

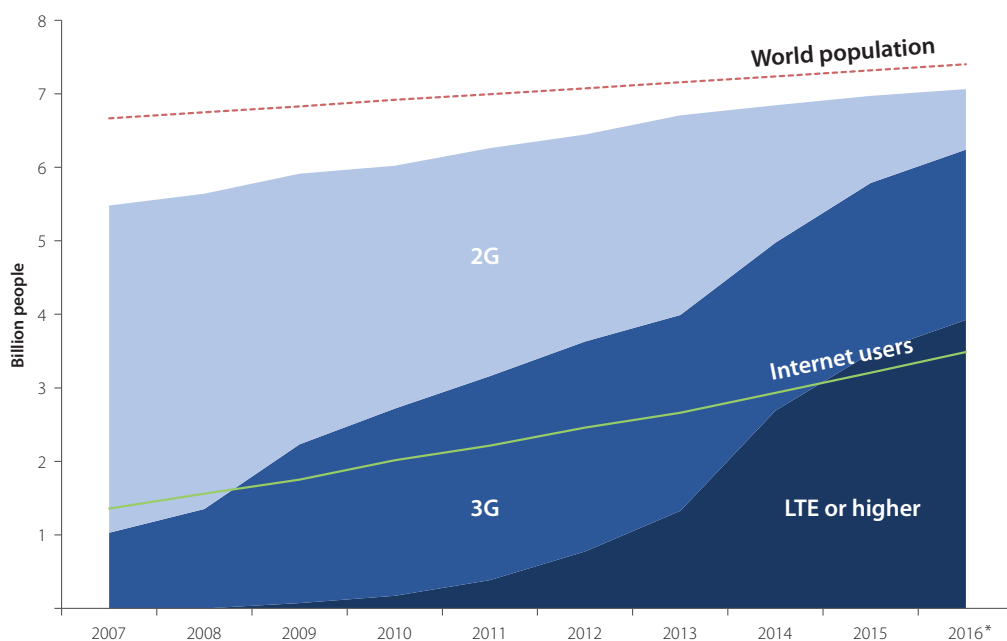
# ICT FACTS AND FIGURES 2016

"2016 marks the year when the international community is embarking on the implementation of the 17 Sustainable Development Goals (SDGs) and their 169 targets. The International Telecommunication Union, given the tremendous development of ICTs, has a key role to play in facilitating their attainment. Our new data show that in 2016, over two-thirds of the population lives within an area covered by a mobile broadband network and that ICT services continue to become more affordable. Despite these unprecedented opportunities, more than half of all people are not yet using the Internet and large differences in terms of broadband speeds and quality exist. ITU data inform public and private-sector decision makers, and help us accomplish our mission: to make use of the full potential of ICTs for the timely achievement of the SDGs."



**Brahima Sanou,**  
*Director of the ITU  
Telecommunication  
Development Bureau*

## Mobile network coverage and evolving technologies



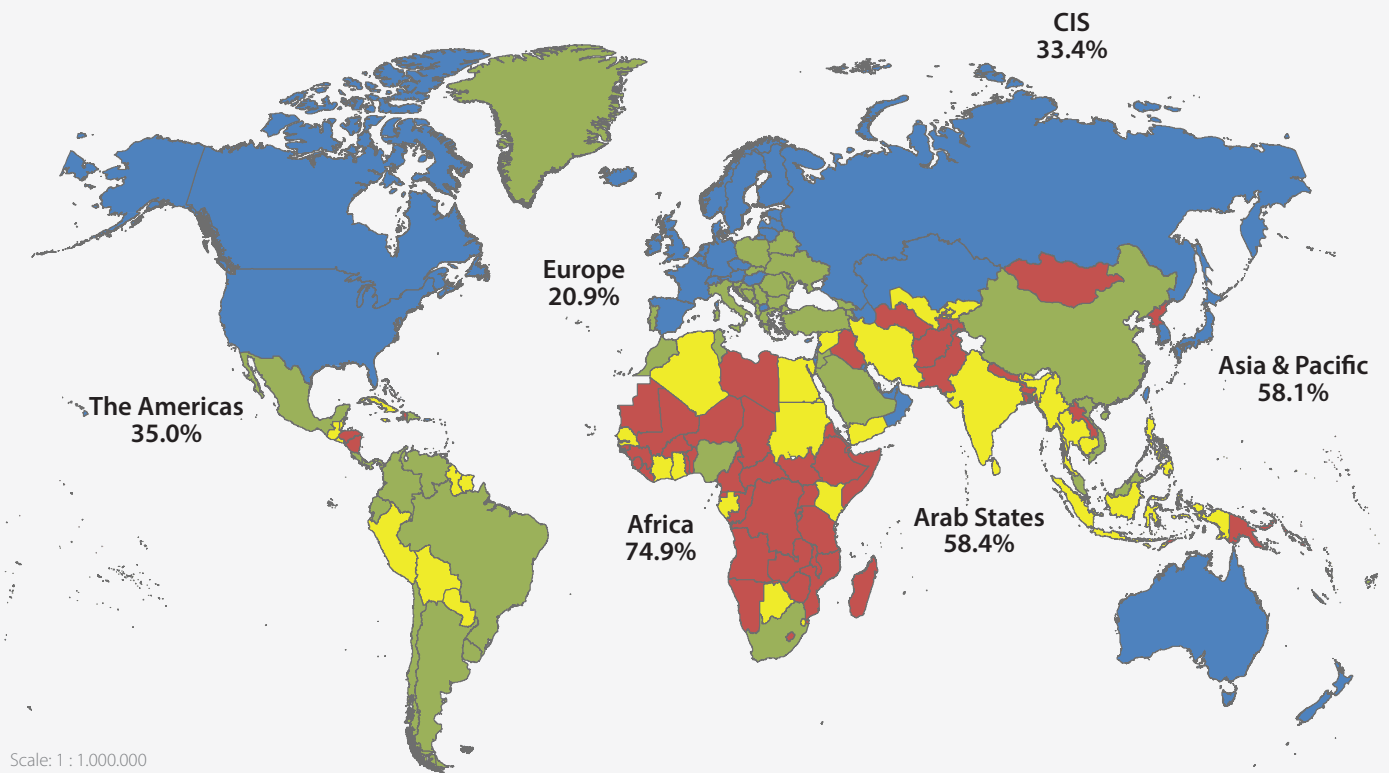
Seven billion people (95% of the global population) live in an area that is covered by a mobile-cellular network.

Mobile-broadband networks (3G or above) reach 84% of the global population but only 67% of the rural population.

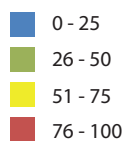
LTE networks have spread quickly over the last three years and reach almost 4 billion people today (53% of the global population), enhancing the quality of Internet use.

# WORLD'S OFFLINE POPULATION, 2016

More than half the world's population is not using the Internet



Percentage of individuals NOT using the Internet



By end 2016, 3.9 billion people - 53% of the world's population - is not using the Internet.

In the Americas and the CIS regions, about one third of the population is offline.

While almost 75% of people in Africa are non-users, only 21% of Europeans are offline.

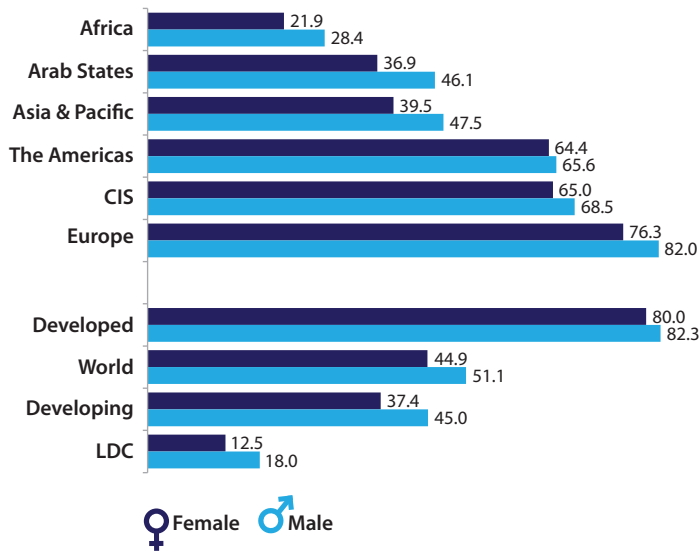
In Asia and the Pacific and the Arab States, the percentage of the population that is not using the Internet is very similar: 58.1 and 58.4%, respectively.

Note: The map is based on 2016 estimates. The base map for this infographic is based on the UN map database of the United Nation Cartographic Section.

Source: ITU.

# MIND THE DIGITAL GENDER GAP

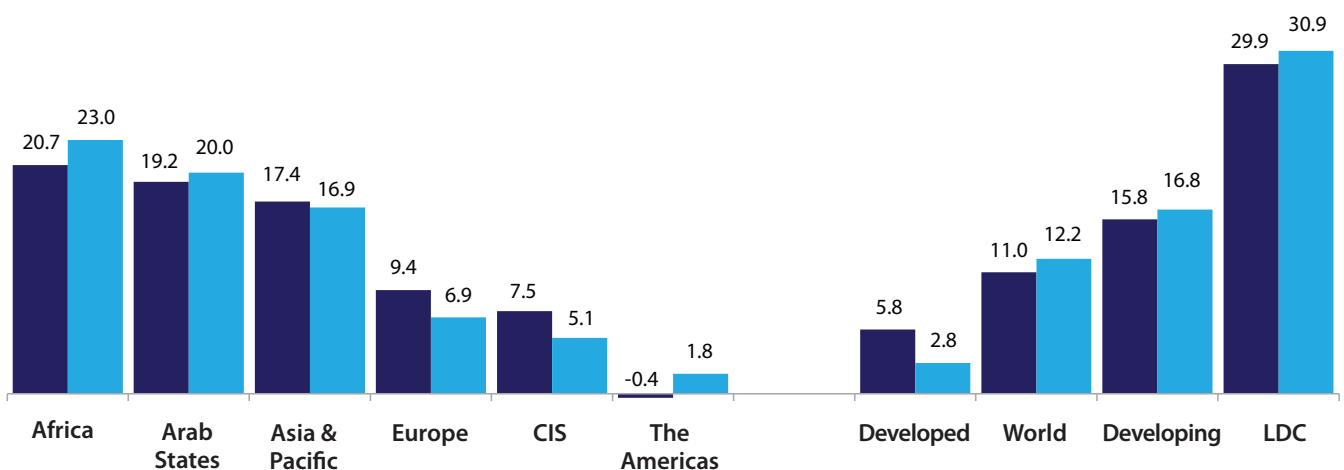
## Internet penetration rate for men and women, 2016\*



Internet penetration rates are higher for men than for women in all regions of the world.

Source: ITU. Note: \* Estimates. Penetration rates in this chart refer to the number of women/men that use the Internet, as a percentage of the respective total female/male population. CIS refers to: Commonwealth of Independent States.

## Internet user gender gap (%), 2013 and 2016\*



■ 2013  
■ 2016

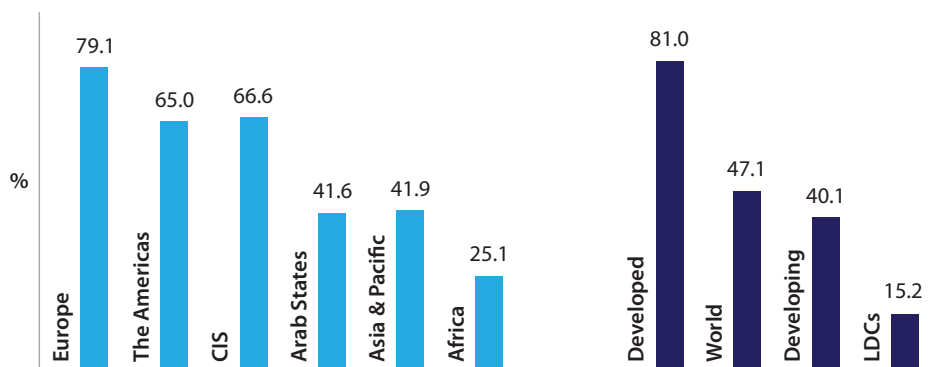
Source: ITU. Note: \* Estimates. The gender gap represents the difference between the Internet user penetration rates for males and females relative to the Internet user penetration rate for males, expressed as a percentage. CIS refers to: Commonwealth of Independent States.

The global Internet user gender gap grew from 11% in 2013 to 12% in 2016. The gap remains large in the world's Least Developed Countries (LDCs) - at 31%.

In 2016, the regional gender gap is largest in Africa (23%) and smallest in the Americas (2%).

# THE DIGITAL DIVIDE IN 2016

## Percentage of individuals using the Internet



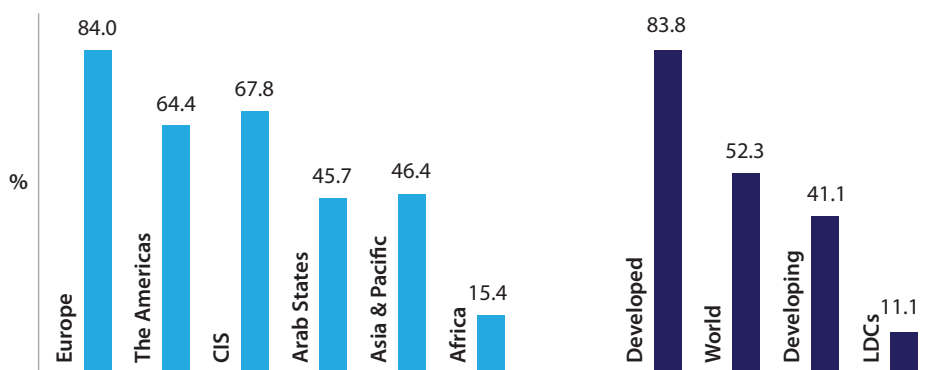
Close to one out of two people (47%) in the world are using the Internet but only one out of seven people in the LDCs.

Developed regions are home to one billion Internet users, compared to 2.5 billion users in the developing world.

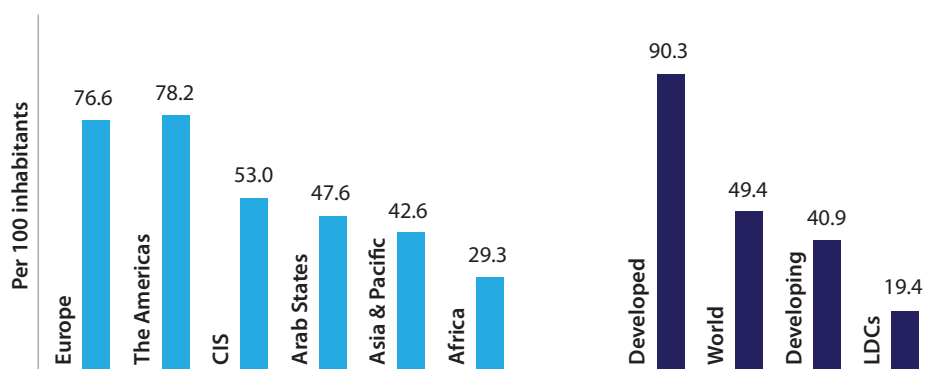
## Percentage of households with Internet access

Almost two-thirds of households in the Americas are connected, compared with half of all households globally.

Almost 1 billion households in the world have Internet access, of which 230 million are in China, 60 million in India and 20 million in the world's 48 LDCs.



## Mobile-broadband subscriptions



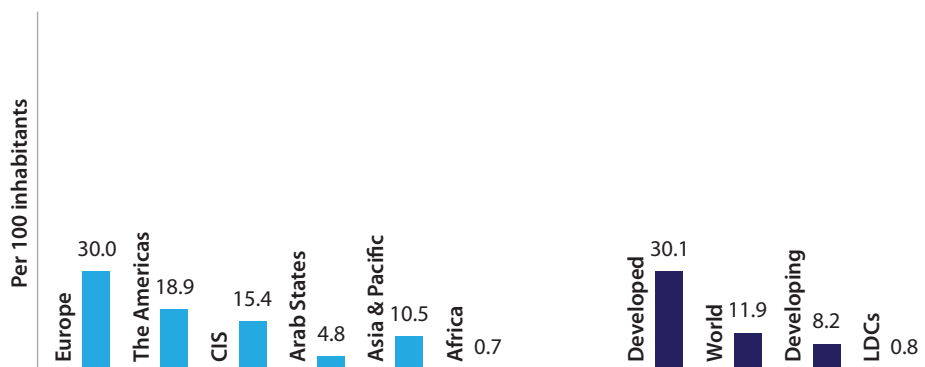
In developing countries, the number of mobile-broadband subscriptions continues to grow at double digit rates, reaching a penetration rate of close to 41%.

The total number of mobile-broadband subscriptions is expected to reach 3.6 billion by end 2016.

## Fixed-broadband subscriptions

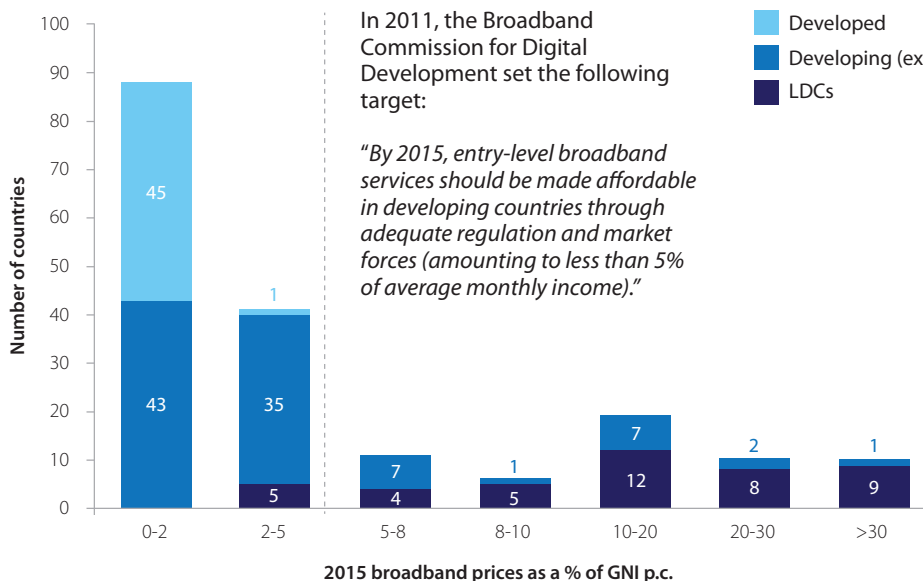
Fixed-broadband penetration remains at below 1% in Africa and the LDCs.

Strong growth in China is driving fixed broadband in Asia and the Pacific, where fixed-broadband penetration is expected to surpass 10% by end 2016.



# ICT PRICES

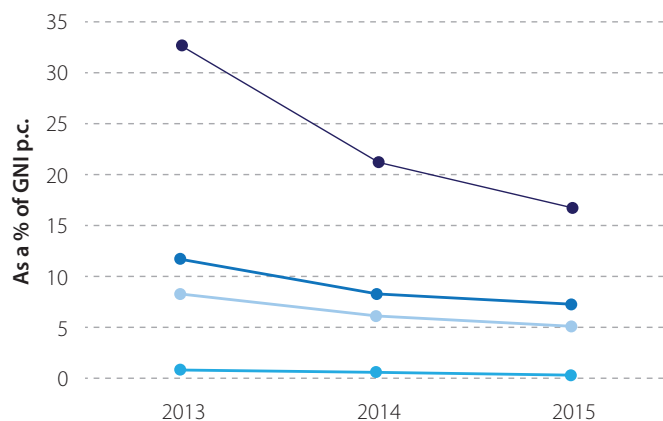
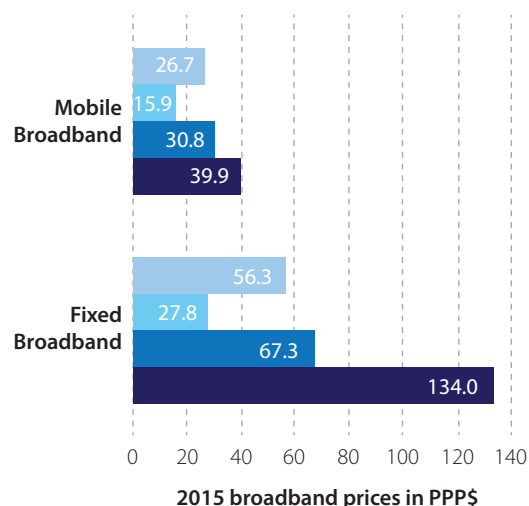
## By end 2015, 83 developing countries had achieved the Broadband Commission's affordability target



Five LDCs achieved the Broadband Commission target, but in the majority of the world's poorest countries broadband remains unaffordable.

Source: ITU. Note: Broadband prices refer to the most affordable service: either fixed or mobile broadband.

## Fixed- and mobile-broadband prices, PPP\$, 2015 (left) and price of 1GB computer-based mobile-broadband services as a percentage of GNI p.c. (right)



World  
Developed  
Developing  
LDCs

World  
Developed  
Developing  
LDCs

Mobile-broadband services have become more affordable than fixed-broadband services. By end 2015, average mobile-broadband prices corresponded to 5.5% of GNI p.c. worldwide.

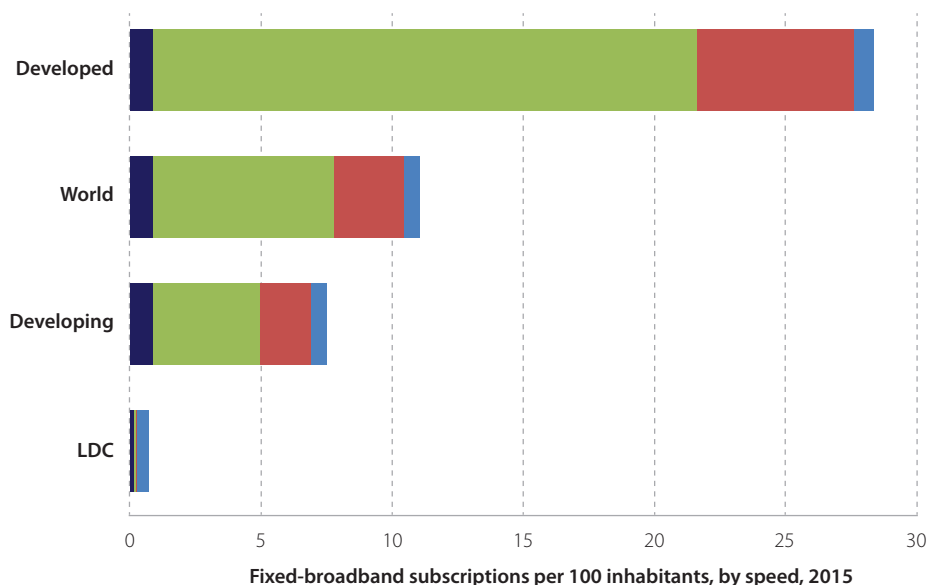
The average price of a basic fixed-broadband plan is more than twice as high as the average price of a comparable mobile-broadband plan.

In LDCs, fixed-broadband services are on average more than three times as expensive as mobile-broadband services.

Source: ITU. Note: Based on simple averages including data for 159 economies (left) and 147 economies (right). Prices are based on 1GB cap.

# BROADBAND SPEEDS

## Large differences in fixed-broadband penetration and speed persist



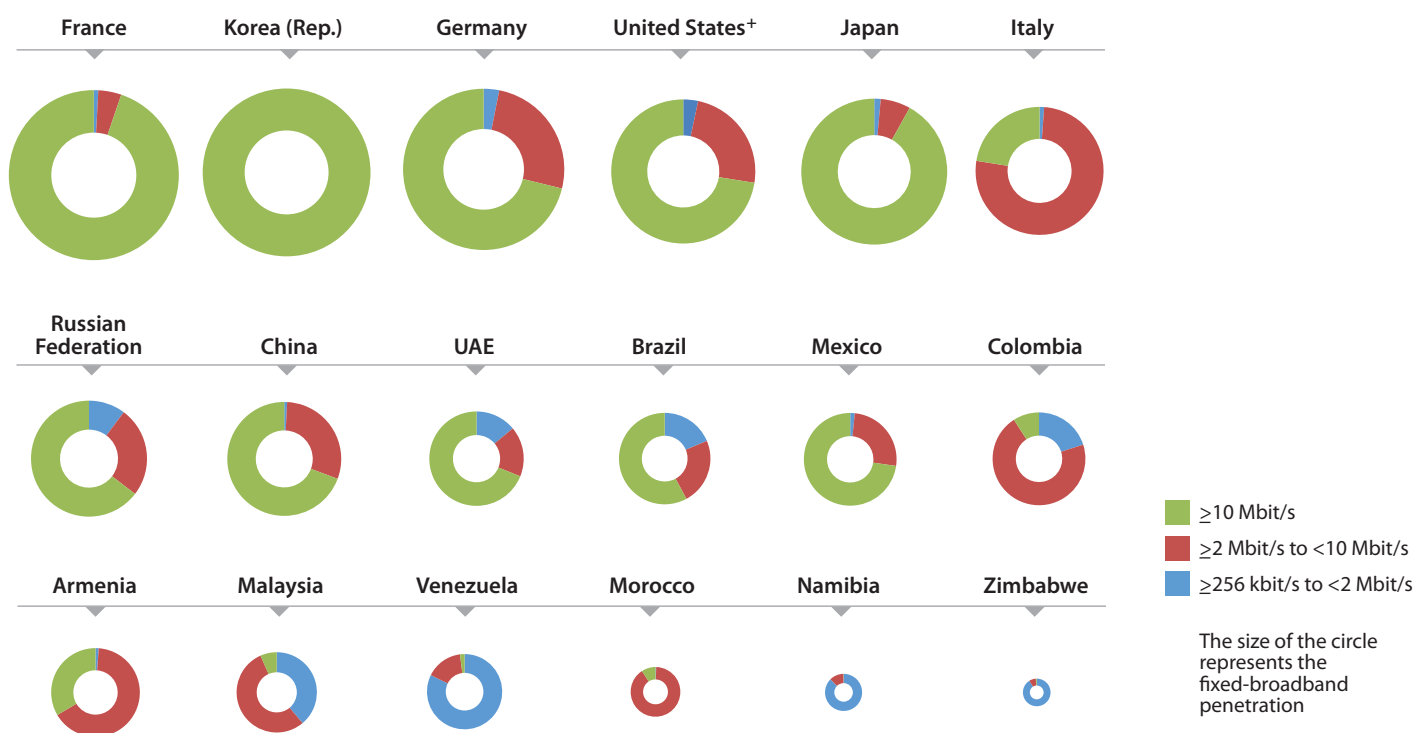
In early 2016, three out of four fixed-broadband subscriptions had advertised speeds of 10 Mbit/s and above in the developed countries, compared with two out of four in the developing countries.

In the LDCs, overall fixed-broadband penetration remains very low and only 7% of fixed-broadband subscriptions are advertised at speeds above 10 Mbit/s.

- Data on broadband by speed not available
- ≥10 Mbit/s
- ≥2 to <10 Mbit/s
- ≥256 kbit/s to <2 Mbit/s

Source: ITU.

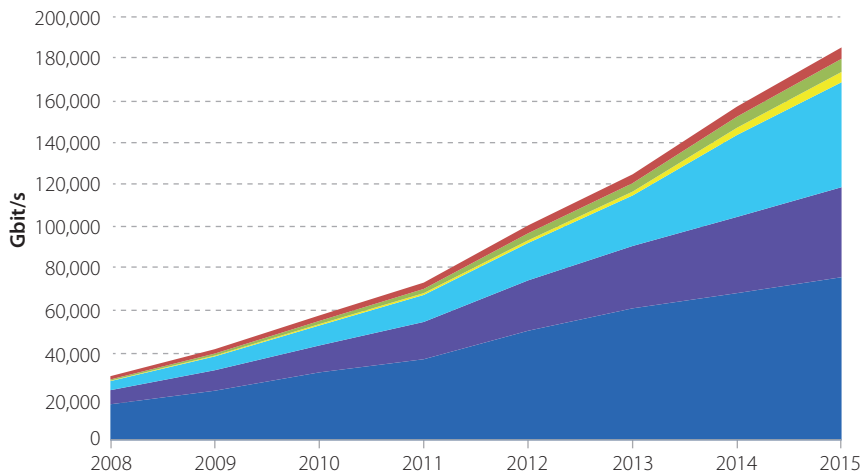
## Fixed-broadband subscriptions by speed, selected countries, 2015



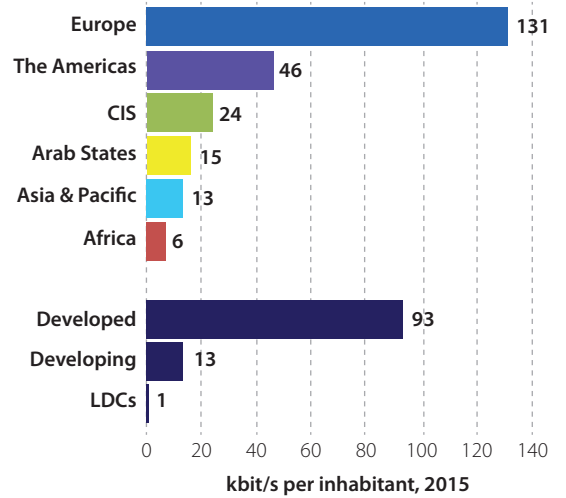
Source: ITU. Note: <sup>+</sup> 2014 data.

# M2M, IoT AND BANDWIDTH

## Internet bandwidth remains unequally distributed across the world



Source: ITU. CIS refers to: Commonwealth of Independent States.

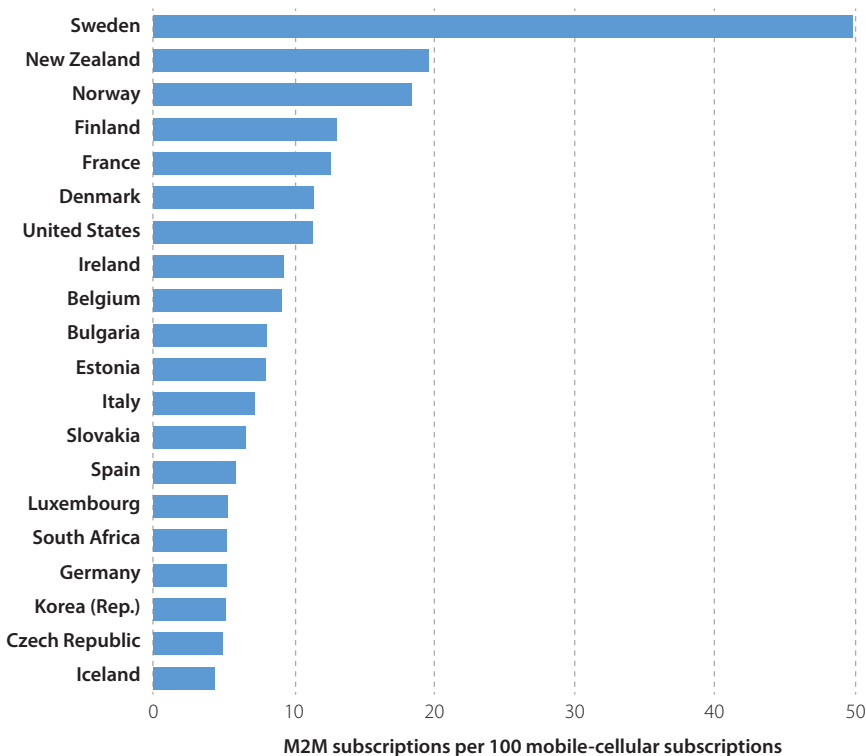


By early 2016, total international Internet bandwidth had reached 185'000 Gbit/s, up from 30'000 in 2008.

Africa has the lowest international connectivity of all regions: there is twice as much bandwidth per inhabitant available in Asia and the Pacific, four times as much in the CIS region, eight times as much in the Americas and more than twenty times as much in Europe.

Lack of international connectivity is a major bottleneck in the Internet infrastructure of LDCs.

## The Internet of Things (IoT) is in its early stages



Based on available data, there were 22 mobile-cellular subscriptions for each machine-to-machine (M2M) subscription worldwide at the beginning of 2015.

The countries with the highest M2M penetration rates are highly industrialized, advanced economies, including the Northern European countries of Sweden, Norway, Finland and Denmark.

Source: ITU. Note: Data refer to early 2015.

# ITU DATA VISUALISATION TOOL

- Results of the ICT Development Index, ITU's key benchmarking tool
- Key ICT indicators
- Global, regional and national comparisons

[www.itu.int/MIS2015](http://www.itu.int/MIS2015)



ITU 14th World Telecommunication/ICT Indicators Symposium (WTIS),  
21-23 November 2016, Botswana  
[www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2016/default.aspx](http://www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2016/default.aspx)

ITU Measuring the Information Society Report 2015  
[www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2015.aspx](http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2015.aspx)

ITU Yearbook of Statistics 2015  
[www.itu.int/en/ITU-D/Statistics/Pages/publications/yb2015.aspx](http://www.itu.int/en/ITU-D/Statistics/Pages/publications/yb2015.aspx)

ITU World Telecommunication/ICT Indicators Database  
[www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx](http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx)

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Printed in Switzerland  
Geneva, June 2016  
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