

Funding of IP generation/innovation and protection



Dr Vinet Coetzee
University of Pretoria
South Africa



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA

EDUCATION

Science will unlock Africa's potential — if it is funded

Esther Ngumbi 06 Jul 2018 00:00



Bonisile Luthuli – an Africa Health Research Institute PhD student. (Africa Health Research Institute)



BUSINESS

Sasol executive pay to be linked to emissions?

The petrochemical giant has issued a report on its climate plans, but do they go far enough?

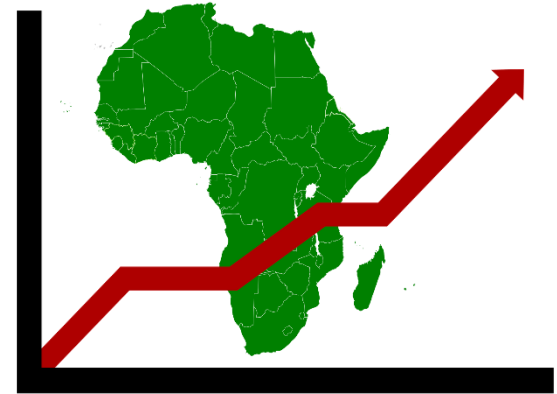
By Kevin Davie



BUSINESS

LIVESTREAM: Mboweni presents the medium-term budget policy statement

Funding is crucial

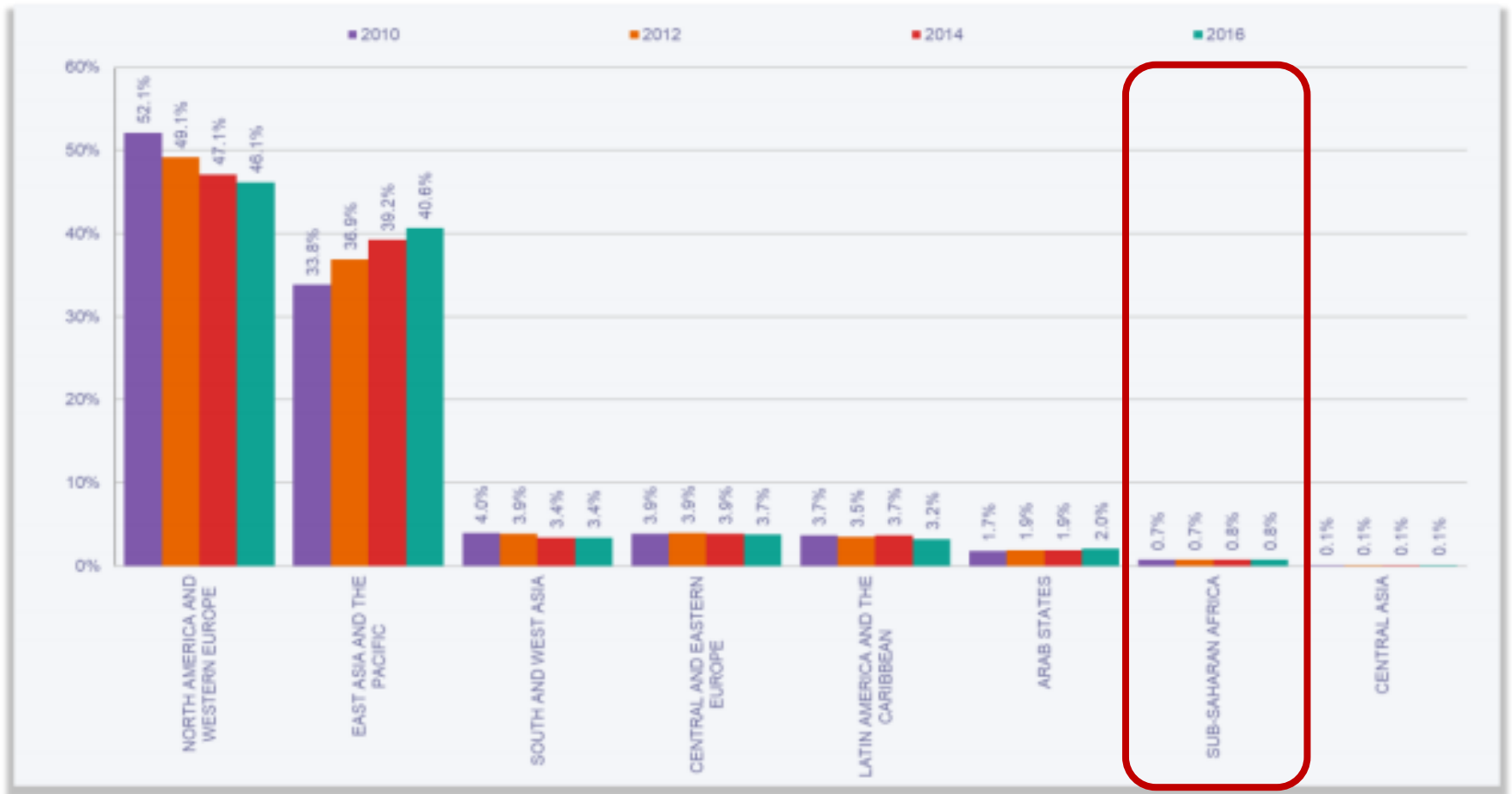


- Research and Development (R&D) is an important driver for economic growth [1].
 - Every dollar invested in R&D generates nearly two dollars in return [1].
- R&D plays a crucial role in meeting the United Nations sustainable development goals (SDGs).

Funding is crucial, but limited

Figure 1. Where are R&D investments made?

Shares of world R&D expenditure (GERD) by region, 2010, 2012, 2014 and 2016



Source: UNESCO Institute for Statistics estimates, February 2019.

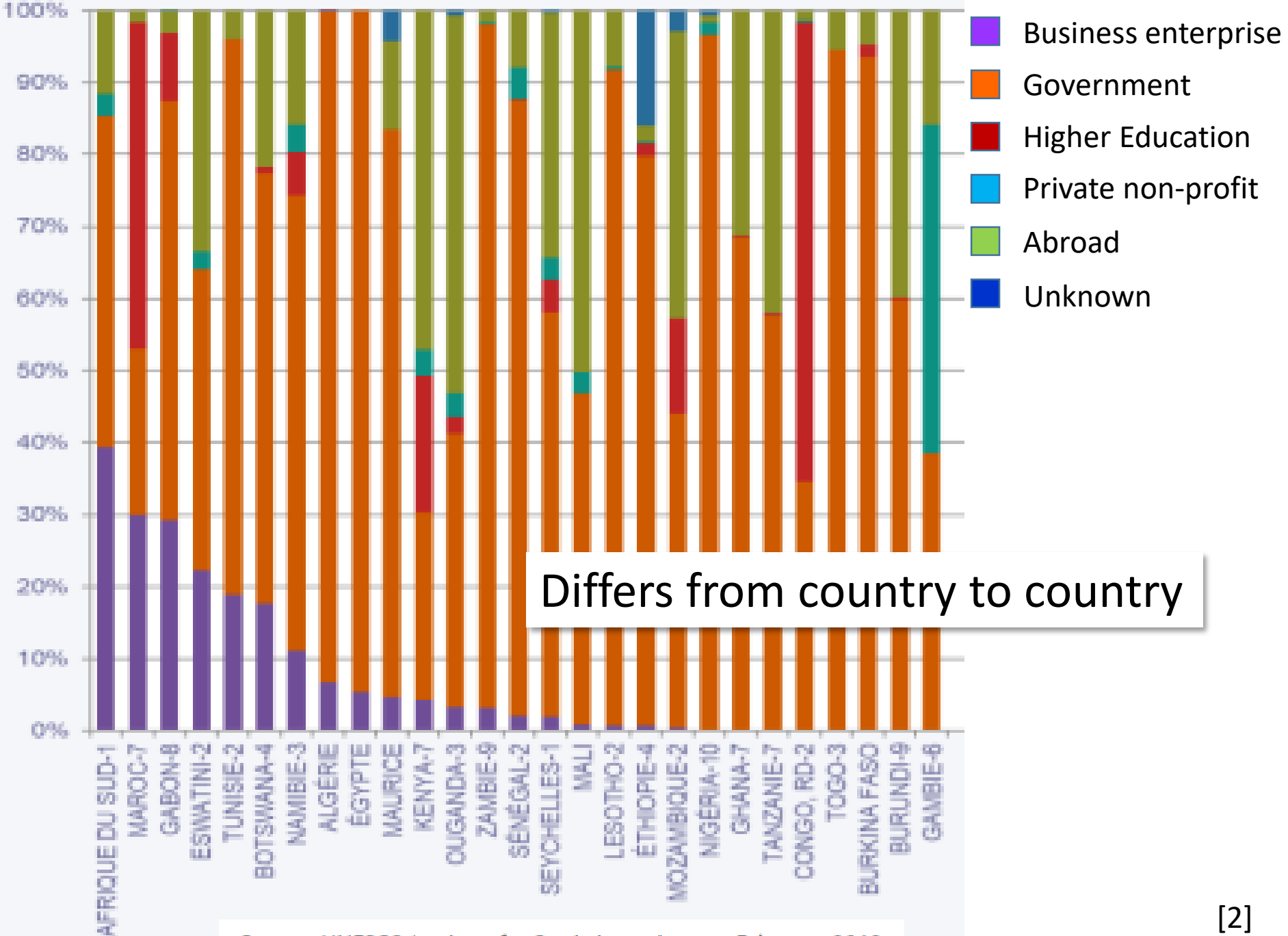
gross domestic expenditure on R&D (GERD)

Funding is crucial, but limited

- Countries in sub-Saharan Africa spend, on average, just 0.7% of their GDP on R&D (GERD) [2].
- This proportion hasn't shown significant increases over the past decade [2]

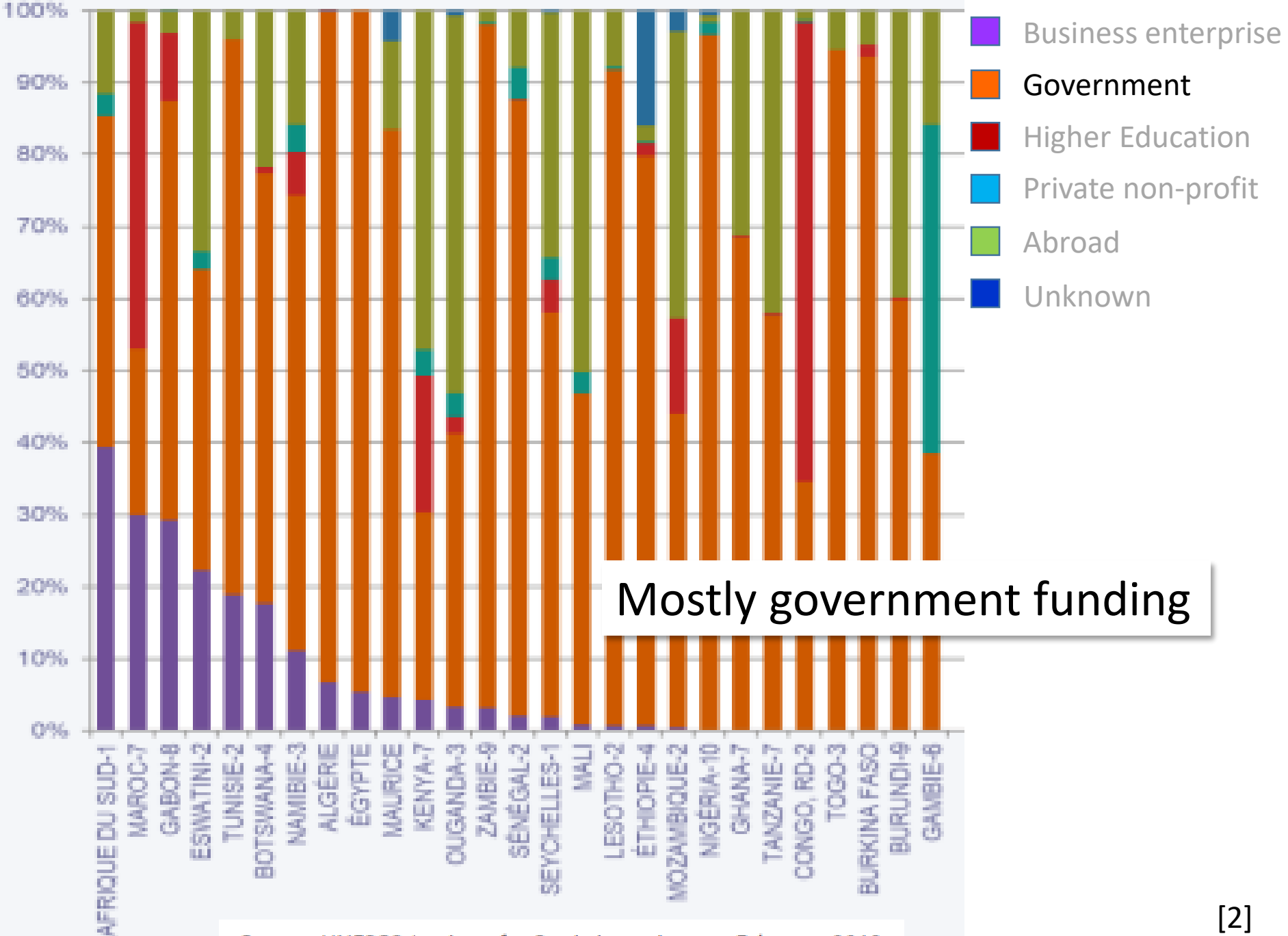
Who is funding science in Africa?



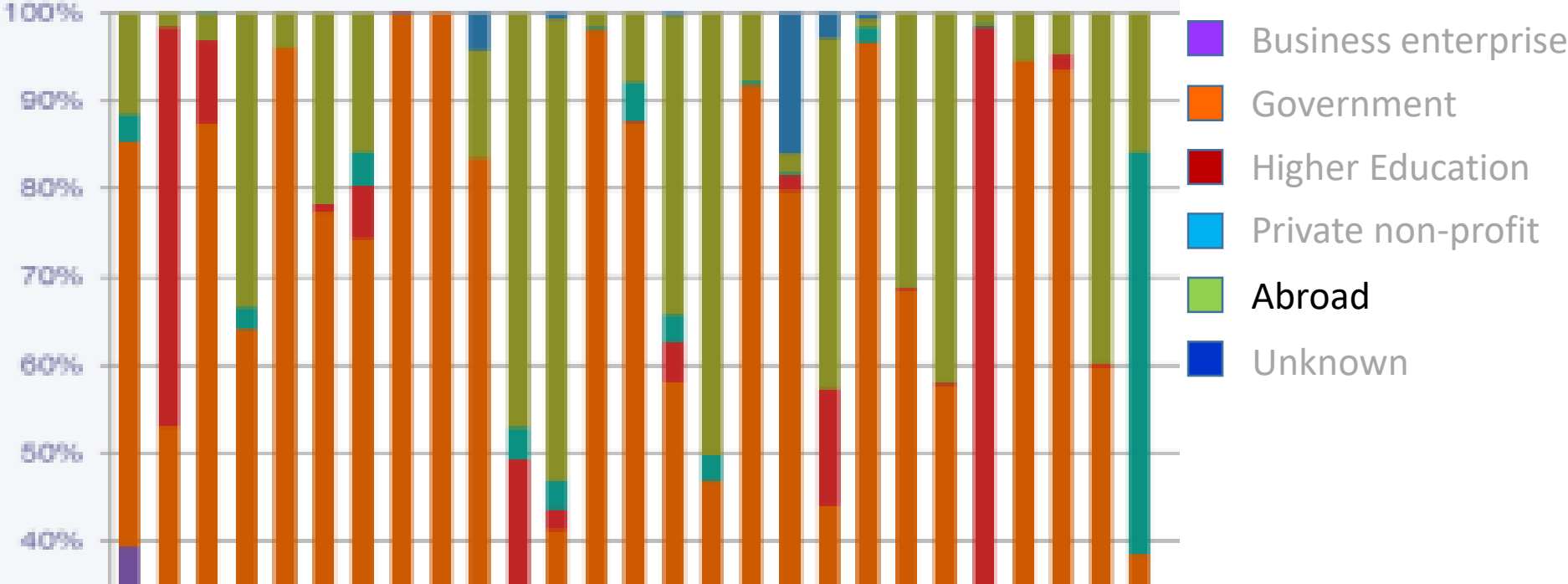


Differs from country to country

Source: UNESCO Institute for Statistics estimates, February 2019.



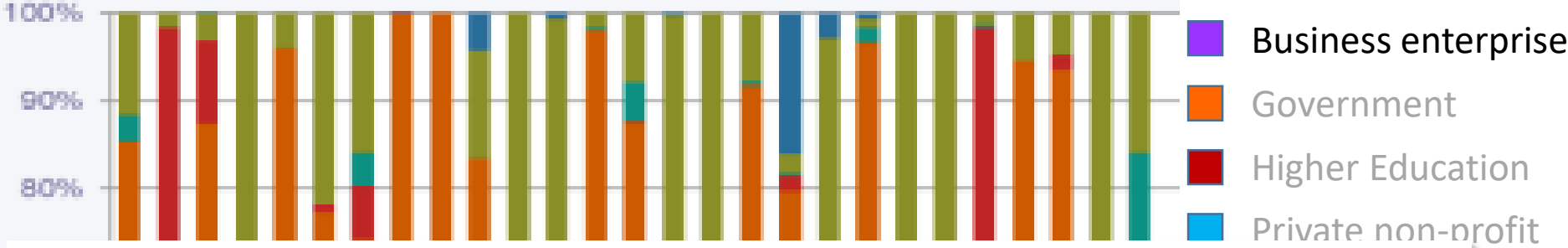
Source: UNESCO Institute for Statistics estimates, February 2019.



Substantial portion of the funding from non-African organisations

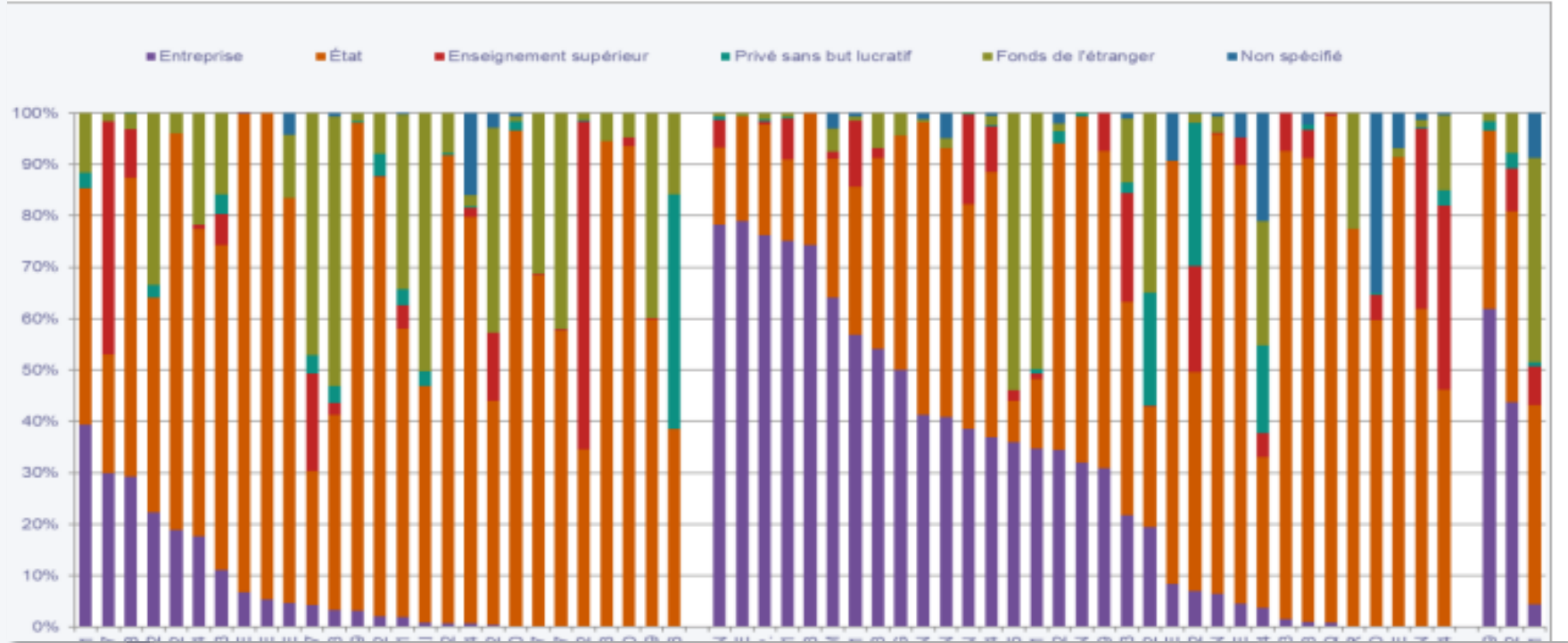
Such as European Union, the US National Institutes of Health (NIH), the UK-based Wellcome Trust and the Bill & Melinda Gates Foundation.

Source: UNESCO Institute for Statistics estimates, February 2019.



Business enterprise fund relatively little R&D compared to other world regions

Figure 7. Funding in Africa, Asia and the Pacific
GERD by source of funds, 2017 or latest year available



Source: UNESCO Institute for Statistics estimates, February 2019.

A new collaborative approach



AIMS

African Institute for
Mathematical Sciences



NEXT EINSTEIN FORUM

An  AIMS initiative in partnership with the Robert Bosch Stiftung

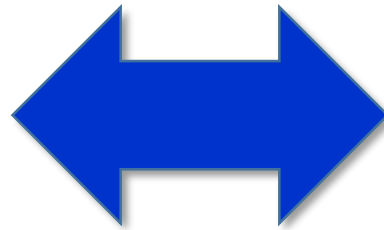


FUTURE AFRICA

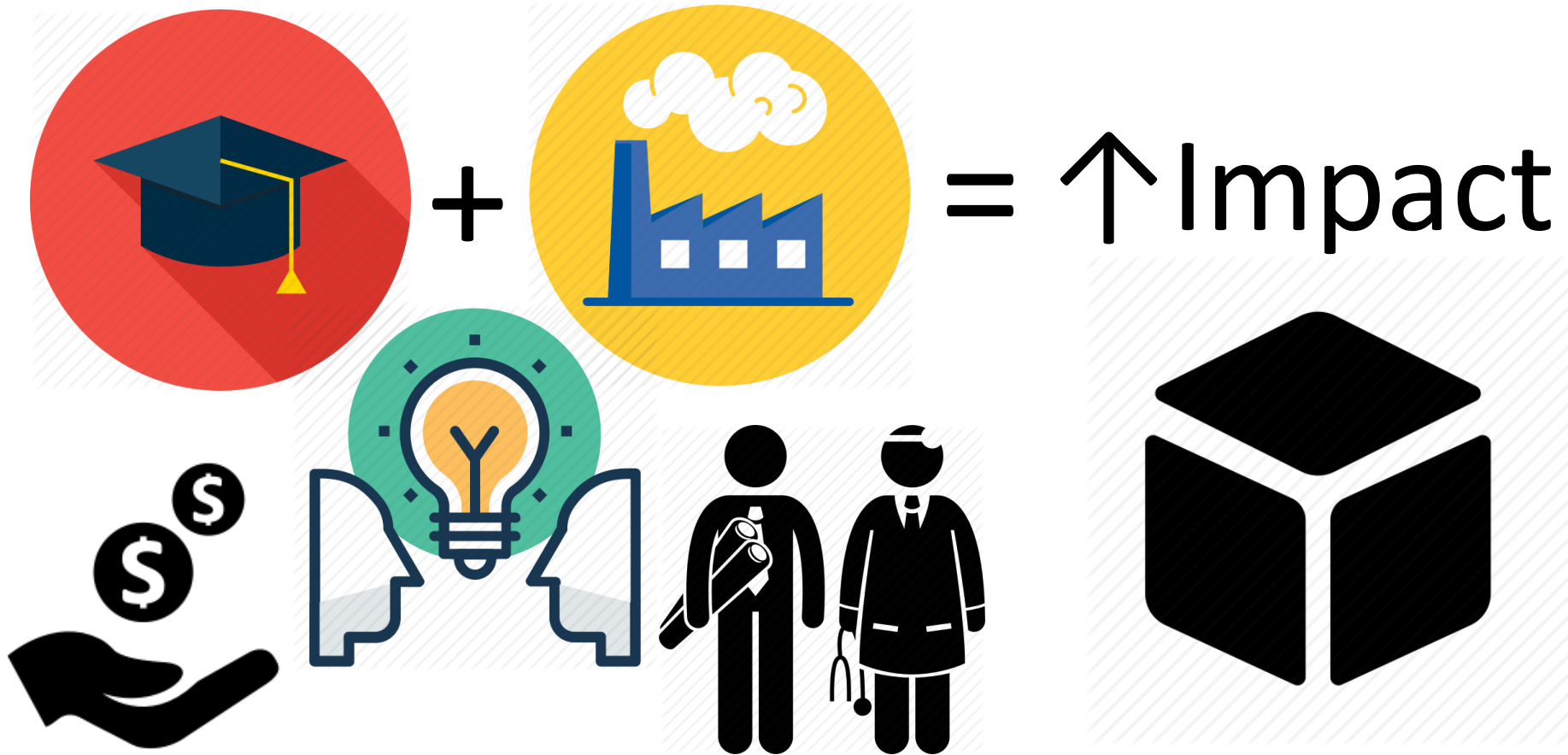
AT THE UNIVERSITY OF PRETORIA



University-Industry collaborations



University-Industry collaborations



Improving University-Industry collaborations

Before

Willingness to collaborate
IP considerations
Willingness to share info

Improve **communication**
skills

Improve **understanding** of
the commercialisation
process

During

Increase **institutional flexibility**
more flexible priorities

Increase **honesty**
Fairness, openness and
honesty

Increase **clarity**
clear aims, agreeing on
responsibilities / roles

Raise the partner's **awareness**
current economic, political
or social developments. [3]

References

1. UNESCO Institute for Statistics
(<http://uis.unesco.org/en/topic/research-and-development>)
2. UNESCO Institute for Statistics. Global investments in R&D.
(<http://uis.unesco.org/sites/default/files/documents/fs54-global-investments-rd-2019-en.pdf>)
3. Rybnicek, R., & Königsgruber, R. (2019). What makes industry–university collaboration succeed? A systematic review of the literature. *Journal of Business Economics*, 89(2), 221-250.

