From Centres of Excellence to Clusters of Research Excellence: An African Experience

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Main Messages

- ARUA set up 13 Centres of Excellence (CoE) in 2018 which became the main instruments for attaining various objectives under its 4 pillars.

- In partnering with the Guild, these CoEs were **leveraged** to establish 20 Clusters of Research Excellence (CoRE), one of the largest platforms for African and European Universities to work together.

- Partnership works best if the parties see themselves as equal in agenda setting and in the development of pathways.

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Outline

- Background: ARUA and its CoEs

- ARUA and the Guild Partnership

- Clusters of Research Excellence (CoRE)

- Conclusion

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Background: ARUA and Its CoE's

- ARUA emerged in 2015 to serve as a catalyst for aggregating institutional capacity across Africa to build indigenous research excellence that positions Africa as a powerful global force.

- The 16 VCs who came together agreed it was necessary at that point in history to collaboratively harness institutional capacity and human capability to address the common challenges

- ARUA is currently made up of 23 member universities

ARUA
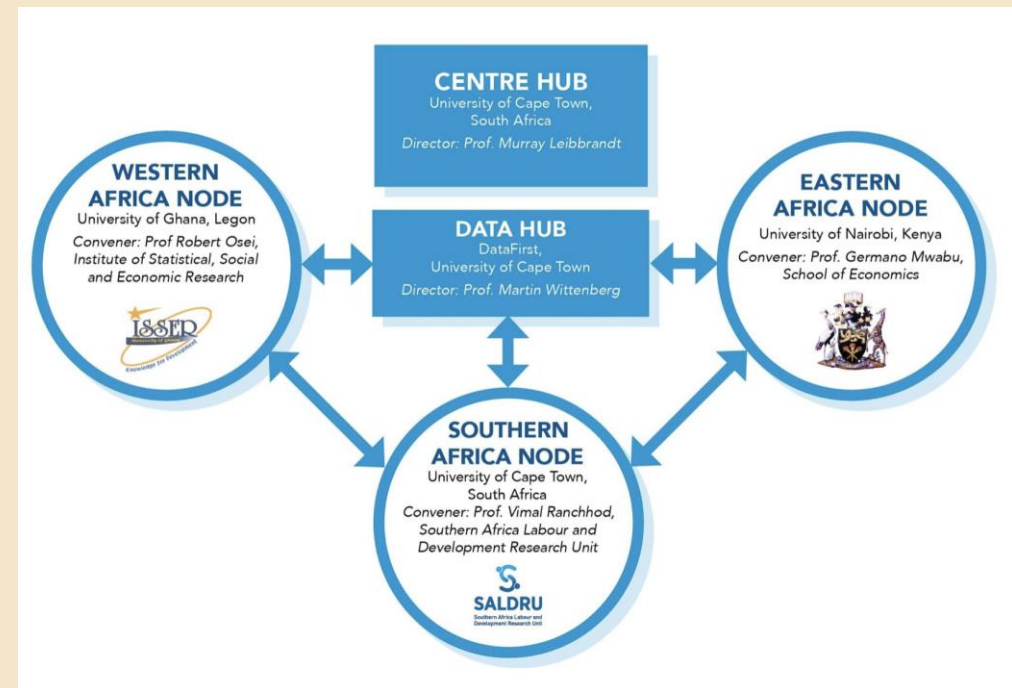African Research
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Background: ARUA and Its CoE's

- ARUA has 4 pillars: (1) **Enhanced Research**, (2) **Expanding and Improving Graduate Training**, (3) **Professionalised Research Management** *and* (4) **Institutional Research Advocacy**

- To demonstrate what can be achieved, ARUA secured a grant from UKRI to support its 13 CoEs in addressing the SDGs
  - This initiative allowed African researchers to ***lead*** the research agenda, using funds from the GCRF, and also work together

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Background: ARUA and Its CoE's

- Structure of the CoEs
  - the **hub and spoke model** - *one university* will lead as the hub, with *other universities* joining as collaborators or extensions through a network of researchers (spoke)

Typical Structure of CoE Structure (ACEIR)

Background: ARUA and Its CoE's

Name of Centre	Location	Name of Centre	Location
Water	Rhodes University, SA	**Post-Conflict Societies**	Addis Ababa University, Ethiopia
Energy	Stellenbosch University, SA	**Good Governance**	Addis Ababa University, Ethiopia
Non-Communicable Diseases	University of Nairobi, Kenya	**Notions of Identity**	Makerere University, Uganda
Materials and Nanotechnology	Wits University, SA	**Poverty and Inequality**	University of Cape Town, SA
Climate Change	University of Cape Town, SA	**Unemployment and Skills Development**	University of Lagos, Nigeria
Food Security	University of Pretoria, SA	**Urbanization and Habitable Cities**	University of Lagos, Nigeria
		Migration and Mobility	Wits University, SA

ARUA and the Guild Partnership

- In 2019, ARUA and the Guild agreed to work together to foster collaborative research between African and European universities

Our Engagements

➢Advocated for strengthening the African knowledge society and putting R&I at the heart of the renewed EU-AU partnership

➢Jointly endorsed AU-EU Innovation Agenda

➢Commitment by the two (2) institutions to a **_long-term and equitable research collaboration that builds up Africa's science capacity led to the birth of the Africa-Europe_** CoRE

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ARUA-Guild Partnership (CoRE)

The CoREs address key societal and scientific challenges framed by the AU-EU Innovation Agenda

Addressing Sustainable Development Goals

The Clusters bring together some of the best researchers from both continents. All are committed to the change science can bring to society.

Scientific Excellence

All Clusters bring together some of the leading researchers in their fields who push the frontiers of research and overcome knowledge challenges identified in close partnership.

Equity

All our Clusters remain committed to achieving equity in a deeply unequal world: in the way research is carried out, credit is received, and funding allocated.

Inclusion

Whilst the Clusters have been inspired by ARUA and The Guild, our Clusters bring together researchers from 120 institutions across 42 countries. Participation thus far exceeds the ARUA and Guild networks.

Brain Circulation and Capacity-Building

Each Cluster is committed to developing new, inclusive models of postgraduate education. They provide a unique frame for much-needed long-term research infrastructure investment in Africa.

Long-Term focus

ARUA and The Guild's university leaderships are deeply involved in the Clusters by supporting the bottom-up articulation of research priorities and by guaranteeing long-term plans with institutional support.

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The Guild
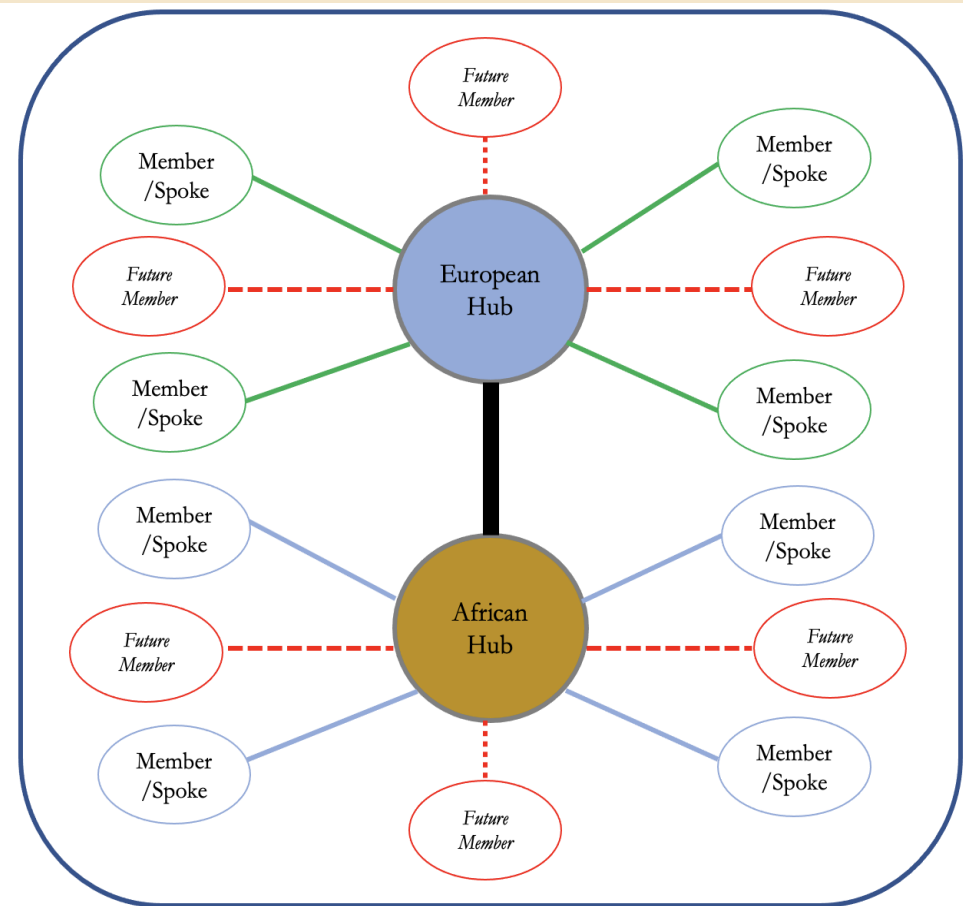of European Research-Intensive Universities

ARUA-Guild Partnership (CoRE)

- ARUA and the Guild see the Clusters as an ideal solution that
  - Creates opportunities for African universities and their researchers to gain coordinated access to the facilities and human resources of European universities;
  - Creates opportunities for European universities and their researchers to gain coordinated access to the facilities and human resources of African universities;
  - The resulting co-creation of new knowledge enhances its relevance for African development;
  - It takes away the incentive for brain-drain

ARUA-Guild Partnership (CoRE)

- ARUA mainly used its CoEs as **leverage** in forming the CoREs

- CoEs have already created a unified platform for African researchers around the SDGs

- CoREs were created to align with the **priority areas of the AU-EU Innovation Agenda**

Structure of the ARUA-Guild CoRE

ARUA-Guild Partnership (CoRE)

The Africa-Europe CoRE

Public Health	Green Transition
1. Advanced Infectious Diseases Research and Training	10. Nature-Based Solutions for Climate Change Adaptation and Mitigation
2. Food Environment Actions for the Promotion of Health	11. Renewable Energy
3. Genomics for Health in Africa	12. Sustainable Water and Land Resource Management for Human Well-Being
4. Health, Gender, and Sexualities	13. Water Resources Management for a Sustainable and Just Future
5. Migration and Health	14. The Politics of Sustainable Development: Squaring the Circle of Science and Democracy
6. Multimorbidity	
7. Non-Communicable Diseases and Multimorbidity	
8. Preparedness and Response to Pandemics and Shocks	
9. Translational Research in Infection, Immunity, and Inflammation	

Innovation and Technology	Capacities for Science
15. Addressing Global and African Challenges Through Methods from Artificial Intelligence, Data Science, and Theoretical and Computational Thinking	19. Building Capacities for Interdisciplinary Peace Research: Exploring Conflict, Environment, Technology, Inequality, and Identity in Africa
16. Sustainable Food Systems	20. Promoting Impactful Research and Education on Inequalities, Poverty, and Deprivation Across Africa
17. Engineering for the Future	
18. Creative Economies: Cultures, Innovation and Sustainability	

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ARUA-Guild Partnership (CoRE)

- The Clusters present an invitation to **policy-makers and funders to develop new funding models** that are more effective at addressing the real needs of society and bring together perspectives of an unequal world.

- **Expectations**
- *Short- Term:* Strengthening cooperation between African and European universities

- *Medium Term:* Joint Doctoral Academies, Creating/strengthening Clusters of Excellence

- *Long Term:* The scaling up of Master's and doctoral academies, Support for ECRs, and the Creation of long-term infrastructure

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Conclusion

- ARUA will continue to use its CoE initiative as a leverage to deepen collaboration between African and European universities

- One important outcome so far is not only the opportunities for African and European researchers to work together through the Africa-Europe CoRE, but also the development of Collaborative programmes **to produce 1,000 PhDs annually for ten (10) years**

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