

APPRICA RISING

THE APP ECONOMY IN AFRICA: ECONOMIC BENEFITS AND REGULATORY DIRECTIONS

Victoria Falls, Zimbabwe
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- 1. What is the app economy?**
- 2. The economics of disruption**
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1. What is the app economy?

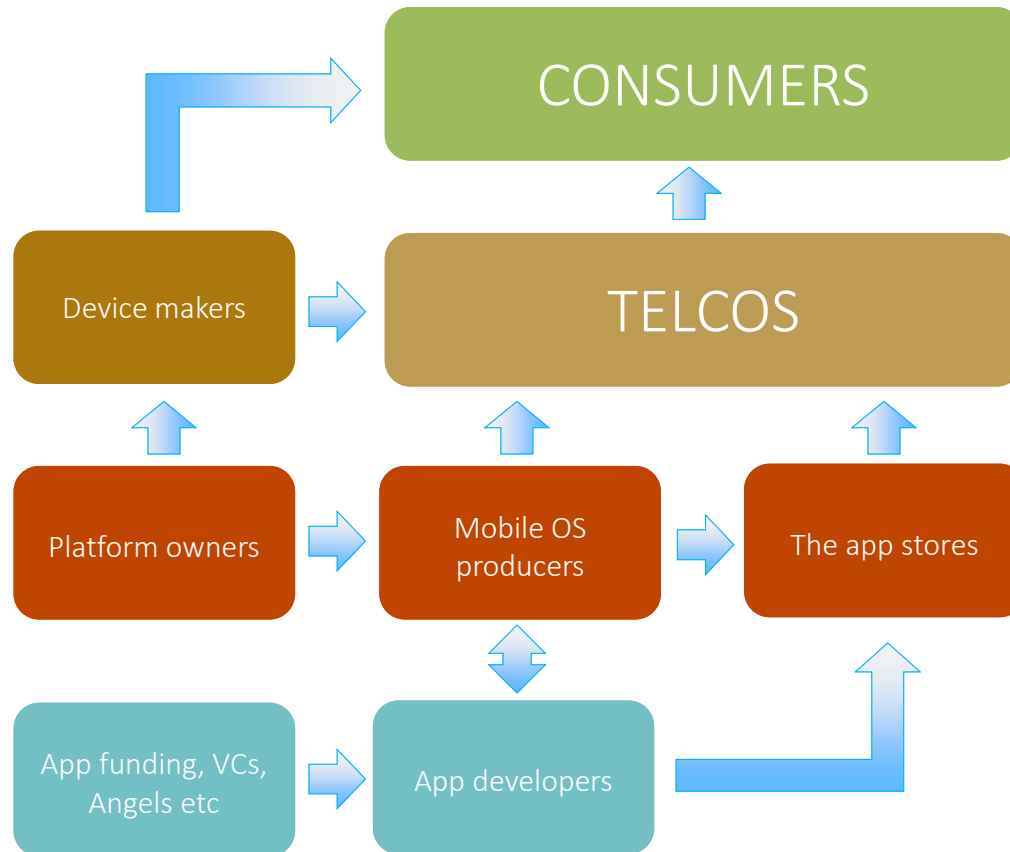
Component parts of the app economy



Source: Systems Knowledge Concepts (www.skc.net.au)

1. What is the app economy?

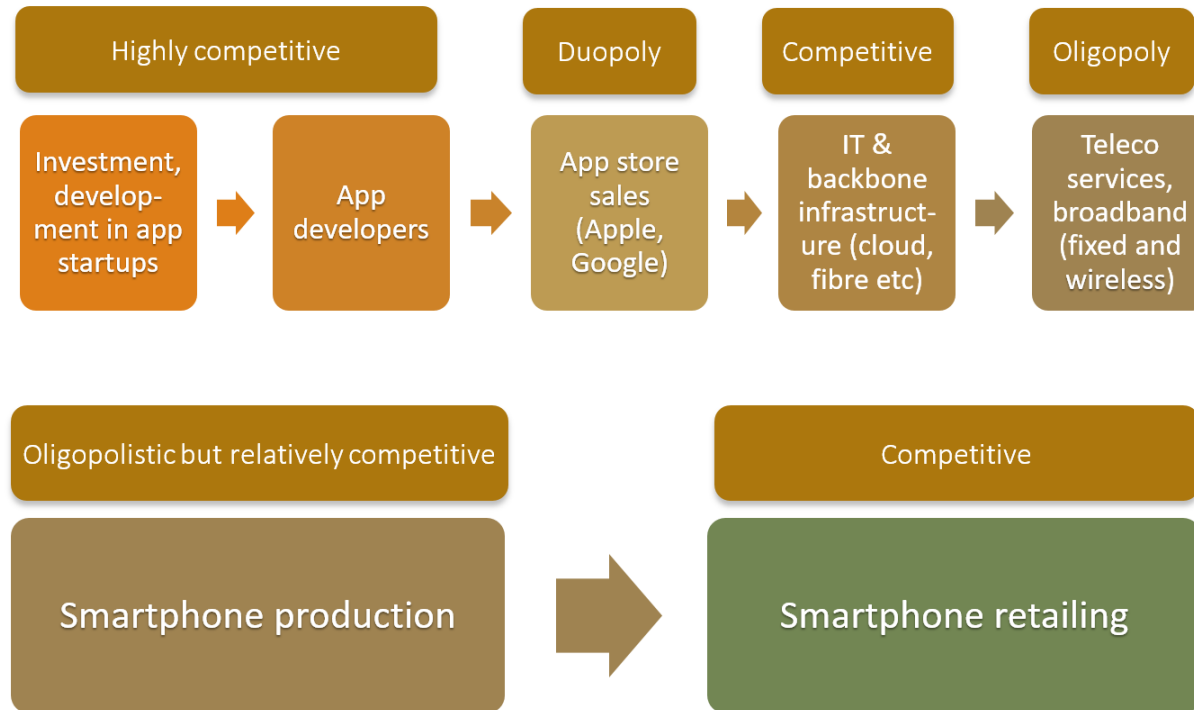
App economy ecosystem and value chain



Source: Systems Knowledge Concepts (www.skc.net.au)

1. What is the app economy?

App economy value chain and competitiveness



Source: Systems Knowledge Concepts (www.skc.net.au)

2. The economics of disruption

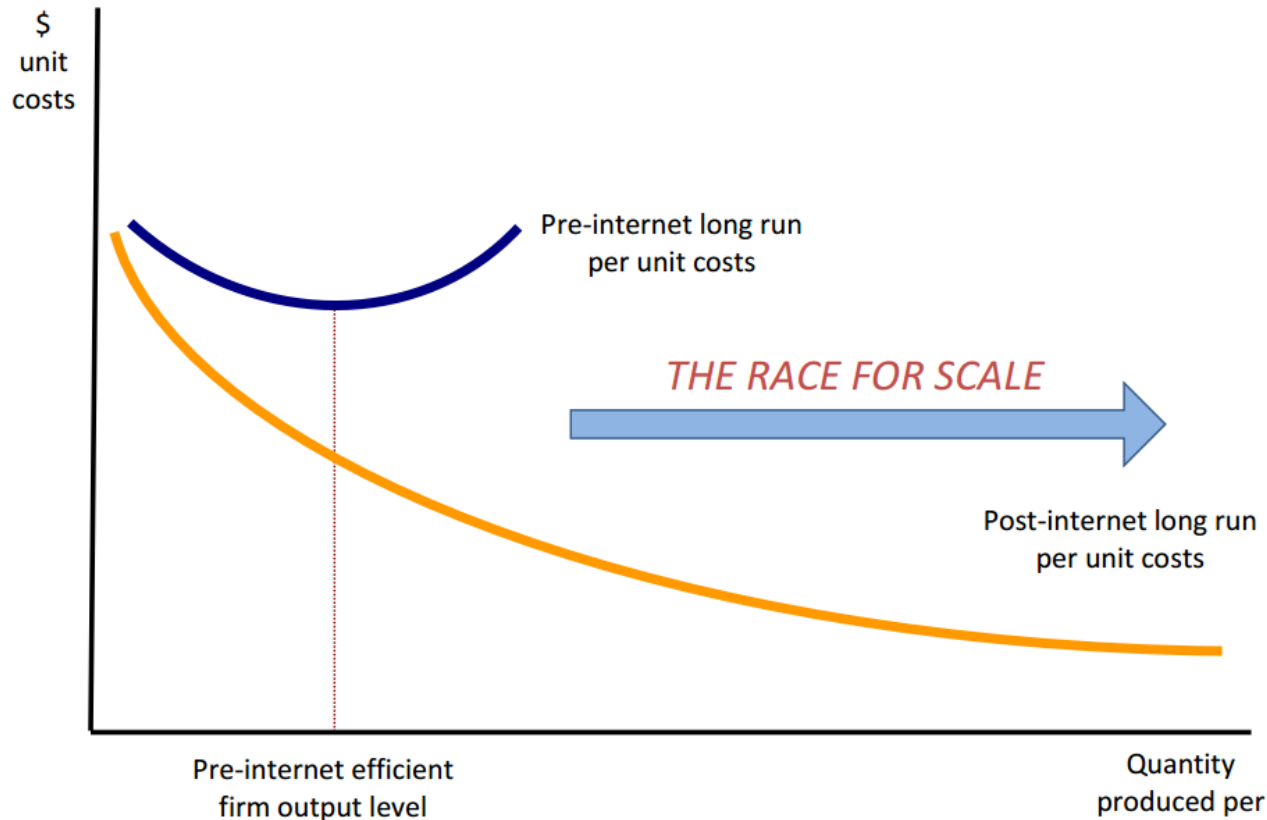
HOW DO APPS DISRUPT EXISTING BUSINESS MODELS?

- falling transactions costs creating new markets:
connecting buyers and sellers, new sources of supply
- retailing ‘information rich’ products and the race for scale:
open ended economies of scale
- ‘excising’ the information component of traditional
businesses

Source: Systems Knowledge Concepts (www.skc.net.au)

2. The economics of disruption

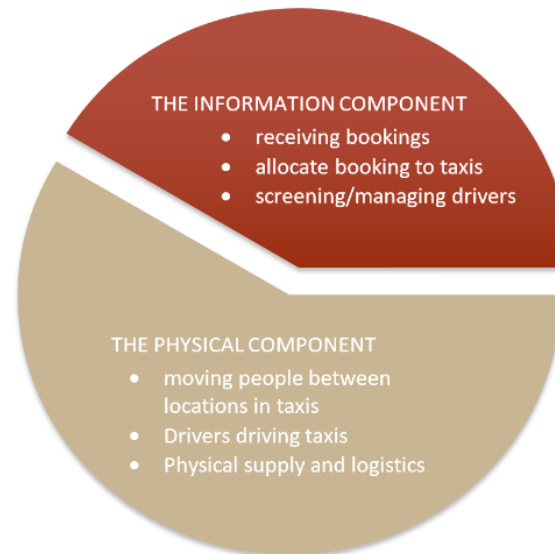
The race for scale



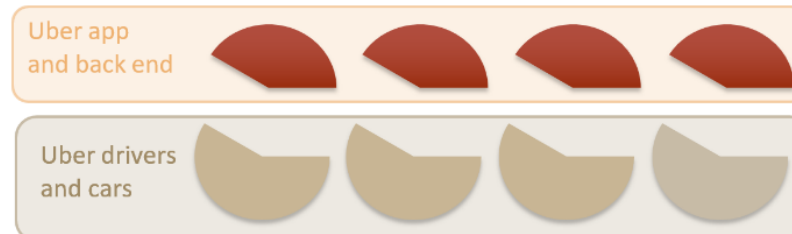
2. The economics of disruption

'EXCISING' THE INFORMATION COMPONENT OF TRADITIONAL BUSINESSES

THE PRE-UBER TAXI BUSINESS: PHYSICAL AND INFORMATION COMPONENTS WITHIN A SINGLE FIRM



THE POST-UBER TAXI BUSINESS: UBER TAKES THE INFORMATION COMPONENT, DRIVERS TAKE PHYSICAL COMPONENTS



Source: Systems Knowledge Concepts (www.skcn.net.au)

3. A regulatory taxonomy of the app economy

TYPES OF APPS

- Communications OTT apps: Skype, WhatsApp, Facetime, Viber
- Other OTT apps: social media, Facebook, LinkedIn
- Industry specific 'bits and atoms' apps: Uber, Airbnb,
- Cross-industry disrupters: mobile money, video streaming, M-PESA, Netflix
- Competition and macro level regulatory issues: competition, taxation

3. A regulatory taxonomy of the app economy

App type	Regulatory issues	Regulatory approaches
OTT Communications (Whatsapp, Viber, Skype)	<ul style="list-style-type: none"> falling margins and weakened market power for telcos rising market power of OTT players congestion of existing infrastructure reduced telco margins and capacity for investment OTT players don't pay taxes 	<ul style="list-style-type: none"> collaboration between telco regulators and other relevant government agencies such as those responsible for innovation agencies for social inclusion and empowerment
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Cross-industry disrupters (Netflix, M-PESA)	<ul style="list-style-type: none"> financial stability, integrity of monetary policy management of consumer funds confirmation management protection of identity prevention of illegal use, money laundering government insurance of funds status as quality banks, capacity to loan funds, Prudential management encouraging production of local content and services over streaming channels 	<ul style="list-style-type: none"> collaboration between financial and telco regulators essential and also competition regulators in the case of mobile money collaboration between broadcasting/media regulators and telco regulators
Competition and macro level	<ul style="list-style-type: none"> Industrial disruption causing increases in market power within particular industries competition issues arising from global reach of disrupters taxation issues arising within particular industries due to disruption nation and global level taxation issues arising from opportunistic corporate structures by global firms 	<ul style="list-style-type: none"> collaboration between competition authorities and taxation departments is critical responses will include policy and legislative changes at the highest political level international collaboration and agreement between policy makers and at the political level will be critical

4. App economy opportunities and challenges for Africa

Becoming ready for app economy take-off – mobile coverage

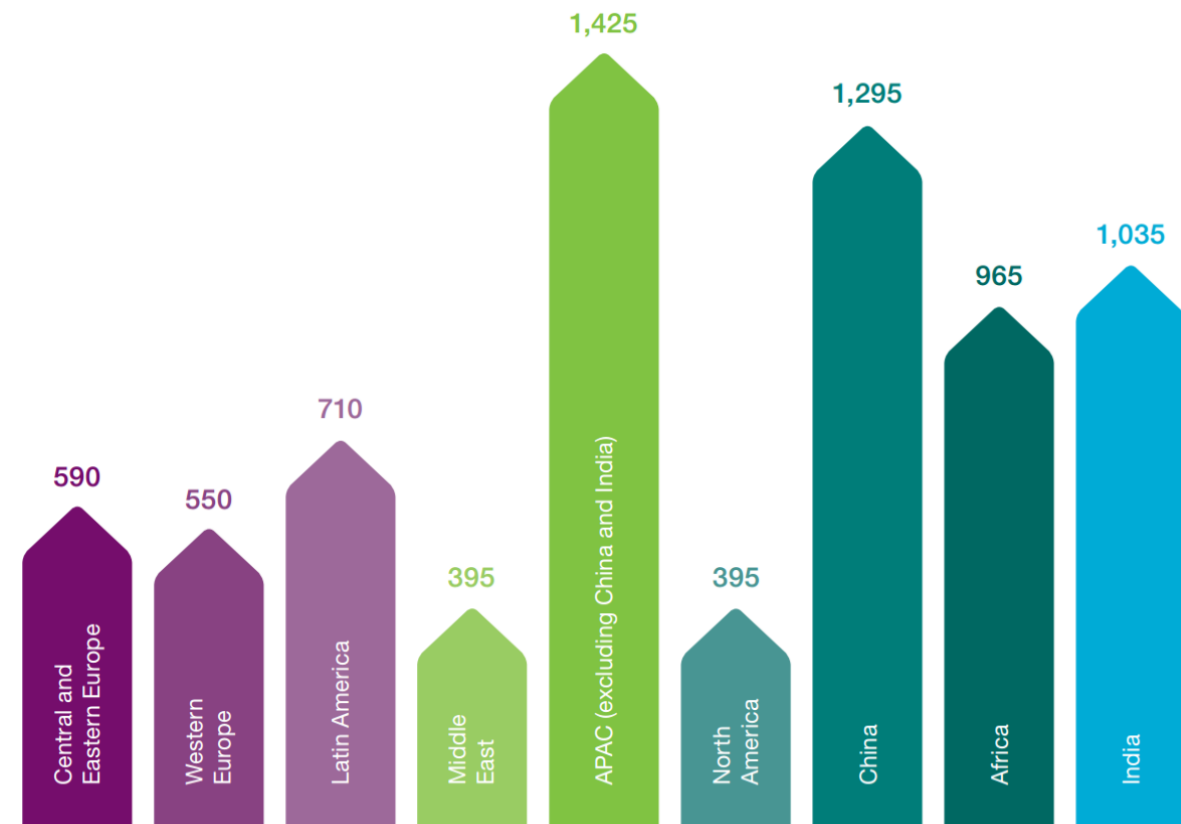
Mobile network rollout in Africa



Source:
Wavestone, Challenges and impacts created by “over-the-top” (OTT) players In the African telecommunication sector, https://www.wavestone.com/app/uploads/2016/09/OTT_UK.pdf

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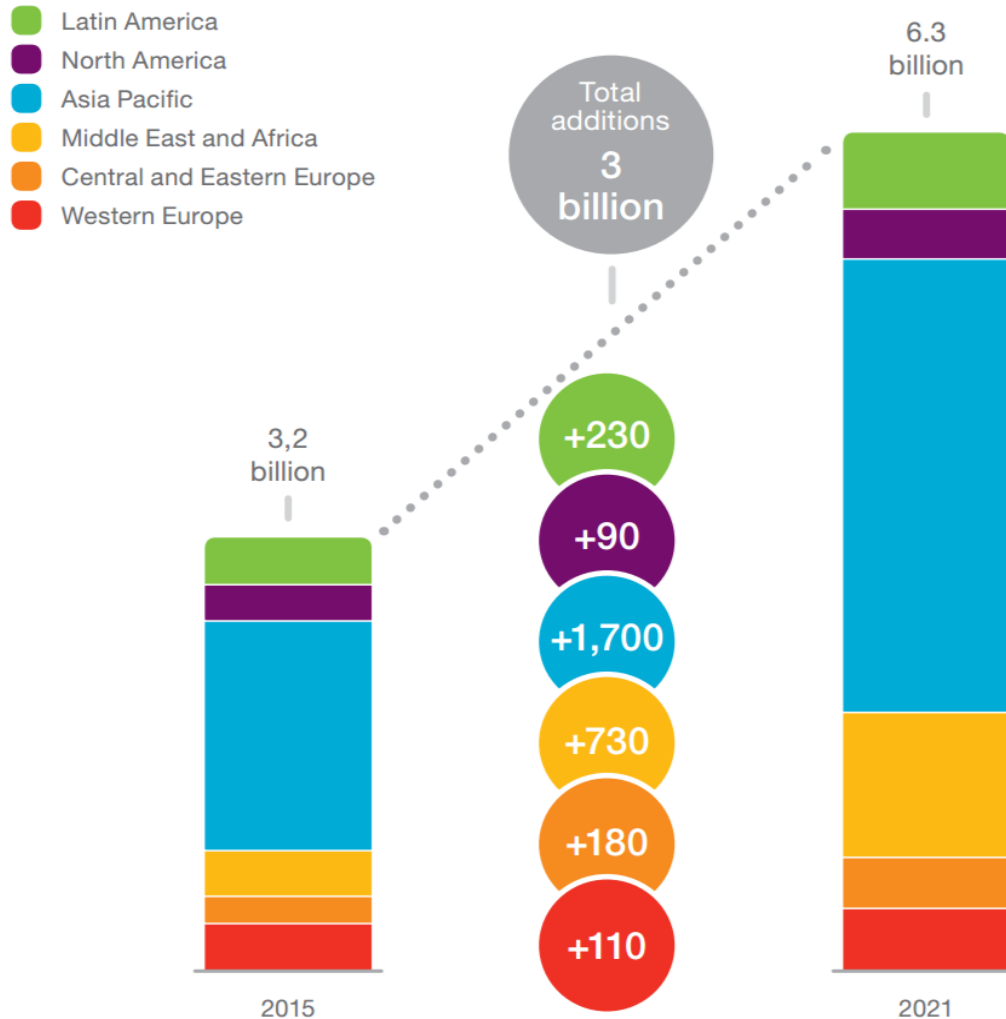
Becoming ready for app economy take-off – mobile subscriptions



Source: <https://www.ericsson.com/res/docs/2016/ericsson-mobility-report-2016.pdf>

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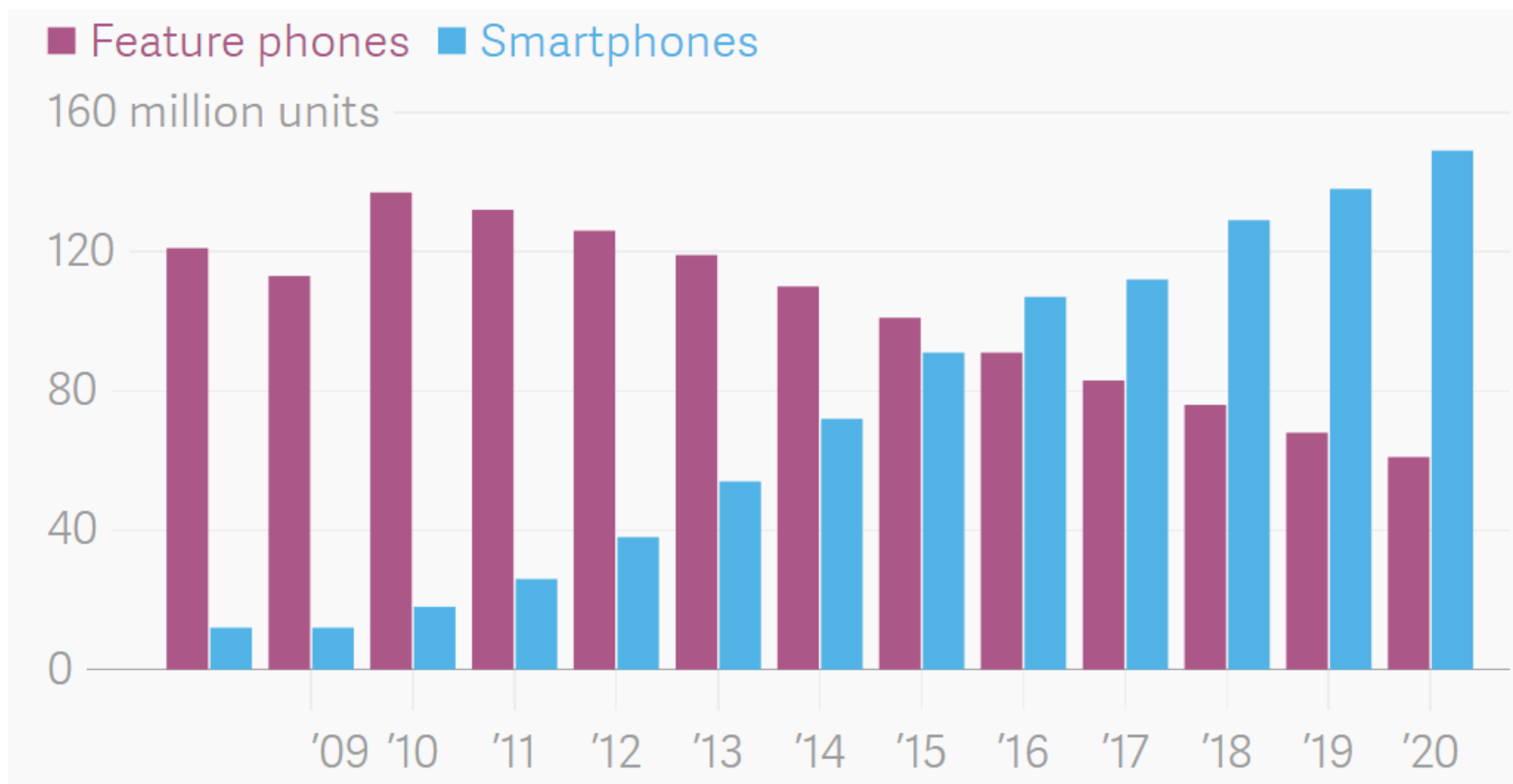
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Source: <https://www.ericsson.com/res/docs/2016/ericsson-mobility-report-2016.pdf>

4. App economy opportunities and challenges for Africa

Becoming ready for app economy take-off:
smartphones everywhere

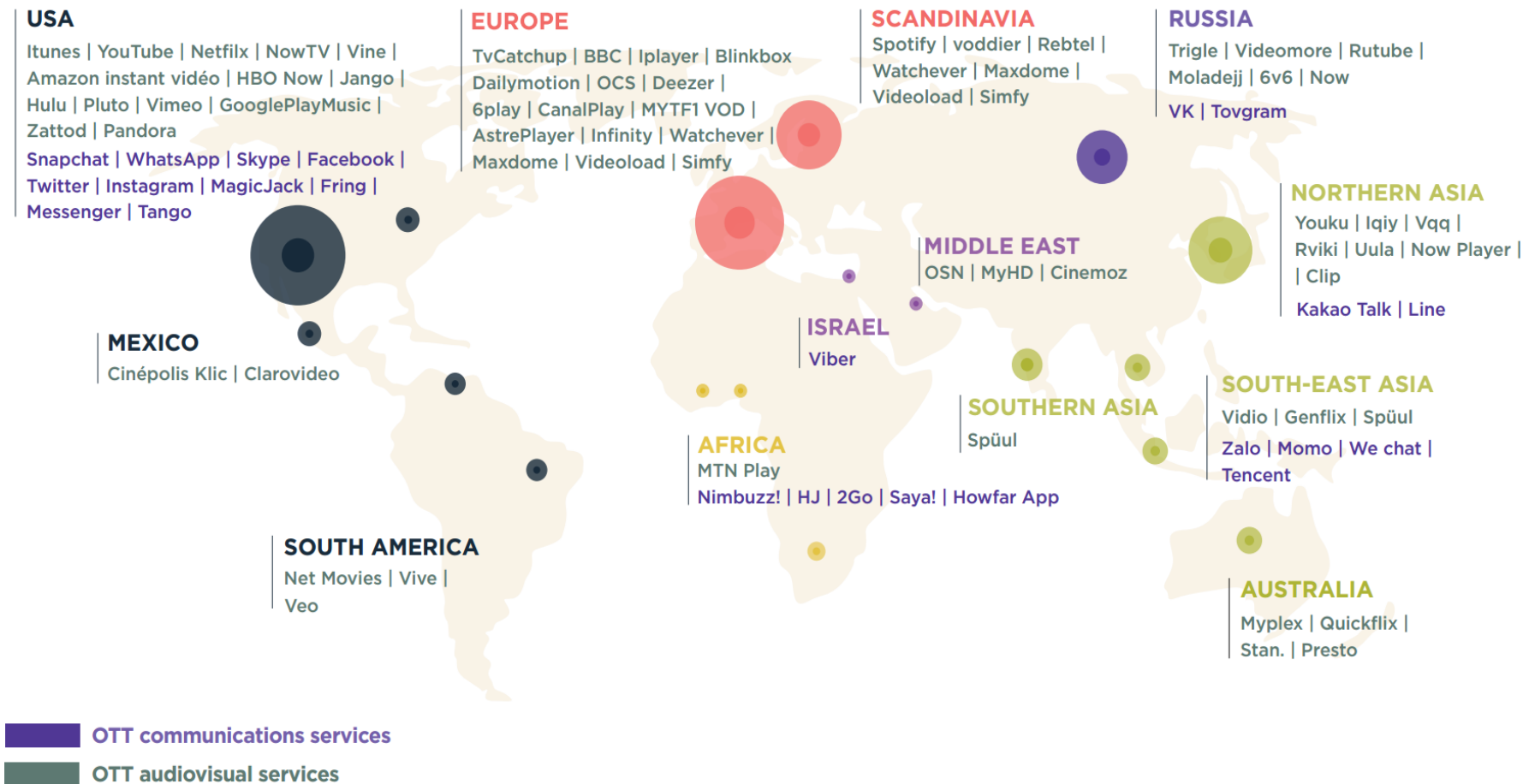


Source: Jefferies & Co via Statista | Projections from 2011 onwards

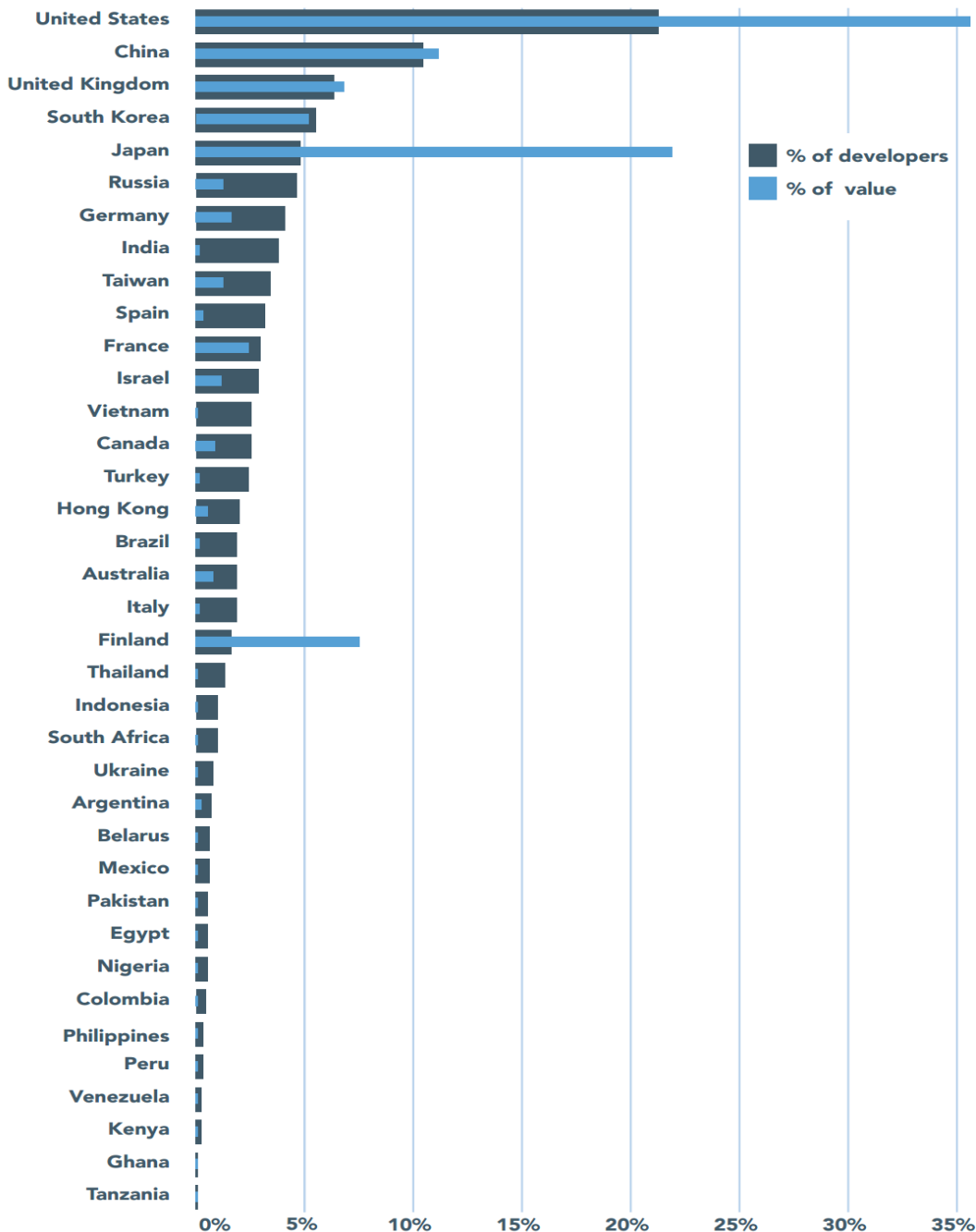
<http://qz.com/451844/africas-smartphone-market-is-on-the-rise-as-affordable-handsets-spur-growth/>

4. App economy opportunities and challenges for Africa

Challenge: Africa is outside the app economy mainstream



Source: Wavestone, Challenges and impacts created by “over-the-top” (OTT) players In the African telecommunication sector, https://www.wavestone.com/app/uploads/2016/09/OTT_UK.pdf



4. App economy opportunities and challenges for Africa

Challenge: African developers don't capture much value

Source: Winners & Losers in the Global App Economy, Caribou Digital, 2016

4. App economy opportunities and challenges for Africa

REASONS TO BE OPTIMISTIC ABOUT THE AFRICAN APP ECONOMY

- the next five years will see extremely rapid increases in smart phone ownership and broadband subscriptions
- Africa has an enormous number of niche markets based on its economic circumstances and linguistic uniqueness – apps that would never be developed in economically advanced nations will be developed to meet intrinsically African needs
- Africans have demonstrated an enormous willingness to adopt useful mobile apps
- Africa has the need to develop customised and productivity-enhancing apps that will enable it to leapfrog many of the institutional and market development processes that in occurred over many years in countries that have developed economically earlier.

5. App readiness: telecommunications markets in South Africa and Ghana

SOUTH AFRICA

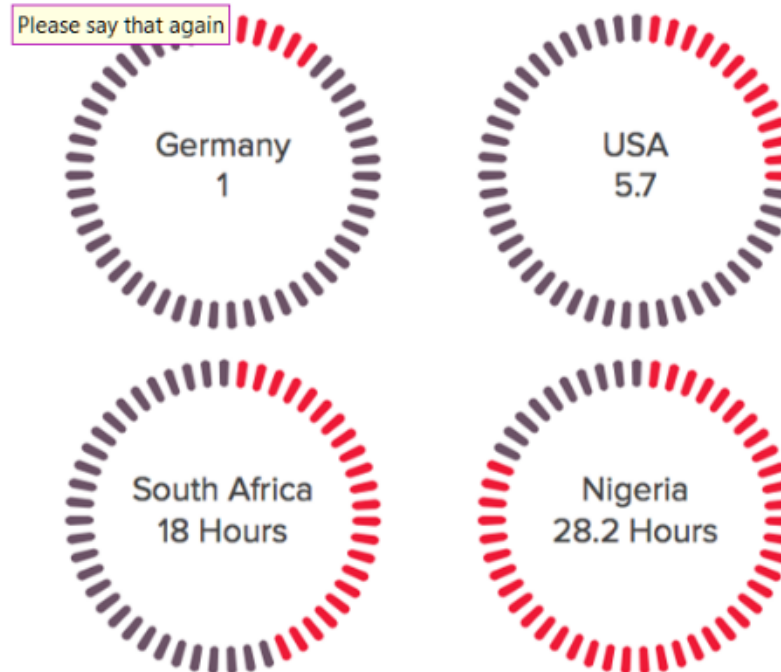
- Increasing mobile data demand as low-cost smartphones adoption increases
- Mobile Internet account for more than 97% of all Internet connections
- two thirds of population can access LTE services
- mobile data traffic estimated to grow at an annual rate of 63% between 2014 and 2019
- data now 28.8% voted con revenues in South Africa
- operators facing spectrum shortages

5. App readiness: telecommunications markets in South Africa and Ghana

SOUTH AFRICA

- average monthly price of broadband is high for consumers: 10 times more than in the UK, yet internet speeds in the UK are five times greater than in South Africa

Hours of work to pay for 500MB of mobile data



Source: McKinsey Global Institute 2015

5. App readiness: telecommunications markets in South Africa and Ghana

SOUTH AFRICA – INFRASTRUCTURE INVESTMENT

- 4G LTE infrastructure rollouts are beginning to occur in underserved areas
- April 2015 Cell C announced plans to invest R691 million for 4G LTE services in metropolitan areas
- also plans to build 1,353 3G sites largely outside metropolitan areas
- Telkom announced November 2014 4G LTE rollout in more than 50 suburban communities

5. App readiness: telecommunications markets in South Africa and Ghana

GHANA

- Number of mobile phone subscribers rose to 31.2m, for a penetration rate of 115.6%. Many Ghanaians own two or more SIM cards, unique subscriber penetration is estimated to be much lower. GSM Association estimated that penetration stood at around 50% as of 2013
- In the two years to March 2015, mobile data penetration nearly doubled, from around 8.8m people to 16.1m, with a total penetration increasing from 34.8% to 59.7%
- The NCA reported the number of mobile data subscribers rose from about 17.73 million to 18.03 million in December 2015, an access rate of 65.74 percent
- Increases due to recent push from telecommunication companies to expand their network coverage and the availability of cheap smartphones from China

6. App companies in South Africa and Ghana

UNIQUE AFRICAN NICHES, UNIQUE AFRICAN APPS

- GoMetro: is a public transport information app downloaded more than half a million times. It enables users to update information about delayed services and can enable employees to notify workplaces with validated messages about late trains and buses. (www.getgometro.com)
- Afta Robot: is a platform that uses advanced wireless technology combined with cloud support that will improve the safety and efficiency for the minibus taxi operators and commuters.
- Saya was founded in August 2011 a replacement for text messaging much like WhatsApp, but built for feature phones which were much more prevalent in Africa.

7. Regulating the app economy in Africa

TWO ASPECTS TO REGULATION AND THE APP ECONOMY

- Regulating app companies
- Regulating to encourage the app economy

7. Regulating the app economy in Africa

REGULATORY DISPARITIES – TELCOS AND OTTs

Area of Regulation	Network Operators	OTT
Licensing (ECS / ECNS) including Annual Fees, licence obligations and spectrum licence obligations	Yes	No
Interconnection and interoperability	Yes	No: OTT providers are per definition “over the top” of the network, and don’t require interconnection.
Quality of Service	Yes: End-User and Subscriber Service Charter	No: OTT QoS problems generally blamed on network provider, not the OTT
Universal Service Obligations	Yes, usually a license obligation.	No
Provision of legal intercept	Yes	No: OTT content often encrypted and cannot be intercepted. E.g. WhatsApp does not comply with South African RICA laws.
Financial reporting and taxation	Yes: All related laws and obligations apply	No: Offshore operators not obliged to adhere to national accounting standards, financial reporting systems. Most revenue realised outside of South Africa
National ownership rules	Yes: National ownership and company structures designed to reverse historical injustices apply	No: Offshore OTT operators not obliged to adhere to South Africa’s company ownership rules and their transformative objectives
Consumer Protection Act, other National Socioeconomic obligations	Yes: Local operators and service providers must adhere to all personal and public protection laws and other social obligations	No: Offshore OTT operators are not obliged to adhere to any of these laws and related social obligations such as labour laws, skills development levies, etc.

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7. Regulating the app economy in Africa

REGULATION AND POLICY TO ENCOURAGE THE APP ECONOMY (1)

- policy that encourages the formation of app start-ups that are targeted at both global markets or addressing niche markets in Africa
- encouraging the rollout of high-speed mobile broadband networks throughout the region including high capacity fibre backhaul and backbone links
- encouraging the uptake of cost-effective entry-level smartphones and other mobile smart devices including removal of discriminatory taxation on communications devices and services (eg SIMs, handsets and international voice calls)

7. Regulating the app economy in Africa

REGULATION AND POLICY TO ENCOURAGE THE APP ECONOMY (2)

- encouraging the development of app economy skills throughout national education systems including coding, business, marketing and entrepreneurship
- work with national financial system regulators and taxation authorities to ensure that app developers can fully participate in global app store payment systems
- encourage collaborative regulation between the regulatory agencies for the industries affected by app-based and other relevant agencies such as telecommunications and competition regulators
- make as much spectrum available in the IMT bands as reasonably possible as soon as possible this may require governments to lower their expectations about the revenue they can raise from spectrum sales.

Thank You

I am happy to answer
any questions...

Simon Molloy
www.skcnetworks.org