Aid for Trade workshop
2017 Aid-for-trade monitoring and evaluation exercise
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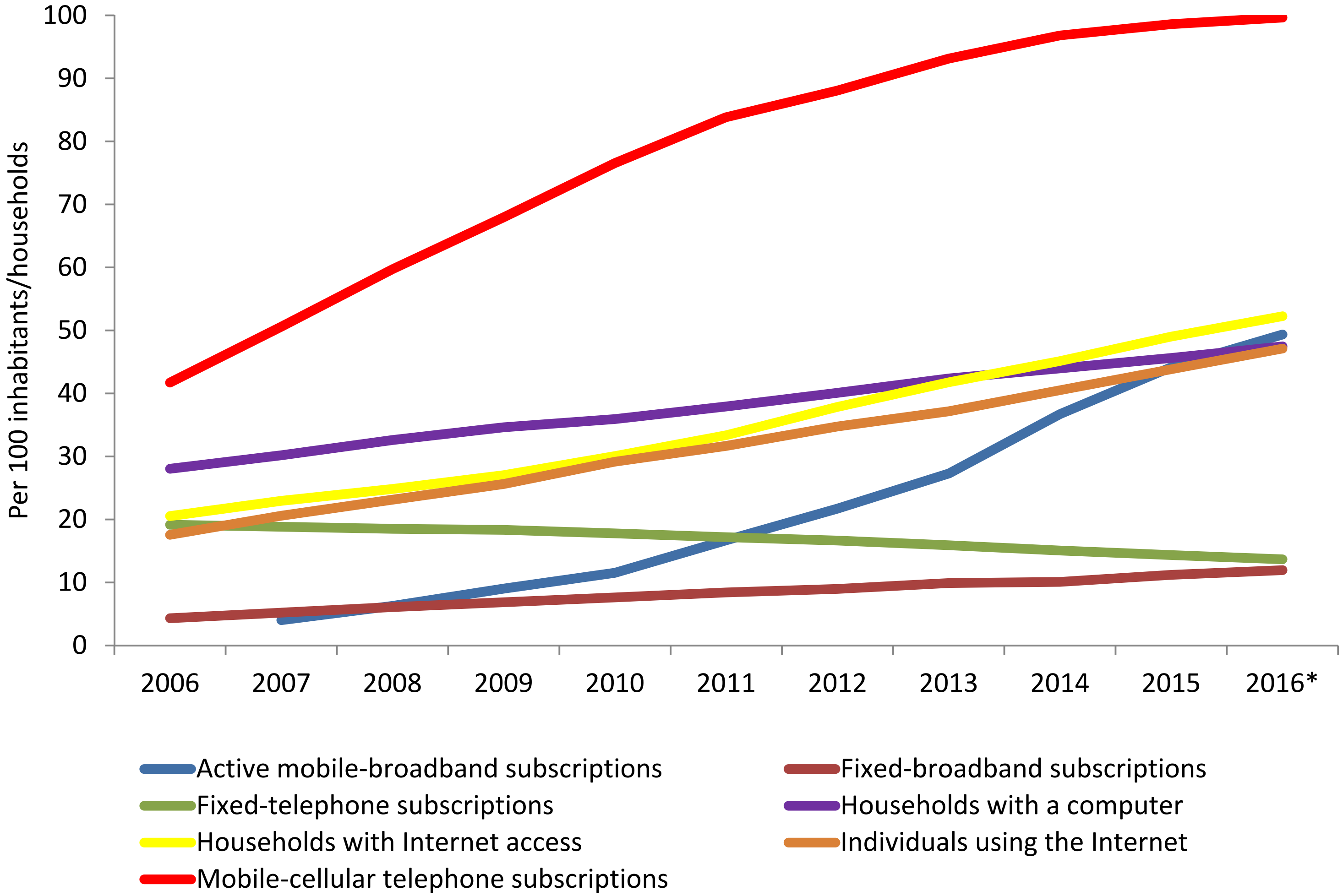
Chapter 5: Spanning the Internet divide to drive development (ITU)

Vanessa GRAY
Head of LDCs, SIDS &
Emergency Telecommunications Division
Telecommunication Development Bureau
International Telecommunication Union (ITU)

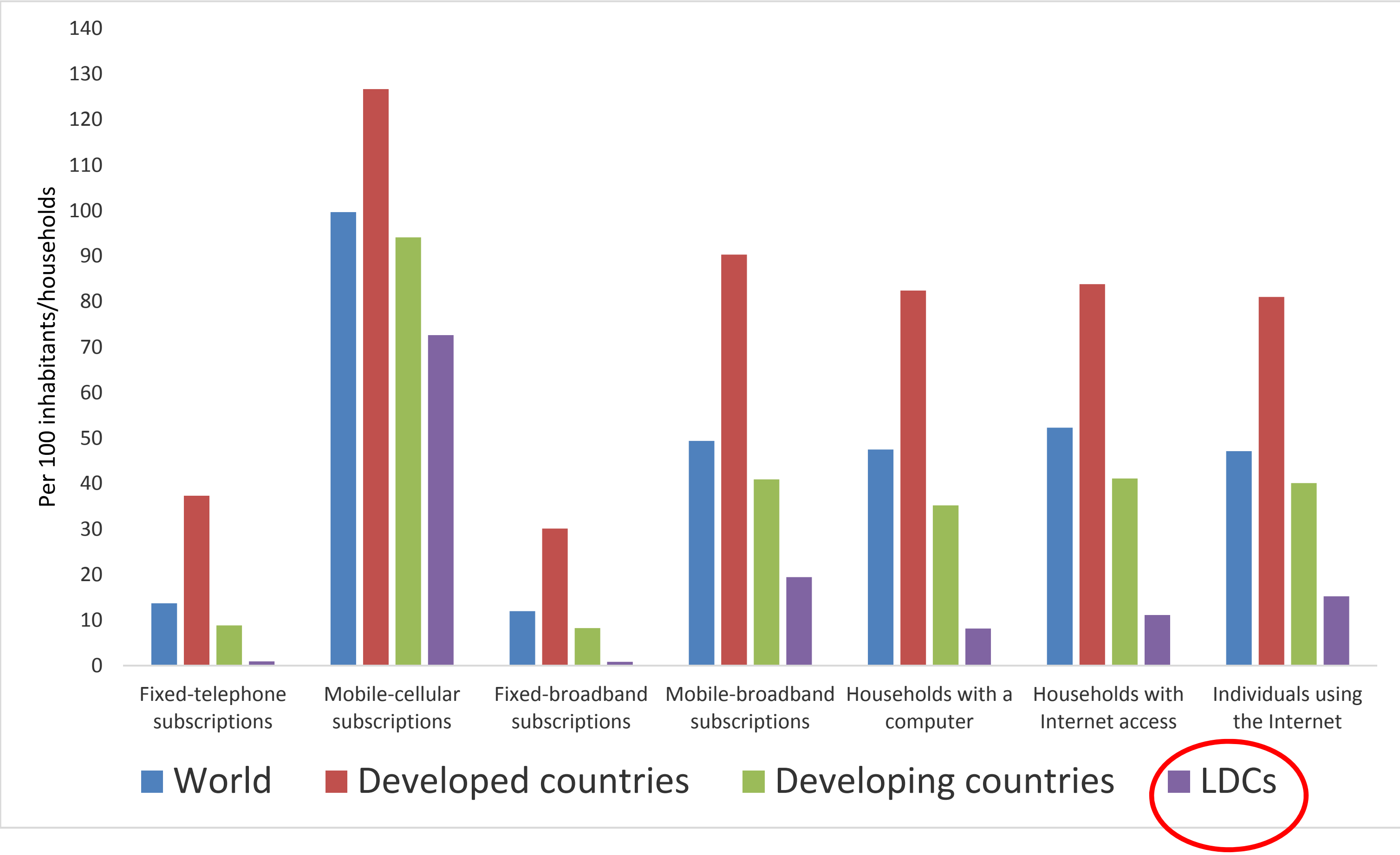
A decade of strong growth in ICTs



Note: * ITU estimates.

Source: ITU .

Inequalities in ICT access and use



Note: ITU estimates.

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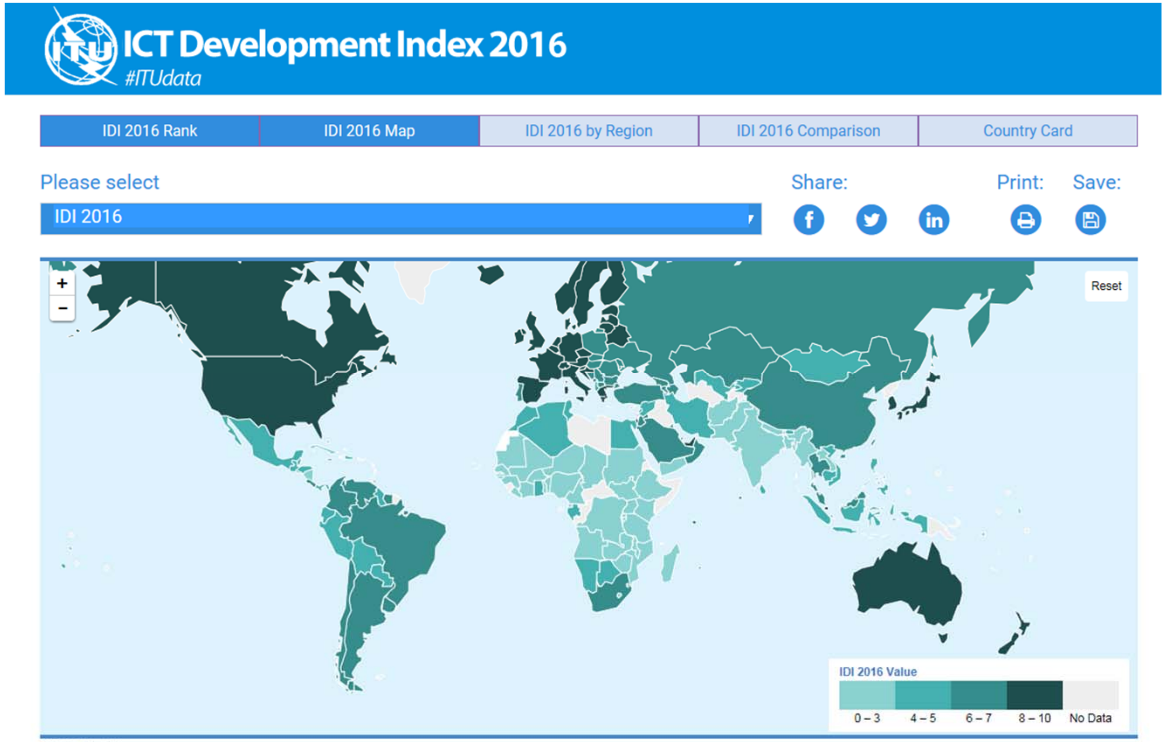
ITU ICT Development Index: LDCs are not catching up fast enough

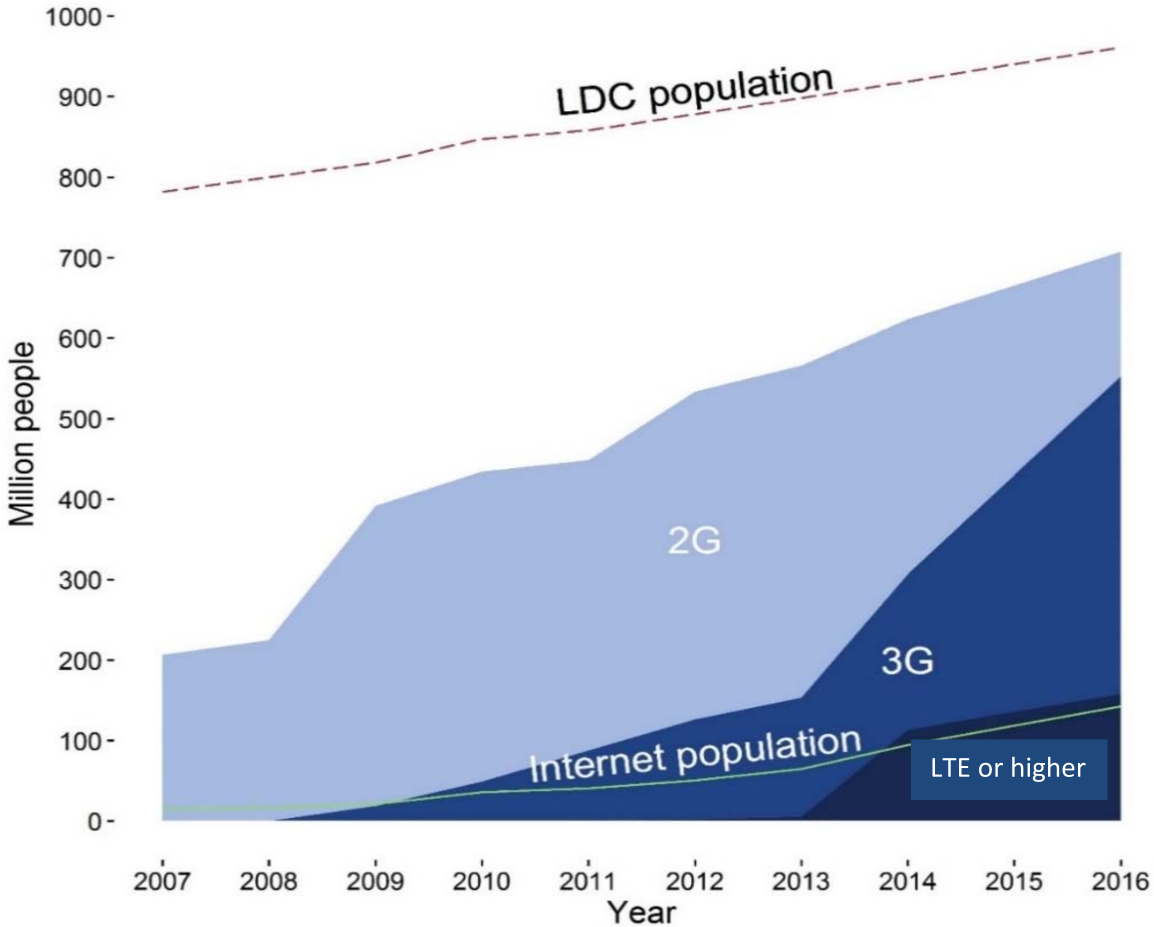
- Composite index combining 11 indicators for ICT access use and skills into one value
- Make comparisons between countries and over time
- All of the bottom 27-ranked countries are LDCs



Source: ITU.

Mobile as the key driver of access

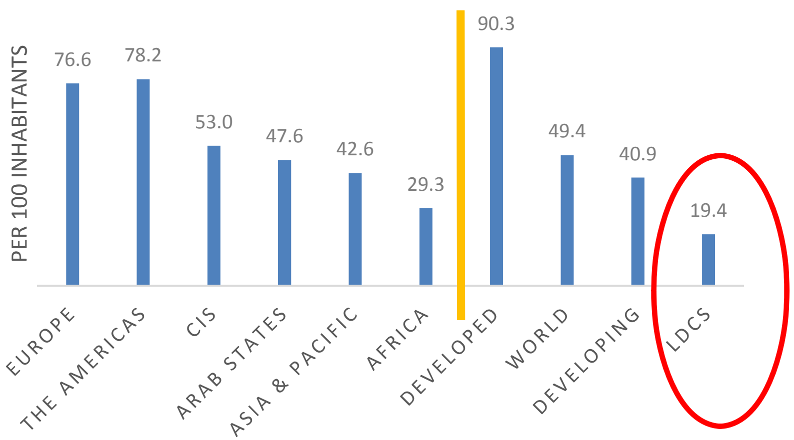
Mobile network coverage and evolving technologies in LDCs



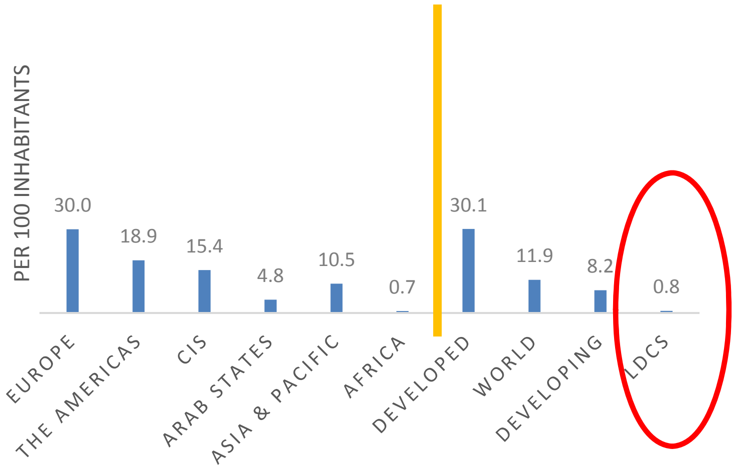
Source: ITU.

Driving development: mobile broadband

Mobile broadband



Fixed broadband



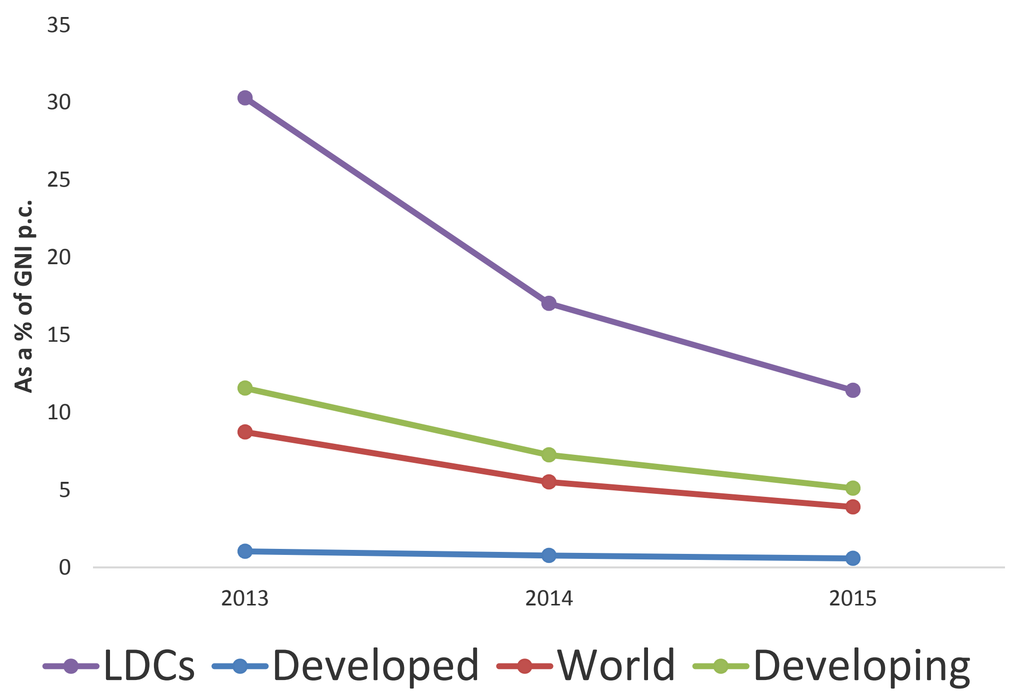
Note: ITU estimates.

Source: ITU.

Falling prices, more affordable mobile services

- Average handset based mobile-broadband prices have dropped from USD 26 in 2013 to USD 9 in 2015
- On average, these mobile broadband prices in LDCs still represent 11% of GNI per capita
- Number of services and pricing models are increasing, also to adapt to the needs of LDCs

Mobile-broadband prices as a percentage of GNI per capita, 2013-15 , 500 MB prepaid handset-based



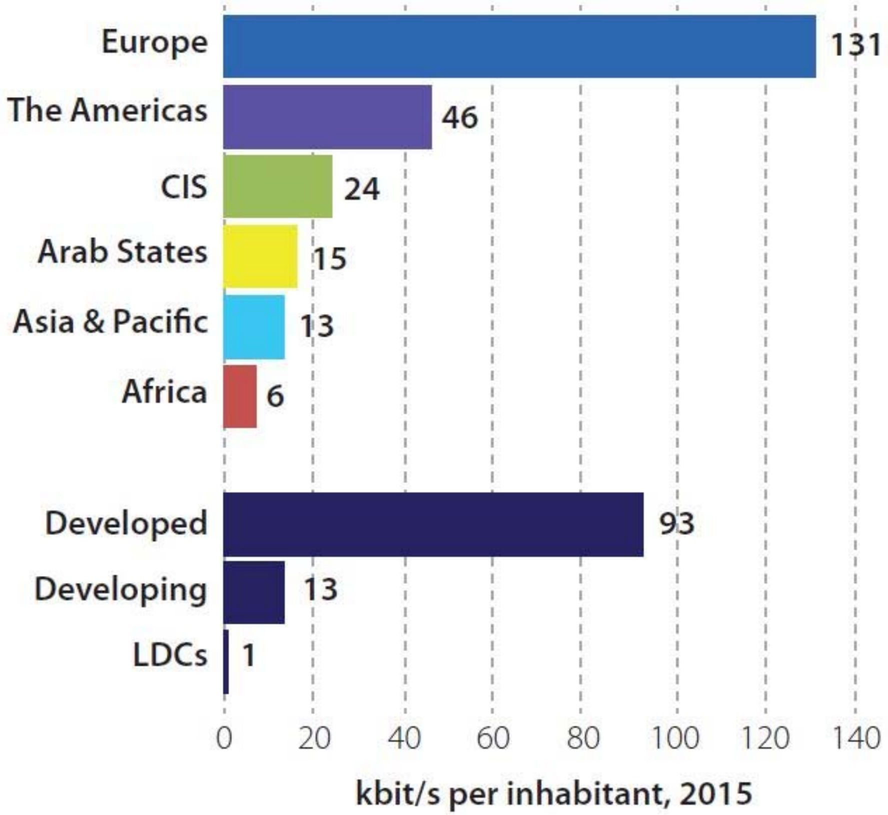
Source: ITU.

Fixed versus mobile networks

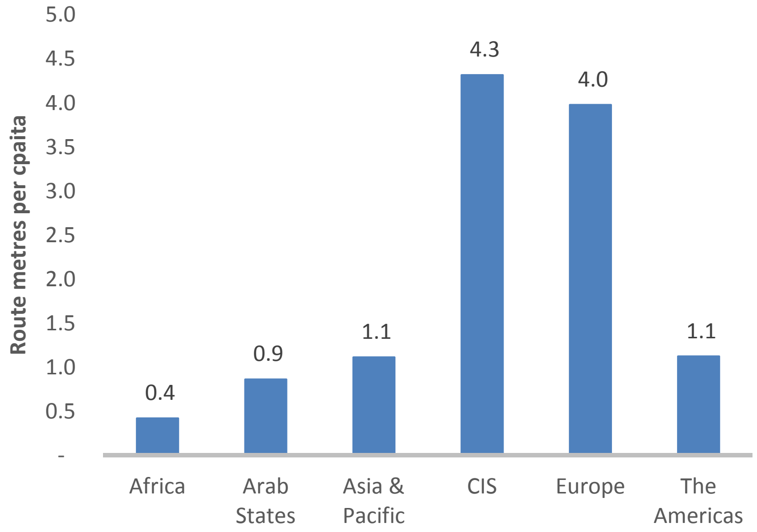
- Mobile-broadband remains inferior in terms of speed, latency, and capacity
- IMT-2020 (5G) networks promise to address some of the challenges but backbone infrastructure is critical
- Key policy implications:
  - Governments must foster investments in the latest generation of mobile networks
  - Countries must invest in fixed-broadband infrastructure: national backbones and international connectivity

Backbone infrastructure

International Internet bandwidth in kbit/s per inhabitant, 2015

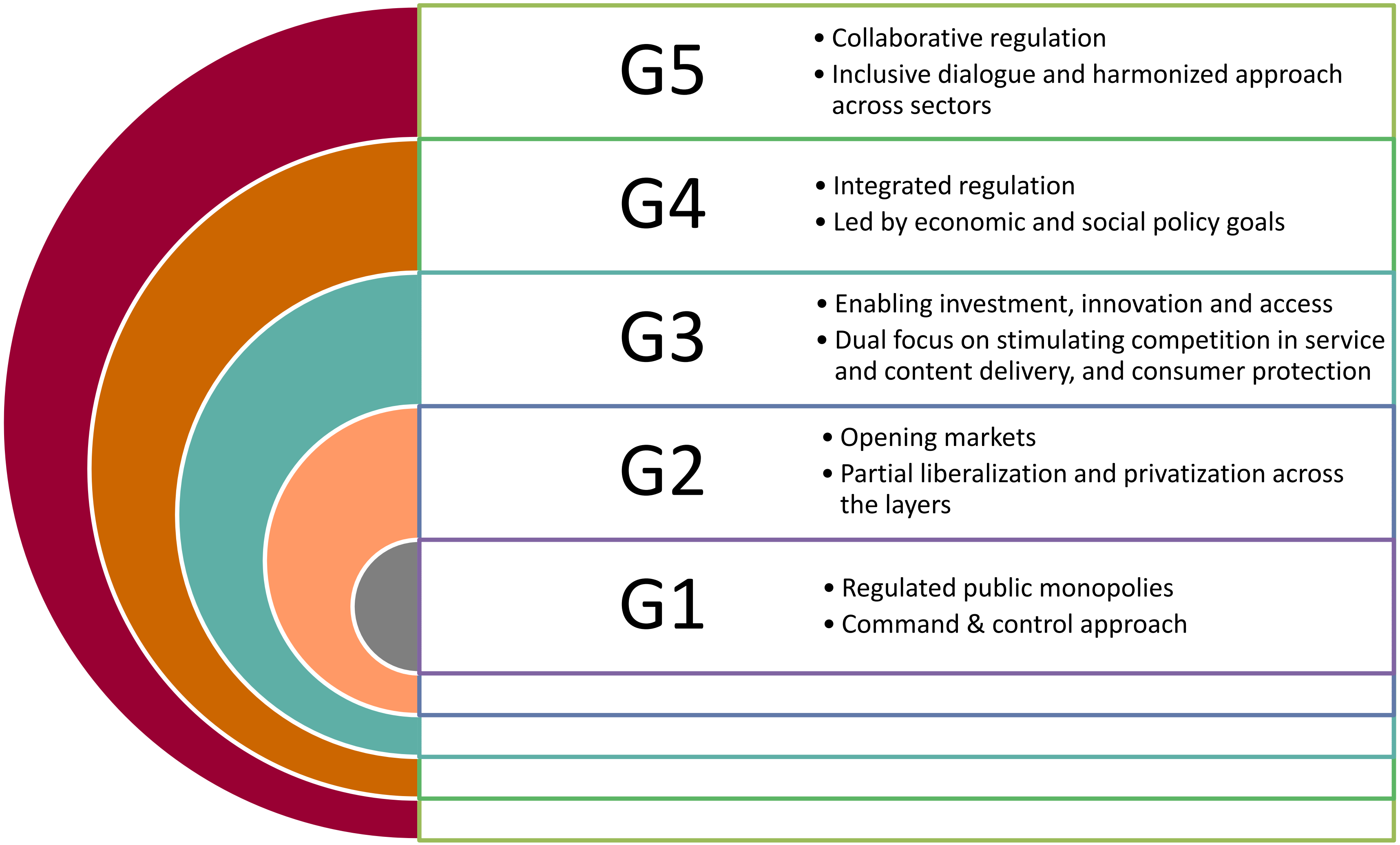


Route metres of fibre and microwave backbone per capita by region, 2016



Source: ITU.

Generations of regulation



Source: ITU.

Adressing connectivity bottlenecks

- Develop National ICT/Broadband Plans, set targets and track and monitor implementation
- Liberalization, privatization and inter and intra platform competition
- Creating an enabling environment, removing entry barriers, allow foreign ownership and investment
- When private investment is not sufficient
  – Direct government investment
  – Public private partnerships (PPPs)
  – Use of universal service funds and obligations
  – State aid, tax incentives

What policy makers can do

Winning formula for mobile broadband

- Competition in mobile broadband
- Competition in international gateways
- Mobile number portability enabled (implemented, available to consumers)
- Spectrum band migration allowed
- Infrastructure sharing for mobile operators permitted, including MVNOs
- National broadband plan adopted

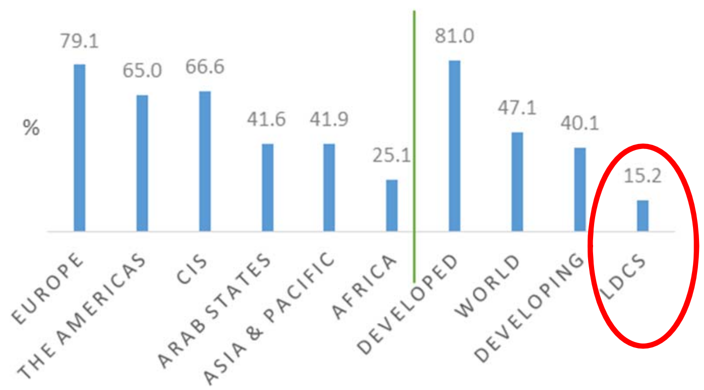
Winning formula for fixed broadband

- Competition in DSL/cable
- Fixed number portability enabled (implemented, available to consumers)
- Infrastructure sharing/co-location and site sharing for fixed mandated
- Converged licensing framework in place
- National broadband plan adopted

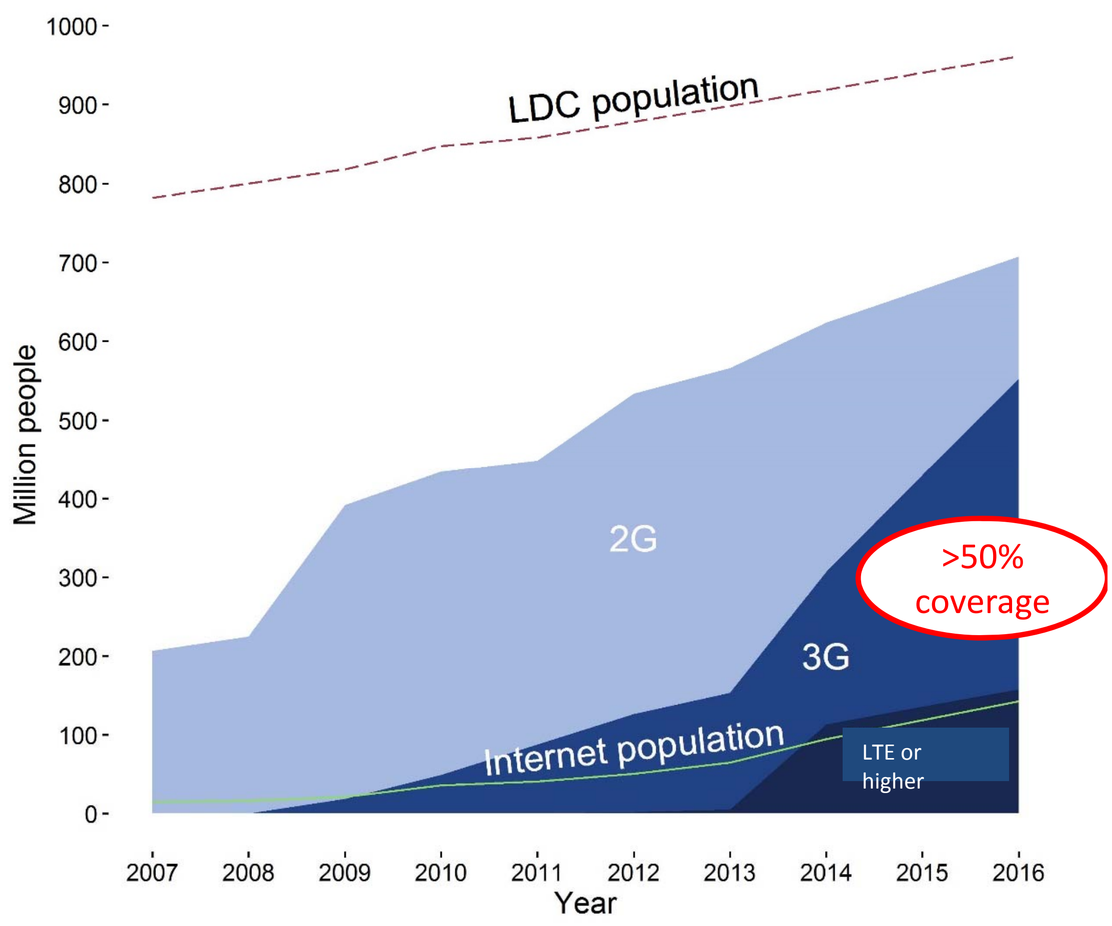
Paradox of connectivity versus use

- More than 50% of the population in LDCs is covered by a mobile-broadband signal, but:
- Only 15% use the Internet

Internet users per 100 inhabitants, 2016



Mobile network coverage and evolving technologies in LDCs

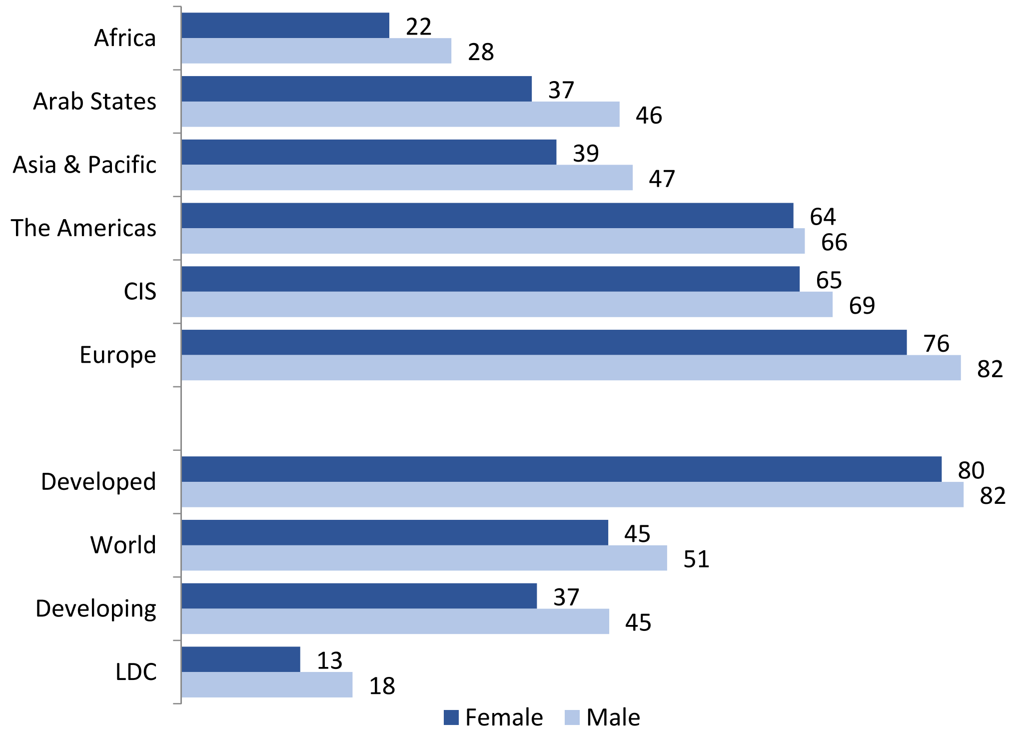


Source: ITU.

ICT divides, and barriers outside the ICT ecosystem

- ✓ Education
- ✓ Income
- ✓ Gender
- ✓ Age
- ✓ Content
- ✓ Language

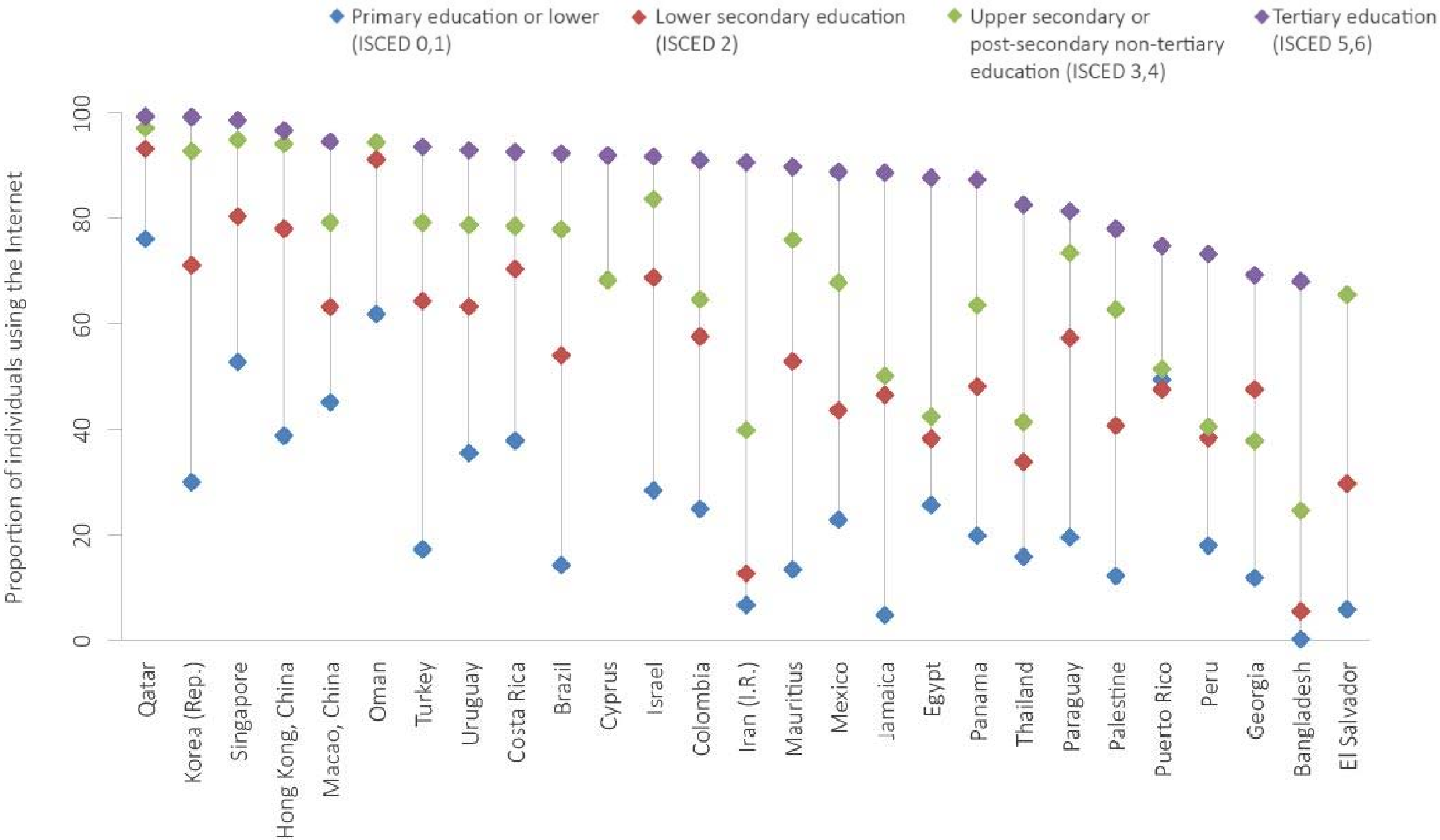
Proportion of individuals using the Internet, by gender, 2016*



Source: ITU.

Education, education, education

Internet use by level of education in developing countries, 2013-15*



Notes: *Latest data available. ISCED = International Standard Classification of Education.
Source: ITU Measuring the Information Society Report 2016.

Highlights

- Growth in ICT infrastructure, connectivity, access and use promise great development opportunities
- ICTs are key building blocks of the digital economy, to facilitate trade and drive e-commerce
- Internet divide remains a key barrier to the global information society, particularly for LDCs
- Governments have an important role to play in creating an enabling environment, to make ICTs affordable, and to address key barriers
- Broader socio-economic barriers and inequalities outside the ICT ecosystem also need to be addressed