



Mobile Word Congress - Ministerial Program 2012

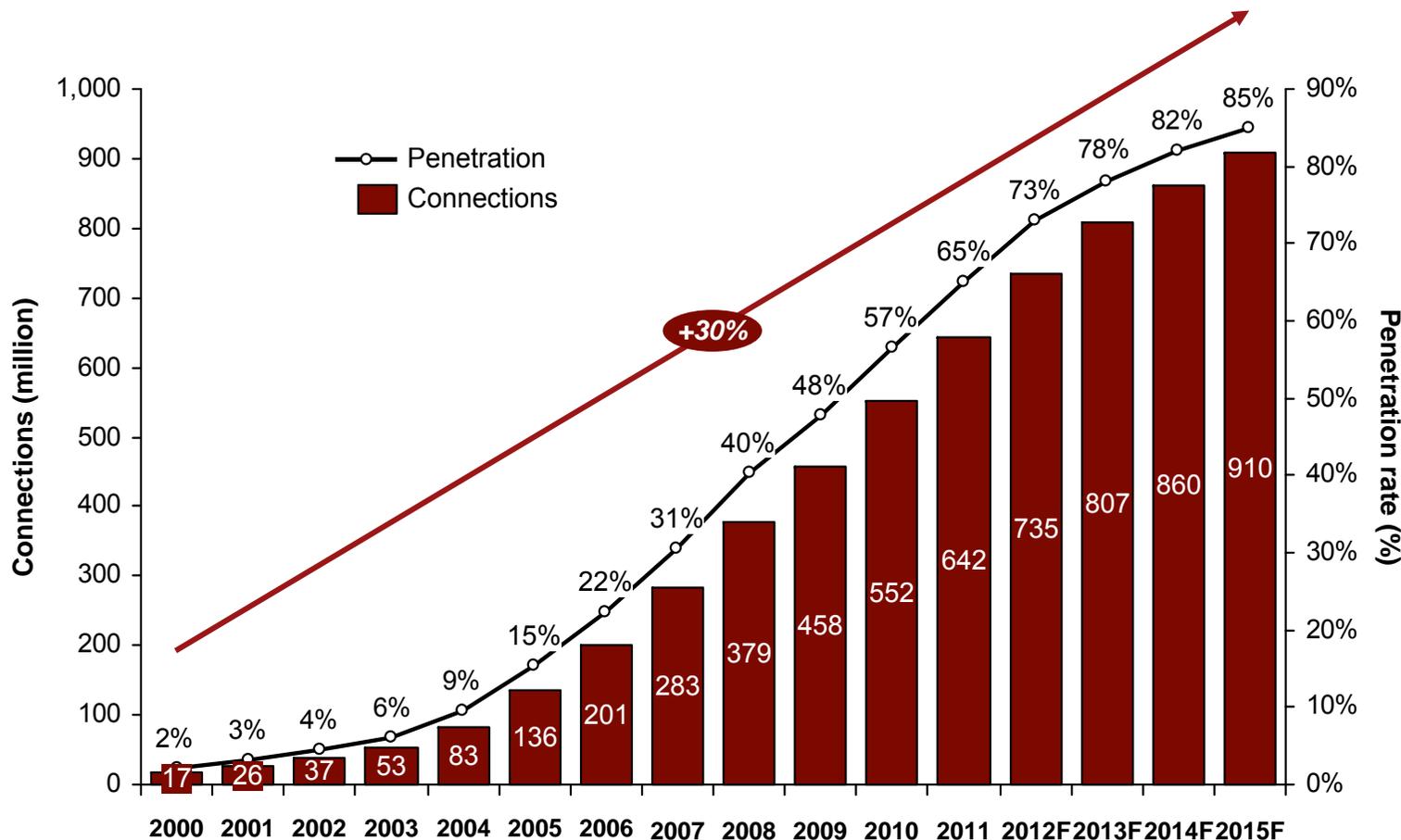
Opportunities in Africa and Middle East

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Marc Biosca – Vice President & Partner
Leader of A.T. Kearney Telecom Practice in the Middle East and Africa

The African mobile market is thriving, reaching over 642 Bn connections in 2011 – after exceeding 65% penetration in 2011

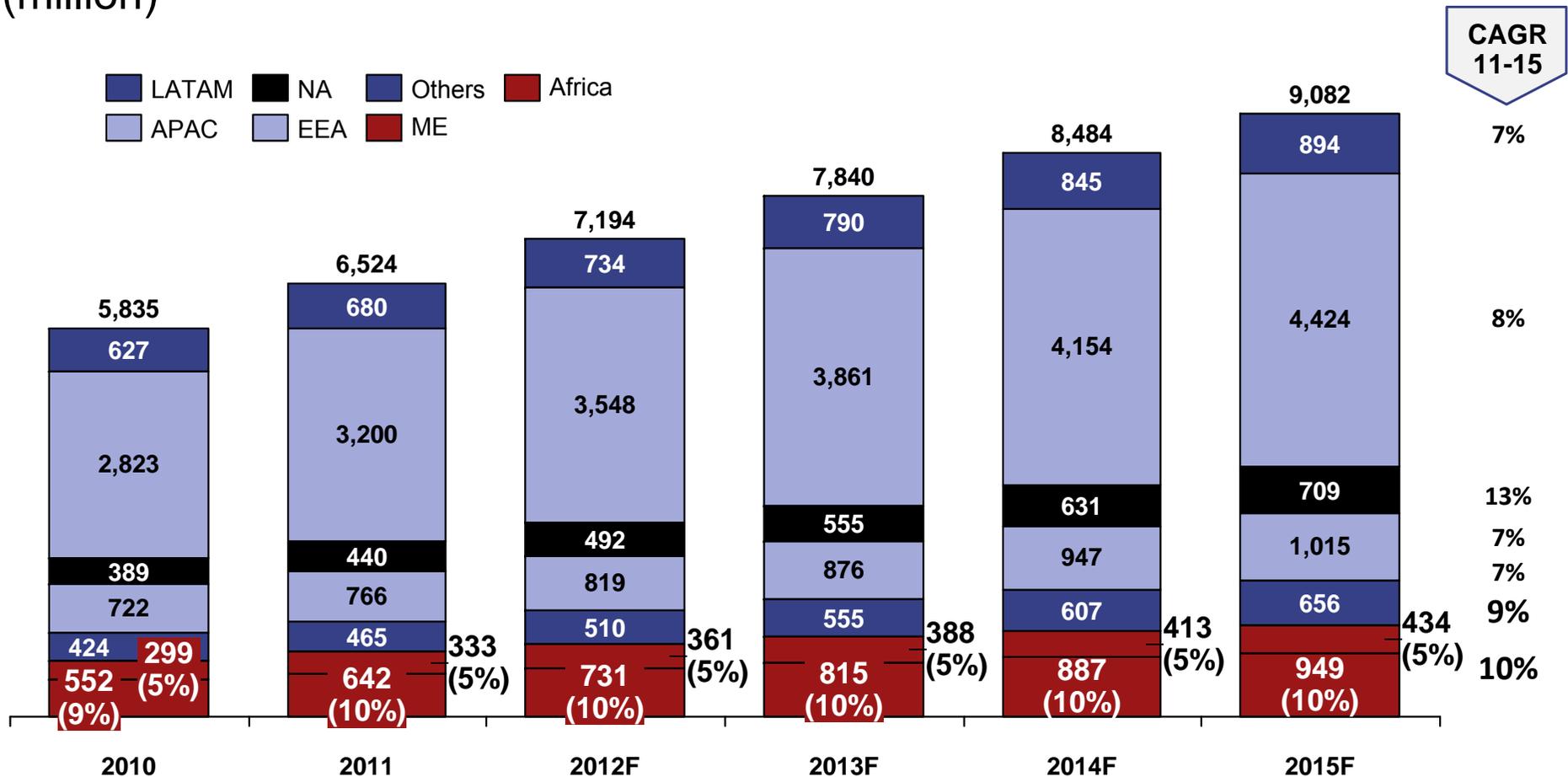
Total African Mobile Connections, Penetration Rate and growth drivers
(million, % penetration)



- Economic development in the region
- Success of cost-effective pre-paid services (96% of total) and significant price reductions
- Introduction of low-cost handsets
- Ambitious rollout of mobile network infrastructure – fast expansion of mobile coverage

Over the next 5 years Africa will be the second fastest growing region in total connections and the fastest growing in subscribers

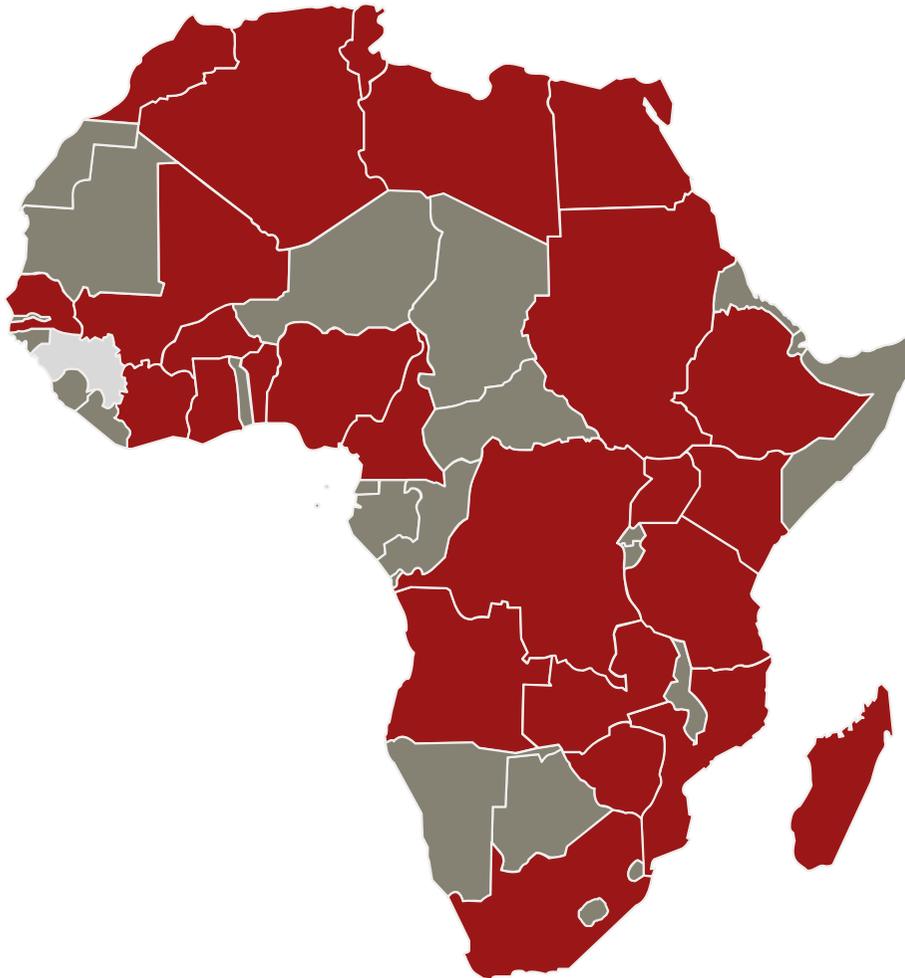
Global Mobile Connections by Region (million)



1) Includes M2M and mobile connections
Source: Wireless Intelligence

Africa 25 represent >91% of total African connections in 2011

Africa 25 and total mobile connections (2011)

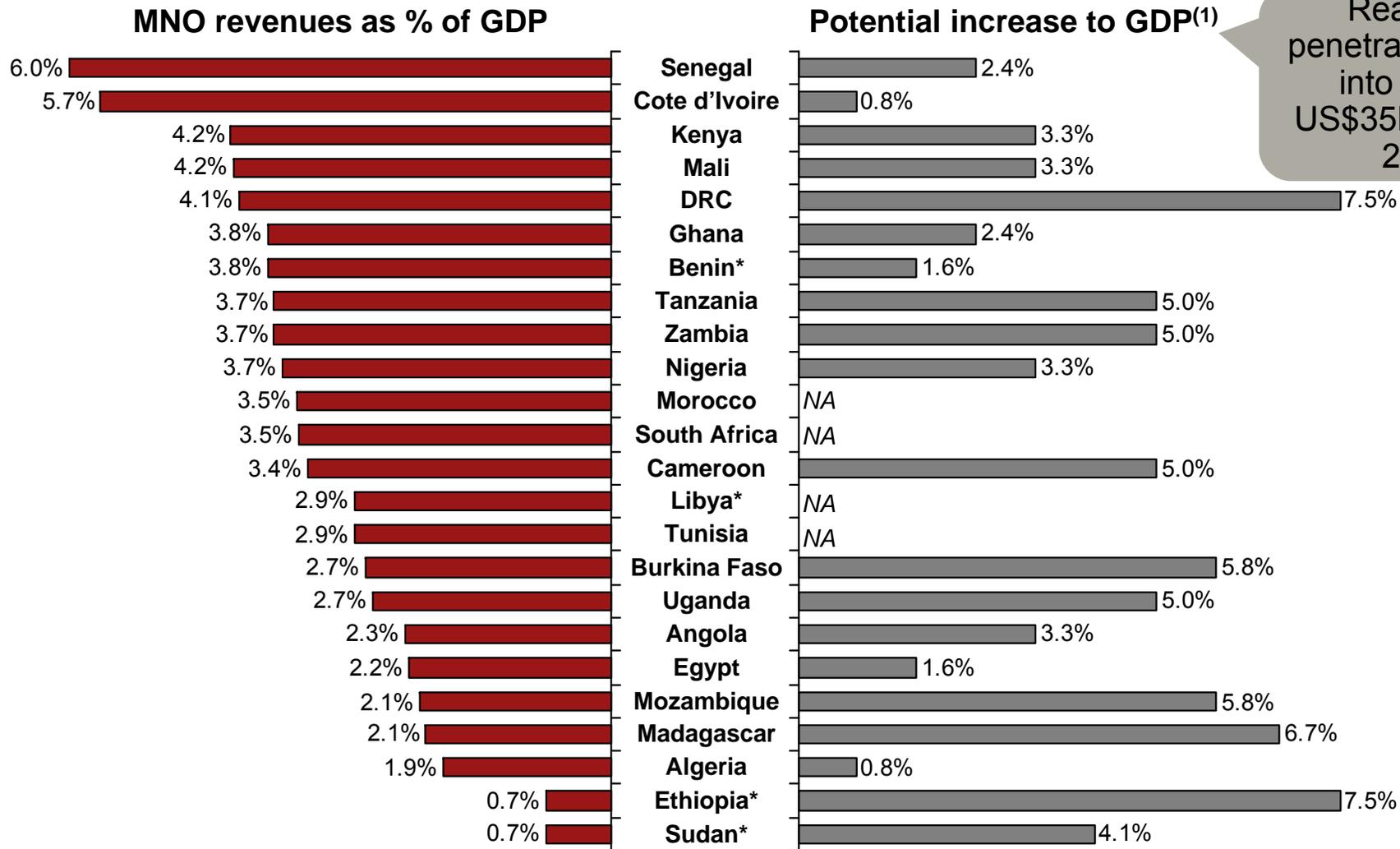


Country		2011 connections	%
Nigeria	NGA	89,343,017	14%
Egypt	EGY	80,616,921	13%
South Africa	ZAF	59,474,500	10%
Algeria	ALG	36,741,368	6%
Morocco	MAR	36,522,899	6%
Kenya	KEN	26,135,115	4%
Sudan	SDN	24,628,765	4%
Tanzania	TZA	23,334,395	4%
Ghana	GHA	20,049,412	3%
Cote d'Ivoire	CIV	17,991,035	3%
Uganda	UGA	14,754,199	2%
DR Congo	COD	14,098,685	2%
Tunisia	TUN	12,254,728	2%
Ethiopia	ETH	11,902,288	2%
Libya	LBY	11,158,560	2%
Angola	AGO	10,797,078	2%
Cameroon	CMR	10,658,991	2%
Mali	MLI	10,000,229	2%
Senegal	SEN	9,686,372	2%
Zimbabwe	ZWE	8,281,749	1%
Benin	BEN	7,996,577	1%
Mozambique	MOZ	7,750,845	1%
Burkina Faso	BFA	6,740,148	1%
Zambia	ZMB	6,544,630	1%
Madagascar	MDG	6,147,499	1%
Other (29 countries)		56,190,285	9%

• Africa 25 countries represent >91% of total African connections

Notes: 25 countries in Africa
Source: Wireless Intelligence. Excludes M2M connections

Mobile Industry in Africa contributes to US\$56Bn of the regional economy (employs 5 million⁽²⁾) – equivalent to 3.5% of total GDP



Reaching 100% penetration would result into an additional US\$35Bn equivalent to 2% of GDP

¹Potential increase in GDP from raising mobile penetration rates to 100% based on 2008 World Bank economic study that showed that a 10% increase in penetration has a 0.81% increase to GDP (2) Included direct and indirect employment creation
 Zimbabwe has been removed due to the difficulty in obtaining a reliable measure of GDP, NA – indicates countries where penetration is above 100% and a potential increase to GDP cannot be calculated, * indicates countries with extrapolated MNO revenues
 Source: Wireless Intelligence; EIU; Qiang 2008; A.T. Kearney research and analysis

4 main catalysts will continue driving further growth in Africa

Selection

Main growth catalysts

Continue expanding service reach

- Service **coverage**, expanding to new areas (today 36% of population in Africa 25 countries don't have mobile connectivity)
- **Affordability** of service access (e.g. handsets) and usage

Drive Broadband connectivity

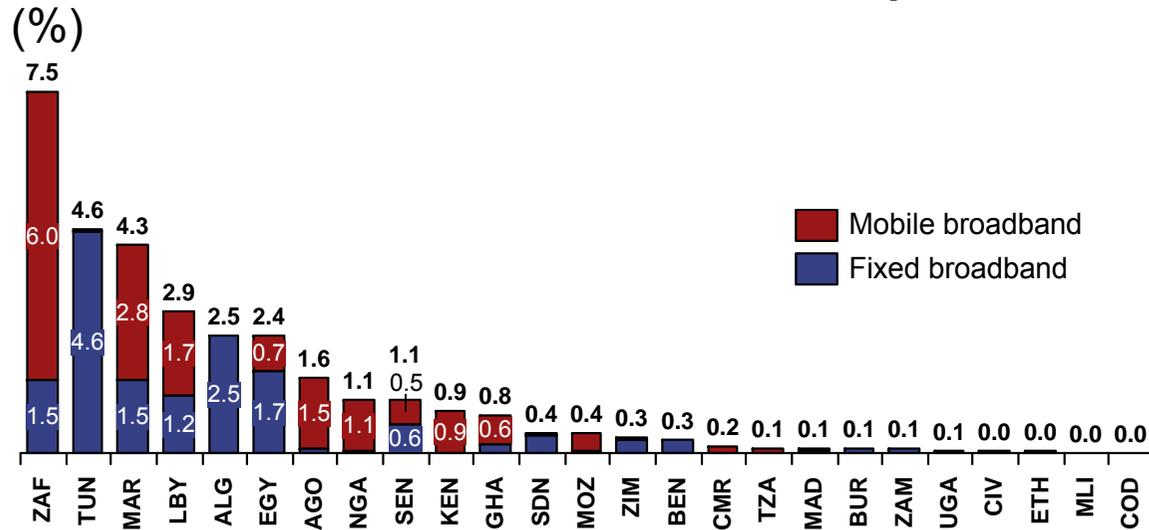
- **Rollout of 3G and 4G mobile networks**
- Investments in terrestrial **backbones**, **submarine cables** and **satellite capacity** to fulfill future needs and reduce transmission and backhauling **costs**
- Introduction of **low-cost smart-phones** and **tablets**

Enable innovative mobile services and ICT development

- Continue the **development of innovative mobile services**
 - m-Agri, m-payment, m-banking, m-education, m-health, m-woman, etc.
- Active promotion of **ICT development**

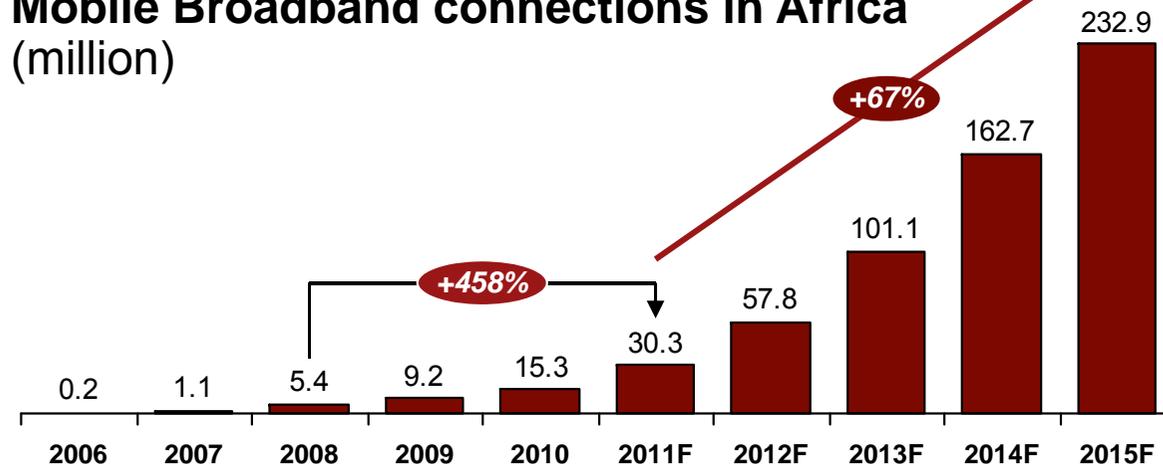
Broadband will be the next growth catalyst bringing substantial benefits to African socio-economic development

Estimated fixed and mobile broadband penetration in the A25 countries (%)



- Safaricom (Kenya), data services revenues (incl. SMS) represent today 26% of total revenues
- Combination of broadband coverage and value added services (e.g. m-payments) being main adoption catalyzers

Mobile Broadband connections in Africa (million)



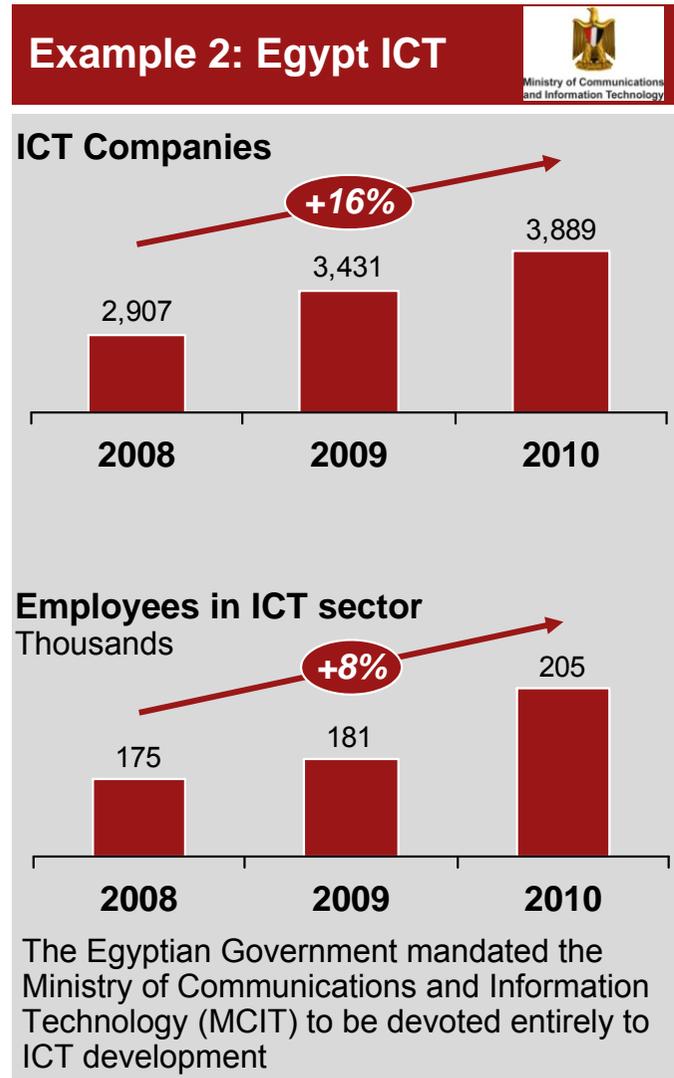
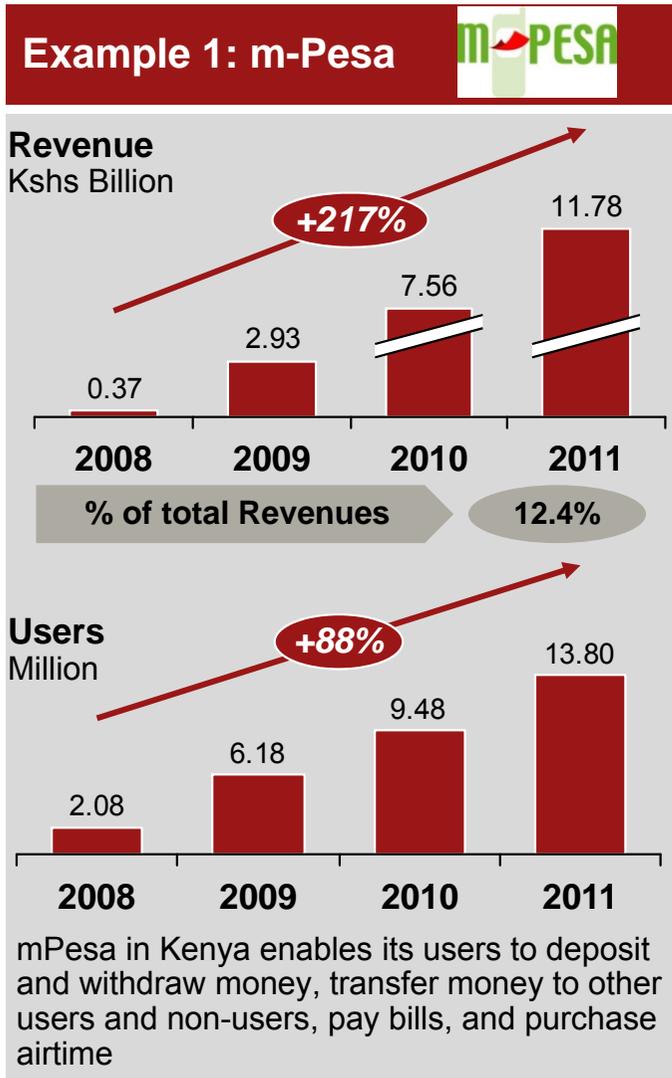
- Mobile broadband connections expected to grow at a 67% in the next 4 years

(1) Based on mobile broadband subscriptions using W-CDMA (HSPA) or CDMA1x EV-DO (Rev A) technology and excludes GPRS/EDGE
 (2) Connections at Q4 each year based on technology including CDMA 2000 1xEV-DO (Rev. A and Rev. B also), WCDMA HSPA and LTE
 Source: Wireless Intelligence, Informa, ITU, EIU, A.T. Kearney analysis

Innovative mobile services and proactive ICT development will be key growth and value enablers

Selection

African mobile VAS and ICT growth stories



- Mobile operators have driven the emergence of a unique industry in innovative mobile VAS to enable and promote agriculture, banking, education, and health in Africa
- Mobile Money Transfers and m-banking puts Africa at the forefront of the global Mobile Money industry
- ICT sector is being prioritized by African governments as a key driver for development

Governments' role is key to continue the growth story and extend the benefits that the mobile industry is bringing to Africa

Main areas of focus for policy makers and regulators

Spectrum

- African governments need to make new spectrum available to support additional growth and broadband deployment
 - Allocating the Digital Dividend. Coverage including coverage bands (700-900MHz) and capacity bands (1800-3500 MHz)

Taxation

- Governments can increase tax intake by reducing specific taxes
 - Major control on use of Universal Access funds
 - Avoid over taxation to handsets

Infrastructure sharing

- Infrastructure sharing is key to expand service coverage and increase penetration while reducing CapEx and OpEx

Consolidation

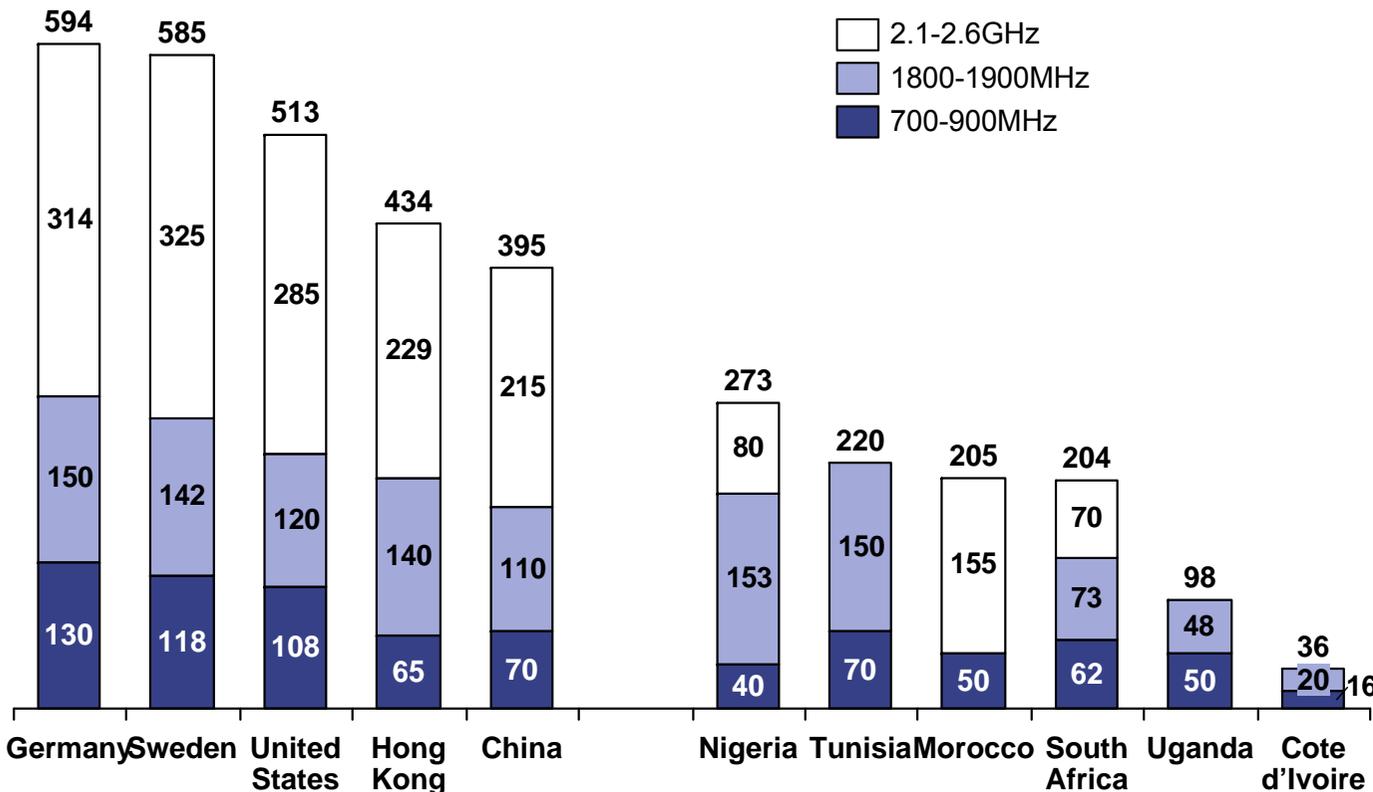
- Operators consolidation in some markets can generate stimulus for additional investments in infrastructure and ensuring sustainability of remaining market players

Promotion of ICT development programs

- African governments and the mobile industry must continue to work together in partnership to bring the benefits of the African continent's ICT development goals

Additional spectrum needs to be made available at reasonable prices to enable further growth

Spectrum licensed in selected African and non-African countries (MHz)



- Prices for 3G licenses have varied considerably
 - \$1.8Bn in Egypt (\$0.37/MHz/population) vs. \$45m in Kenya (\$0.02/MHz/population) this is 18 times more expensive
- Governments need to consider the trade off between
 - Maximizing up-front government revenues and...
 - ...social benefits of operators investing in network coverage and new service

Governments can increase tax intake by reducing specific taxes, while increasing socio-economic benefits

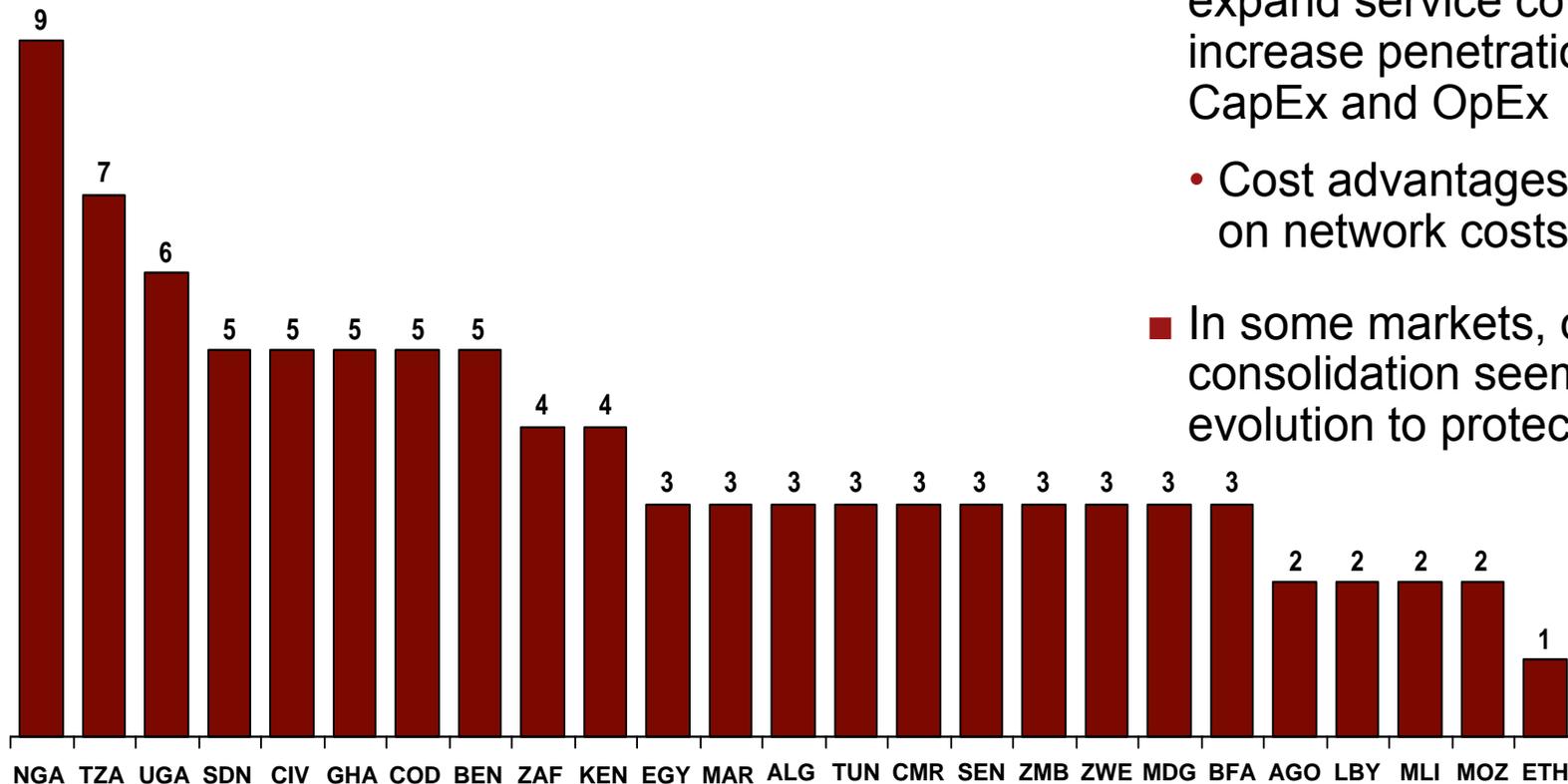
Approach to taxation of selected African countries

	Tax regime	Details	Example Countries
<p>Low Tax</p> <p>High Tax</p>	Universalization and protectionism	Aims at reducing levies with the purpose of reducing total cost of ownership (TCO) and stimulating wireless adoption	Angola, Botswana, Lesotho, Sierra Leone, Swaziland
	Protectionism	Similar to the above but with high value-added taxes on service which increase substantially the TCO	Cameroon, Cote d'Ivoire, DR Congo, Egypt, Madagascar, Mozambique, Gambia, Rwanda, S. Africa
	Sector distortion	Introduces sector specific service taxes to raising government revenues. Results in economic distortion of sectors by focussing taxes on telco	Kenya, Tanzania, Uganda, Zambia
	Tax maximisation and sector distortion	Sector specific taxes are also introduced on devices to maximise government revenues, with a further impact on distortion	Nigeria, Burkina Faso, Ghana, Senegal, Tunisia

- Government taxation policy will have a strong influence on the mobile industry ability to contribute to economic growth
- Reasonable charges for license fees
- Avoid excessive service charges
- Major control on use of Universal Access funds
- Avoid over taxation of handsets

Policy makers and regulators need to be open to collaboration among operators – promoting infrastructure sharing and allowing selective market consolidation

Number of wireless operators in A25 markets (2010)



- Operators' collaboration in infrastructure sharing is key to expand service coverage and increase penetration while reducing CapEx and OpEx
 - Cost advantages of up to 50-60% on network costs
- In some markets, operators consolidation seems a natural evolution to protect industry health

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