https://wacren.net/en/community/members/>). Our annual country survey revealed a thriving regional network: over 140 connected higher education and research institutions spanning West and Central Africa, serving more than one million members of the academic community spanning English-, French-, and Portuguese-speaking countries.

This million-strong community benefits daily

from WACREN's comprehensive support - from advanced digital services through advocacy to capacity-building and technical assistance. Together, we continue to strengthen the digital infrastructure that enables research collaboration, knowledge sharing, and innovation across our region.

Projects

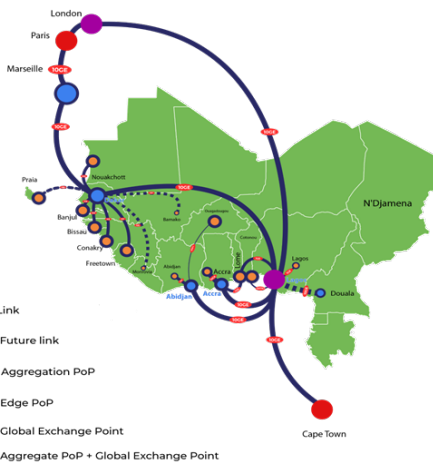
AfricaConnect 3

The AfricaConnect 3 (AC3) project saw significant progress during the year, particularly in relation to project closure reporting and the extension of implementation activities. A comprehensive report covering Years 1 through 5 was submitted to and approved by the European Commission (EC). However, due to delays in the procurement and implementation of certain connectivity links, an extension was requested and granted, moving the project end date to 31 December 2025.

During this extended period, WACREN successfully connected six additional countries to its backbone network: Senegal, Sierra Leone, Guinea-Bissau, The Gambia, Mauritania, and Guinea. This expansion brought the total number of countries connected to the WACREN backbone to 12. The milestone was marked by a Regional Network Expansion Launch held in Accra.

WACREN acknowledges the support of the World Bank in enabling several countries to connect to the network in 2025. Through these new connections, WACREN's infrastructure and services became accessible to an estimated 500,000 additional members of the research and education community across the newly connected countries.

By the close of the project period, WACREN had connected 140 institutions to the network, including 133 higher education institutions (HEIs), two virtual universities, two research institutes, and three government agencies.



AfricaConnect 4 (AC4)

In the year under review, the AC4 application documentation, including the Description of the Action and Budget, was finalised and signed. Under AC4, WACREN will focus on expanding the network to further reach Cape Verde (CVREN) and Cameroon (RIC), catalysing climate science and research through federated regional infrastructure, enhancing access to meteorological data for research, early warning and decision-making, empowering our national RENs to extent the capabilities of our infrastructure and above-the-net services, women empowerment with a focus on green technology and innovation and advancing African researchers contribution to the global knowledge economy. WACREN will strive for digital sovereignty with our open access infrastructure and services for scholarly communication.

Africa Digital Campus

The Africa Digital Campus (ADC) transitioned from being a pilot digital learning project to WACREN's flagship digital education programme to support the distributed university concept in our region. Under the old paradigm, the project closed successfully with the completion of cluster deployments in Burkina Faso and Benin.

In 2025, WACREN, through the ADC, began collaborations with the National Open University of Nigeria (NOUN) to actualise the Distributed University for Sustainable Higher Education concept. 'Distributed University' is a decentralised, equitable, and sustainable model

of higher education built on open knowledge, shared infrastructure, and collaborative governance. It envisions smaller, interconnected hubs that replace large centralised campuses, reducing cost, carbon footprint, and inequality. This pilot project will be operational in 2026. ADC will interconnect universities through national research and education networks (NRENs), federated identity (eduID), cloud services, repositories, and open publishing platforms.

Cybersecurity Pilot Project

In the year under review, WACREN completed the nine-month *'Increasing Cybersecurity Situational Awareness and Strengthening the Operational Capacities of the Research and Education Community in West and Central Africa Project'* in collaboration with Shadowserver.

The project aimed to strengthen how national NRENs and institutions detect, understand, and counter cyber threats across their infrastructure. The project received critical support from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Foreign Office and in partnership with ECOWAS, positioning it within the broader Joint Platform for Advancing Cybersecurity framework. Co-funding from the European Union through the AfricaConnect project ensured the initiative's regional reach and sustainability.

With support from Shadowserver, WACREN deployed an IntelMQ instance that harvested daily threat intelligence from Shadowserver's global systems. By the close of 2025, threat data were available for all participating NRENs, marking a significant milestone in regional cybersecurity capacity.

Recognising that technology alone cannot solve cybersecurity challenges, WACREN and Shadowserver developed tailored training sessions to strengthen NREN CSIRTs. The inaugural session, held as a pre-event at WACREN's Annual Conference in Dakar, equipped teams with critical skills to interpret actionable threat data and respond to vulnerabilities in real time. Also, a cyber threat intelligence workshop was organised to train participants on practical integration and use of Shadowserver's free daily threat intelligence feeds and services to enhance incident response capabilities. Participants gained direct experience with interpreting the data,

using the reports API, filtering and prioritising threat information, and applying open-source tooling.

Diamond Open Access Publishing in Africa Project

WACREN, in partnership with EIFL and AJOL, significantly advanced the "Collaboration for Sustainable Open Access Publishing in Africa" project. The centerpiece of the year's activities was the successful execution of the second round of the Diamond Open Access grant call, which awarded 16 additional grants to African journals and hosting platforms.

Beyond direct funding, WACREN played a pivotal role in fostering a robust Diamond Open Access Publishing Community of Practice (CoP) in the Anglophone & Francophone communities. By the end of 2025, this vibrant network had grown to over 400 editors and publishers across the continent, convening monthly to share best practices on editorial workflows, sustainability strategies, and international quality standards. The English Community Members had 385, while the French had 37 members, comprising editors and publishers of no-fee Open Access journals and books across Africa.

The impact of these efforts has been transformative for the African scholarly landscape, directly addressing the visibility gap and high financial barriers associated with traditional publishing. By prioritising no-fee models, the collaboration has empowered local journals to adopt international best practices such as improved indexing and standardised metadata without passing costs to researchers.



Case studies released in late 2025 demonstrate that these strategic interventions have significantly strengthened the technical infrastructure and editorial independence of participating journals. This progress has not only enhanced the discoverability of African research but has also laid the foundation for national-level policy shifts, as seen in workshops held in Burkina Faso and Nigeria. Ultimately, WACREN's collaboration with EIFL ensured that African knowledge remains locally owned, globally accessible, and sustainably

produced for the long term.

FCDO-supported Open Science Project in Sierra Leone

In the year under review, WACREN, in partnership with the Sierra Leone Research and Education Network (SLREN), reached a pivotal milestone in embedding open science within the national research fabric of Sierra Leone. Supported by targeted funding from the UK's Foreign, Commonwealth & Development Office (FCDO), the collaboration focused on institutionalising national open science policies and strengthening digital research infrastructure. A key highlight of the year was the high-level Leadership Engagement Meeting held in Freetown, which convened the Minister of Technical and Higher Education, university vice-chancellors, and research funders. This forum served as a catalyst for validating the Sierra Leone Science, Technology, and Innovation (STI) policy framework, specifically addressing the transition from traditional print journals to sustainable Diamond Open Access publishing and the adoption of persistent identifiers (PIDs) to enhance the global discoverability of Sierra Leonean scholarship.

The impact of these FCDO-supported initiatives has been transformative, moving Sierra Leone from policy conceptualisation to active implementation. By leveraging WACREN's regional infrastructure and the LIBSENSE initiative, SLREN has successfully positioned itself as a central hub for internet connectivity and digital platforms across the country's Higher Education Institutions (HEIs).

ORCID-WACA Project

In 2025, WACREN achieved a significant milestone in its mission to strengthen the African research ecosystem by securing the prestigious Global Participation Fund (GPF) award from ORCID. This grant catalysed the launch of the ORCID-WACA project, an initiative designed to bridge the persistent gap in researcher identification across West and Central Africa. WACREN will drive ORCID adoption across West and Central Africa by training 15 ambassadors and engaging 1,000+ researchers, librarians, and staff through multilingual outreach, technical support, and workshops. Leveraging eduID.africa, NREN

infrastructure, and regional networks, the project will establish a strong Community of Practice and lay the groundwork for a shared Integration Hub to scale adoption, support institutions, and promote equitable participation aligned with the GPF.

This effort directly reinforces WACREN's broader strategy to underpin open science, complementing existing services such as our open publishing platform, institutional repository service, and PIDsLink—a platform that assigns Archival Resource Keys (ARKs) for long-term access.



Ultimately, the ORCID-WACA project, which will begin operationally in 2026, is expected to empower African scholars to claim their rightful place in the global research discourse, ensuring their contributions are globally connected, accurately credited, and sustainably recognised.

The WACREN Network

Network Expansion & Strategic Footprint

WACREN achieved a historic expansion of its regional backbone in 2025, successfully extending high-speed connectivity to six new countries: The Gambia, Guinea, Guinea-Bissau, Mauritania, Sierra Leone, and Senegal. Under the AC3 project extension, WACREN procured and activated high-capacity links connecting key hubs including London, Marseille, Lagos, Cape Town, and various West African capitals.

As of December 2025, all 10 procured connectivity links were fully operational, marking a significant milestone in strengthening regional research and education infrastructure. These links provide the foundational backbone required to integrate National Research and Education Networks (NRENs) into a resilient, high-capacity regional ecosystem. A major highlight was the formal

launch event in Accra during the Africa Internet Summit, symbolising WACREN's growing influence. While political shifts temporarily delayed the integration of FasoREN, we proactively migrated the Ouagadougou Point of Presence (PoP) to a carrier-neutral facility (Virtual-Technology), ensuring we are technically primed for peering as soon as conditions allow.

System Resilience & Virtualisation

To support the increasing demands of our research community, WACREN completed a wholesale migration of its core cluster infrastructure. We moved from the legacy Ganeti system to a sophisticated 7-node Proxmox Virtual Environment, which now seamlessly hosts 176 virtual machines.

This transition has fundamentally improved our data protection and disaster recovery capabilities:

- **High-Performance Backups:** Configured a dual-pool backup system (22TB and 134TB) with automated daily cycles.
- **Hardware Hardening:** Deployed specialised routers and switches across 12 countries, with the Accra NOC receiving a full upgrade, including a modern video wall and robust UPS systems.
- **Innovative Out-of-Band (OOB) Access:** Replaced costly dedicated links with embedded SIM-based OOB connectivity, ensuring our engineers maintain control of the network even during primary link failures.

Network Security & Threat Intelligence

Security is no longer a peripheral service; it is a core feature of the WACREN backbone. In 2025, the WACREN NetOps team established a dedicated Computer Security Incident Response Team (CSIRT) to provide a coordinated regional defense.

- **Cyber Intelligence:** Integrated IntelMQ with the Shadowserver API, allowing WACREN to pull and avail real-time threat data to our NREN members.
- **Visibility Dashboards:** Launched custom security dashboards for NgREN, GANET, TogoRER, and WACREN, giving technical teams a "single pane of glass" view of malicious activity. In 2026, access will be given to the tech hands of various NRENs.

- **Perimeter Defense:** Hardened our internal posture with a new OpnSense Firewall and implemented Caddy-Coraza for enterprise-grade web server protection.

Network Performance & Intelligence Monitoring

WACREN is moving toward a telemetry-driven operational model. In 2025, the NOC team successfully executed eight major maintenance windows, modernising our monitoring stack from legacy tools (Nagios/Cacti) to a high-fidelity Prometheus and Grafana ecosystem.

This new stack, paired with PerfSonar instances, allowed for precise performance tracking. A key success in 2025 was our proactive route management; when backbone issues arose on the Accra-Lome link, we maintained 100% uptime by rerouting traffic via Lagos-Lome. With the Abidjan-Ouaga link now stabilised and quarterly performance reviews established with all service providers, WACREN is delivering the stability required for data-intensive global research.

Summary of Network Health 2025

| Category | Key Achievements | Impact |
|-------------|-----------------------------|---|
| Expansion | 6 new countries connected | Increased regional research collaboration |
| Resilience | Proxmox Migration (176 VMs) | Enhanced reliability for hosted services |
| Security | CSIRT & IntelMQ Deployment | Collective defence against cyber threats |
| Performance | Prometheus/ Grafana Stack | Real-time telemetry and 0% backbone downtime. |

Digital Services/Support to User Community

Open Infrastructure Digital Platforms

PIDsLink - a persistent identifier (PID) platform leveraging Archival Resource Keys (ARKs) was deployed and made fully operational. At the close of December 2025, there were close to 500 active ARKs. It is integrated into the BAOBAB preprint repository, thus, all research outputs and digital assets have ARKs on them. WACREN integrated SSO with PIDslink to allow users within the WACREN federation to login and manage their ARKs. An API key management system was also introduced to allow developers and users who prefer to integrate ARKs into their system or software.

BAOBAB - WACREN's regional shared, open repository service was active throughout 2025, serving 10 communities with over 400 records deposited. SSO has been integrated into BAOBAB.

PublishNow - an open scholarly publishing platform currently in the staging and testing phase. The customisation of the PublishNow platform began, with support from EIFL, to align with international open access publishing standards.

RUMBU is a pioneering multitenanted institutional repository platform designed to scale open scholarship across Nigeria's higher education landscape. Developed as a strategic complement to the TETFund TeRAS initiative, RUMBU was earmarked to fill a critical infrastructural gap by providing a general-purpose home for diverse scholarly outputs beyond theses, including research datasets, preprints, and grey literature.

WACREN launched an Expression of Interest for Nigerian universities. Selected institutions were invited to a collaborative discovery and planning phase, during which institutional needs assessments were conducted to define the scope, design, and implementation of the shared repository platform.



Trust and Identity

In 2025, WACREN made significant strides in strengthening trust and identity infrastructure across the region by supporting the establishment of national eduID federations in Togo (eduID.tg) and Burkina Faso (eduID.bf). Both federations were successfully admitted into eduGAIN, the global inter-federation service that connects identity federations worldwide. Their inclusion in eduGAIN was a major milestone, as it enabled researchers, academics, and students in these countries to securely access thousands of research and education services across the globe using their home institutional credentials. This development not only enhanced international collaboration but also positioned institutions in Togo and Burkina Faso as trusted partners in the global research and education ecosystem.

Events and Capacity Building

WACREN 2025 Annual Conference

The WACREN 2025 Annual Conference held in Dakar was attended by 160 participants the second-highest attendance in the history of the conference. The four high-level thematic sessions on artificial intelligence, cybersecurity, open science, and climate resilience generated concrete insights and partnerships that will serve as critical inputs for the upcoming AfricaConnect4 project, demonstrating WACREN's evolving role as a development and capacity-building platform for Africa's research and education community.



A defining highlight of the conference was the dignified tribute to WACREN's late founding CEO, Dr. Boubakar Barry. The event marked the successful launch of the inaugural WACREN

Community Awards, including the newly established Akilagpa Sawyerr Award for Leadership and Advocacy and the Boubakar Barry Award for Leadership and Engineering, which will recognise exceptional contributions to advancing NRENs and digital infrastructure across Africa. The conference helped to strengthen new communities, such as Early Career Researchers (ECR) and the Coalition of Open Publishing partnership prospects with organisations like Crossref and ORCID.

Diamond OA Workshop in Burkina Faso

In 2025, WACREN advanced sustainable scholarly publishing in Francophone Africa through a national Diamond Open Access (OA) initiative in Burkina Faso, implemented in partnership with CAMES, EIFL, AJOL, and national stakeholders. The initiative marked a strategic step toward establishing a National Diamond OA Policy and operationalising a national publishing platform built on the PublishNow infrastructure and supported by FasoREN. Key outcomes included the launch of a pilot publishing platform, the formation of a national working group to oversee implementation milestones toward 2026, and a defined roadmap for Burkina Faso's contribution to a broader Francophone Diamond OA publishing model.

Cybersecurity

In the year under review, WACREN reaffirmed its commitment to safeguarding the research and education digital ecosystem by advancing a strategic cybersecurity posture that leveraged state-of-the-art infrastructure. Through the TrustBroker Africa initiative and a new pilot project with The Shadowserver Foundation, WACREN began to build a regional cyber threat intelligence platform to equip NRENs and national CSIRTs with actionable, real-time threat data and analysis. This effort was aimed at ultimately positioning WACREN as a regional hub for cyber threat intelligence harvesting daily feeds, enabling automated incident detection and prioritisation, and producing insights such as the ECOWAS Internet Threat Landscape Report to support coordinated national and regional responses to cyber threats.

Support for SLREN's Community Engagement

In 2025, WACREN continued its strategic support to the Sierra Leone Research and Education Network (SLREN) by strengthening both its leadership engagement and technical capacity. Building on earlier FCDO-supported activities aimed at embedding sustainable open science practices, WACREN supported SLREN in convening a high-level Leadership Engagement Meeting in Freetown. The meeting brought together university leaders, regulatory authorities, policymakers, and research funders to advance dialogue on open science, research infrastructure, and the role of a national research and education network in Sierra Leone's digital and research transformation. By engaging institutional decision-makers, the initiative helped position SLREN as a critical national infrastructure for research collaboration, digital innovation, and knowledge sharing.

Complementing this high-level engagement, WACREN, in collaboration with NSRC, provided technical capacity-building support to SLREN to strengthen its ability to design, deploy, and manage resilient network infrastructure. Through a hands-on technical workshop combining lectures and practical lab sessions, SLREN engineers and institutional IT staff gained essential skills in building and operating network infrastructure aligned with global best practices. This dual approach—engaging leadership while strengthening technical expertise enhanced SLREN's readiness to deliver reliable connectivity and open science services, laying the foundation for long-term sustainability and contributing to Sierra Leone's broader socio-economic development.

Collaborations and Grants

ORCID-WACA

In late 2025, WACREN secured a grant from the ORCID Global Participation Fund to implement the ORCID–West and Central Africa (ORCID-WACA) project, with full activities scheduled to commence in 2026. The award represents a strategic investment in strengthening Africa's research information infrastructure by accelerating the adoption and integration of ORCID IDs across institutions in the region.

Through this project, WACREN will work with NRENs, universities, librarians, and research administrators to build a regional Community of Practice and establish mechanisms—such as an integration support hub—to facilitate sustainable institutional uptake of ORCID.

The anticipated impact for African researchers is significant. By promoting the widespread use of persistent digital identifiers, ORCID-WACA will help ensure that African scholars receive accurate attribution for their work, reduce name ambiguity, and improve the discoverability of their publications, datasets, and grants in global research systems. At the institutional and regional levels, integration of ORCID into repositories, publishing platforms, and research management systems will enhance metadata quality, interoperability, and global visibility of African scholarship. As the project rolls out in 2026, it is expected to play a critical role in positioning African research more prominently within the global knowledge ecosystem.

Crossref Sponsorship Programme

WACREN achieved a significant milestone in advancing research visibility and scholarly communication in Africa by becoming a Sponsor in the Crossref Sponsor Programme—a global initiative that helps organisations with financial, technical, or administrative constraints to participate in the world's largest registry of digital scholarly identifiers and metadata. Sponsors facilitate membership on behalf of smaller organisations by managing administrative and technical onboarding, handling billing, and providing ongoing support so that African research organisations can register Digital Object Identifiers (DOIs) and rich metadata for their scholarly content in the global Crossref Research Nexus.

WACREN's new status as a Crossref Sponsor has the potential to transform the visibility, discoverability, and impact of African scholarship by making it easier for universities, research institutions, and publishers in West and Central Africa to become part of the global scholarly infrastructure. Through this role, WACREN will support metadata registration that connects African research outputs—such as journal articles, conference proceedings, and datasets—to a global network of over 170 million records, enhancing their discoverability in search engines, citation indexes, and research platforms worldwide.

WACREN–NOUN Collaboration on Open Scholarship and Federated Learning

In late 2025, WACREN and the National Open University of Nigeria (NOUN) agreed to pilot a *Distributed Campus* model under the Africa Digital Campus (ADC) programme, with implementation set to begin in 2026. The concept is simple but transformative: instead of relying on a single centralised campus, a university can operate as a network of connected learning and research hubs, linked through federated digital infrastructure. By leveraging WACREN's connectivity backbone, cloud services, repositories, federated identity (eduID), and open publishing platforms, the pilot will demonstrate how teaching, research, and scholarly publishing can be delivered seamlessly across geographically dispersed centres while remaining locally grounded and globally connected.

For Nigeria, the initiative has the potential to expand equitable access to quality higher education, strengthen research visibility, reduce infrastructure duplication, and promote digital sovereignty through nationally anchored yet globally interoperable systems. Beyond Nigeria, the pilot will serve as a replicable model for other universities within the WACREN region, accelerating the transition toward a more inclusive, sustainable, and networked African higher education ecosystem.

WACREN-LIBSENSE-Episciences Collaboration for Open Scientific Publishing in Africa

WACREN, through LIBSENSE, advanced in a collaboration with Episciences to promote a Diamond Open Access overlay publishing model that supports open, sovereign, and distributed scientific publishing in Africa. The collaboration is intended to enable African journals to publish peer-reviewed articles that are deposited in trusted repositories such as BAOBAB, HAL, arXiv, and Zenodo, ensuring that content remains locally anchored while benefiting from global interoperability and visibility. By piloting this model with selected journals, the initiative aimed to strengthen sustainable, cost-free publishing infrastructure and significantly enhance the discoverability, citation, and international recognition of Francophone and African scholarship, positioning French-language research

more prominently within the global scientific ecosystem.

Human Resources and Secretariat

WACREN had a substantive leadership change with Dr. Eyouleki T. G. Palanga, who was leading in an interim CEO position, being appointed the substantive CEO to provide strategic leadership for the organisation.

WACREN recruited a DevOps Fellow, to bolster the existing DevOps team. Two (2) staff; DevOps Engineer and one NOC Engineer resigned for various reasons effective January 2026. WACREN also renewed the internship agreement for one intern to support the Communication and Marketing Department. By the end of 2025, WACREN had 14 staff members, including the 2 resigned staff whose resignation was effective January 2026.

Finance

Revenue invoicing activities for WACREN covered member subscriptions, WACREN Connect, WACREN Zoom, and other project-related charges. Engagements were maintained with member institutions to ensure payment follow-up. Payments for some support service bills and membership fees were received from a number of NRENs, with certain members showing marked progress in clearing outstanding amounts, while others continued to encounter difficulties in honouring their financial commitments.

Due to the significant and unexpected delay in signing and commencement of the flagship AfricaConnect4 (AC4) project, the organisation had to self-fund almost all activities for most parts of the year. This very difficult undertaking was necessary to keep the momentum of progress going despite an enormous strain on our small finances. Through efficient financial management coupled with strategic leadership, no staff was laid off due to financial issues and almost all planned activities were completed as envisaged.

In December 2025, WACREN received the 1st tranche of the AC4 project funding to finance the 1st year activities of the project. WACREN Finance worked along with our GEANT counterpart to execute and complete and procurement and related payment for the EC-Funded AfricaConnect3 Connectivity actions, which ended on 31 December 2025. These actions led to the completion and

connection of Guinea, Guinea-Bissau, The Gambia, and Mauritania, as well as some backbone upgrades. All statutory human resource and operational requirements were fulfilled with the relevant regulatory bodies, including the Ghana Revenue Authority, SSNIT (Social Security and National Insurance Trust), Enterprise Trustees Ltd (Tier 2 Pension Contribution), the Registrar General's Department, and the Not-for-Profit Organisations Secretariat. Financial reports aligned with the standards and requirements of various funded projects were submitted promptly to funding partners. The 2024 Financial Report was prepared, audited, and presented to the CEO, Board, and subsequently to WACREN members at the annual members' meeting. A final expenditure verification audit for the AfricaConnect3 project was conducted by Deloitte Ghana, and a follow-up audit by the EC prior to the final project tranche payment. The European Commission in Q4-2025 commissioned another Expenditure verification audit with its own selected auditors for all clusters, including WACREN. This exercise is expected to continue into Q1-2026.

The year was characterised by various external economic factors, including declining inflation and more stable exchange rates. The year was the most challenging in recent times due to limited project-funded resources available, and this reemphasised the need to aggressively pursue revenue generation towards a higher sustainability level. Despite these challenges, WACREN successfully managed its finances, ensuring that operations were financed and carried out as planned. We look forward to a more prosperous and more successful year ahead.

For more info on WACREN please visit
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