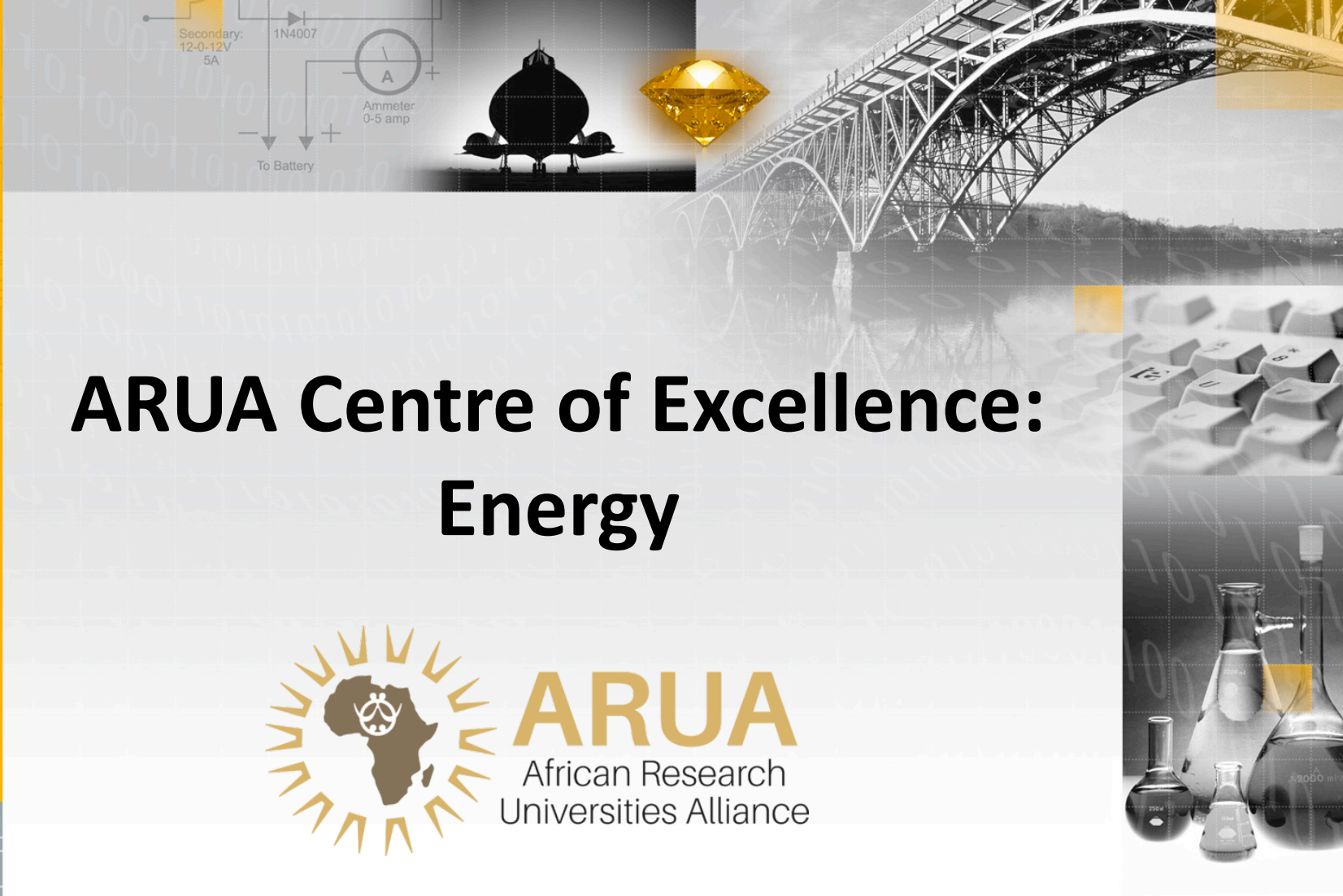




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# ARUA Centre of Excellence: Energy



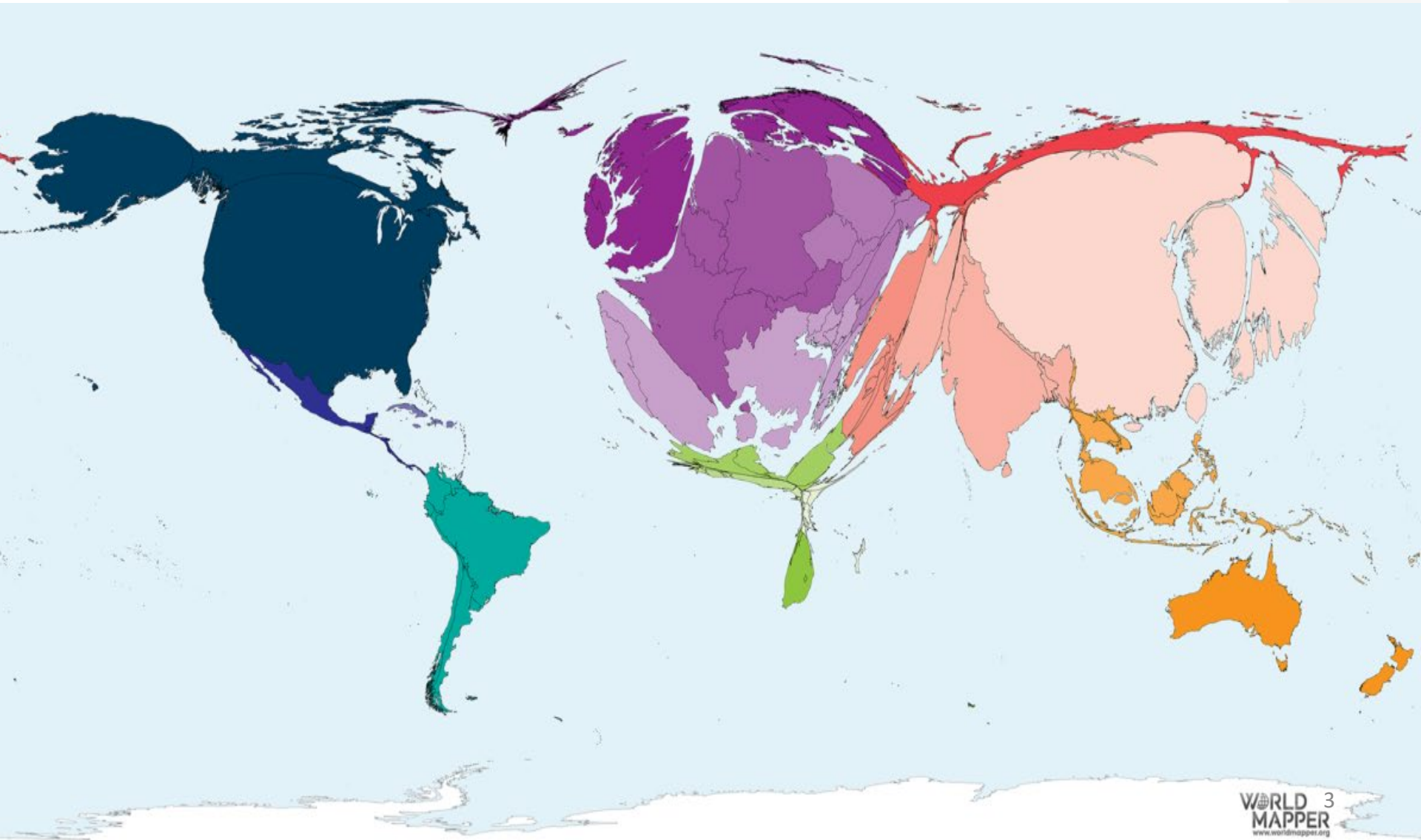
**Secretariat**  
Stellenbosch University



# ARUA – What is it?

- ARUA – African Research Universities Alliance
- Network of 16 research-focused, African Universities
- Established 2015
- **Goal:** “...expanding and enhancing significantly the quality of research done in Africa by African researchers”
- **Mandate:** “ARUA is intended to develop local research excellence through collaboration to find solutions to the development problems of Africa”





# Mandate

This initiative recognises the fact that **partnerships and networking have become essential arrangements for universities throughout the world to leverage their resources for greater impact.** There are several examples of universities with similar ideals and complementary endowments working together to achieve greater outcomes, and these include the Russell Group of the United Kingdom. It is a group that brings 24 of the leading UK universities together and they “are committed to maintaining the very best research, an outstanding teaching and learning experience and unrivalled links with business and the public sector”. Like the Russell Group, a major motivation for ARUA is to play a key role in the intellectual life of African countries, be it social, economic or cultural.

ARUA is intended to develop local research excellence through collaboration to find solutions to the development problems of Africa. It is set to become a pan-African network for bringing research and academic excellence to the fore throughout the region by developing strong and viable research universities.



# ARUA – What is it?

- 2017 – ARUA launches call for members to host Centres of Excellence (CoE's)
- 13 CoE's awarded, 7 in social sciences and 6 in 'hard' sciences
- Stellenbosch: CoE in Energy
- CoE's:
  - (i) Focal points for *world class* research
  - (ii) Provide postgraduate research training



# ARUA CoE's

Region	Institution	Country	CoE
Eastern Africa	Addis Ababa University	Ethiopia	Good Governance; Post-conflict Society
	Makerere University	Uganda	Notions of Identity
	University of Dar es Salaam	Tanzania	
	University of Nairobi	Kenya	Non-communicable Diseases
	University of Rwanda	Rwanda	
South(ern) Africa	Rhodes University	RSA	Water
	Stellenbosch University	RSA	Energy
	University of Cape Town	RSA	Climate & Development; Inequality
	University of KwaZulu-Natal	RSA	
	University of Pretoria	RSA	Food Security
	University of the Witwatersrand	RSA	Materials, Energy & Nanotechnology; Migration & Mobility
Western Africa	Obafemi Awolowo (Ile-Ife)	Nigeria	
	University Cheikh Anta Diop	Senegal	
	University of Ghana	Ghana	
	University of Ibadan	Nigeria	
	University of Lagos	Nigeria	Unemployment & Skills Development; Urbanization and Habitable Cities

# ARUA – What is it useful for?

- Networking and collaboration
- Consortium building for research calls
- Identification of excellent researchers in Africa
- Increased visibility in Africa
- Creates multi-disciplinary platform
- Attract talent
- *Enables landing large pots of funding*



# ARUA – collaborators on projects



UNIVERSITY OF THE  
WITWATERSRAND,  
JOHANNESBURG



Universiteit Utrecht



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA



UNIVERSITY OF IBADAN



PREMIER UNIVERSITY



UNIVERSITY OF <sup>TM</sup>  
KWAZULU-NATAL  
INYUVESI  
YAKWAZULU-NATALI



RHODES UNIVERSITY  
*Where leaders learn*

# ARUA CoE:Energy - Key Objectives

- Integrate **renewable and sustainable energy** into systems that address the food, nutrition and water supply challenges of Africa
  - Practical and implementable solutions
- Intensification of **agriculture, postharvest preservation** and **water-supply** critically dependent on energy
  - Nexus of rural development opportunities
- Improve livelihoods of **smallholder farmers** through improved market access



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[Shaping the Future of Global Food Systems: A Scenarios Analysis \(2017\)](#)

[Building Partnerships for Sustainable Agriculture and Food Security: A Guide to Country-Led Action \(2016\)](#)

[Tackling Global Challenges: Lessons in System Leadership from the World Economic Forum's New Vision for Agriculture Initiative \(2016\)](#)

[Enabling Trade: From Farm to Fork \(2014\)](#)

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## AfDB head calls for agriculture technologies to optimize African farmers' output

10th August 2018 BY: [AFRICAN NEWS AGENCY](#)

**A**frican farms should be given access to technologies that will enhance production, with evidence from countries such as Nigeria demonstrating that technology coupled with strong government backing are yielding positive results, African Development Bank (AfDB) president **Akinwumi Adesina** has said.

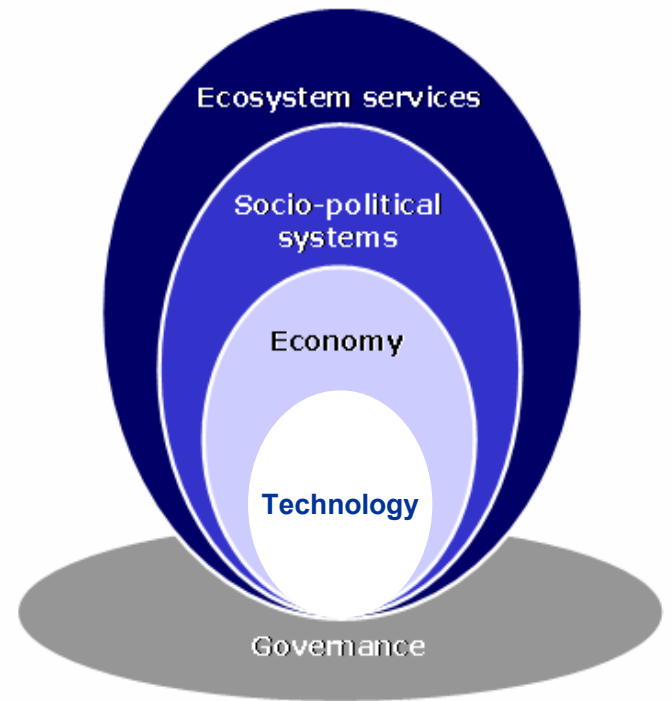
"Technologies to achieve Africa's green revolution exist, but are mostly just sitting on the shelves. The challenge is a lack of supportive policies to ensure that they are scaled up to reach millions of farmers," Adesina said in a recent speech delivered to the Agricultural and Applied Economics Association annual meeting in Washington, DC.

ADVERTISEMENT



# ARUA CoE:Energy

Create interdisciplinary working groups of researchers from Africa and elsewhere, to work collaboratively to tackle **Africa's most crucial development challenges**



# ARUA CoE:Energy – linking to SDG's







# Existing concepts / projects

- Implementation of anaerobic digestion in smallholder farming systems (EcoAfrica project: RSA, Mozambique, Madagascar)
- Biogas to cooling
- Pyrolysis for energy and (bio)char
- Renewable energy for intensive agricultural systems (e.g. aquaponics)

# Funding

- ARUA is not a funder
- **Funding drive** to ensure financial viability
  - Number of proposals submitted/in preparation

UK Research  
and Innovation



Innovate UK



# ARUA CoE:Energy

**Pursue partnerships**  
**worldwide** with a view to  
locking African researchers  
into continental and global  
networks that enable them to  
achieve global  
competitiveness, and make  
meaningful contributions to  
solving developmental  
challenges



# ARUA – How can you participate?



- Via CoE (i.e., through some angle on energy in food systems)
- Via other CoE's (collaborative research)
- Ad-hoc meetings, conferences, workshops etc.
- Best way: come and have coffee
- [njgoosen@sun.ac.za](mailto:njgoosen@sun.ac.za); K422 (CRSES)

