

The African Science Technology and Innovation Indicators (ASTII) Initiative

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**Euro-Africa ICT Cooperation Forum
November 2011, Cape Town**



The ASTII Initiative

- **Purpose:** To strengthen Africa's capacity to develop and use Science, Technology and Innovation (STI) Indicators
- **Overall Goal :** To contribute towards the improvement of the quality of science, technology and innovation policies at national, regional and continental levels



ASTII Objectives

- To develop and cause the adoption of internationally comparable STI indicators
- To build human and institutional capacities for STI indicators and related surveys
- To enable African countries to participate in international programmes for STI indicators
- To inform African countries on the state of STI in Africa



ASTII Activities

- Coordinate development of common STI survey instruments & guidelines
- Facilitate capacity building
- Support countries to conduct surveys
- Produce the African Innovation Outlook (AIO)



R & D Indicators

- Gross Domestic Expenditure on R&D
- R&D personnel (level, occupation, gender, headcount, FTE)
- Researchers (gender, field of study/research)
- Outputs (publications, patents)



Innovation Indicators

- Product Innovation
- Process Innovation
- Innovation activities and expenditure
- Sources of information for innovation activities
- Factors hampering innovation
- Intellectual Property Rights

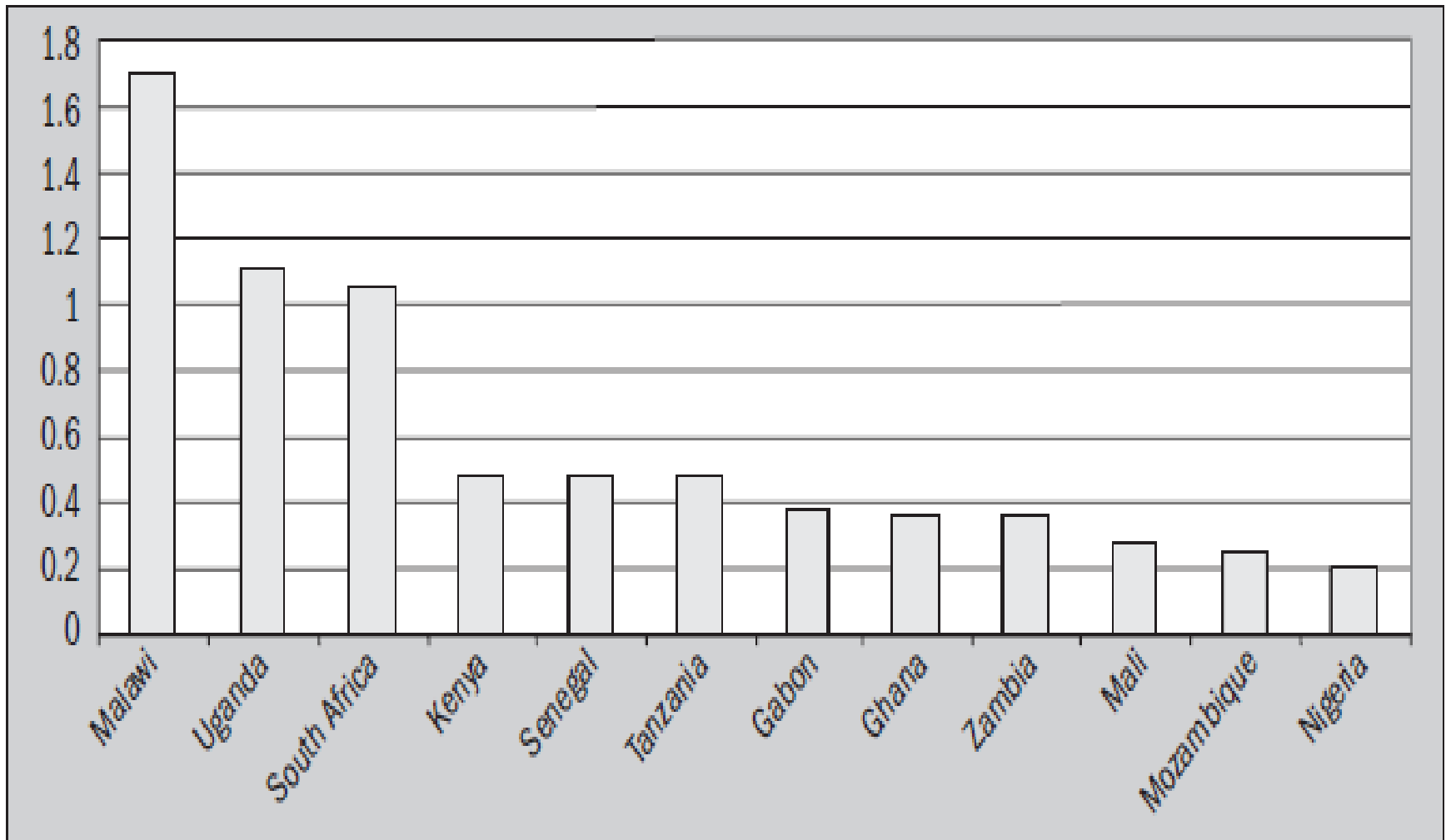


African Innovation Outlook 2010

- 17 countries featured
- R&D and innovation data for 8 countries
- R& D only for 5 countries
- Innovation only for 4 countries



GERD

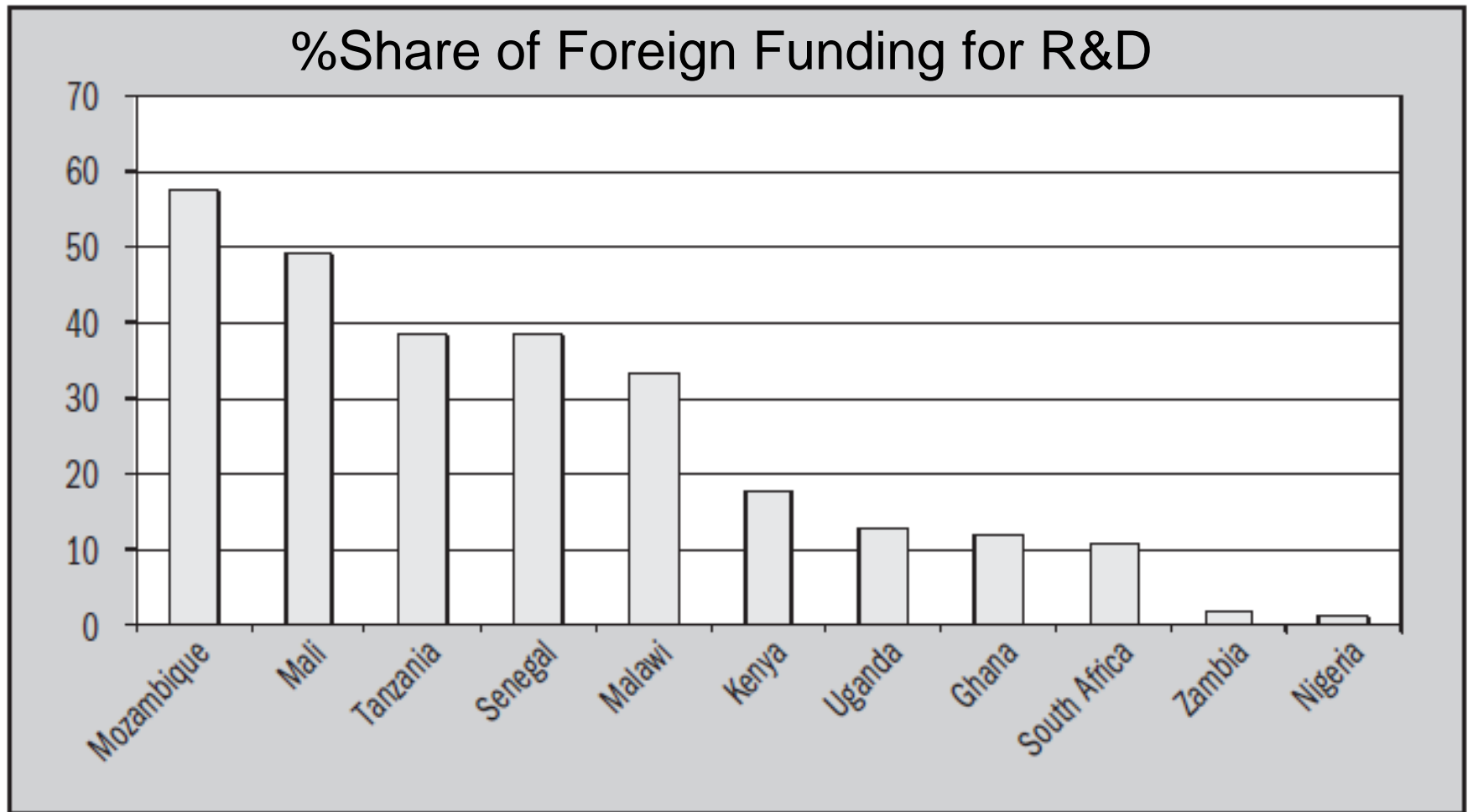


GERD by Sector

- Most expenditure is in the Government and Higher Education Sectors combined
- The Private Non-Profit Sector accounts for a rather small share of total R&D activities



Sources of Funding

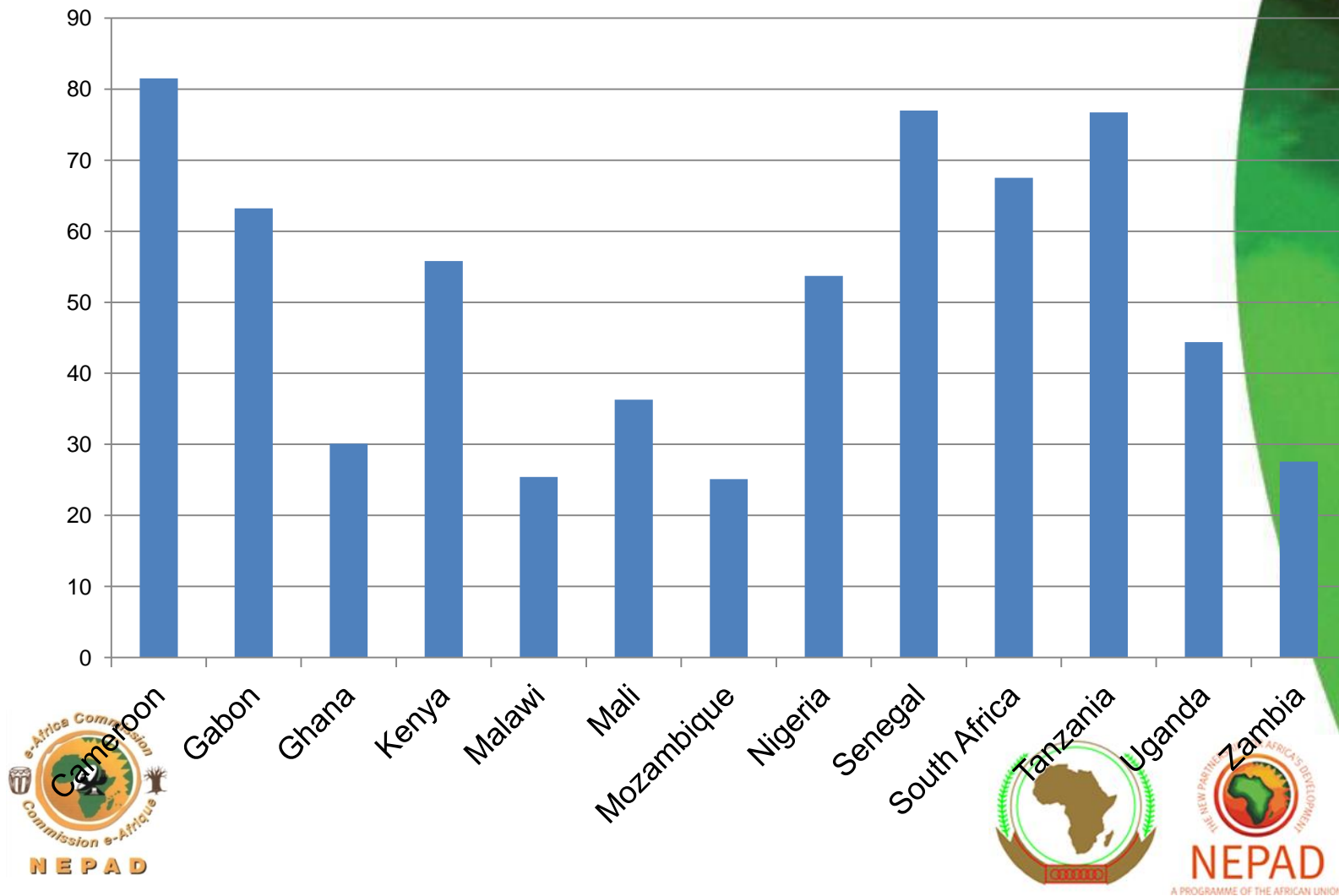


Type of Research

	GERD	Basic research	Applied research	Experimental research	Not elsewhere classified
Malawi	100.0	10.0	60.0	30.0	0
Mozambique	100.0	9.5	83.2	7.2	0.2
Nigeria	100.0	36.1	37.8	26.1	0
South Africa	100.0	20.6	34.2	45.2	0
Tanzania	100.0	19.2	58.6	22.1	0.1
Uganda	100.0	10.2	59.3	30.5	0

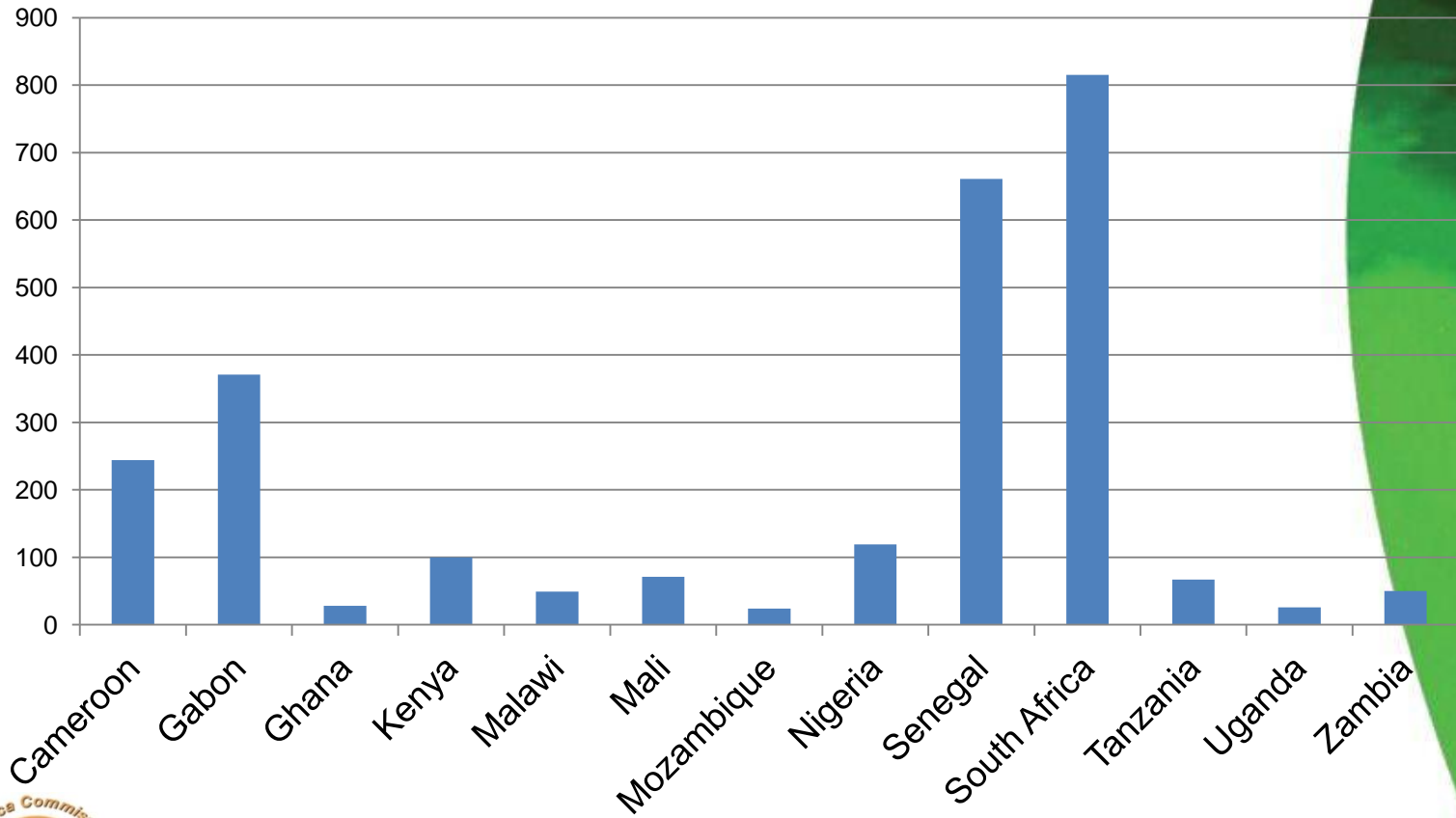
Researchers Headcount

Researchers as % of R&D Personnel



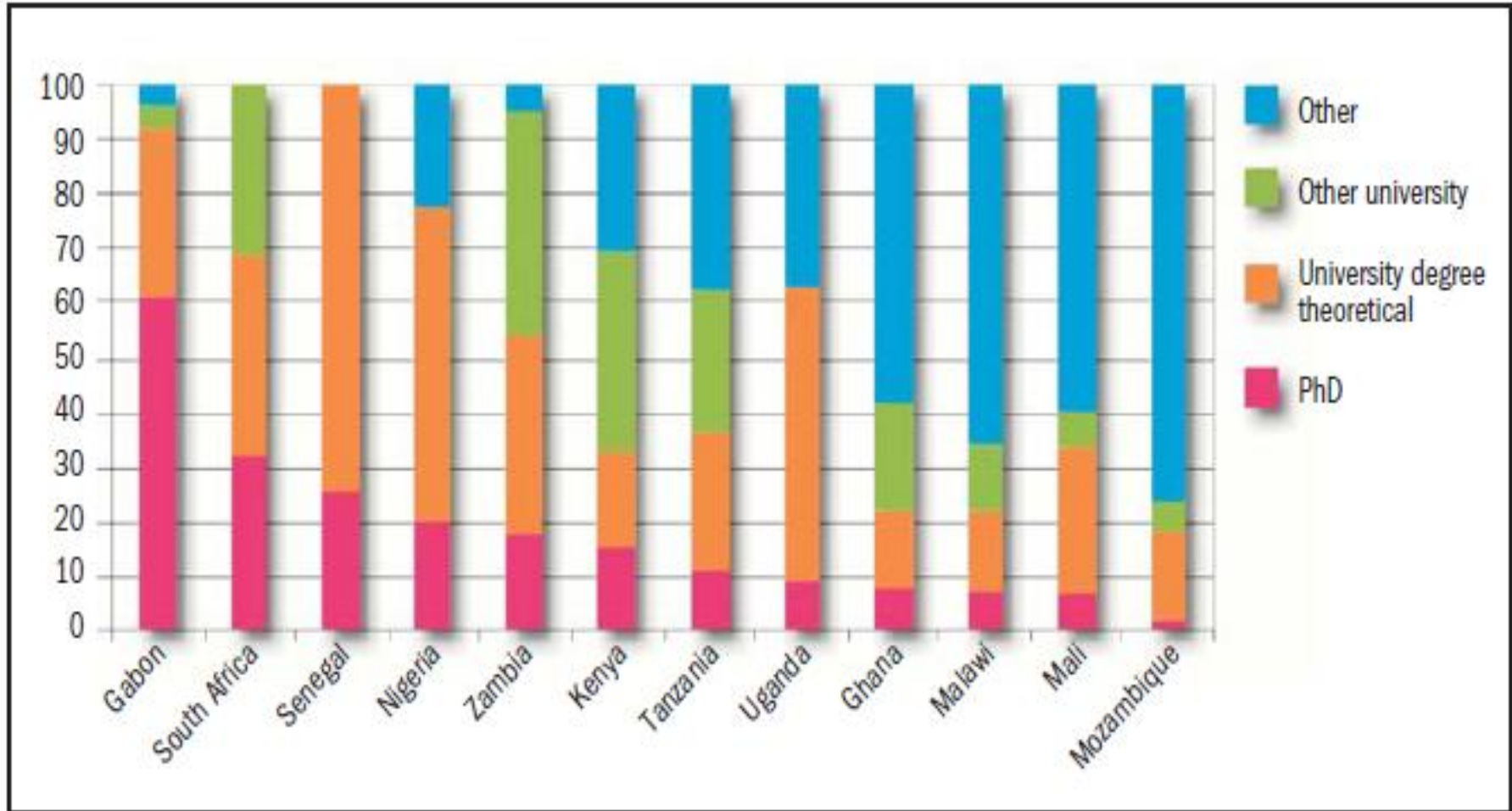
Researchers Headcount

Researchers per million inhabitants

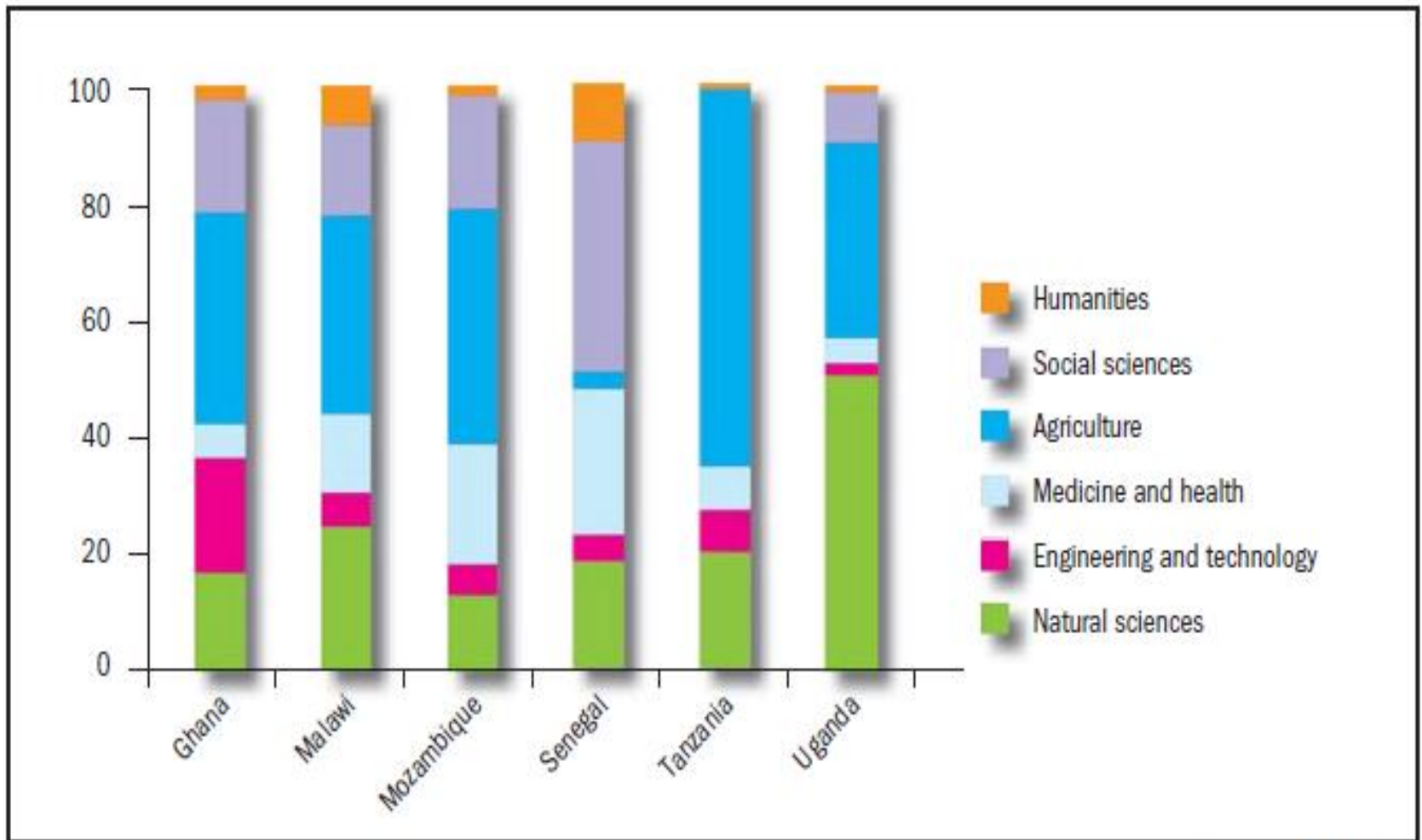


Research Personnel

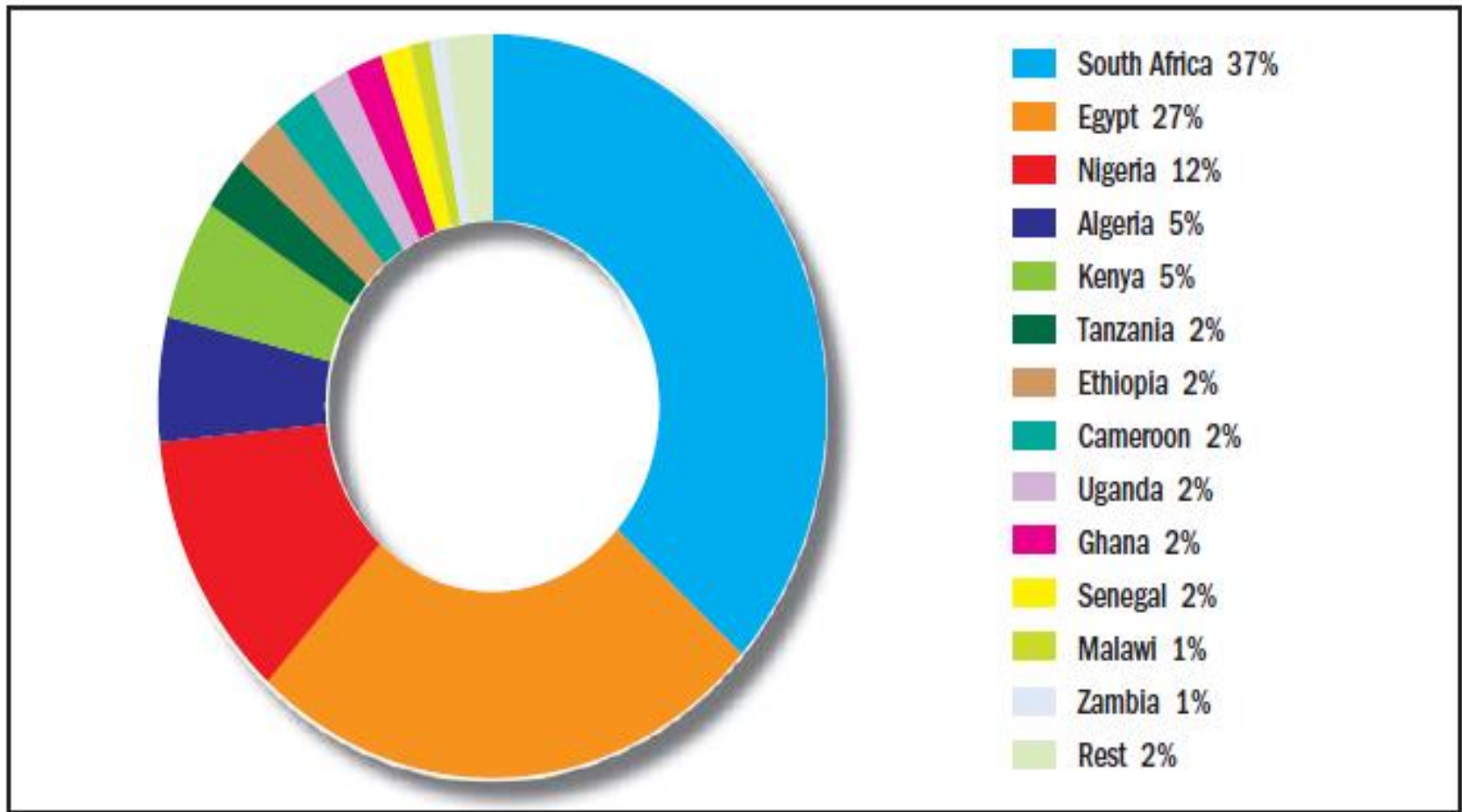
Qualifications of Research Personnel



Research Fields of Science

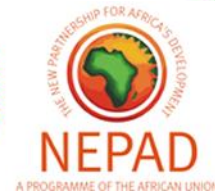


Scientific Outputs



ASTII Funding & Support

- Sida - financial support
- Participating countries (supporting national focal points and survey processes)
- South Africa (DST) – in-kind support through CeSTII; direct support to countries for capacity building



Significance of ASTII Results for FP7/Euro-Africa ICT

- Limited research base in Africa – challenge and opportunity
- Scope for multi-disciplinary research and development of T-shaped professionals and researchers
- Encouraging African private-sector participation in R&D



ASTII Next Steps

- Incorporation of lessons learned from Phase 1
- Expansion to more countries
- Development of indicators suited to local context
- Expansion of measurement to other sectors – Agriculture, ICT, Health



THANK YOU

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