

# An African framework for sustainable open science



**LIBSENSE**  
STRENGTHENING OPEN SCIENCE IN AFRICA

Open Science Conference 2021 | United Nations  
Academia and Open Science Infrastructure

Omo Oaiya, WACREN



The AfricaConnect3 project receives funding from the European Union under Grant Contracts DCI-PANAF/2019/411-583/584/585/586



- NRENs in Africa: 10 years of AfricaConnect
- The LIBSENSE Community Approach
- Fostering Institutional Open Science Culture

# National Research and Education Networks in Africa



AfricaConnect (2011-2015) – E&S Africa



AfricaConnect2 (2015-2021) – pan-African



AfricaConnect3 (2019-2023) – pan-African

- **Start date:** 16/Nov/2019
- **Duration:** 48 months
- **Funding:** EU Grant Contract
- **Budget:** 37.5M€ (80% EU -30M EUR)
  - **23.2M€** for connectivity, equipment and cloud

- ASREN**
  - Algeria, ARN
  - Egypt, EUN
  - Marocco, MARWAN
  - Tunisia, CCK

- WACREN**
  - Burkina Faso, FasoREN
  - Cameroon, RIC
  - Chad, TchadREN
  - Côte d'Ivoire, RITER
  - Ghana, GARNET
  - Ghana, GhREN
  - Guinea, Gn-REN
  - Mali, MaliREN
  - Niger, NigerREN
  - Nigeria, NgREN
  - Sierra Leone, SLREN
  - Togo, TogoRER
  - Liberia, LRREN

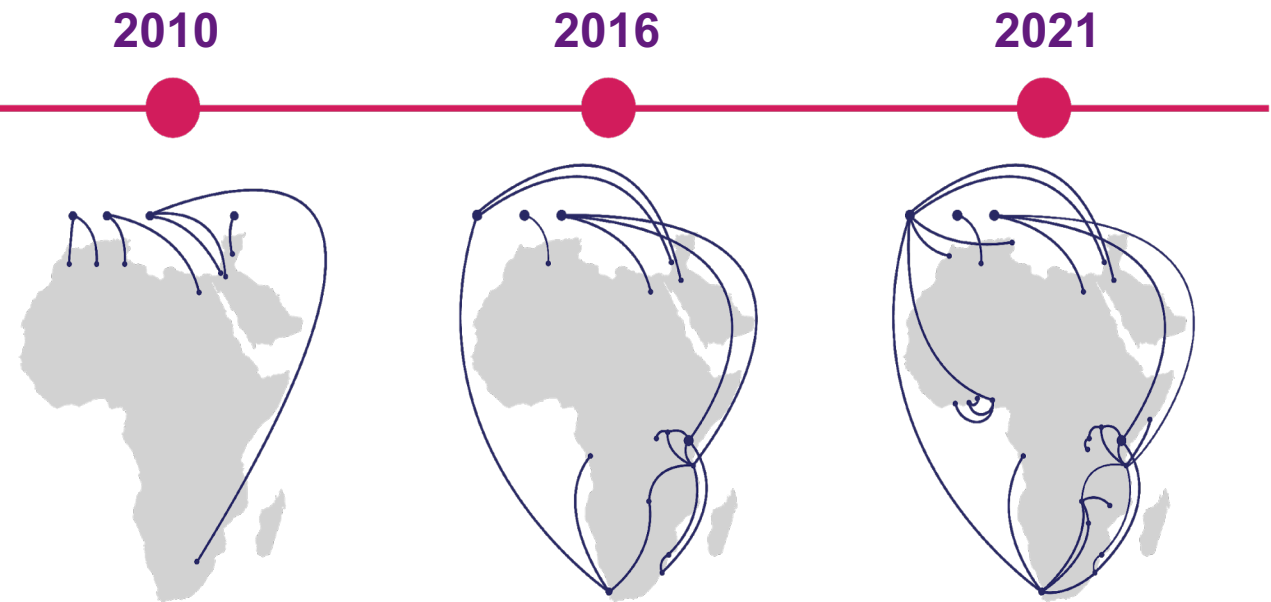
- UbuntuNet Alliance**
  - Botswana, BotsREN
  - Burundi, BERNET
  - D. R. Congo, Eb@le
  - Ethiopia, EthERNet
  - Kenya, KENET
  - Madagascar, iRENALA
  - Malawi, MAREN
  - Mozambique, MoREnet
  - Namibia, Xnet
  - Rwanda, RwEdNet
  - Somalia, SomaliREN
  - South Africa, TENET
  - Sudan, SudREN
  - Tanzania, TERNET
  - Uganda, RENU
  - Zambia, ZAMREN
  - Zimbabwe, ZAMREN



# A Pan-African Network in the Making



- Since AfricaConnect **started in 2011**, **22 out of 38 African NRENs** are connected to their regional network:
- **UbuntuNet Alliance:** Burundi, DRC, Kenya, Malawi, Mozambique, Rwanda, Somalia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.
- **WACREN:** Benin, Burkina Faso and Côte d'Ivoire, Ghana, Nigeria and Togo.
- **ASREN:** Algeria, Egypt, Morocco and Tunisia.
- All three regional networks are growing.
- Next countries to be connected: Mali and Ethiopia.



# AC3 Objectives and Outputs

- Enhance human capital development in Africa.
- Unlock the potential of education and research through increased access of African education and research institutions to digital infrastructures and technologies.



**Output 1:** Access to affordable and adequate e-infrastructures is increased.



**Output 2:** Dedicated RE services and applications are developed.



**Output 3:** Adequate human resource capacity and expertise is built.



**Output 4:** Digital transformation in research and education is raised.

# Developing R&E Services

- Service outreach to science communities, deployment of R&E applications and access to repositories
- Trust and Identity for seamless access - **eduID.africa**
- Proactive Cybersecurity for NRENs and their Digital Assets - **TrustBroker.africa**
- Federated Identity Management for Libraries and Open Science platforms



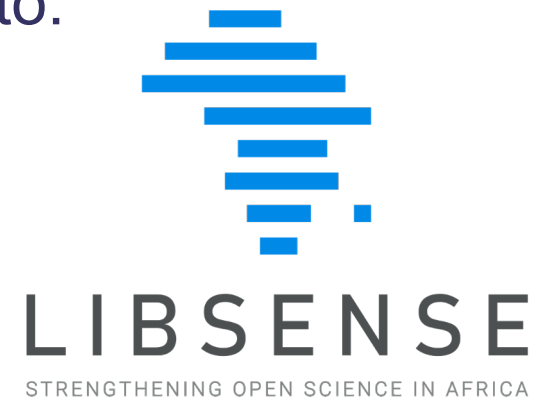
# LIBSENSE – Objectives



(**Library Support for Embedded NREN Services and E-infrastructure**)

Building a community for open science in the African region(s) through library-NREN collaboration since 2017 in order to:

- Support cultural change
- Provide technical support
- Build capacity
- Develop value-added services



# LIBSENSE – Organisation

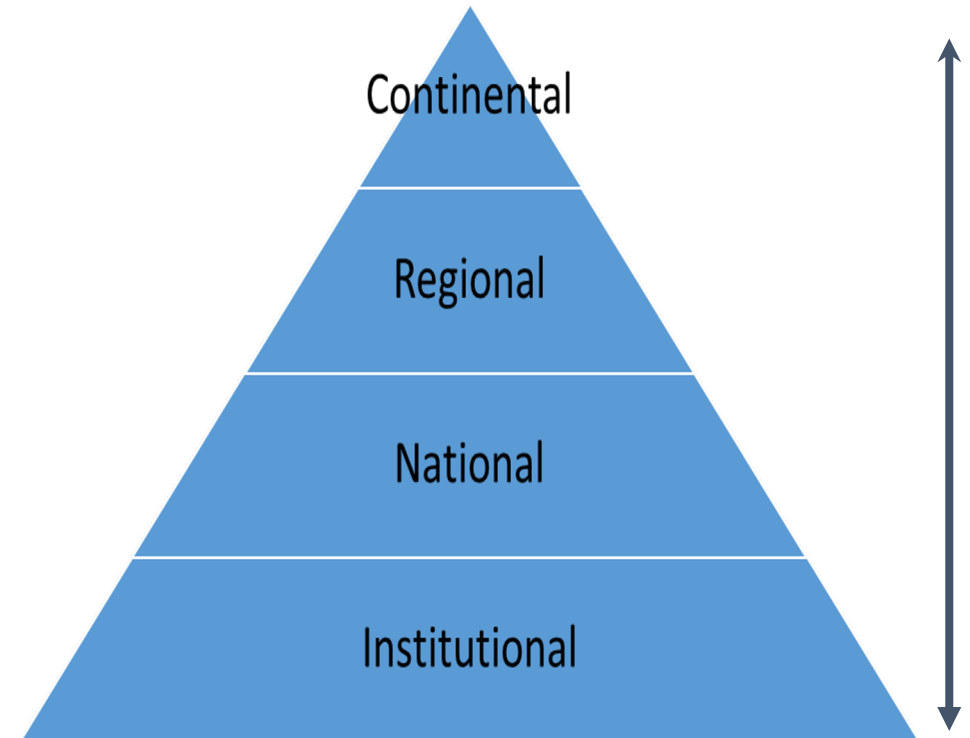


## Overall Strategy:

- Building communities of practice
- Strengthening local and national services
- Bottom-up, distributed, heterogeneous
- Inclusive -
  - 3 Working languages, Arabic, English and French
  - Indigenous and traditional knowledge

## Three Pillars:

- **Policy:** open science policies, governance and leadership
- **Infrastructure:** open access journals, repositories for publications and data and open discovery services
- **Capacity-building:** communities of practice and training

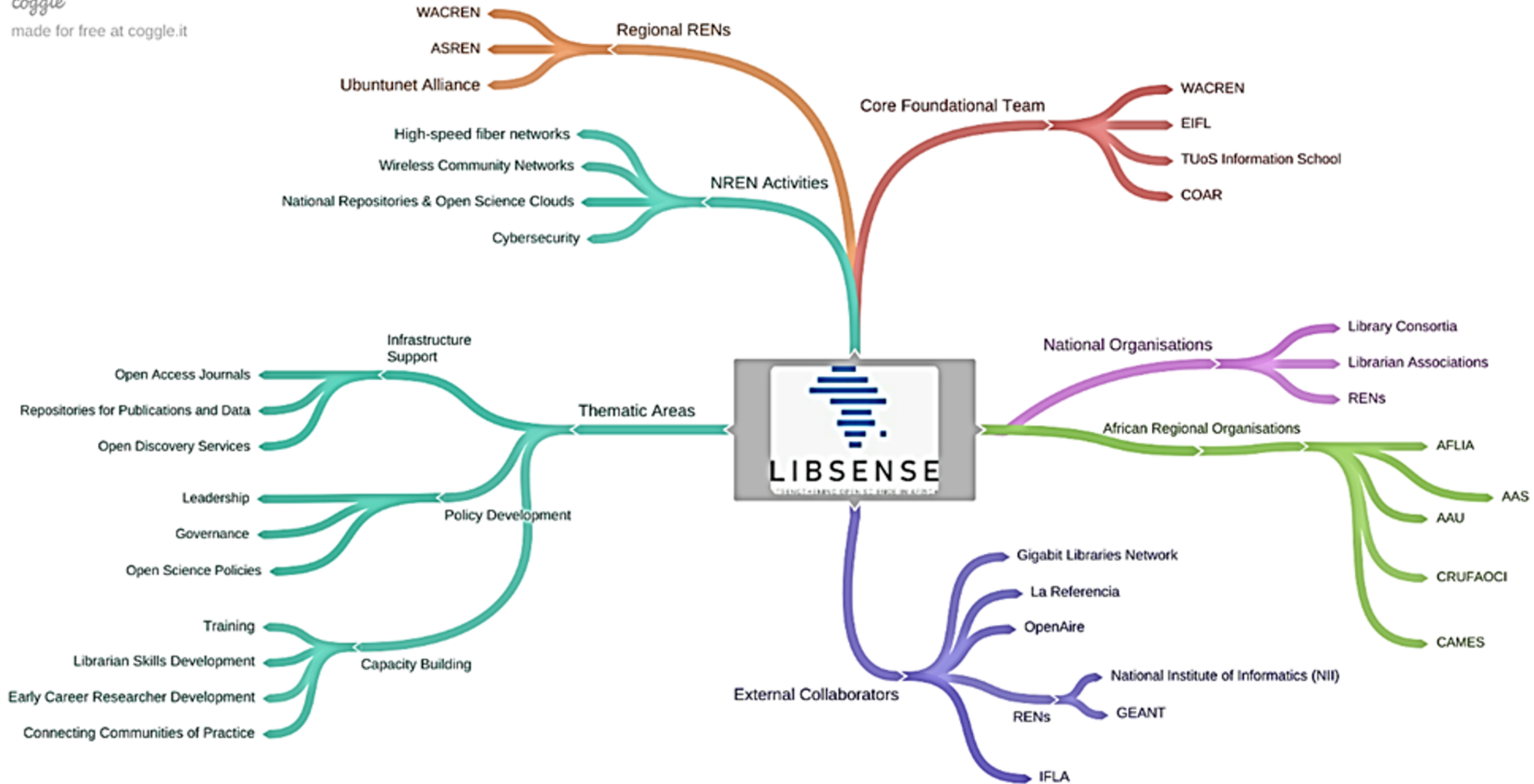




# LIBSENSE – Partners & Networks



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# LIBSENSE Timeline (2016-2019)



## Initial Activities and Ideas

- Library Open Access Workshop
- Institutional Focal Points Workshop
- Setting the agenda for LIBSENSE
- Informal collaboration btw. EIFL & WACREN
- TUoS Information School joins collaboration

## Connecting to AfricaConnect 2 (AC2)

- COAR workshop on repositories for pan-African harvester
- AC2 funds pan African survey/workshops on OAR
- Survey launch in 3 regions commences
- Pan-African LIBSENSE workshops commence

2016

2017

2018

2019

## Building the Community

- WACREN LIBSENSE workshops commence
- COAR brought on board as key collaborator
- Pilot survey planned and implemented
- Pilot survey results presented at UA conference

## Workshop Activities and Outputs

- LIBSENSE workshops in all regions completed
- Outputs include roadmaps, guidelines, survey reports, workshop reports
- Community activities begin to make impact
- Plans for AC3 LIBSENSE drawn up



# LIBSENSE Timeline (2019-2023)



## Skills Profiles Webinars

- Skills Profiles for HEI Librarians
- Anglophone & Francophone

## Capacity-building workshops

- Open access publishing
- Research data management, repository interoperability, and persistent Identifiers

## National Open Science Roadmaps

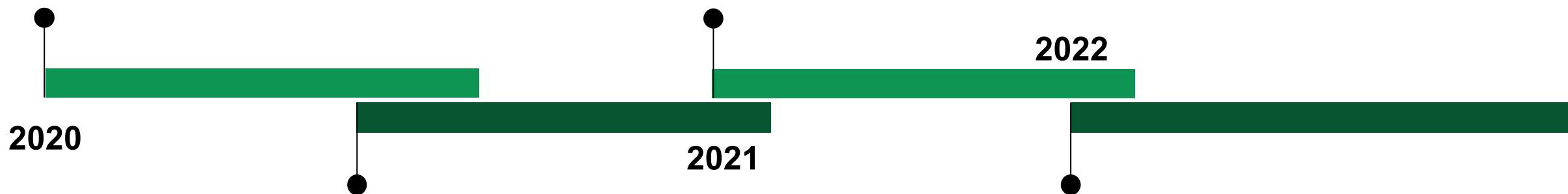
- Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania, and Uganda

## National open access repository and publishing platforms

- Nigeria, Côte d'Ivoire, ...

## National Policy Development Workshops

- Nigeria, Côte d'Ivoire, ...



## UNESCO Open Science Partnerships

- Open Science Africa: Principles and Actions for Global Participation

## Other Partnerships

- LA Referencia, RedCLARA
- RUFORUM

## AC3 Regional Policy Development Workshops

- Colocated with UbuntuNet Alliance, ASREN and WACREN annual conferences
- Co-organised with regional associations of VCs/Rectors
- Focus on policy implementation - moving from high-level goals to role of institutions in implementing open science



# Fostering Institutional OS Culture



- Research and university communities engagement
  - Early Career Researcher (ECR) training program
    - Practical guidance and training to help researchers learn how to open up their research processes and results
      - Leverage installed infrastructure base
      - Establish OS communities on campus to sustain training
  - Leadership programmes
    - Garner support from employers/supervisors for incentives and policies on data and open science skills.



# Thank you

Any questions?

[omo.oaiya@wacren.net](mailto:omo.oaiya@wacren.net)

<https://libsense.ren.africa>



@AC3\_News



AC3-Community



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