

AfricaConnect3: Infrastructures and Services to ASFAP Community in Africa



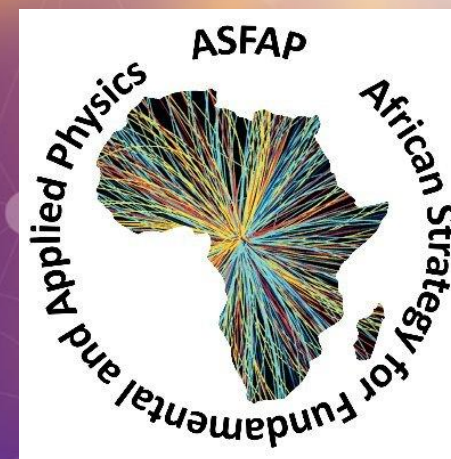
ASFAP Community Town Hall

12-15 July 2021

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



AfricaConenct3 is about engagement with research communities



African Strategy for Fundamental and Applied Physics



ICTP - East African Institute for Fundamental Research under the auspices of UNESCO



science and technology
Department Science and Technology
REPUBLIC OF SOUTH AFRICA



RÉPUBLIQUE TUNISIENNE
MESRS
Ministère de l'Enseignement Supérieur et de la Recherche Scientifique



AfricaConnect3 is about women empowerment



“
Having more female leaders in STEM
can show the younger girls that a brilliant
career in science is possible for them
”

FARIDA FASSI
Professor at Mohammed V University, Rabat

A circular orange logo with the text "Africa Connect 3" and a stylized map of Africa.

AfricaConenct3 is about Digital Infrastructures



Digital Infrastructure is Crucial

Research & Education Networks are
Crucial for this Crucial



Setting the scene NRENs in Africa



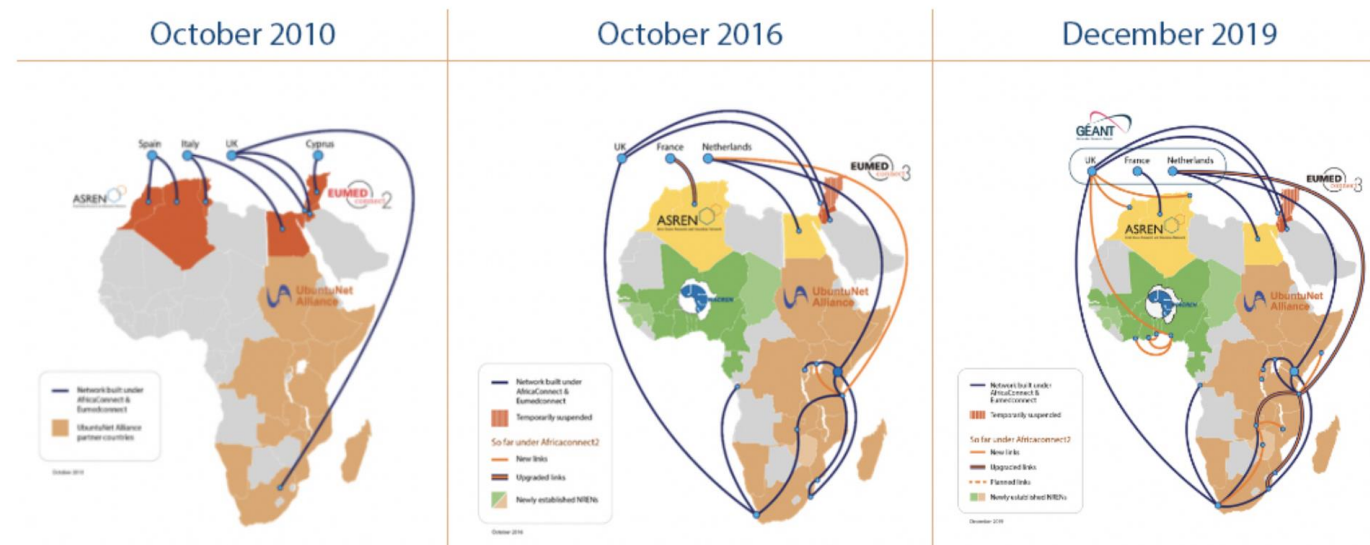
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A journey: The History of RRENs in Africa

AfricaConnect3 builds on the achievements of seve:

- The [EUMEDCONNECT](#) project, which has provided a research and education network for Northern Africa and the Middle East since 2004 with our regional partner ASREN.
- And the [AfricaConnect](#) project which helped establish a regional gateway for collaborative research and education (R&E) in Southern and Eastern Africa between 2011 and 2014 with our regional partners the UbuntuNet Alliance.
- [AfricaConnect2](#) saw the collaboration between the three major RRENs within the African continent: the UbuntuNet Alliance, the West and Central African Research and Education Network (WACREN) and the Arab States Research and Education Network (ASREN).



What are National Research and Education Networks?

Mostly publicly funded

Provide dedicated, uncongested Internet connectivity and value-added services for knowledge institutions in their country, such as: universities, research centres, and libraries

Typically connected to a regional counterpart (RRENs)

African RRENs are linked to global research and education networks across the globe via its interconnection with GÉANT

These linkages facilitate collaborative research and innovative learning worldwide

There are over 100 NRENs worldwide with 38 in Africa

Status of National and Regional R&E in Africa

Eastern and Southern Africa

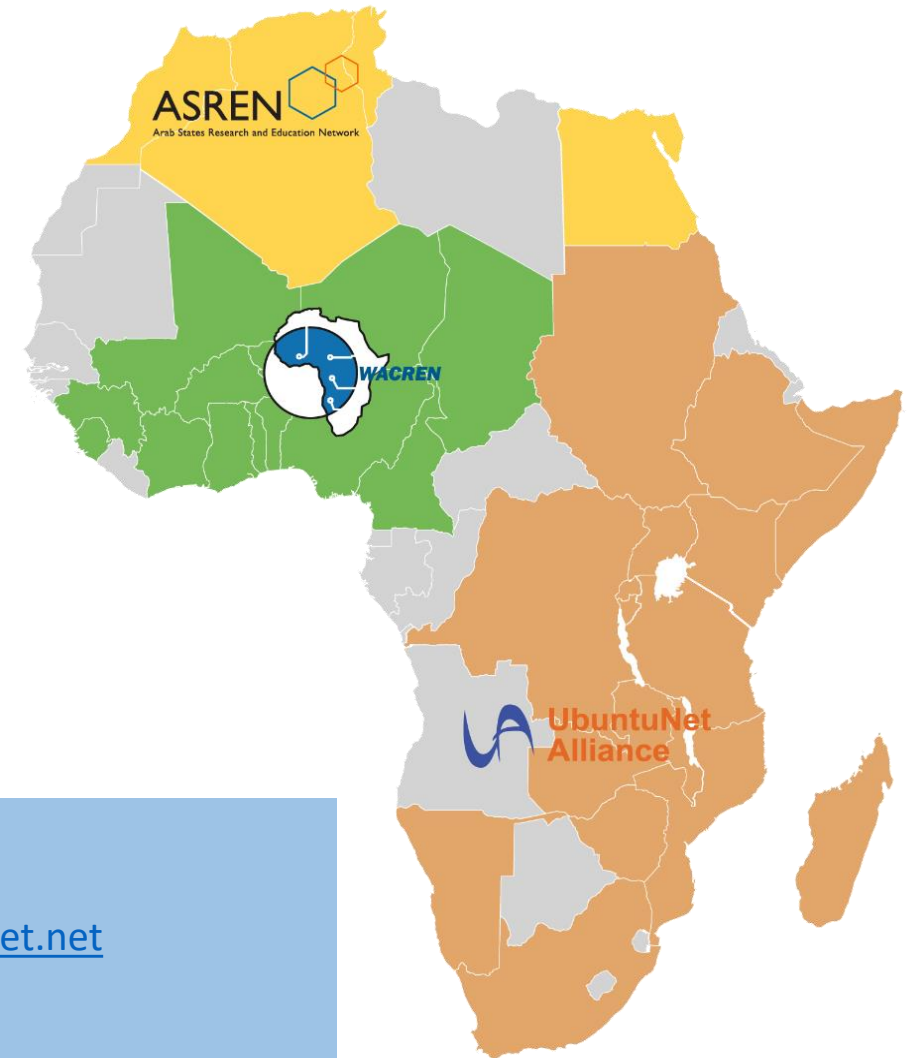
- Botswana, BotsREN
- Burundi, BERNET
- DRC, Eb@le
- Ethiopia, EthERNet
- Kenya, KENET
- Madagascar, iRENALA
- Malawi, MAREN
- Mozambique, MoRENnet
- Namibia, Xnet
- Rwanda, RwEdnet
- Somalia, SomaliREN
- South Africa, TENET/SANReN
- Sudan, SudREN
- Tanzania, TERNET
- Uganda, RENU
- Zambia, ZAMREN
- Zimbabwe, ZIMREN

West and Central Africa

- Bukina Faso, FasoREN
- Cameroon, RIC
- Chad, TchadREN
- Cote d'Ivoire, RITER
- Ghana, GARNET
- Guinea, Gn-REN
- Mali, MaliREN
- Niger, NigerREN
- Nigeria, NgREN
- Sierra Leone, SLREN
- Togo, TogoREN

North Africa

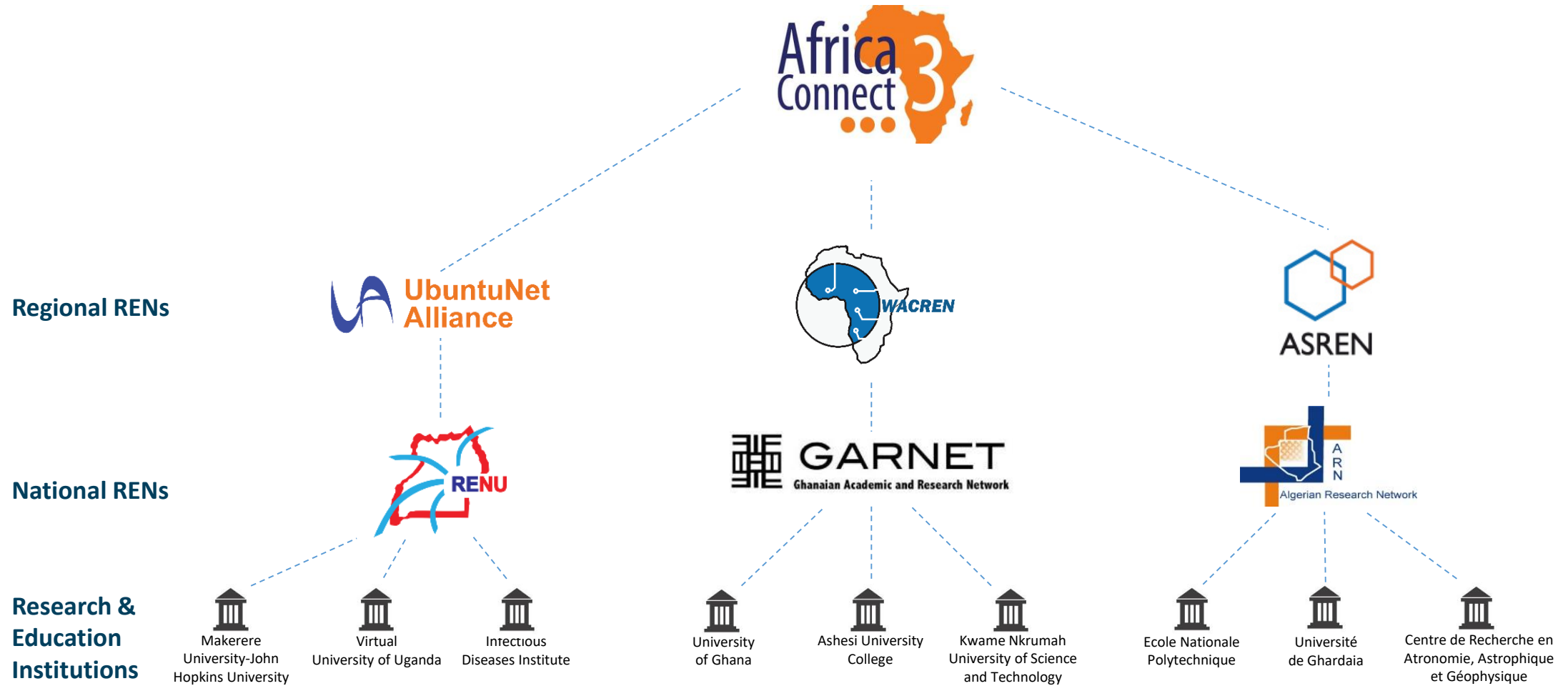
- Algeria, ARN
- Egypt, EUN
- Morocco, MARWAN
- Tunisia, CCK



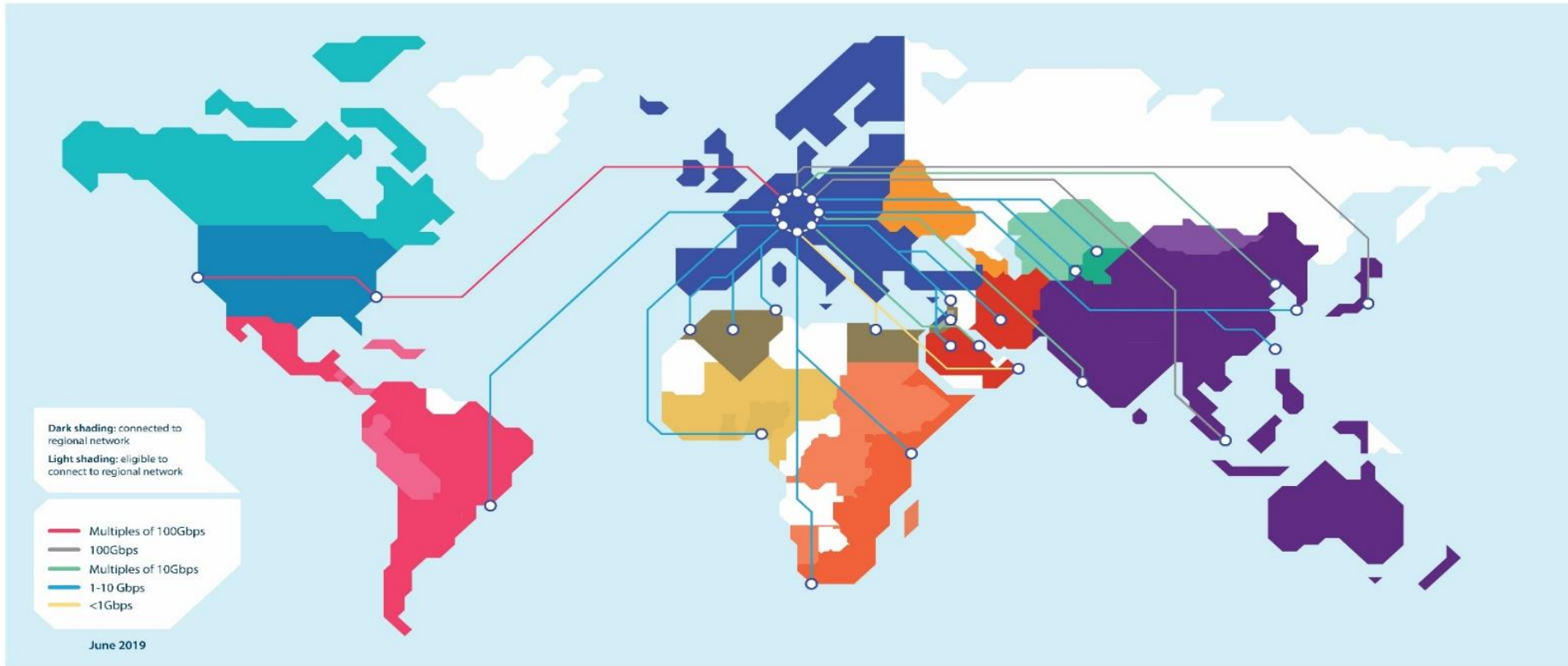
For connection, contact the following:

- **UbuntuNet:** Matthews Mtumbuka, ceo@ubuntunet.net
- **WACREN:** Boubakar Barry, ceo@wacren.net
- **ASREN:** Yousef Torman, torman@asren.org

How do NRENs connect students and researchers?



AT THE HEART OF GLOBAL RESEARCH AND EDUCATION NETWORKING



Canada & USA	Latin America	Europe	North Africa & Eastern Mediterranean	West & Central Africa	Eastern & Southern Africa	Central Asia	Asia-Pacific	Other R&E Networks

This map is produced as part of the GÉANT Specific Grant Agreement GAA-3 (No. 816736), that has received funding from the European Union's Horizon 2020 research and innovation programme under the GÉANT 2020 Framework Partnership Agreement (No. 623390). The content of this document is the sole responsibility of GÉANT and can under no circumstances be regarded as reflecting the position of the European Union.

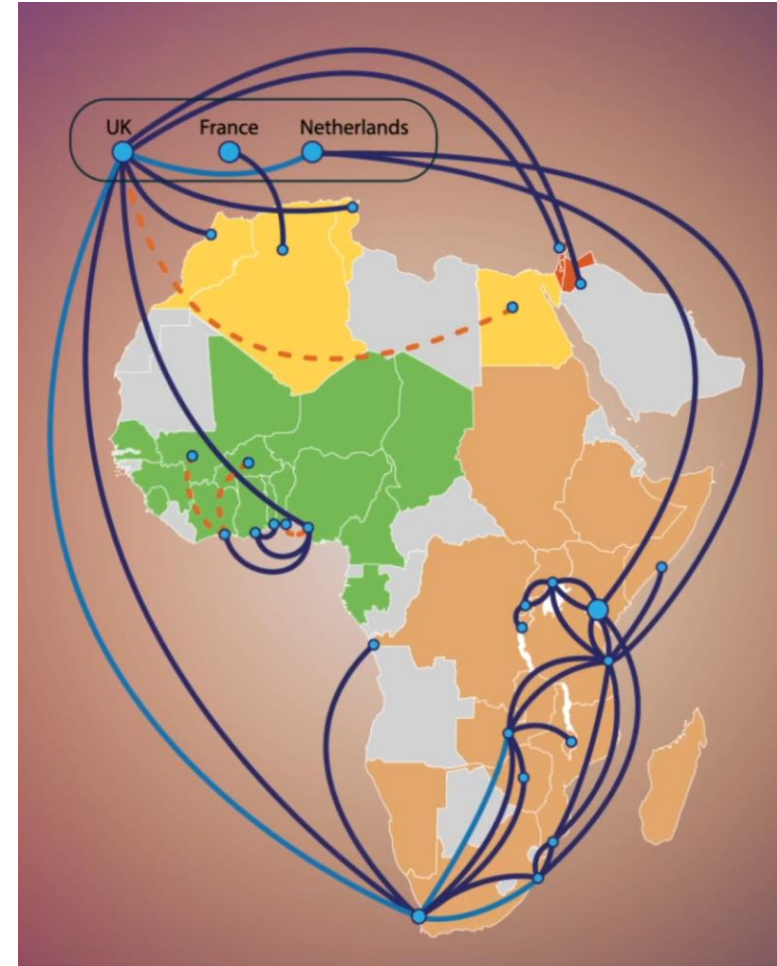
geant.org



A Pan-African Network in the making



- 21 African NRENs are connected to a regional network:
 - **UbuntuNet Alliance:** Burundi, Kenya, Malawi, Mozambique, Rwanda, Somalia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe
 - **WACREN:** Côte d'Ivoire, Ghana, Nigeria, Togo, Burkina-Faso and Benin
 - **ASREN:** Algeria, Egypt, Morocco and Tunisia
- All three regional networks are still under construction.
- More than 1600 African institutions can collaborate with peers across the world:
 - helping to connect remote users
 - retain local talents and fight brain drain



The AfricaConnect3 project



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Project Profile: AfricaConnect 3

Start date: 16 November 2019

Duration: 48 months

Funds: European Union Grant Contract

DCI-PANAF/2019/411-583/584/585/585

- **Budget: 37.5M EUR (80% EU co-funding)**
 - Funding for connectivity, equipment and cloud: **23.2M EUR**

4 Contracts, 4 Clusters

Donor : Directorate-General International Cooperation and Development DG DEVCO. Now DG INTPA

Procurement, overall coordination and support

Managing Regional Networks, expanding the provision of services, capacity building, engaging with end users, raise awareness of the role of digital transformation for education and research.

GÉANT
Cluster 0

Cluster 1 Eastern and Southern Africa
UbuntuNet Alliance

Cluster 2 Western and Central Africa
WACREN

Cluster 3 North Africa
ASREN

Cluster 1 Eastern and Southern Africa
UbuntuNet Alliance

Cluster 2 Western and Central Africa
WACREN

Cluster 3 North Africa
ASREN

16 Member NRENS

13 Member NRENS
2 ongoing initiatives

4 Member NRENS

What do we aim to achieve?

- There overall objective of the AfricaConnect 3 project is to enhance human capital development within the continent
- The specific objective is to increase the use of digital technologies by African education and research institutions
- The expected results (outputs) for each of the three geographical clusters of the action are the following:

Output 1:

Access of tertiary education and research institutions to affordable and adequate e-infrastructures is improved

Output 2:

Dedicated services and applications are developed for the benefit of research and education communities

Output 3:

Adequate human resource capacity and expertise is built within the research and education communities

Output 4:

Awareness of the role of digital transformation of research and education is raised

AfricaConnect 3 Activities and Work Packages

- **WP 1 – Expand and Upgrade Research and Education Network and e-Infrastructures**
 - WP 1.1 Maintenance and Management of Regional Network
 - WP 1.2 Expansion and Upgrade of Connectivity for NRENs
 - WP 1.3 **Cloud-based e-Infrastructure for African Open Science**
- **WP 2 - Development of R&E Services and Applications**
 - WP 2.1 Service Outreach and Deployment Support
 - WP 2.2 **Trust and Identity Services, eduroam....**
 - WP 2.3 Proactive Cybersecurity for NRENs and their Digital Assets
 - WP 2.4 **Federated Identity Management for Libraries**



AfricaConnect 3 Activities and Work Packages

- **WP 3 – Research and Education Networks Capacity Building**
 - WP 3.1 Governance and Systems Review of UA, WACREN and ASREN
 - WP 3.2 Sustainability Plan
 - WP 3.3 Sharing of Best Practices between NRENs
 - WP 3.4 Capacity Building under the Africa Training Initiative
 - WP 3.5 Women Empowerment in the African NREN community



AfricaConnect 3 Activities and Work Packages

- **WP 4 - Advocacy for the role of digital tools in the transformation of Education and Research**
 - WP 4.1 Advocacy and Donor Engagement
 - WP 4.2 REN and User Engagement Conferences
 - WP 4.3 Engagement with User Communities (AfriGEO and GMES in Africa are examples)
 - WP 4.4 Project Visibility and Dissemination



Our Message

- Digital infrastructures are becoming critical infrastructures to support research activities and science cooperation
- Research and Education Networks provide dedicated high quality and secure connectivity and infrastructures services to research institutions in Africa and in Europe
- African Research and Education Networks are willing to support the African Strategy for Fundamental and Applied Physics by extending their benefits and services to the ASFAP community

Thank you

Any questions?



@AC3_News



AC3-Community



africconnect3.net

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