An African framework for sustainable open science

LIBSENSE
STRENGTHENING OPEN SCIENCE IN AFRICA

Africa Connect 3

National Open Science Symposium | Towards and Open Science Action Plan for Nigeria

Omo Oaiya, WACREN - September 1, 2021

UbuntuNet Alliance WACREN ASREN GÉANT

Agenda

- 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
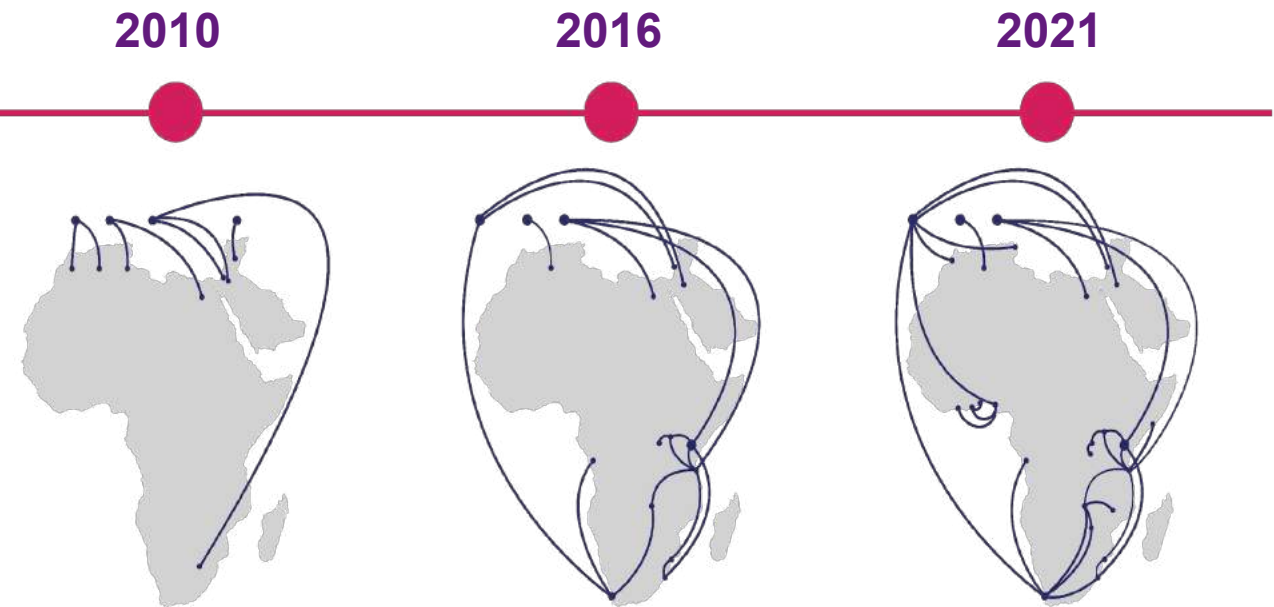Togo, TogoRER
Liberia, LRREN

UbuntuNet Alliance

Botswana, BotsREN
Burundi, BERNET
D. R. Congo, Eb@le
Ethiopia, EthERNet
Kenya, KENET
Madagascar, i RENALA
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.

2010   2016   2021

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
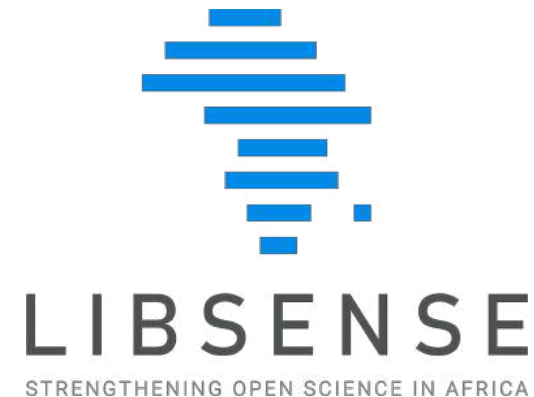
LIBSENSE – Objectives

(Library **S**upport for **E**mbedded **N**REN **S**ervices and **E**-infrastructure)

Pan-African Library-REN Collaborations around Open Science at the Institutional, National and Regional Levels:

Goals:

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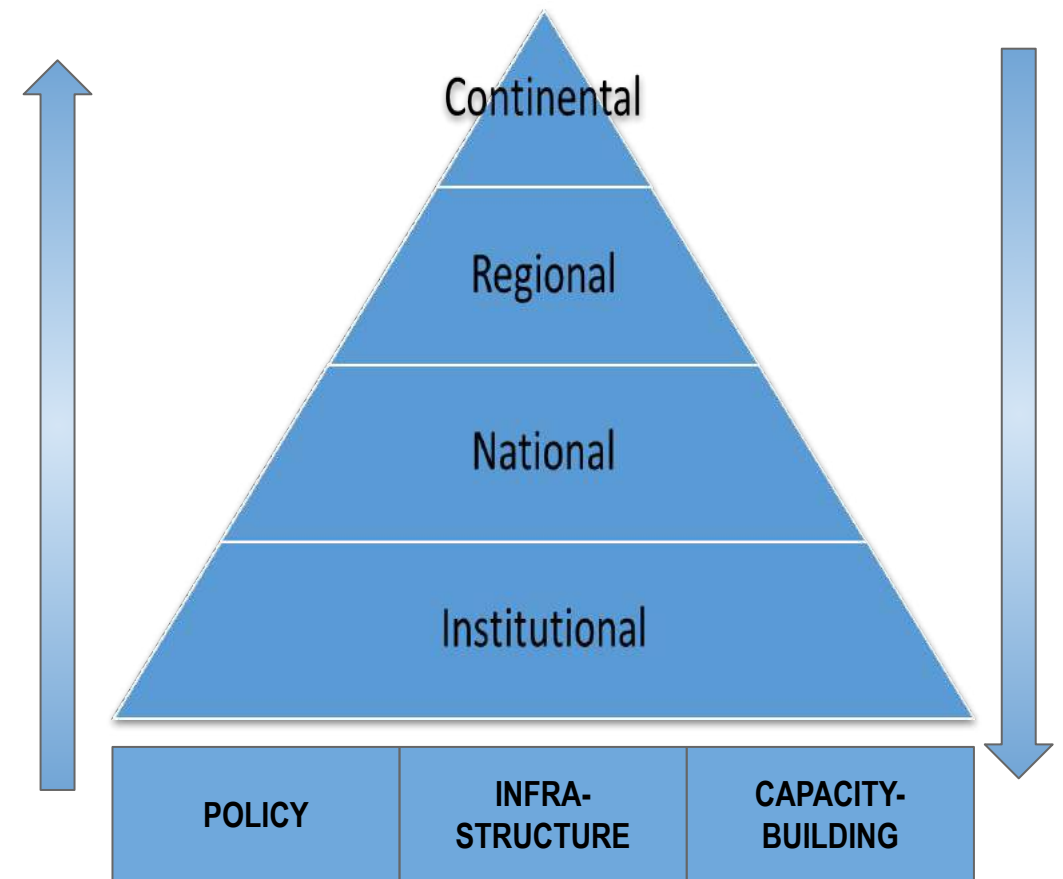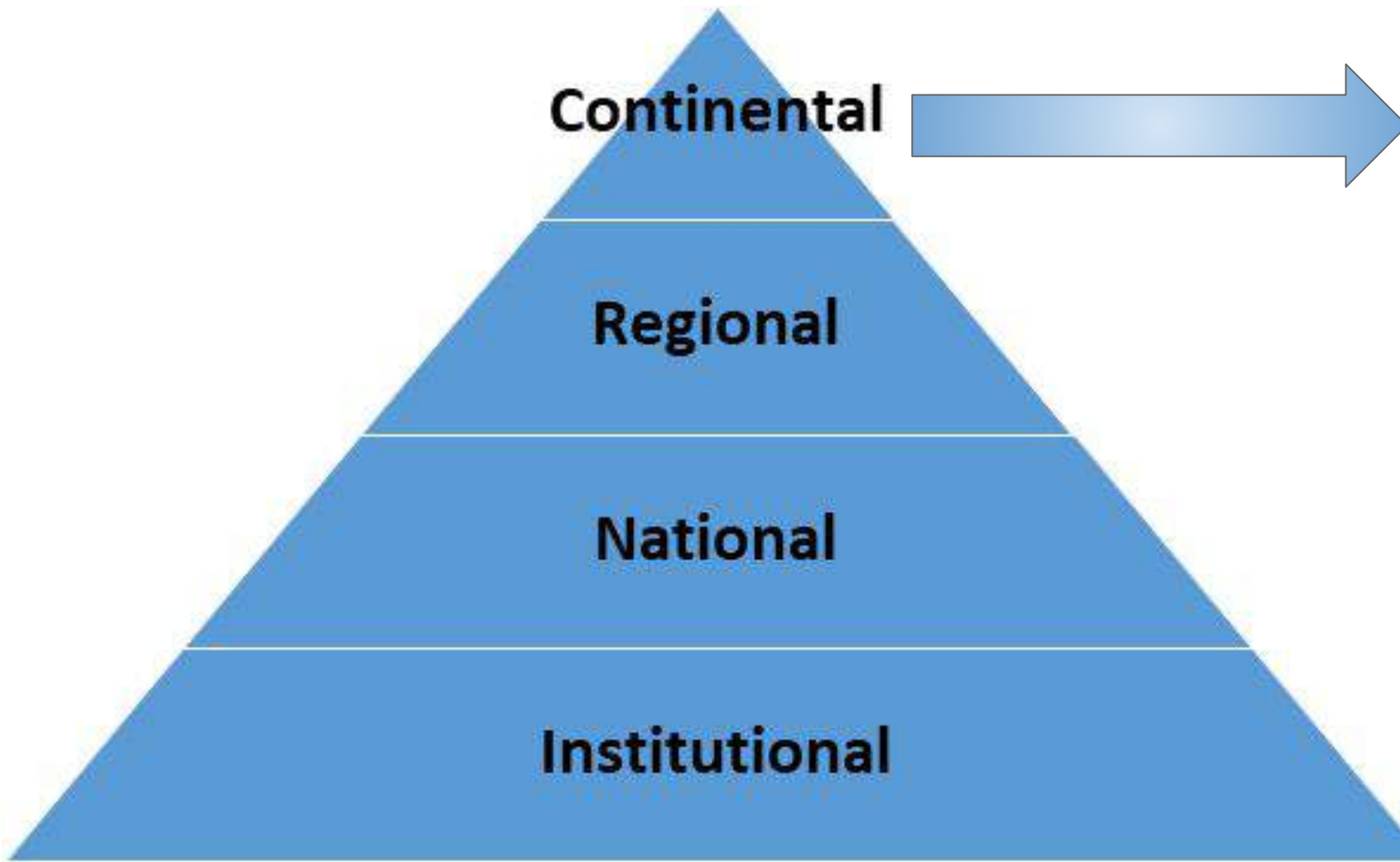- Develop value-added services

LIBSENSE – Strategy & 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
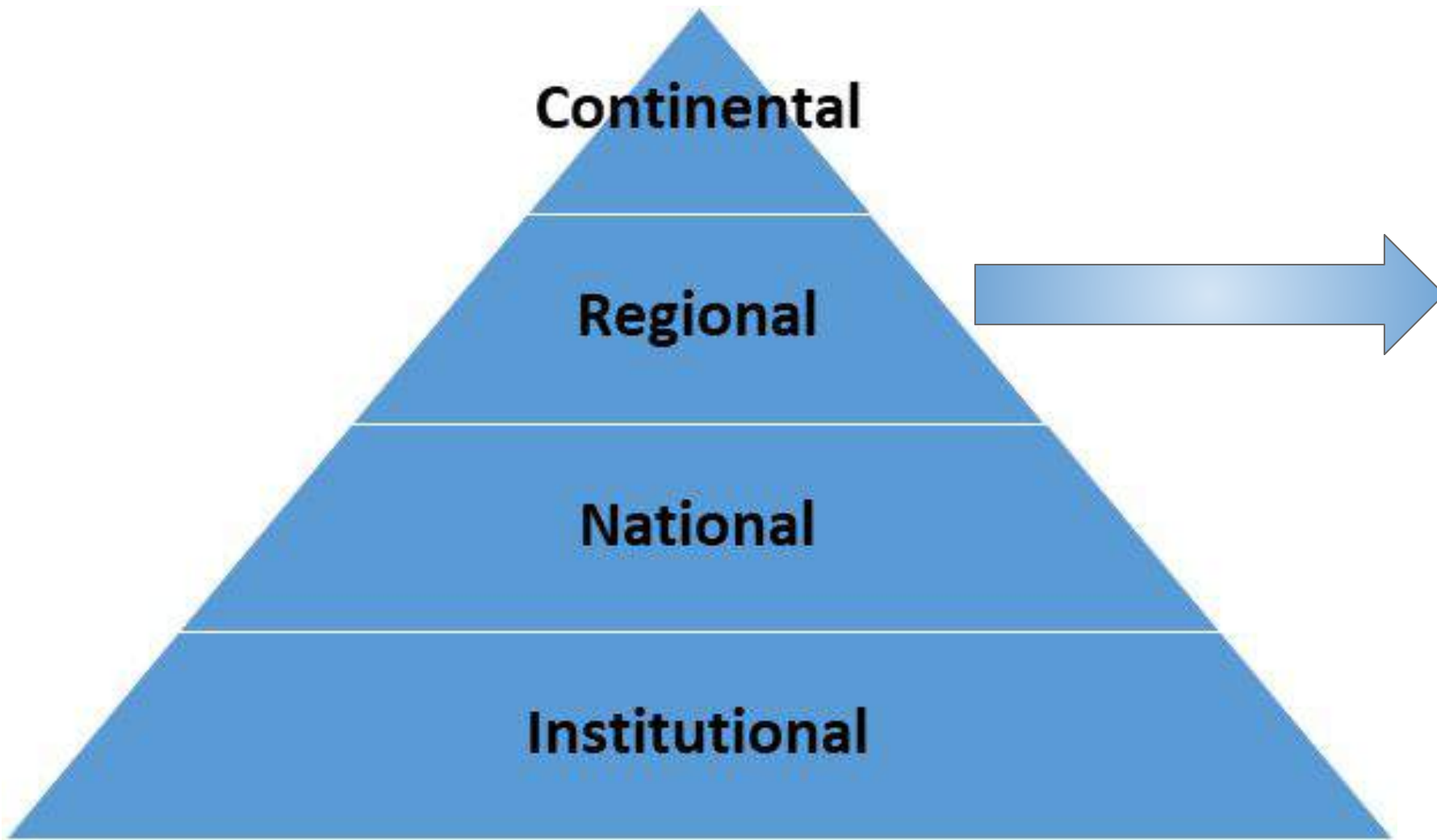- *Capacity-building:* communities of practice and training

POLICY - Roll-out of Open Science roadmaps across the continent, ensuring African priorities are maintained
INFRASTRUCTURE - Open Science services and platforms
CAPACITY-BUILDING - Strengthening African expertise and know-how in Open Science across Africa

Key Activities/Collaborations:

- UNESCO Open Science Partnerships - Open Science Africa: Principles and Actions for Global Participation
- Continental Shared Agricultural Data and Publications Platform with RUFORUM (regional, multi-institutional level)
- Pan-African Identity Management Federation program (eduID.africa) for secure access (continental level)

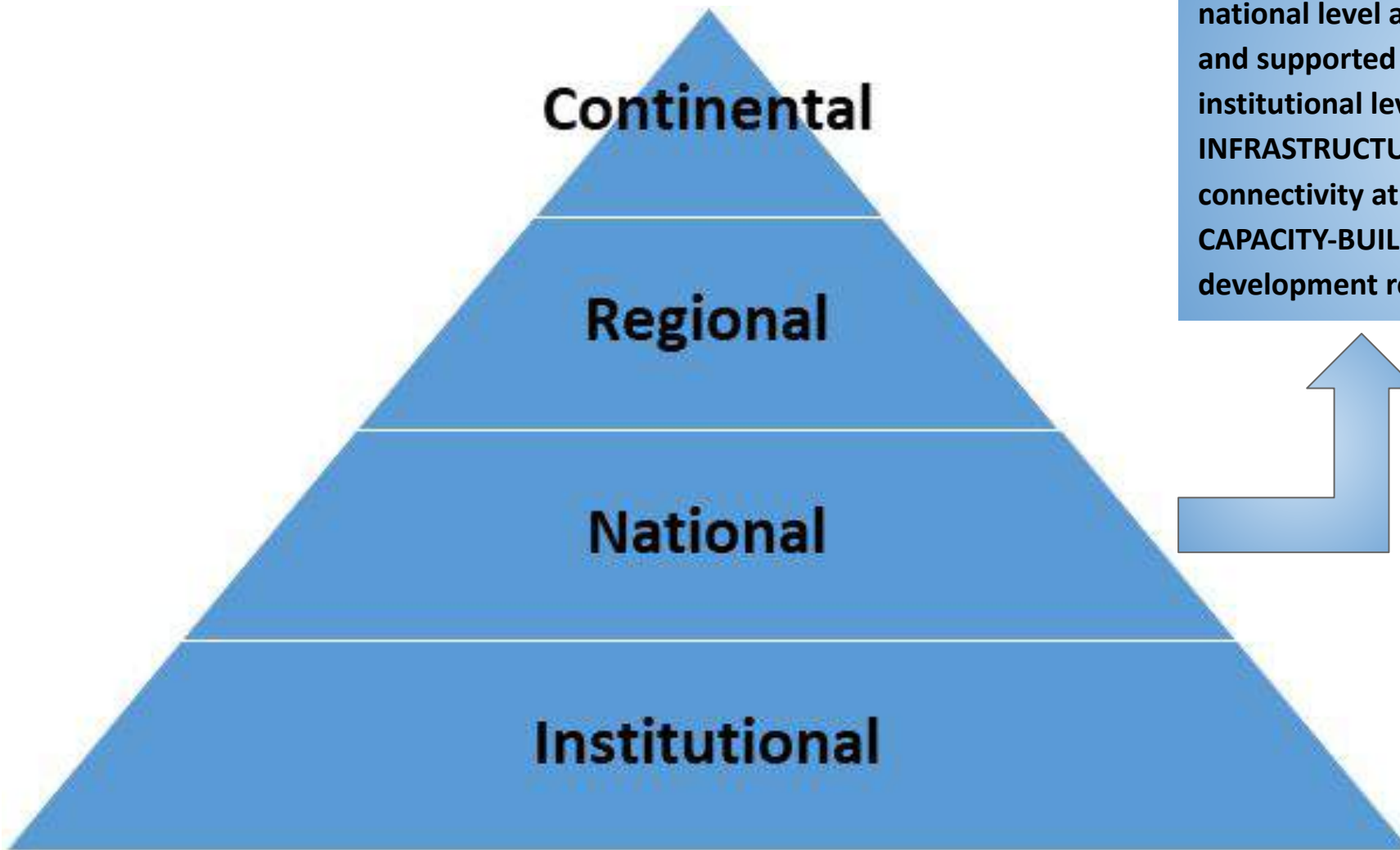Strategic pillars and example activities/collaborations at the Continental Level

POLICY - Aligning Open Science policy at the regional level leveraging regional HE associations
INFRASTRUCTURE - RRENs aggregating knowledge on what works best and disseminating best practices, monitoring uptake of services and capacities at the regional level
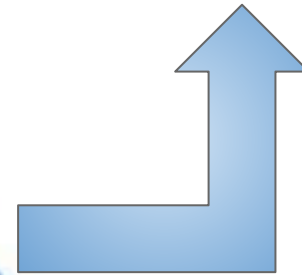CAPACITY-BUILDING - regional workshops, knowledge building and sharing

Key Activities/Collaborations:

- Capacity-building workshops – skills profiles webinars, open access publishing, research data repositories and repository interoperability, persistent identifiers
- Early Career Researcher training

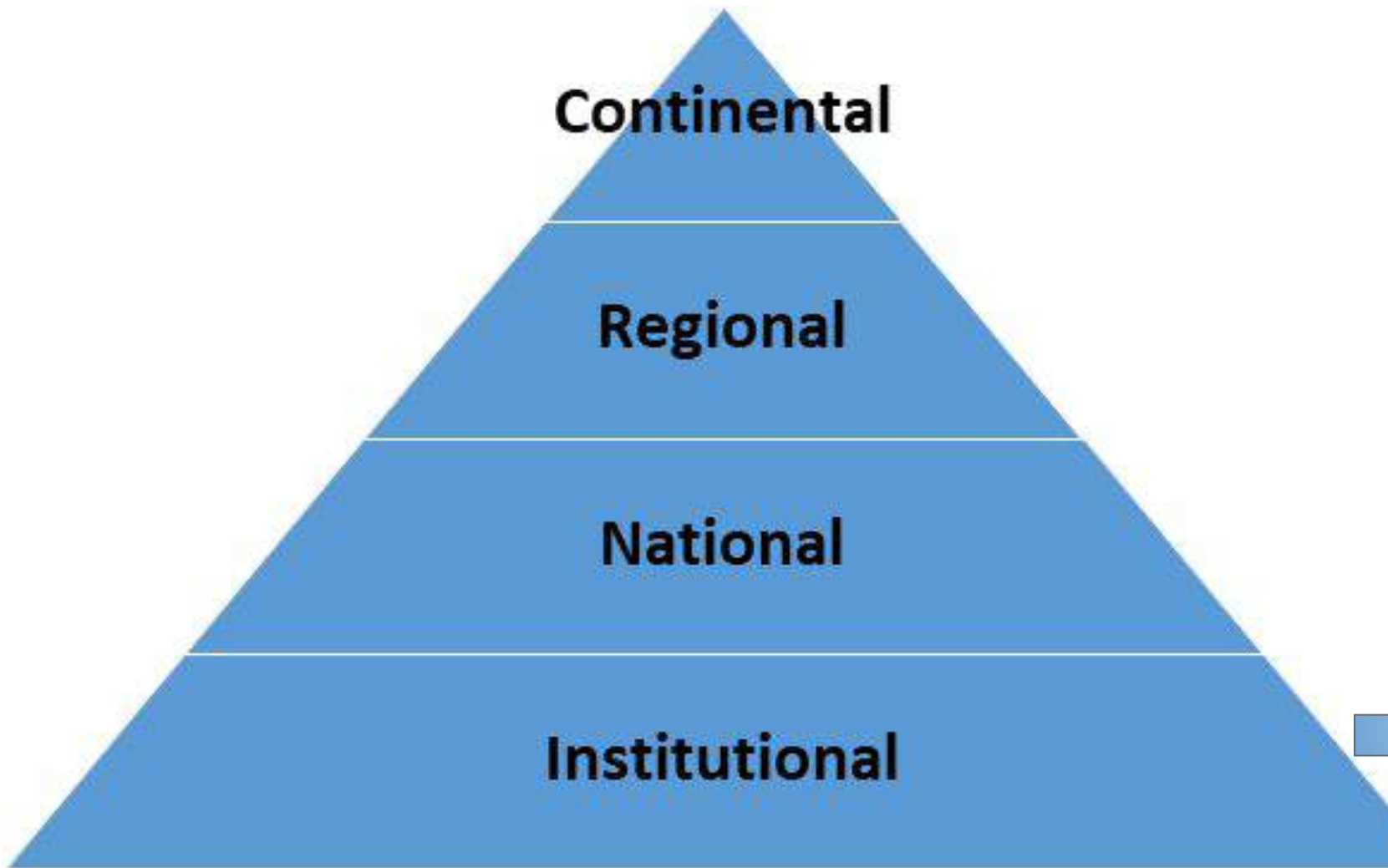Strategic pillars and example activities/collaborations at the Regional Level

POLICY - Open Science policy development at the national level aligned across Africa and globally and supported by community efforts at the institutional level

INFRASTRUCTURE - Supporting digital services and connectivity at the institutional level

CAPACITY-BUILDING - training and skills development rolled out across the country

Key Activities/Collaborations:

- National Open Science Roadmaps - Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania and Uganda
- National shared open access repository and publishing platforms - Côte d'Ivoire, Nigeria and Uganda
- National Shared Platform for Journals, Micropublications and Preprints in Nigeria
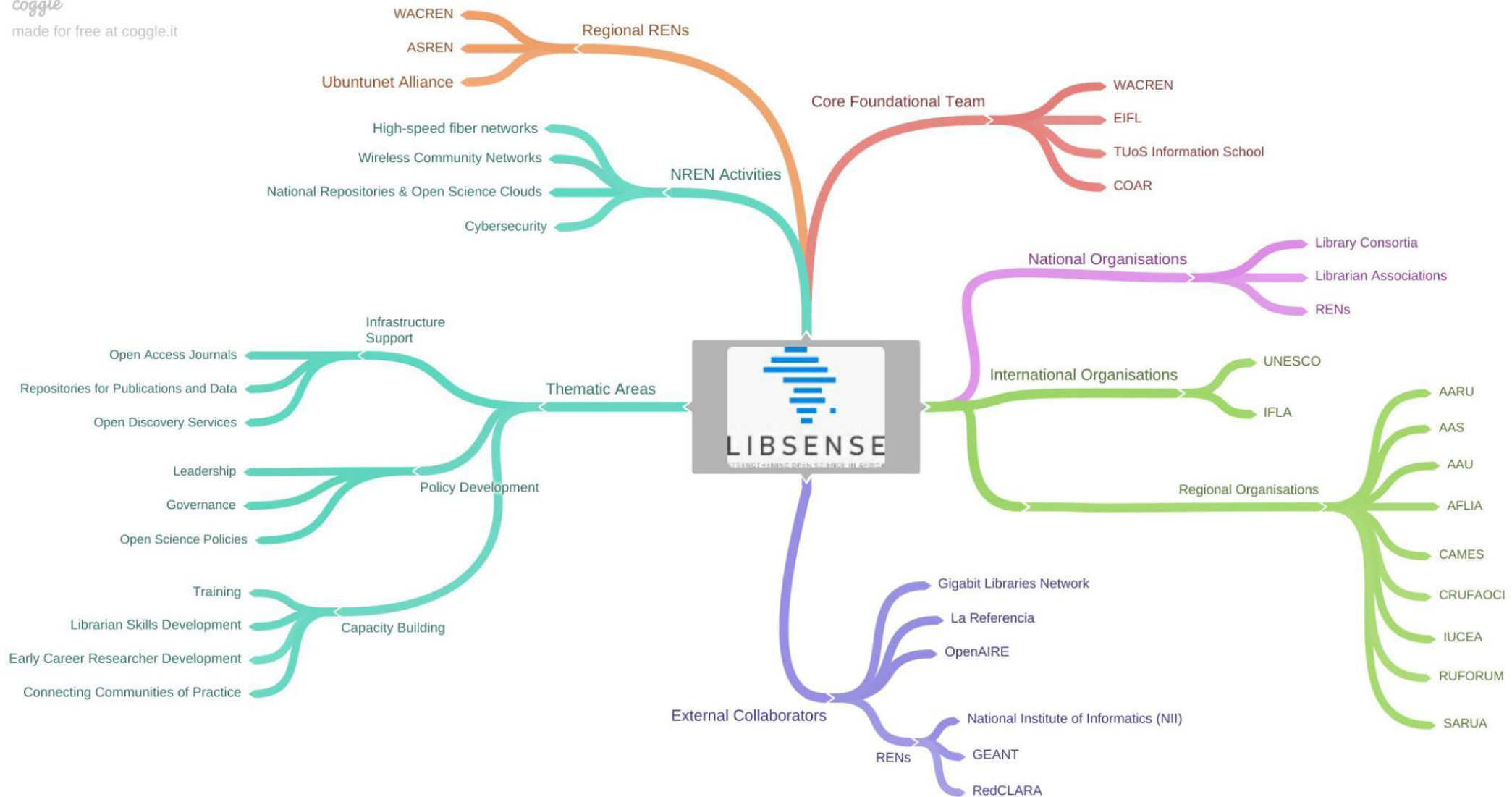
Strategic pillars and example activities at the National Level

Strategic pillars and example activities/collaborations at the National Level

LIBSENSE – Partnerships & Networks

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
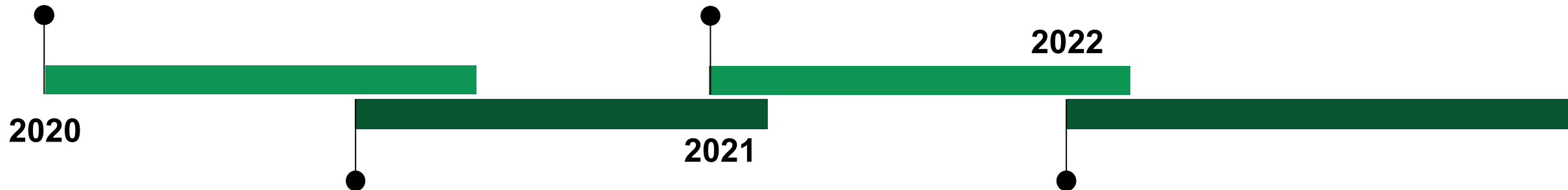
National Open Science Roadmaps
- Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania, and Uganda

National open access repository and publishing platforms
- Nigeria, Côte d'Ivoire, ...

National Policy Development Workshops
- Nigeria, Côte d'Ivoire, ...

2020

2021

2022

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?

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https://libsense.ren.africa

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AC3-Community

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