



The African
Academy of Sciences

Driving Scientific and Technological Development in Africa

Improving the Capacities of African Research Institutions: the AESA approach

Tom Kariuki

GFGP Meeting, London, October 6, 2015



AAS and Partners are focused on Research Capacity Strengthening in Africa:

RCS is variously defined but successful programs use strategies that targets:

- Developing individual skills
- Institutions and their systems
- National and regional approaches

STARTING POINT: Global statistics on Africa

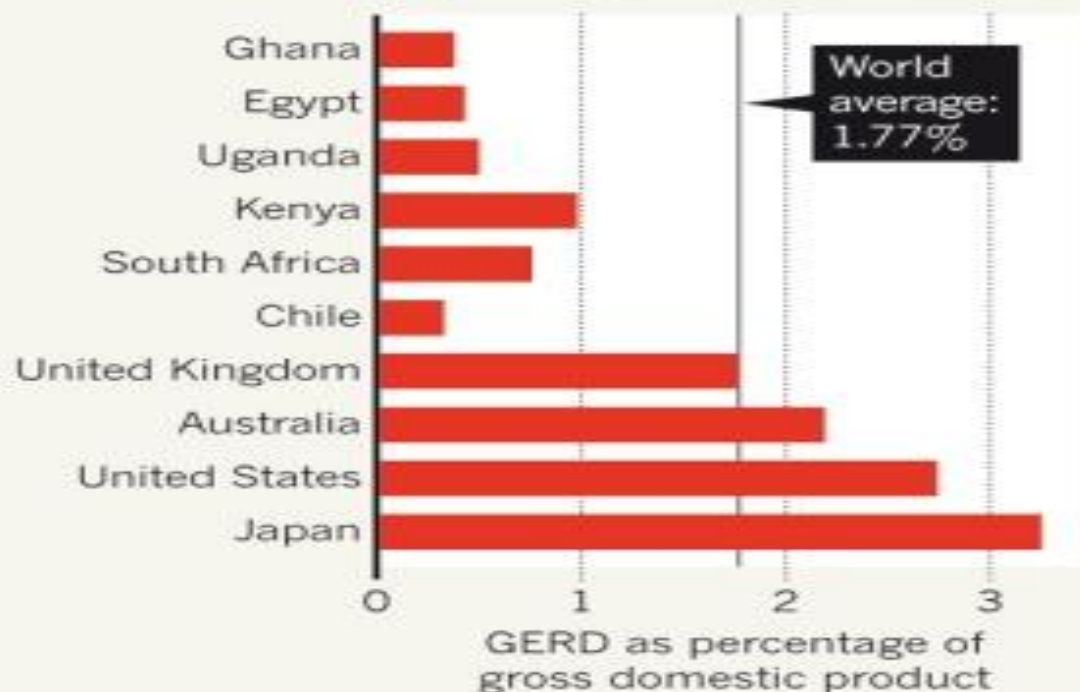
- 15% population
- 25% disease burden
- 50% of world poor live in Africa
- Only 1% of global economic output
- Only 3% health workers
- A meagre 0.1% researchers



Research Capacity in Africa...lagging behind all other regions and need increased investments from global partners

CONTINENTAL DIVIDE

A sample of leading African science spenders shows that they lagged behind many major economies in gross domestic expenditure on research and development (GERD) in 2010.



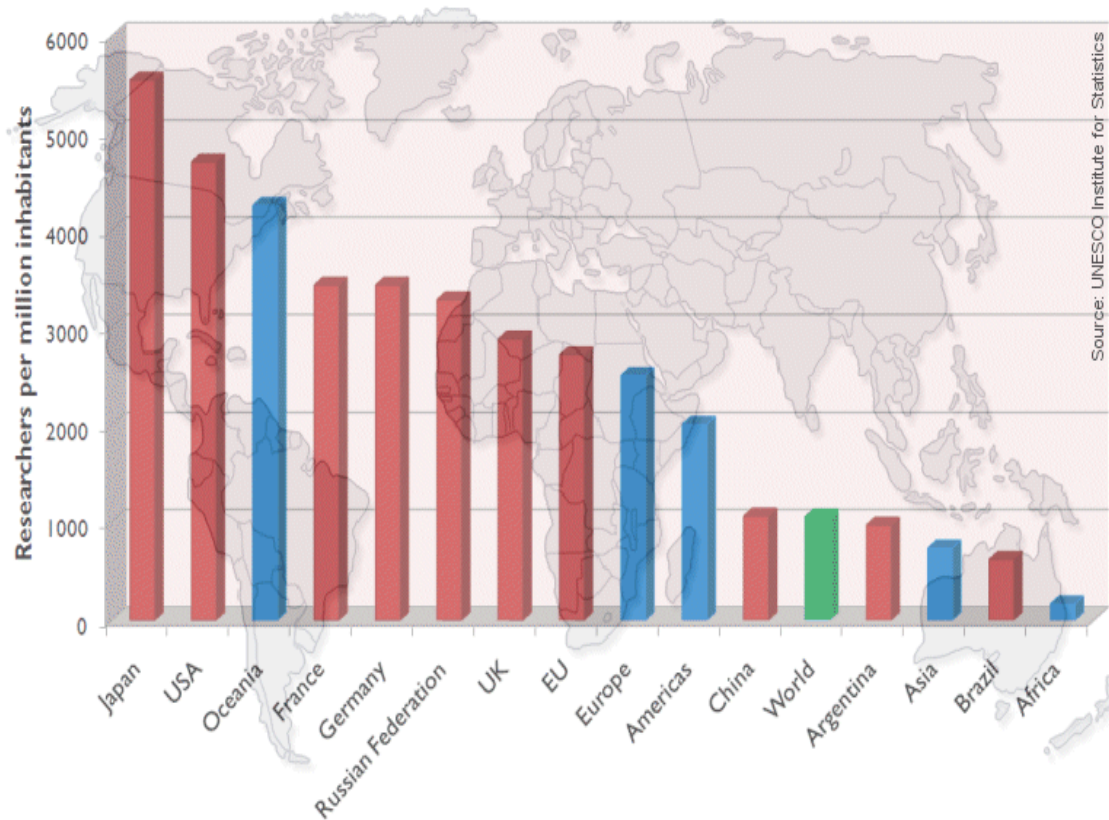
Types of funding

- Governments
- External donors

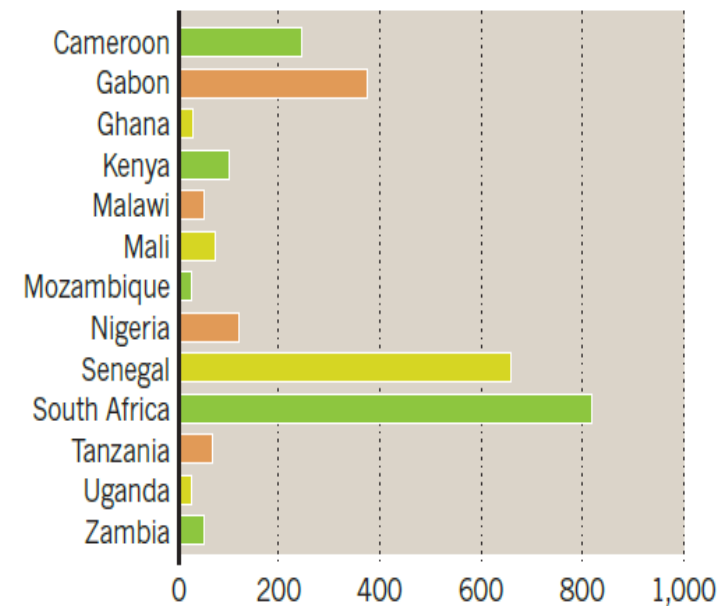
Little private sector investment in R&D in most African countries

Research capacity in Africa... Very few professionals in all areas of R&D including research management.

Researchers per Million Inhabitants, by Principal Region/Countries



RESEARCHERS PER MILLION INHABITANTS



Capacity building initiatives can achieve better outcomes if they were:

- Better Resourced
- Better Coordinated among all partners
- focused on excellence for individuals and institutions
- Based in Africa



Africa Rising...presents enormous opportunities to catalyse change through targeted investment

- Economies are growing: ~5% annual growth
- Scientific output growing at 21% compared (9% RoW)
- Big falls in child mortality, malaria, HIV
- New commitments of governments to STI



Africa Rising

2000

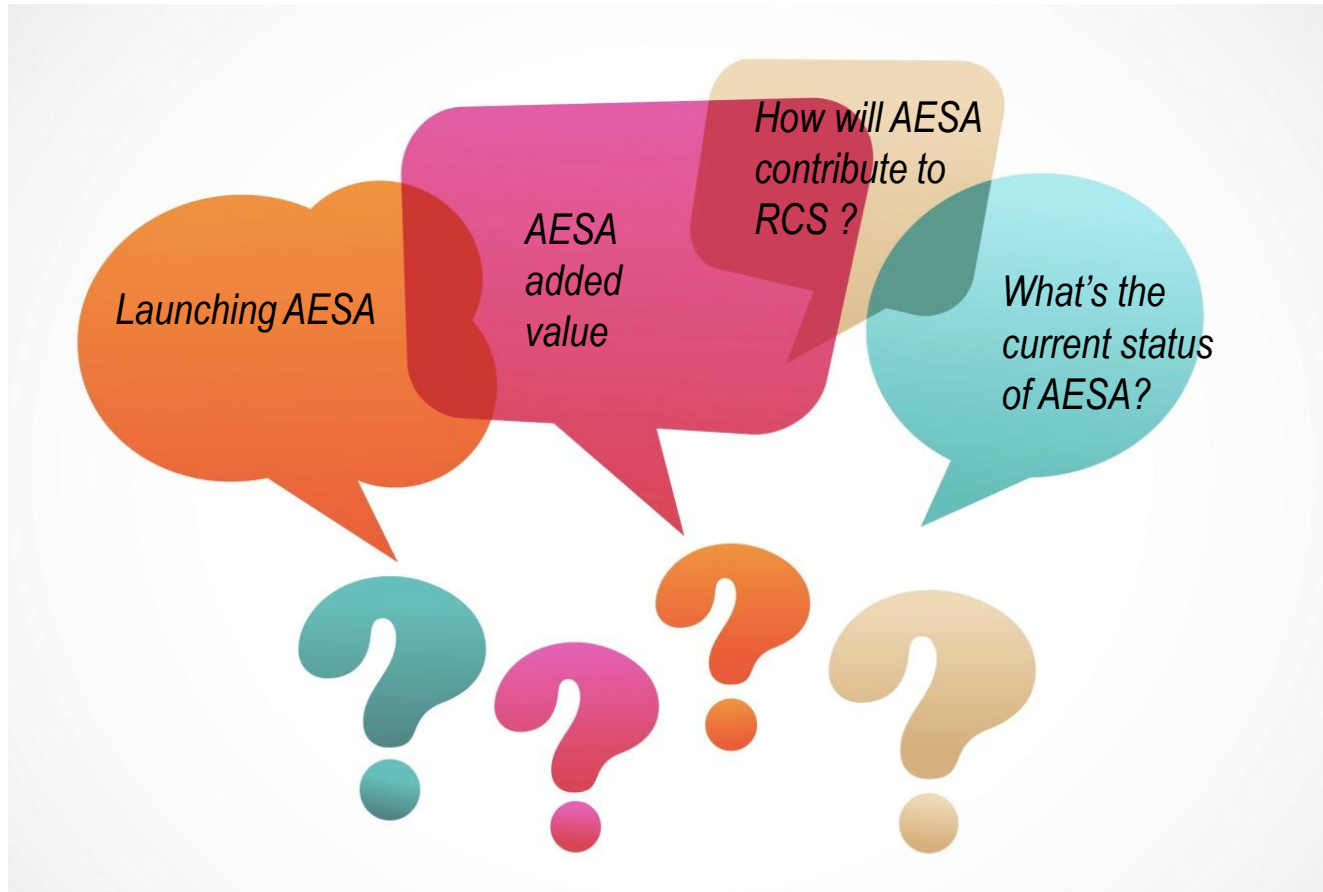


2013



2026?

The AAS approach to addressing RC Issues





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Driving Scientific and Technological Development in Africa

- An Academy of all Sciences founded in 1985
- Strategic partnership with AU, NEPAD
- Working with many global partners
- Good asset base and a small but growing endowment fund
- Pan-African with five regional offices





Kenyan scientist, Thomas Risley Odhiambo – a visionary, giant of African science, founder of AAS, ICIPE

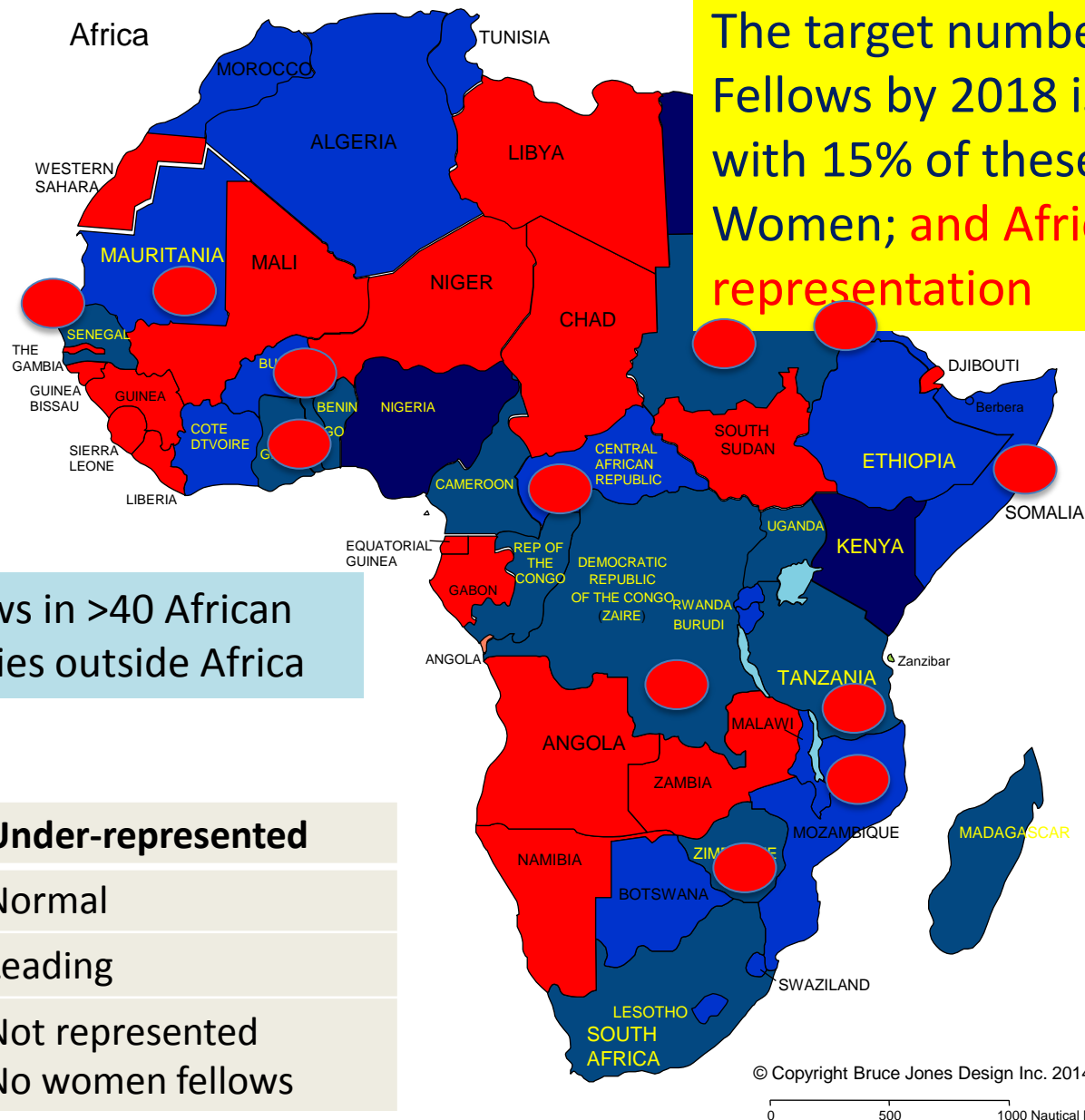


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AAS is a pan African organization with a triple mandate :

**Recognizing excellence,
Think-tank functions,
STI programs**



The target number of Fellows by 2018 is 600, with 15% of these being Women; and Africa-wide representation

>350 Fellows in >40 African and countries outside Africa

	Under-represented
	Normal
	Leading
	Not represented
	No women fellows

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0 500 1000 Nautical Miles



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The Alliance for Accelerating Excellence in Science in Africa (AESA)

We seek to develop **research leadership** and promote **scientific excellence** and innovation to overcome some of Africa's health and developmental challenges

AESA

A science 'Platform' created by AAS and NEPAD

An 'Alliance' of African and global partners

Focused on 'Accelerating' Science leadership and excellence

All sciences but initial focus is on Health R&D

Moving the Centre of Gravity for Building Science to Africa

AESA is endorsed by the AU

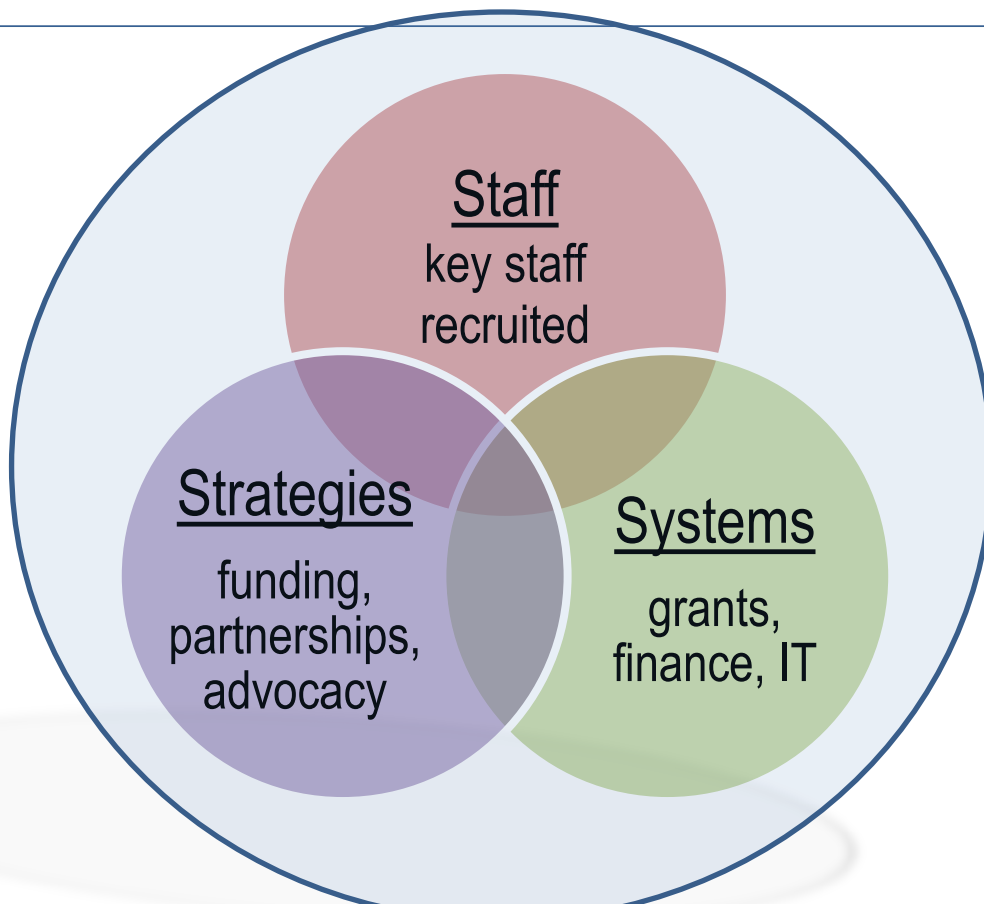


African leaders at the 24th AU Summit meeting called upon member states, regional and global partners as well as private foundations to support the Alliance in order to strengthen health research and innovation in Africa.

Jan. 2015 African Heads of States Summit



AESA is now fully functional: Our 4S approach



Structure (governance/Board of Partners Group)

AESA Status



3 funding
partners



AESA

Professional staffed with strong governance and stakeholder oversight

Wellcome
Trust, DELTAS

DfID- ACU
CIRCLE

Grand
Challenges
Africa/BMGF

GFGP?



AESA Launch – September 10, 2015



Launching the Alliance for Accelerating Excellence in Science in Africa (AESA)

And Announcing:

- Grand Challenges Africa
- Developing Excellence in Leadership, Training and Science (DELTAS) Africa Initiative awards



wellcome trust

BILL & MELINDA
GATES foundation

H.E Madam Ameenah Gurib-Fakim, President of Mauritius, launches AESA in Nairobi, September 10, 2015



AESA: Current initiatives under implementation





Developing Excellence in Leadership, Training and *Science*

We are seeking proposals for research programmes, led from sub-Saharan Africa, that will produce world-class science addressing African health and research priorities.

DELTAS



DELTAS Africa forms part of the Wellcome Trust's strategy for the long-term sustainable funding and development of global health research leadership and scientific excellence in Africa

DELTAS: Strategic Areas



Scientific Quality

Produce world-class scientific research that addresses African health and research priorities, through scientific discourse and collaborative supervision



Research Training

Strengthen scientific research training and build career pathways for scientific researchers



Scientific Citizenship

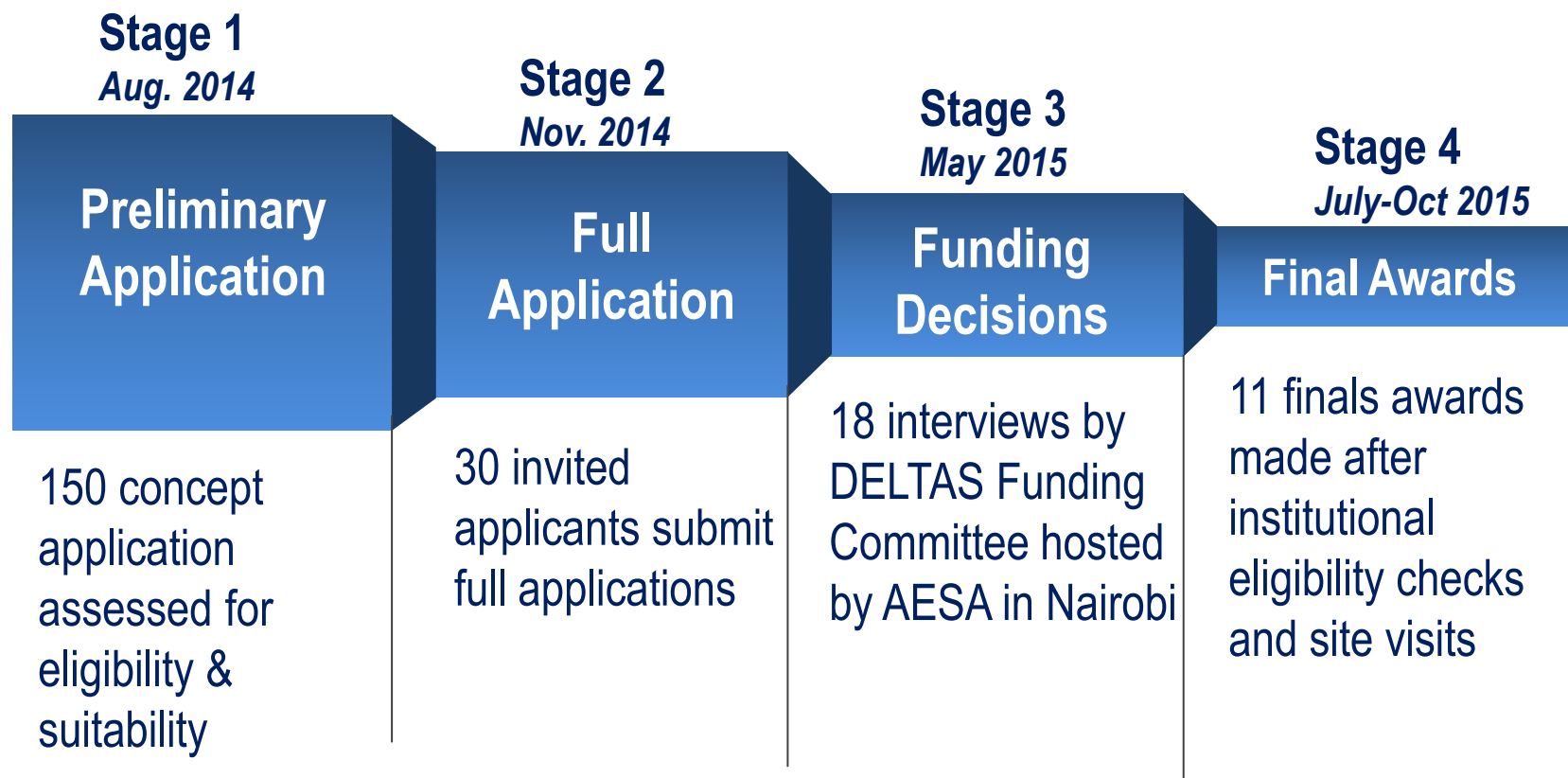
Foster mentorship, leadership and equitable collaboration in science, and engagement with public and policy stakeholders



Research Management and Environment

Cultivate professional environments to manage and support scientific research

DELTAS: Application process



DELTAS Programme Hubs

Total Investment in DELTAS = US\$ 89.3 million



Completed Awards

1. University of Zimbabwe
2. University of Science Techniques and Technologies of Bamako
3. KEMRI-Wellcome Trust-Kenya
4. Uganda Virus Research Institute
5. University of Witwatersrand- South Africa
6. University of KwaZulu-Natal/K-RITH-RSA
7. University of Ghana

Ongoing Awards

8. Universite Cheikh Anta Diop de Dakar - Senegal
9. Centre Suisse De Recherches Scientifiques - (CSRS), Cote d'Ivoire.
10. African Population & Health Research Centre - Kenya
11. Makerere University College of Health Sciences- Uganda

Assessing institutions for eligibility to receive DELTAS Grants

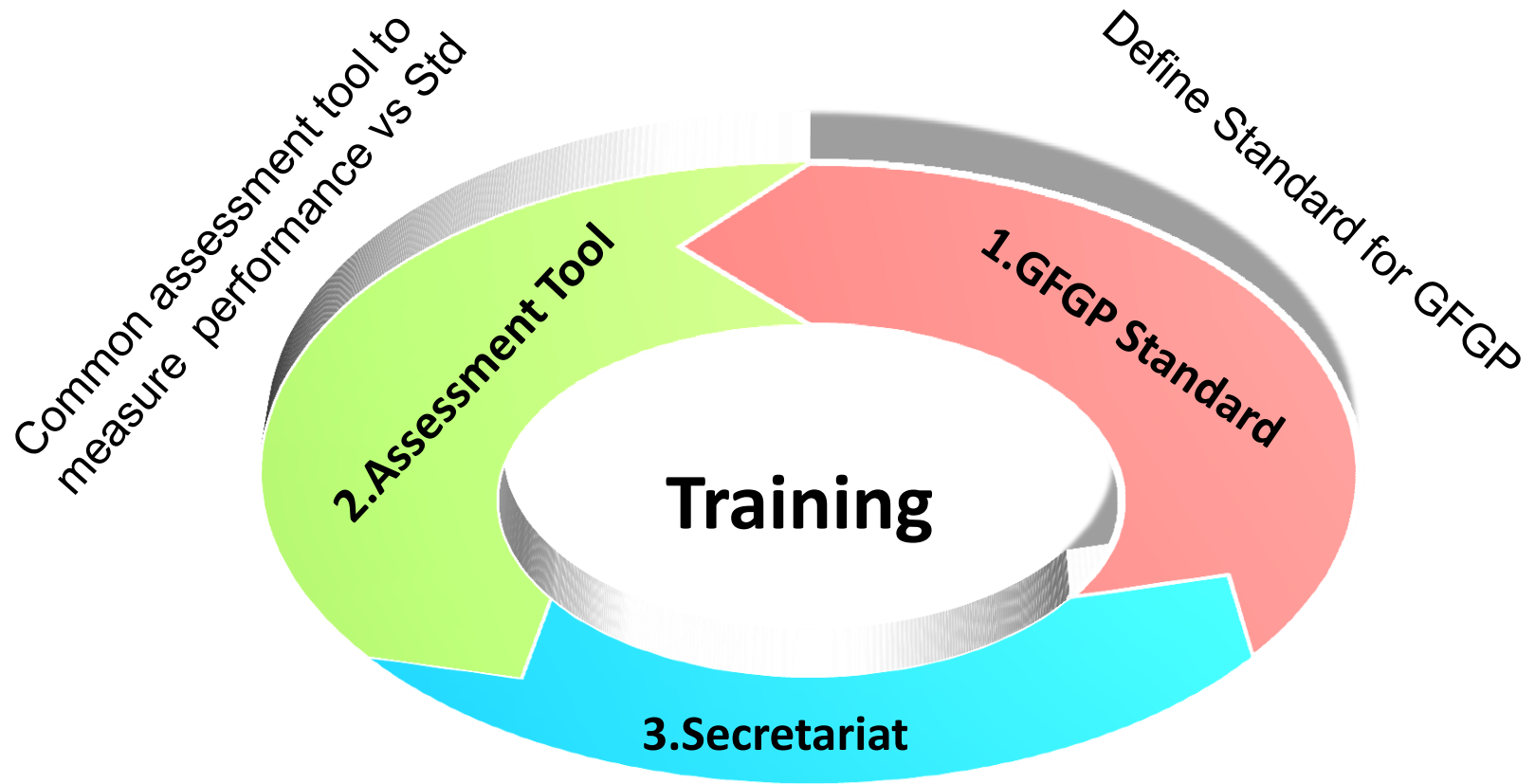
- Institutional support for the programme?
- Functional, professionally staffed Research Support Offices?
- Programme management, research training and scientific governance
- Discussions on cost issues, budgets, reporting & accounting, cash safeguards, procurement, employee expenses & payroll, asset management, overall financial management of grant.

GFGP would provide assurance
on many of these issues

Strong governance tools such as GFGP can help African organization achieve the goals of:

- Science led development
- Strong institutional leadership and support for STI
- Clear criteria for success
- Strong research culture
- Critical mass in R&D
- High quality mentorship and supervision
- Career pathways that attract, reward and retain the best
- Continuity of support/sustainability

AAS hosting of GFGP



The “go to” centre for funders and recipients
Create dBase of assessment outputs of recipients for funders to review
Facilitate access to funds for capability and capacity development

AAS Offices....



**AAS Estate
with own office
building, and
Endowment – all
valued at *ca* \$8
million**

$$5.3 \text{ ac} = 21448\text{m}^2$$



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- Berhanu Abegaz, Kevin Marsh, Anne Kimari – AAS Senior Management and Advisory Team
- AESA partners- Wellcome Trust, BMGF, DFID, NEPAD.
- AAS/AESA Staff Teams

Acknowledgements