

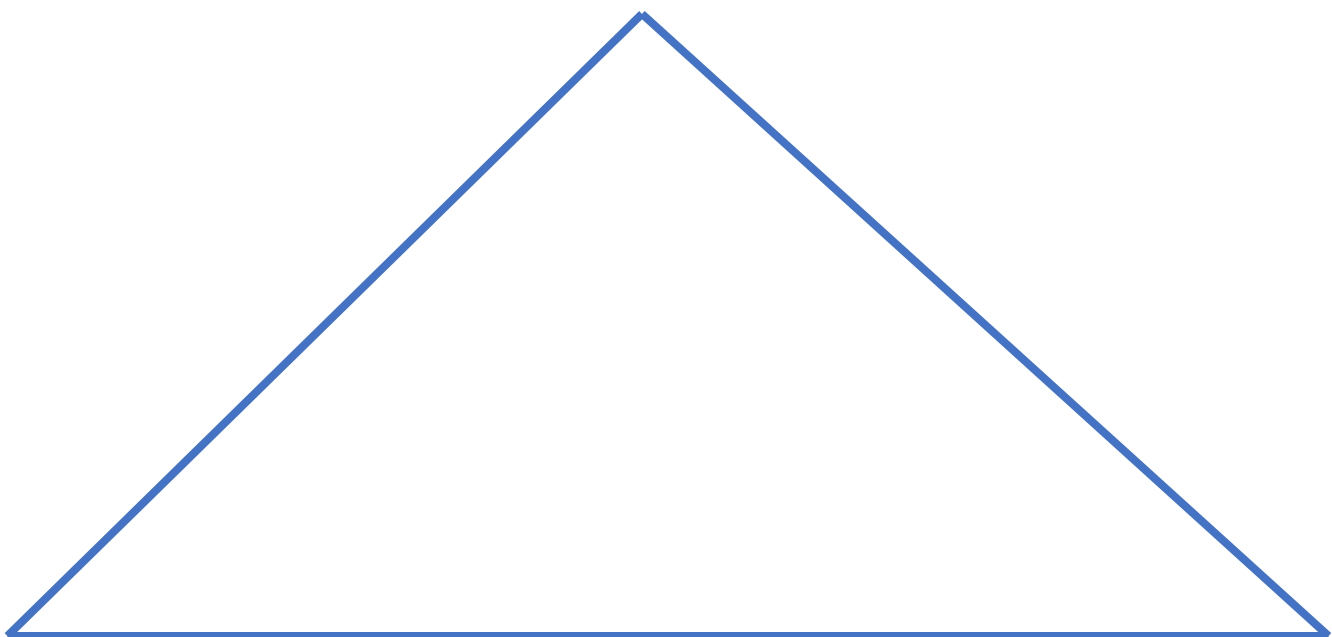
ESG Impacts of Chinese infrastructure provision in Africa's telecommunications sector

Motolani Peltola (formerly Agbebi), Dr.
Tampere University, Finland.

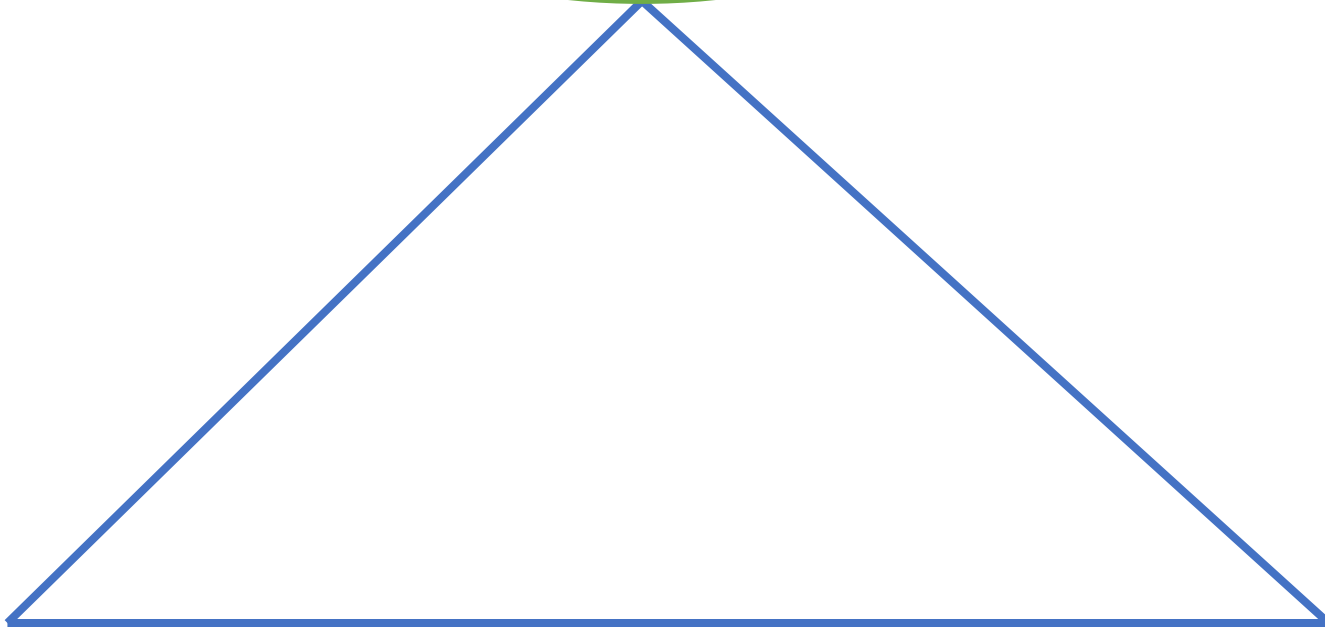
Chinese presence in Africa's telecom sector

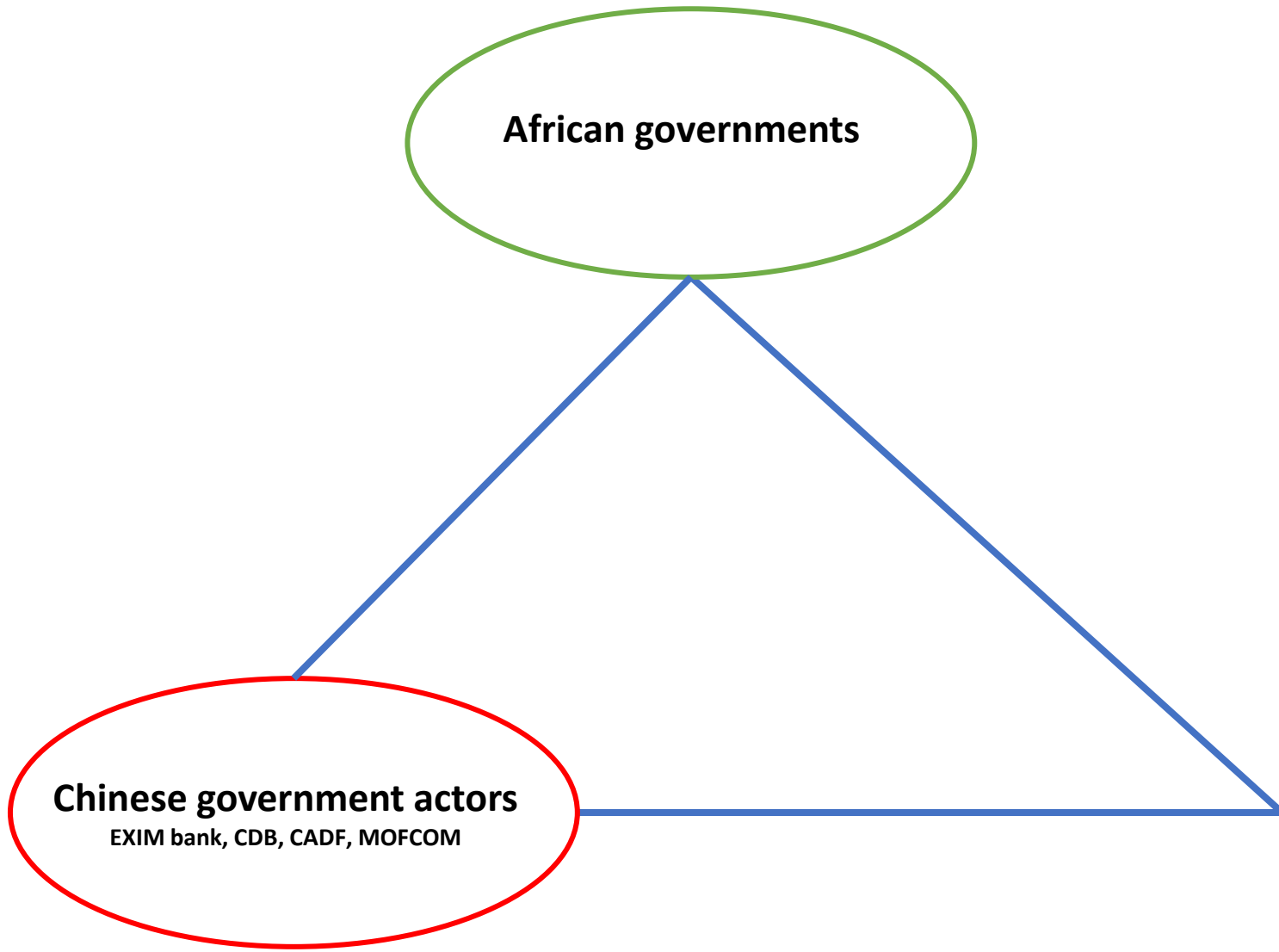
- Competitive pricing
- Low production costs
- Cost-effective equipment and solutions
- Access to Chinese state-subsidized funding and support

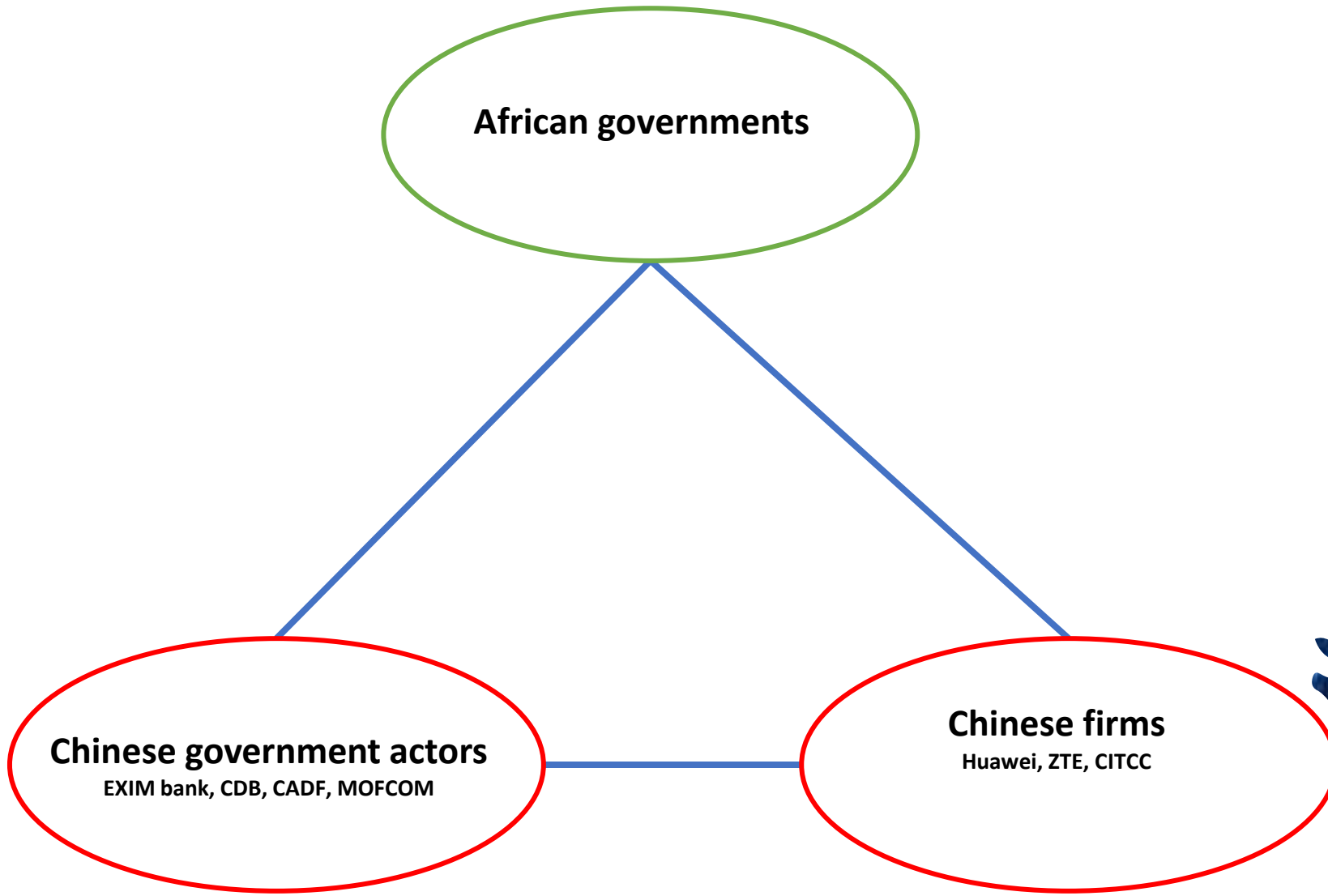




African governments







China in Africa's ICT stack



Undersea Cables, Satellites, Backbone infrastructure,
Huawei, ZTE

China in Africa's ICT stack



Data centers, Cloud services
Huawei, Whalecloud

Undersea Cables, Satellites, Backbone infrastructure,
Huawei, ZTE

China in Africa's ICT stack

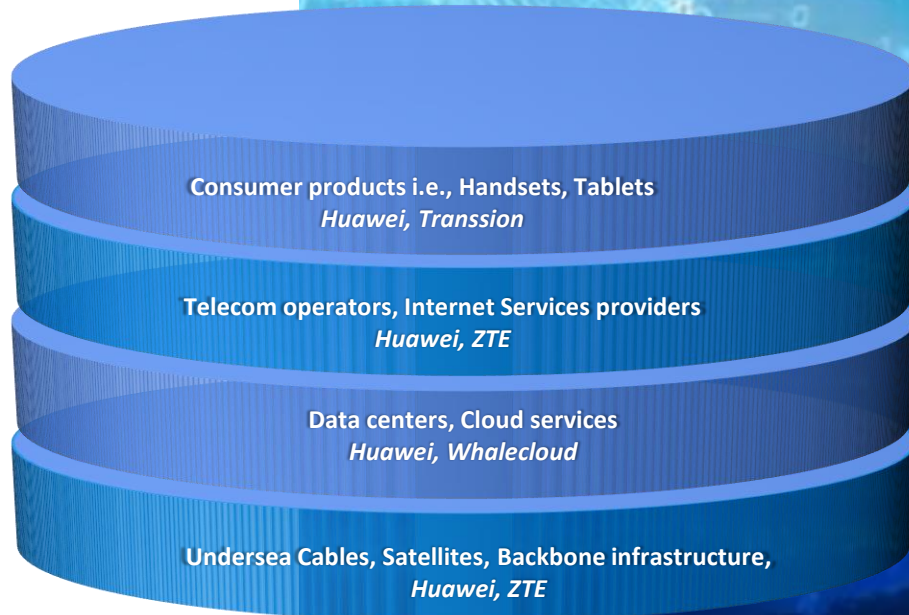
Telecom operators, Internet Services providers
Huawei, ZTE

Data centers, Cloud services
Huawei, Whalecloud

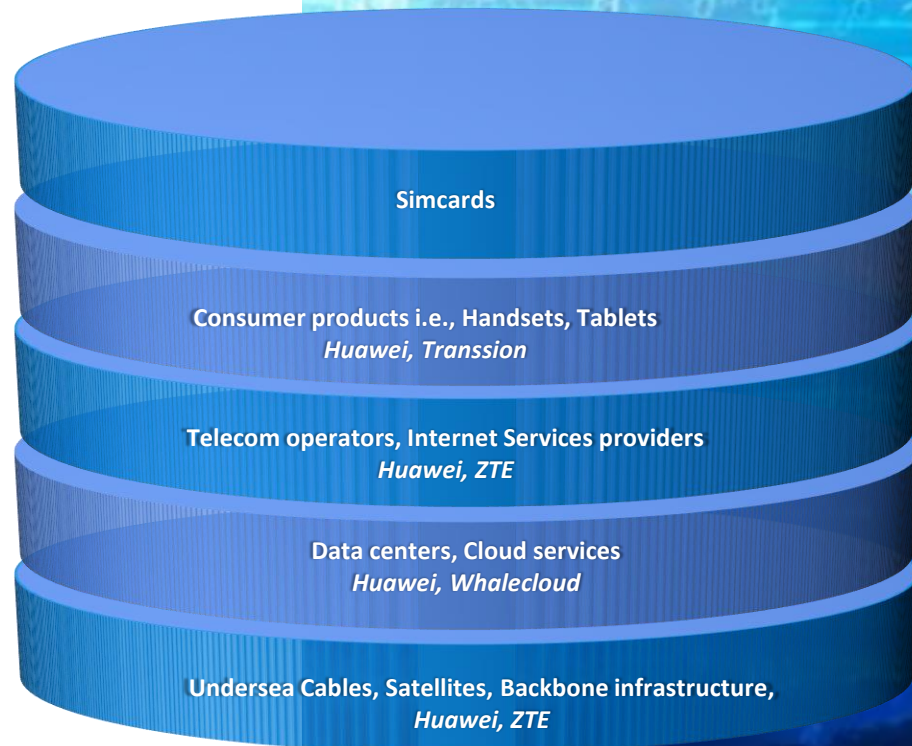
Undersea Cables, Satellites, Backbone infrastructure,
Huawei, ZTE



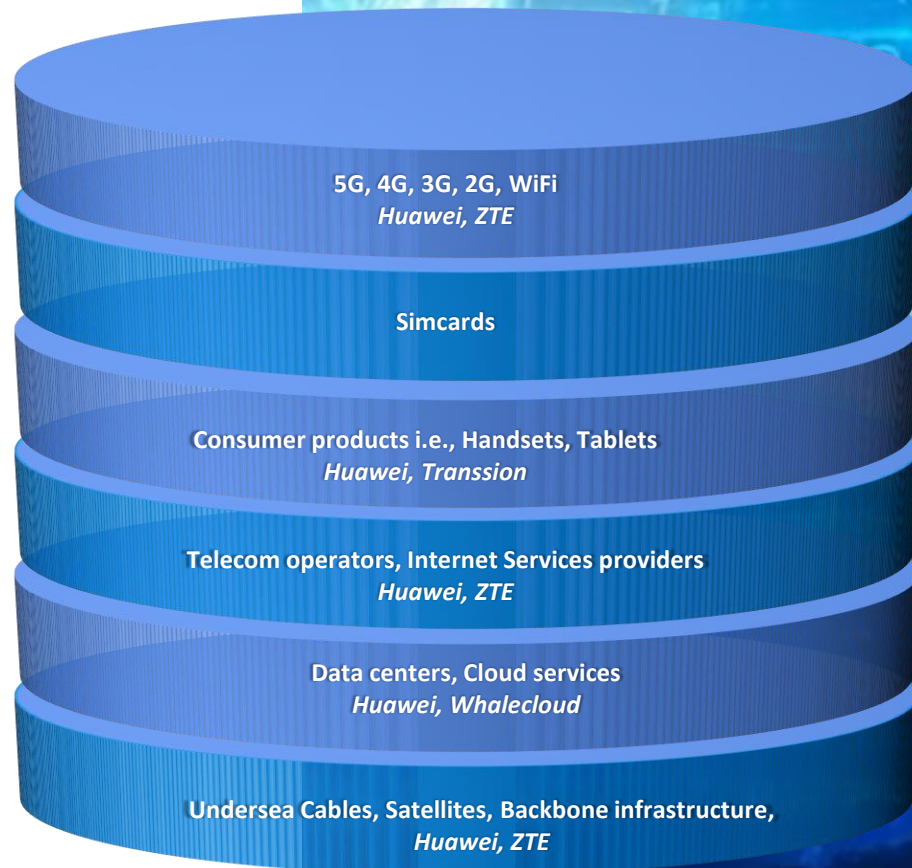
China in Africa's ICT stack



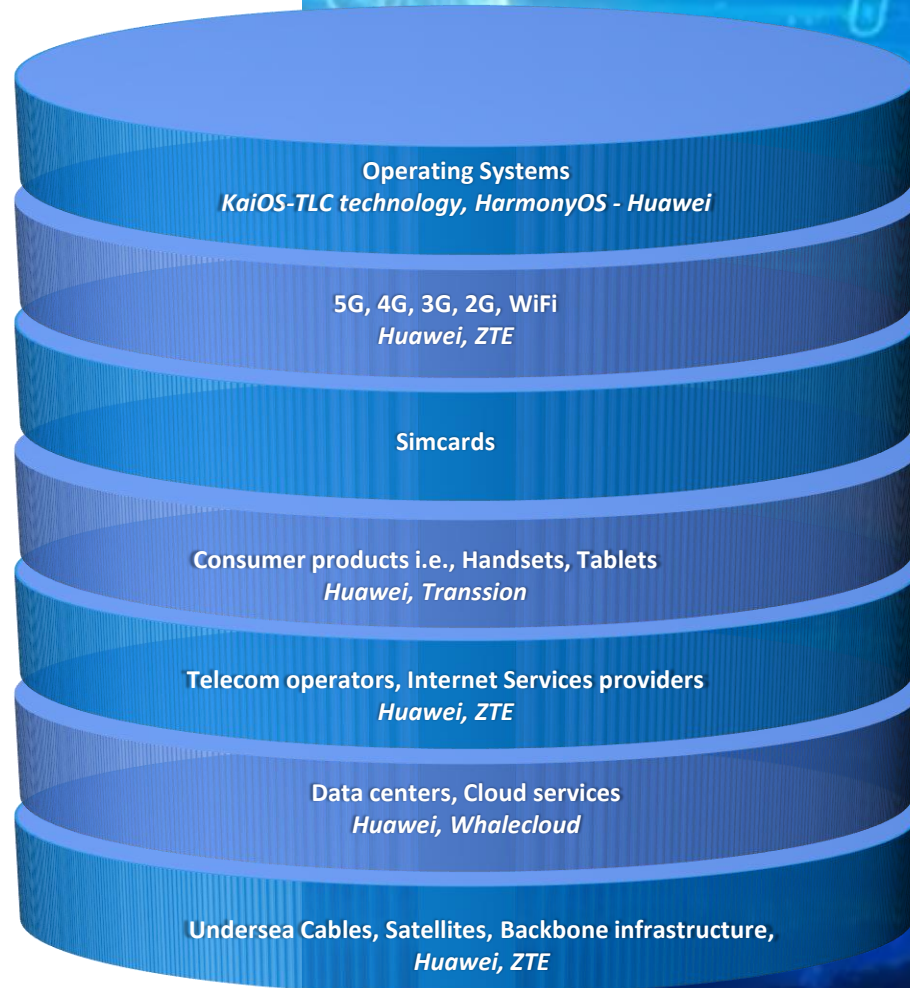
China in Africa's ICT stack



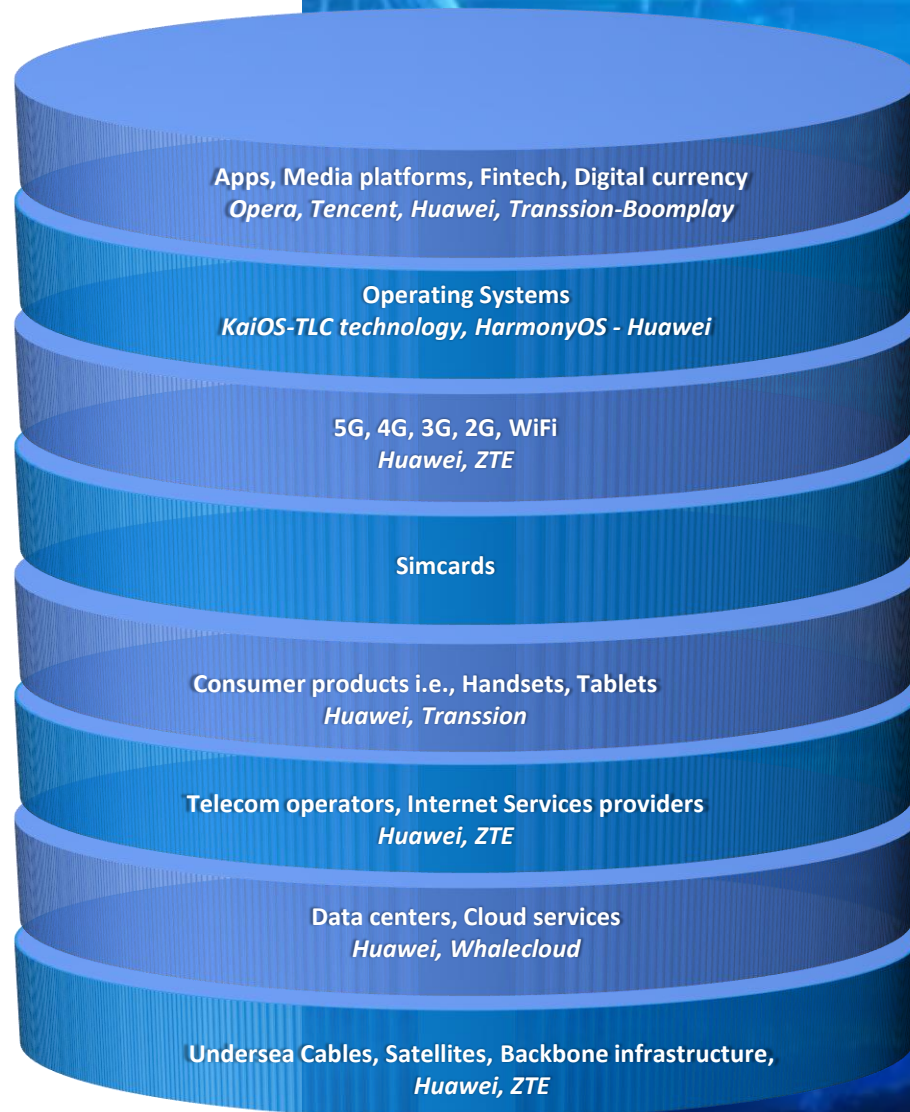
China in Africa's ICT stack



China in Africa's ICT stack




China in Africa's ICT stack



ESG impacts of Chinese infrastructure provision in Africa's telecommunications sector – the case of Tanzania's National ICT broadband backbone (NICTIBB)

A world map with Africa highlighted in green and China highlighted in orange. The rest of the world is shown in light gray.

- NICTBB – Tanzania
- Launched February 2019
- NICTIBB is a 5-phase project
- Financed primarily via loans from China's Exim bank of about US\$264m
- Implemented by Chinese International Telecommunications Construction Corporation (CITCC) in collaboration with Huawei



With the NICTBB the Tanzanian government intends to:

- enable the provision of affordable internet to Tanzanians,
- increase the use of information and communication technologies,
- provide connectivity to all landlocked neighboring countries,
- establish points of presence across Tanzania's administrative districts,
- facilitate the implementation of e-government initiatives,
- provide all licensed operators equal access to fibre network to catalyse competition.

ESG impacts – Socio economic impacts

Access and connectivity

- Increased broadband connectivity
- Increased adoption of ICT and E-services
- Fostered e-education connecting 28 higher learning and research institutions
- Wider adoption of e-government



Contd. Socio economic impacts

Job creation, knowledge and technology transfer

- Over 9000 local jobs created by CITCC
- 60% workforce localization rate in CITCC
- On the job training of local employees via shadowing and demonstrations
- Skills and knowledge transfer hampered by the restriction of local firms' participation to the lower end of the technology value chain
- Limited focus on capacity building leading to inadequate local operation and management

Contd. Socio economic impacts

Under-utilisation and financial viability

- Limited focus on local capacity building leading to inadequate operation and management of the infrastructure by locals
- Underutilisation of the infrastructure limits the government's ability to generate substantial revenues and recoup its costs



- ICT infrastructure like the NICTBB is significant if Africa is to close the digital divide and ensure African countries can benefit from the digital economy. However, more can be done by both parties to create the conditions to properly leverage such infrastructure for Africa's development.

